

Attachment 22
Draft EIS Comment Responses



Attachment 22

Responses to Comments on the Draft EIS

Responses to comments provided in this attachment address environmental issues raised during the public comment period for the Draft EIS. Responses are provided for each comment in the following sections. They are intended to provide clarification and refinement of information presented in the Draft EIS and, in some cases, to correct or update information in the EIS. The text of the EIS has been revised as appropriate in response to comments and to reflect new or updated information, and the revised text has been incorporated into the Final EIS, supporting Chapters 1.0 through 9.0.

Responses to comments in Attachment 22 are organized and presented in two main sections: (1) Global Responses to Comments (see below) and (2) Responses to Specific Comments (starting on page 65 of this attachment).

GLOBAL RESPONSES TO COMMENTS

Numerous comments on the Draft EIS raised common concerns or questions that are most appropriately answered or clarified in one comprehensive, or “global,” response. Enterprise Services has provided Global Responses to address these common concerns. Responses to comments received on the Draft EIS related to these topics refer to the pertinent Global Response. The Global Responses are as follows, presented in the following pages of this attachment.

- Alternatives
- Cost Estimates and Shared Funding
- Land Management
- Hydrodynamics and Sediment Transport
- Navigation
- Water Quality
- Aquatic Invasive Species
- Fish and Wildlife
- Air Quality and Odor
- Land use, Shorelines, and Recreation
- Cultural Resources
- Visual Resources
- Sediment Quality
- Transportation
- Economics



Alternatives/Alternatives Design/Preferred Alternative

Dredged Sediment Disposal

Several comments requested that additional information regarding in-water versus upland disposal of maintenance dredge sediment be provided. The Draft EIS and Final EIS indicate that both in-water and upland disposal of sediment dredged during maintenance dredging are feasible options for the Estuary and Hybrid Alternatives, and that only upland disposal is likely to be feasible for the Managed Lake Alternative.

For the Managed Lake Alternative, the chemical quality of sediment that would be removed during future maintenance dredging is expected to be suitable for in-water disposal; however, existing environmental regulations do not allow in-water disposal of dredged material that contains the invasive New Zealand mudsnail, which is expected to persist. In response to comments received on the Draft EIS and acknowledging that environmental regulations could change in the future when maintenance dredging would occur under the Managed Lake Alternative, the Final EIS includes estimated costs for in-water disposal of dredged sediment resulting from the Managed Lake Alternative. Importantly, there is no current indication that in-water disposal of sediment dredged under the Managed Lake Alternative would be suitable for in-water disposal.

For the Estuary and Hybrid Alternatives, maintenance dredging would occur in impacted areas of West Bay only, not within the Capitol Lake Basin. The New Zealand mudsnail is not expected to be within the sediment that would be dredged under the Estuary and Hybrid Alternatives because of the salinity levels within West Bay and because maintenance dredging would occur in deeper water used for navigation (see the Global Response for Aquatic Invasive Species). Surveys conducted for the Final EIS found no evidence of New Zealand mudsnail presence in Budd Inlet. Additionally, the sediment that would be dredged during these maintenance dredging events would be freshly deposited and is expected to have chemical quality suitable for in-water disposal based on sampling conducted for this EIS.

The Draft EIS and Final EIS acknowledge that disposal of maintenance dredge material would occur many years into the future and that there is uncertainty as to disposal requirements. Therefore, the analysis includes in-water and upland disposal for all action alternatives. As described in the Draft EIS and Final EIS, the disposal location for maintenance dredge sediment would be informed by sampling for chemical quality and aquatic invasive species prior to the dredge event, during permitting, and in coordination with the Dredged Materials Management Program (DMMP). The DMMP is an interagency program that oversees the disposal and beneficial use of sediments dredged from the waters of Washington State and consists of the U.S. Army Corps of Engineers (Seattle District), U.S. Environmental Protection Agency (Region 10), the Washington State Department of Ecology (Ecology), and the Washington State Department of Natural Resources.



Dredged Sediment Management

Several comments requested additional information regarding how sediment would be managed to avoid significant impacts from sediment accumulation in Budd Inlet following dam removal for the Estuary and Hybrid Alternatives. As described in Section 3.1 of EIS Supporting Chapter 3.0, a state-of-the-art and process-based three-dimensional computer model, Delft3D, was used to predict the movement of water and sediment in the study area under different project alternatives. Section 4.1.8 of EIS Supporting Chapter 4.0 describes where and how much sediment would accumulate in Budd Inlet following dam removal, with the majority of sediment accumulation occurring along the eastern shoreline of West Bay. To avoid significant impacts from sediment accumulation, the Estuary and Hybrid Alternatives include maintenance dredging and an annual sediment monitoring program to ensure that dredging is responsive to actual environmental conditions. Maintenance dredging in West Bay is estimated to occur approximately every 6 years (see Section 4.2.5.3 of EIS Supporting Chapter 4.0). To increase certainty for maintenance dredging in West Bay, Enterprise Services negotiated a shared funding and governance agreement with a range of project stakeholders, as described in further detail in the Final EIS Supporting Chapter 7.0. As described in the Draft EIS and Final EIS, private marinas would retain responsibility for funding associated with dredging consistent with the No Action Alternative.

Requests to incorporate Dual Estuary Lake Idea (DELI) concept proposed by stakeholders during scoping.

Several comments requested that the EIS incorporate all or some elements of the Dual Estuary Lake Idea (DELI) concept proposed by stakeholders during scoping. In response to comments received on the Draft EIS, the Hybrid Alternative has been updated to include a freshwater reflecting pool, which was an important component of the DELI concept.

EIS Supporting Chapter 2.0 (Section 2.1) describes how other proposed concepts, including those proposed by DELI, were evaluated and screened through the Measurable Evaluation Process. Attachment 19 of the Draft EIS and Final EIS (Concepts Screened through the Measurable Evaluation Process) provides a summary of the results from the Measurable Evaluation Process, including the concepts that were eliminated from further review and those that became part of the action alternatives.

Requests to describe alternatives in greater detail.

Several commenters requested additional detail with regard to specific design elements and features of the alternatives. Consistent with WAC 197-11-055(1), the process required under the State Environmental Policy Act (SEPA) is being conducted during the planning process to ensure that agency decisions reflect environmental values. After this analysis, the project will move into the design and permitting phase, where concept-level designs that have informed the environmental review would be advanced. This approach allows findings from the SEPA process to inform later design efforts and to reduce environmental impacts of the project.



SEPA requires that sufficient information be provided in the EIS to allow for a comparison between alternatives. The alternatives, as presented in EIS Supporting Chapter 2.0, were developed to a conceptual level of design that allowed the Draft EIS and Final EIS to identify and disclose the potential impacts and benefits for each alternative and is sufficient for a comparison between alternatives. Specific design details, parameters, and specifications would be determined during the future design and permitting phase, as described in EIS Supporting Chapter 7.0.

Requests for modifications to the conceptual designs of the alternatives, including additional features and amenities.

Numerous commenters provided suggestions for modifications and/or amenities that could potentially be incorporated into project designs. The process to develop the alternatives, which is described in Section 2.1 of EIS Supporting Chapter 2.0, optimized the alternatives to best achieve project goals, technical and regulatory feasibility, and environmental and economic sustainability. The alternatives presented in the Final EIS have been refined based on comments on the Draft EIS where the suggested change would better meet project goals or avoid significant impacts of the alternatives. Some comments requested design details that are not available until the design and permitting phase of a project, or proposed concepts that did not support project goals or were outside the scope of the EIS analysis. These concepts have not been incorporated into the conceptual design of the alternatives.

Following issuance of the Final EIS and contingent on funding availability, Enterprise Services will begin the design and permitting phase of the project, during which time the design of the selected alternative will be advanced from a conceptual level to the level needed for construction as described in EIS Supporting Chapter 7.0. Through that public process, Enterprise Services may consider and incorporate design modifications and/or features to better meet project goals.

Hybrid Alternative – Reflecting Pool

Several comments requested that the Hybrid Alternative include a freshwater reflecting pool. The Hybrid Alternative includes a 45-acre reflecting pool adjacent to Heritage Park. The Draft EIS analyzed both saltwater and freshwater reflecting pools as potential options. Based on comments provided on the Draft EIS, Enterprise Services has revised the Hybrid Alternative to include a freshwater reflecting pool. This update was made throughout the Final EIS.

Related to these comments, were comments requesting clarifications regarding water rights for a groundwater-fed freshwater reflecting pool. Water rights and related permitting were considered as part of Concepts Screened through the Measurable Evaluation Process (Attachment 19, page 14). Based on consultation with Ecology in early 2020, use of groundwater for the reflecting pool would be considered a consumptive but beneficial use. In that consultation, Ecology confirmed that a permit would be required for this use and that approval of any water right cannot be guaranteed. Ecology noted that the public interest test for approving a water right requires extensive consideration of how



the proposed project would benefit the public, and whether there would be meaningful adverse impacts. If the Hybrid Alternative is selected for long-term management, the design and permitting process would include additional studies to confirm feasibility of this groundwater use and to complete the public interest test in order to obtain required permits for the consumptive use.

Hybrid Alternative – Barrier Wall

Several comments requested the EIS Project Team evaluate a rock barrier wall instead of sheetpiles for the Hybrid Alternative. Design options considered for the Hybrid Alternative barrier wall as part of Concepts Screened through the Measurable Evaluation Process (Attachment 19) included rock and sheetpile. That process determined that a sheetpile wall would best meet project goals because it could best support a multi-modal path on top of the wall. A rock containment wall would have a larger footprint and would result in more fill within waters of the U.S., compared to other options, such as sheetpile. A rock containment wall would therefore present significant regulatory challenges.

Estuary and Hybrid Alternatives – 5th Avenue Bridge Closure

Several comments requested that the Estuary and Hybrid Alternatives avoid or minimize long-term closure of the 5th Avenue Bridge during construction. In the Draft EIS, the Estuary and Hybrid Alternatives construction concepts included a 4- to 5-year closure of the 5th Avenue Bridge, which was needed to demolish the existing 5th Avenue Bridge and Dam and construct a replacement bridge in the same alignment. Multiple comments requested that Enterprise Services consider modifications to the design and construction approach to avoid or mitigate this long-term closure because a long-term closure would result in significant impacts on transportation and public services in the Project Area. As a result of these comments, Enterprise Services coordinated with the City of Olympia to refine the replacement 5th Avenue Bridge design and construction approach, as described in Section 2.2 of Final EIS Supporting Chapter 2.0 and summarized below.

The design and construction approach for the Estuary and Hybrid Alternatives has been revised as follows. Prior to removing the existing 5th Avenue Dam and Bridge, a new 5th Avenue Bridge would be constructed to the south of the existing structure and would connect from Deschutes Parkway SW to 5th Avenue west of Simmons Street. After the new 5th Avenue Bridge has been connected to the transportation system, traffic would be switched to it, and the existing 5th Avenue Bridge and Dam would be demolished.

The concept for this new bridge includes the following features:

- Two vehicular lanes (one in each direction)
- A bike lane in each direction separated from the vehicular lanes
- A sidewalk on the north side of the bridge
- A wider sidewalk/path on the south side of the bridge providing a dedicated recreational trail connection



The project would also construct a new Olympic Way connection between Deschutes Parkway and the existing roundabout at 4th Avenue. A new roundabout would control the intersection of 5th Avenue/Deschutes Parkway/Olympic Way on the west side of the estuary. Figure 2.4.4 from EIS Supporting Chapter 2.0 (included below) shows the concept plan for the 5th Avenue Bridge, which would be further refined during design and permitting of the project and in coordination with the City of Olympia.

These changes would avoid long-term closure of 5th Avenue during construction and reduce resulting transportation impacts as described in Section 4.12 of Final EIS Supporting Chapter 4.0. Construction-related closures are assumed to be less than 1 month.

Estuary and Hybrid Alternatives – Expedited Estuary Restoration

Several comments requested the 5th Avenue Dam and Bridge be removed earlier than described to expedite estuary restoration. Commenters requested that dam removal that is part of the Estuary and Hybrid Alternatives occur at the earliest possible time to expedite the return to estuarine conditions. Construction activities that must occur before the basin could be returned to tidal conditions include dredging to address existing sediment accumulation, habitat construction with the dredged material, slope stabilization along Deschutes Parkway, utilities upgrades to avoid impacts from saltwater, and construction of the new 5th Avenue Bridge. In coordination with project stakeholders, remediation to address known sediment contamination in West Bay is also expected to be completed before removal of the 5th Avenue Dam. Sediment remediation in West Bay would not occur until late 2020s and would be led by the Port of Olympia.

Enterprise Services would explore all opportunities to expedite the construction schedule during the future design and permitting phase of the project.

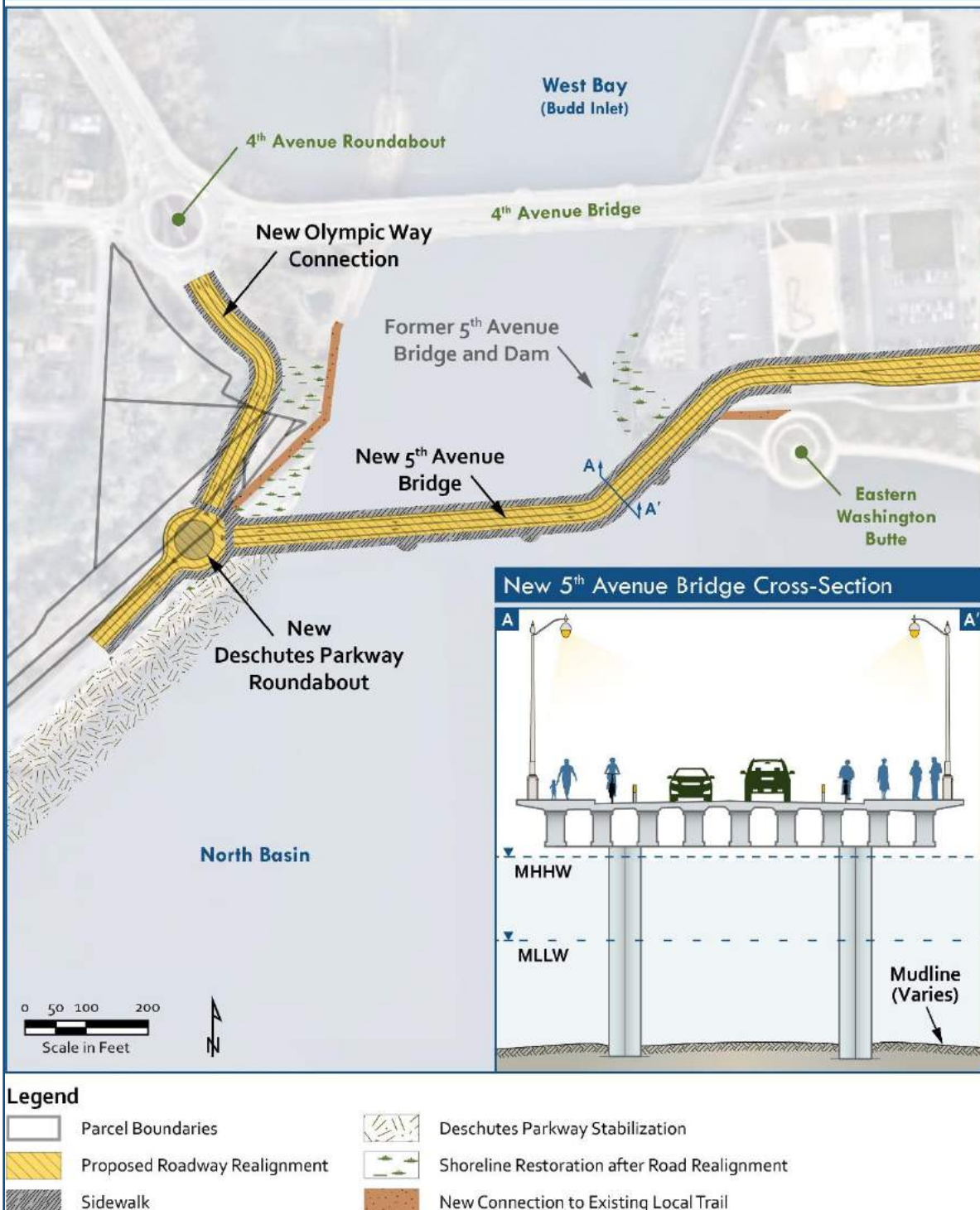
Preferred Alternative Identification Process - General

Numerous commenters stated a preference for one or more alternatives. Enterprise Services acknowledges there are a wide range of public preferences about the project alternatives. The EIS process, as defined by SEPA, does not have a voting component, and public comments are not used to assess public support or opposition of the project or alternatives, although all comments are closely reviewed to inform the EIS analysis, which supports decision-making.

As described in Section 1.12 of Final EIS Supporting Chapter 1.0 and the Preferred Alternative Identification Process (Attachment 21), the process used to identify and confirm the Preferred Alternative considered information available in the EIS, comments on the Draft EIS, and input from engaged stakeholders on which alternative(s) could achieve long-term stakeholder support (Decision Durability).



Figure 2.4.4 New 5th Avenue Bridge and Roadway Realignment





Enterprise Services solicited input on Decision Durability from the Executive Work Group (EWG) and Community Sounding Board (CSB). The EWG consists of representatives from the City of Olympia, City of Tumwater, LOTT Clean Water Alliance, Port of Olympia, Thurston County, and the Squaxin Island Tribe. The CSB consists of local stakeholders representing a broad range of interests (see EIS Supporting Chapter 8.o). The EWG and CSB have been meaningfully engaged in the EIS process over several years. Each of the members provided a numerical score for the alternatives to suggest the level of long-term support they forecast for the alternative. This numerical score was supplemented with a narrative response that described the factors that increased or decreased their support. This process is described in detail in the Attachment 21.

Preferred Alternative Identification Process – Consideration of Tribal Values and Resources

Several comments requested that the process to identify the Preferred Alternative incorporate and prioritize tribal values and resources. Tribal values and resources were incorporated into the process to select a Preferred Alternative as described in Section 1.12 of Final EIS Supporting Chapter 1.0 and the Preferred Alternative Identification (Attachment 21):

- Each alternative was evaluated relative to tribal resources, which considered the abundance of species protected by tribal treaties, access to usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
- Each alternative was also evaluated relative to cultural resources, which considered whether precontact landscapes would or would not be restored or preserved.
- The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their support of each of the alternatives.

Project Time Horizon

Several comments requested more detail regarding why a 30-year time horizon was selected for the project. The 30-year time horizon was identified to provide a consistent evaluation period for all alternatives. This horizon allows enough time for each of the potential alternatives to be constructed, established, and have a period of long-term management that can be evaluated. This project time horizon does not forecast too far into the future, to avoid speculation.



Cost Estimates and Shared Funding

Comments suggested the EIS should evaluate the cost of disposing of sediment from the Managed Lake Alternative at an in-water disposal site, similar to the Estuary and Hybrid Alternatives.

Under all project alternatives, maintenance dredging would be required in the future to manage sediment that would accumulate after project construction. Under the Estuary and Hybrid Alternatives, data from sediment sampling and shoreline surveys suggest that the sediment dredged during those events would be suitable for placement at an in-water disposal site (i.e., sediment has chemical quality that is suitable for in-water disposal, and that New Zealand mudsnail and purple loosestrife seed have not been found in the saline environment of Budd Inlet despite their transport over the 5th Avenue Dam in high flow events, under existing conditions).

Under the Managed Lake Alternative, the New Zealand mudsnail (and purple loosestrife seed) would persist in the freshwater waterbody to be dredged, and their presence would require that dredged sediment be taken to an upland disposal site. Existing policy established by the Dredged Material Management Program (DMMP), which oversees dredged material in Washington State, prohibits disposal of sediment that is known to be contaminated with New Zealand mudsnails at in-water disposal sites to prevent potential spread to nearby freshwater systems. For this reason, the Draft EIS included only a cost estimate for upland disposal of the dredged sediment from maintenance dredging of the Managed Lake Alternative.

The Draft EIS included cost estimates for in-water disposal of the dredged sediment from maintenance dredging for the Estuary and Hybrid Alternatives, but also included cost estimates for upland disposal because of the inherent uncertainty associated with dredging and sediment quality.

In response to comments received on the Draft EIS, cost estimates have been updated in the Final EIS to include estimates for in-water disposal of dredged sediment for the Managed Lake Alternative, in addition to the assumed upland disposal. Although existing environmental regulations do not allow for in-water disposal of sediment from Capitol Lake (or other areas with known New Zealand mudsnails), commenters have suggested that environmental regulations could change before the first maintenance dredging event under the Managed Lake Alternative, which would occur no sooner than 2050. By that time, treatments may be available to eradicate the New Zealand mudsnail, although no such treatments are known or available at this time. Although SEPA analysis should not speculate about regulatory or environmental changes that cannot reasonably be forecasted, cost estimates for upland disposal under the Managed Lake Alternative were developed for the Final EIS to account for the inherent uncertainty related to dredging, the length of time between now and the future maintenance dredging, and to provide similar information for all project alternatives. The cost estimate for in-water disposal of sediment under the Managed Lake Alternative assumes that sediment would be dewatered



on or near Capitol Lake, loaded onto trucks, unloaded at a transload location at the Port of Olympia, and transferred to a barge for transport to the Anderson/Ketron in-water disposal site.

Refer to Supporting Chapter 7.0 of the Final EIS for the planning-level cost estimates and additional information regarding maintenance dredging funding.

Commenters asked for more detail about the approach to shared funding and governance for maintenance dredging, which applies specifically to the Estuary Alternative.

The Estuary Alternative, which Enterprise Services has identified as the Preferred Alternative for long-term management, includes recurring maintenance dredging in West Bay after project construction. Maintenance dredging would be needed in West Bay to avoid impacts to navigation, and to maintain a working waterfront and recreational boating. Maintenance dredging would be focused in the deeper areas of West Bay along the eastern shoreline that are used for navigation. The shallow intertidal bench on the western shore of West Bay and the former Capitol Lake Basin would not be dredged because estuarine habitat would be restored and preserved in these areas.

In 2022, the Funding and Governance Work Group (FGWG), which is comprised of the Cities of Olympia and Tumwater, Thurston County, Port of Olympia, LOTT Clean Water Alliance, the Squaxin Island Tribe, and the Washington State Departments of Enterprise Services and Natural Resources, agreed to provide shared funding for maintenance dredging of the increased sediment that would deposit along the eastern shoreline of West Bay under the Estuary Alternative. The preliminary, conceptual agreement for this shared funding is outlined in a Memorandum of Understanding (MOU), provided as Attachment 23 of the Final EIS. The FGWG members expect to transform the conceptual MOU into a formal Interlocal Agreement (ILA). The initial term of the ILA is expected to be through 2050, which aligns with the latest current lease agreements between the marinas in West Bay and the Department of Natural Resources, where dredging would be needed, in part. There is opportunity for extension of the ILA beyond 2050.

In coordination with the marinas and the Port of Olympia through the EIS process, Enterprise Services identified triggers for maintenance dredging after construction. Maintenance dredging would be needed to avoid significant impacts to the marinas and the Port of Olympia before either of two conditions occurs:

- More than 10% of vessels at any single marina are unable to access leased moorage due to shallow water depth caused by sediment deposition.
- A wait time of more than 4 hours on more than one consecutive occasion for large vessels accessing the Federal Navigation Channel and Port of Olympia due to water depth and low tide conditions caused by sediment deposition.



Based on hydrodynamic and sediment transport numerical modeling conducted for the project, and these defined triggers to avoid significant impacts, it is anticipated that maintenance dredging would be needed on an average frequency of approximately 6 years. The actual rate of sediment accumulation will be highly dependent on river flow conditions, and dredging frequency may be increased or decreased relative to the average estimate. To ensure that maintenance dredging is responsive to actual environmental conditions, the MOU envisions that bathymetric surveys would be conducted in West Bay to monitor sediment deposition, at least annually.

Similar to the maintenance dredging that is proposed after project construction, maintenance dredging was needed historically to maintain navigation in West Bay. Before the 5th Avenue Dam was constructed in 1951, the U.S. Army Corps of Engineers (USACE) dredged the Budd Inlet Federal Navigation Channel frequently between 1893 and 1948. That maintenance dredging was conducted to support commercial uses within the historic Deschutes Estuary, including the Olympia Yacht Club (established in its existing location in 1906) and the Port of Olympia (established in its existing location in 1922).

After 1951, maintenance dredging continued to occur in West Bay to remove accumulated sediment and maintain navigation, at less frequent intervals. The USACE has led dredging efforts in the Federal Navigation Channel, the Port of Olympia dredges its vessel berths, and the marinas in West Bay have each dredged within their footprints.

The MOU for maintenance dredging in the future envisions that USACE, the Port of Olympia, and the marinas would provide funding equivalent to costs associated with maintenance dredging under the No Action Alternative (i.e., the 5th Avenue Dam remains in place, but maintenance dredging occurs as part of a formal dredging program according to the above-described triggers). While maintenance dredging under the No Action Alternative would increase relative to the frequency of maintenance dredging that has occurred since 1951, it would not require the marinas to cover any costs related to the additional sediment management requirements (beyond the amount required under the No Action Alternative) under the Estuary Alternative. Based on leases the marinas have renewed with the Department of Natural Resources in 2019, 2020, and 2021 (independent of this project), however, an increase in maintenance dredging relative to historic conditions is anticipated under the No Action Alternative because of new lease conditions that require marinas to maintain a minimum water depth and the implementation of a formal, coordinated dredging program.

The Funding and Governance Work Group would provide funding to dredge increased sediment deposition under the Estuary Alternative. The State of Washington would oversee design and permitting for maintenance dredging that would occur at the marinas. This should result in a minor benefit to the marinas: it would alleviate the marinas from the costs and complex regulatory process that precedes maintenance dredging; it should avoid chronic shallowing that has occurred throughout West Bay in recent years; and it does not require the marinas to participate in funding for increased



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sediment management under the Estuary Alternative, despite their historic existence in the Deschutes Estuary.

The MOU includes a range of conditions intended to increase certainty that funding for increased maintenance dredging is available through 2050. In the event that funding lapses and/or maintenance dredging is delayed, sediment accumulation would eventually impede navigation in West Bay, resulting in significant impacts as defined by the thresholds listed above. Please refer to the updated analysis in the Final EIS Supporting Chapter 4.0, Section 4.2 and the Navigation Discipline Report (Attachment 6) for more detail.



Land Management

Comments Related to Camping and Overnight Parking

Several comments raised concerns about unauthorized camping and overnight parking around the lake as well as nearby homeless encampments that are on private property, including issues related to trash, pollution, and public safety/law enforcement. The issues raised are outside the scope of an EIS, which is to evaluate potential environmental impacts (and benefits) of the project alternatives and to inform decision-makers and the public of reasonable alternatives, including mitigation measures that would avoid or minimize adverse impacts or enhance environmental quality. Enterprise Services actively manages the Capitol Campus as well as Deschutes Parkway, where camping and overnight parking are not allowed on state-owned land. Enterprise Services works with Washington State Patrol to enforce applicable laws and rules, including the area around the lake. Enterprise Services also coordinates with the Cities of Olympia and Tumwater, but does not have authority over issues within other jurisdictions. Enterprise Services is not able to act as a direct service provider, alter operations to add new services not authorized by statute, or to divert agency resources. Enterprise Services does actively manage trash in and around the lake. Active management of these issues will continue into the future under any management option. Public safety and funding for future operations will be considered during design and permitting of the selected alternative.

Comments Related to Future Management

EIS Supporting Chapter 7.0 describes recommendations for funding construction and long-term management. The Funding and Governance Work Group, made up of state, local, and tribal government stakeholders, has pledged support for long-term management of the Project Area, including dredging in Budd Inlet under the Estuary Alternative. Specifics of future management and operations will be considered further during design and permitting of the selected alternative.



Hydrodynamics and Sediment Transport

Requests to better characterize overtopping of the 5th Avenue Dam during a king tide event, and how dam control could be affected by sea level rise under the No Action and Managed Lake Alternatives.

To address this comment, additional language to characterize the possible overtopping of 5th Avenue Dam under extreme tides with relative sea level rise (RSLR) has been added to Sections 4.1.2.1 and 4.1.4.1 of Final EIS Supporting Chapter 4.0. In addition, a new graphic showing the cross-sectional view of the 5th Avenue Dam as well as tides and water levels on the upstream and downstream sides of the dam has been added to Section 3.1 of Final EIS Supporting Chapter 3.0). This graphic is the same as a revised version of Figure 2-28 in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5).

As described in the Final EIS, the top of the east and west radial gates when fully closed is at elevation (EL)+0.5 foot, City of Olympia Datum. The extreme (100-year return period) water level downstream of the 5th Avenue Dam is approximately at EL 0.0 foot, City of Olympia Datum (or +18.0 feet Mean Lower Low Water [MLLW]) and therefore is lower than the top of the radial gates when fully closed with 0.5 foot between the waterline and top of the gate. It was confirmed through observations by Enterprise Services' dam operations personnel that even during extreme high tide events, water does not currently overtop the radial gates.

The east and west radial gates prevent saltwater from traveling upstream during extreme (100-year return period) water levels and with sea level rise values up to 0.5 foot. If an extreme (100-year return period) water level occurs in the future when sea level has risen more than 0.5 foot and less than 2 feet¹, saltwater would travel upstream into the North Basin for up to 3 hours during peak tides, before water begins to recede during that tidal cycle. This flow would be driven by a small hydraulic gradient (i.e., slope of water surface) and as a result at a slow velocity.

The fish ladder has an adjustable weir at the upstream end that can be raised/lowered. The top elevation of the fish ladder at the upstream end (North Basin) can be adjusted from EL -5.0 feet to +0.0 foot, City of Olympia Datum. Therefore, the weir can be raised to prevent the flow of saltwater into the basin during a 100-year return period water level event. Similar to the radial gates, it is possible that extreme water levels could overtop the top of the fish ladder and travel into the North Basin for periods of time. However, given the small width of the fish ladder (9.5 feet) relative to the width of the North Basin (~2,660 feet) and small hydraulic gradient, the volume of water traveling upstream during the

¹ A maximum sea level rise of 2 feet was considered for the EIS analysis since sea level rise values beyond 2 feet would trigger changes in infrastructure, according to the Olympia Sea Level Rise Response Plan.



period of time that the downstream water level is higher than the top of the fish ladder would not affect water levels in the North Basin.

Requests to better characterize how the 5th Avenue Dam controls high flows in the Deschutes River during storm conditions (by lowering the lake prior to the storm and using its storage capacity).

When designed, the primary function of the 5th Avenue Dam was to provide a reflecting pool for the Capitol Building, and available historical documentation suggests that the dam/Capitol Lake Basin was not designed to be part of a flood management system. However, Enterprise Services does now use the storage capacity of Capitol Lake Basin as a means to manage (avoid and minimize) upland flooding in areas adjacent to Capitol Lake by the early release of lake water through the 5th Avenue Dam prior to extreme river flow events. It should be noted that the early release of water through the 5th Avenue Dam is constrained by the timing of low tides (Capitol Lake water can only be released if the lake water level is higher than the tide level in Budd Inlet).

To understand dam operations in general and during storm events in particular, the EIS Project Team met with Enterprise Services' dam operations personnel. Additionally, dam operations personnel provided more than 3 years of dam opening/closure records to the EIS Project Team.

Based on conversations with dam operations personnel, despite opening/closing the dam as a method of flood management, upland flooding could still happen during back-to-back rain events when the early release of water between the two events is not possible due to the timing of low tides (enough water cannot be released in advance of the second rain/river flow event due to the tidal cycle). Dam operations staff cited one such event (back-to-back rain/river flow event) that occurred in the winter of 2016–2017 and resulted in flooding at Heritage Park and the Arc of Statehood.

Dam opening/closure is not fully automated and relies on an operator, which means that this flood management approach requires training and institutional knowledge of and familiarity with the system and operating procedures. It also means that flood management is partially reliant on and at risk of failure due to human error. In addition, this operation (similar to any other mechanical operation) is subject to mechanical failure. It is correct to assume that under the Managed Lake Alternative, the dam retrofit would be designed to minimize the risk of a mechanical failure/human error as much as possible. However, the constraints associated with the early release of basin water during a back-to-back rain event will remain and be amplified due to future sea level rise. If the Managed Lake Alternative is selected for long-term management, additional studies could be completed to identify improvements and engineering solutions to facilitate the release of floodwater.

Section 4.3.3 of the Hydrodynamics and Sediment Transport Discipline Report describes operation and flood management of the 5th Avenue Dam, which includes lowering the lake level and utilizing its storage capacity in anticipation of high river flows. According to the dam operations personnel, the



greatest risk of flooding upstream of the 5th Avenue Dam would be due to back-to-back flood events when draining the North Basin between flood events is not possible during high tides.

Other related comments expressed concern that flood elevations described in the Draft EIS did not take into account dam operations under the No Action and Managed Lake Alternatives. The EIS Project Team did take into account dam operations, using simulated dam operation and developed model calibration/validation based on actual records (measurements) of dam opening/closure provided by dam operations personnel during an actual storm. Section 4.1.2.1 of the discipline report describes the 5th Avenue Dam operations during storm events.

Requests for information on operational improvements that would be made to the dam under the Managed Lake Alternative to make it more reliable and resilient to climate change and the effects of sea level rise.

The dam itself is not directly affected by sea level rise in the context of its originally intended function, which is to hold a pool for reflecting the Capitol Building. Although not designed to manage water levels, specific improvements to enhance its function in storm events (e.g., raising the elevation of the electric motors to reduce the potential for inundation) could be completed and would reduce the risk of mechanical failure and potentially for human error. The improvements planned as part of the dam overhaul for the Managed Lake Alternative would not minimize the risk associated with back-to-back flood events, but could be further evaluated if the Managed Lake Alternative is selected for long-term management.

Concern that the surface velocity of water through the opening (Estuary and Hybrid Alternatives) is not well explained, and may point to a discrepancy between the CLAMP study and the EIS.

Regarding surface velocity, the depth-averaged velocity to surface velocity ratio α is approximately 0.8 on average (Hauet et al. 2018). In response to these comments, a discrepancy among velocities listed in Tables 4-22, 4-23, and 4-26 has been identified and corrected in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5).

Regarding the mismatch between the Draft EIS and the 2006 CLAMP (i.e., Capitol Lake Adaptive Management Plan Steering Committee) study, the reason for the discrepancy was that the observation point used in the EIS study at the entrance was not representative of the highest velocity; see Figure 4-46 of the discipline report for the locations of observation points. To capture the maximum velocity, observation Point NBo6 was moved slightly in the southeast direction, and the maximum velocity was extracted for this modified location. The extracted maximum velocity is 4.9 m/s (Estuary Alternative) and 5.0 m/s (Hybrid Alternative). These values are consistent with the CLAMP study.



Concern that the sea level rise scenarios used in modeling rely on projections used in the Olympia Sea Level Rise Response Plan, and that these projections do not include current science on sea level rise and thus underestimate the degree to which tidal flooding will increase over time.

As described in Section 3.1.7 of EIS Supporting Chapter 3.0, the hydrodynamic and sediment numerical modeling completed for this EIS used projections consistent with those in the 2019 Olympia Sea Level Rise Response Plan developed by the City of Olympia, Port of Olympia, and LOTT Clean Water Alliance. The Sea Level Rise Response Plan outlines how downtown Olympia can adapt to rising seas, using projections based on data from the Washington Coastal Resilience Project (Miller et al. 2018), which represents the best-available science when the EIS study was initiated. The Response Plan acknowledges that sea level rise projections range greater than 2 feet, and that adaptation measures will not stop at 2 feet of rise. The Response Plan assumes that by the time 2 feet of rise is realized, significant structural and organizational changes will have occurred within the city and the region, making future vulnerability beyond 2 feet of sea level rise difficult to assess.

Rates of sea level rise are not constant throughout the world. There is substantial variation in predicted sea level rise locally and regionally. Scientists frequently update these projections of future global, regional, and local sea level rise as climate science continues to advance. At the initiation of the Draft EIS study, the best available science for sea level rise included localized projections (Miller et al. 2018), regional and national projections (e.g., NRC 2012), and global projections (e.g., IPCC 2014). Since the release of the Draft EIS, updated national projections were released by the National Oceanic Atmospheric Administration (NOAA) in February 2022 (Sweet et al. 2022). This updated NOAA report uses the latest science on polar ice cap melt, regional sea level rise response, and other ocean-climate interactions. The 2022 report only provides regional projections for U.S. shorelines; Budd Inlet falls within the projections for the “Northwest Contiguous United States.” The scenarios utilized in the 2022 report (i.e., low, intermediate-low, intermediate, intermediate-high, high) are defined differently than in the Miller et al. (2018) document, which formed the basis for the Olympia sea level rise projections used in the Draft EIS. The 2022 report projects higher regional sea level rise in the Pacific Northwest when compared to the 2018 report by a few tenths of a foot higher by 2050 to up to 4 feet higher by 2100.

Scenarios modeled for the hydrodynamic assessment completed for the EIS include 2 feet (0.61 meter) of relative sea level rise, which is projected to occur in Olympia between 2050 and 2080, according to the Olympia Sea Level Rise Response Plan, which represents the best locally available science at the time the EIS study was initiated. There is an inherent uncertainty associated with any prediction of sea level rise within a certain time frame. Two feet of sea level rise is anticipated to occur in Olympia by 2050 using the high range of sea level rise scenarios, or by 2080 using the most-likely range projections. Under the 2022 report projections, 2 feet of sea level rise would likely occur on the earlier end of this time frame, although locally specific estimates are not yet available. It is recognized that the best available science will continue to be updated, and there could be greater levels and frequency of high



tide flooding than modeled for the EIS, but these scenarios would occur several decades out, and primarily after 2050, which is beyond the planning horizon for this project.

Requests for more clarity around flooding potential under the alternatives.

As described in Sections 4.1 and 4.8 of EIS Supporting Chapter 4.0 and in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5), all alternatives will experience periodic flooding during extreme river flows and extreme high tides. Maximum overland flooding under the No Action and Managed Lake Alternatives is driven by extreme river flooding, and maximum overland flooding under the Estuary and Hybrid Alternatives is driven by extreme tide conditions (with sea level rise). Importantly, many of the areas that are susceptible to flooding adjacent to the basin are the same areas of Olympia that will experience flooding regardless of the alternative implemented for this project. These areas include portions of downtown Olympia and Heritage Park east of the 5th Avenue Dam that are flooded from Budd Inlet. The flooding extents are described in Section 4.1 of EIS Supporting Chapter 4.0, and maps of the maximum water levels for all alternatives are shown in Figures 4.1.1 and 4.1.2 of the Draft EIS and Final EIS. Additional information is included in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5).

As described in the Draft EIS and Final EIS, under the No Action Alternative, extreme river flooding will extend across parts of Heritage Park, the Interpretive Center, Deschutes Parkway, Marathon Park, Tumwater Historical Park, and downtown Olympia. High tides will be prevented from entering the Capitol Lake Basin by the 5th Avenue Dam under most conditions. However, with more than 0.5 foot of sea level rise, saltwater would travel upstream into the Capitol Lake Basin during an extreme (100-year) tidal event. The most severe flooding conditions would occur when an extreme tidal event and extreme river flow event occur simultaneously. Under current conditions, portions of Tumwater Park, Heritage Park, and parts of the downtown area already experience flooding, particularly when high river flows coincide with high tide events.

Under the Managed Lake Alternative, extreme river flooding will cause similar depths and spatial extents of flooding as the No Action Alternative.

Under the Estuary Alternative, water levels within the Capitol Lake Basin would no longer be controlled by the 5th Avenue Dam and would rise and fall with the tides. As a result, maximum water levels in most of the Capitol Lake Basin would occur during extreme tide conditions rather than river flood events. Maximum water levels for the Estuary Alternative (during extreme tide conditions and sea level rise) would be ≤ 1 foot (≤ 0.3 meter) lower than those of the No Action and Managed Lake Alternatives (during extreme river flooding). The spatial extent of areas flooded in the North Basin would be approximately the same as the areas flooded in the North Basin under the No Action Alternative or the Managed Lake Alternative during extreme river flooding. However, the depth of flooding within these North Basin areas (including Heritage Park and downtown Olympia) would be reduced. Furthermore, under an extreme flood for the Estuary Alternative, the depth and spatial extent of inundation



predicted in the upper portions of the Deschutes Estuary, including at the Interpretive Center and Tumwater Historical Park, would be less than under an extreme flood event for the No Action Alternative or the Managed Lake Alternative.

Under the Hybrid Alternative, extreme tidal flooding would cause similar depths and spatial extents of flooding as the Estuary Alternative. Under an extreme river flood, the Hybrid Alternative's barrier wall would reduce the depth and extent of flooding in areas of Heritage Park and along Powerhouse Road SW when compared to the Estuary Alternative.

Requests to include additional analysis of sea level rise and flooding vulnerability that addresses shoreline stability concerns and infrastructure protections for structures at risk.

It is acknowledged that secondary impacts such as periodic flooding of low-lying infrastructure and shoreline erosion risk will continue under any of the alternatives, including the No Action Alternative. The Managed Lake, Estuary, and Hybrid Alternatives all include design elements that are intended to minimize shoreline instability and infrastructure impacts. These elements are described in the EIS Supporting Chapter 2.0.

The methodology used to identify shoreline stability and low-lying infrastructure impacts for the EIS was based on low-level resolution analysis of potential impacts. Although this represents a high degree of simplification, it is consistent with the overall resolution of analysis required for a SEPA EIS. In response to these comments, Chapter 2.0 has been modified to explain that additional investigations of shoreline stability and flooding vulnerability, including geotechnical studies, would occur during the design phase for the selected alternative. As part of this, environmental forces (i.e., exposure to tidal currents, river velocities, wave action, etc.) would be assessed in detail for the selected alternative. If further study indicates that these forces would change relative to existing conditions, then additional shoreline stability measures would be included as part of the design to mitigate such risks. At that time, additional protection and upgrade work needed to protect infrastructure would be identified, and any necessary design adjustments to the selected alternative would be implemented.

As described in the Draft EIS and Final EIS, the No Action and Managed Lake Alternatives would continue to experience flooding and shoreline stability concerns, similar to existing conditions. The Managed Lake Alternative would include shoreline stabilization and concrete reinforcement work at the 5th Avenue Dam, which would alleviate some stability concerns relative to the No Action Alternative. The Managed Lake Alternative would also include floodplain and riparian plantings to help stabilize the lake banks.

The Estuary and Hybrid Alternatives would allow tidal exchange to occur in the basin, which would result in daily wetting and drying of shoreline slopes. The Deschutes Parkway embankment was identified as an area that already has slope stability concerns, which could be exacerbated by wetting-drying cycles and tidal currents. To mitigate this concern, the Estuary and Hybrid Alternatives include



slope stabilization along the Deschutes Parkway. A geotechnical design of the Deschutes Parkway stabilization would be conducted in later design phases.

As described in Sections 4.13.5 and 4.13.6 of EIS Supporting Chapter 4.0, low-lying utilities susceptible to corrosion would either be replaced or monitored and replaced if corrosion develops. These sections have been clarified in the Final EIS to acknowledge that removal of the 5th Avenue Dam would also involve relocation of vulnerable pressurized utilities from the dam embankment. Moving these utilities underground would reduce the existing risk to these aboveground utilities and would mitigate potential corrosion concerns. The newly constructed 5th Avenue Bridge would be designed with scour protection measures adequate to protect the new bridge from tidal flows, including changes in tidal flows from sea level rise. The Estuary and Hybrid Alternatives also include additional mitigation measures such as stormwater outfall replacement and epoxy coating of shoreline infrastructure. Under the Hybrid Alternative, the Arc of Statehood would be protected from salinity and scour by the newly constructed reflecting pool wall.

As sea levels rise and riverine flood frequency increases, flooding in low-lying areas will become increasingly more common across all alternatives. As described in the Draft EIS and Final EIS, the City of Olympia plans to implement stormwater improvements and other flood mitigation efforts that will alleviate the risk to low-lying infrastructure from flooding from Budd Inlet and Capitol Lake.



Navigation

Comments stated that the EIS Project Team should consult with the Port of Olympia and the U.S. Army Corps of Engineers regarding potential impacts on navigation.

The EIS Project Team consulted with the Port of Olympia (Port), the U.S. Army Corps of Engineers (USACE), and other Budd Inlet stakeholders including private marinas, throughout the EIS process. Both the Port and USACE (as an ad-hoc member) participated in the project's Technical Working Group, which met nine times between EIS scoping in mid-2018 and release of the Draft EIS in mid-2021. In these meetings, the EIS Project Team described methodologies to be used to assess potential project impacts, including potential impacts on navigation in West Bay or recreational uses (like boating) in the Project Area. Years prior to the EIS, the Port was involved with the Capitol Lake Adaptive Management Plan (CLAMP), which also evaluated alternatives that included removal of the 5th Avenue Dam.

Outside of the Technical Work Group meetings, Enterprise Services met with the Port and USACE to discuss potential impacts from sediment accumulation. The Port and USACE provided the EIS Project Team with data used to complete the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5) and the Navigation Discipline Report (Attachment 6). These data included general navigation conditions, vessel use, water depth, baseline sediment accumulation, and past maintenance dredging records to support review of potential impacts on navigation. Information on the types of vessels, incidents of vessel grounding, operations, navigational constraints, sediment deposition, and long-term plans for accommodating different types of vessels was also obtained from the Port, USACE, and Budd Inlet marinas. In this coordination, the Port described that cargo vessels have to lighten their loads when calling at the Port due to existing sediment accumulation in the federal navigation channel (FNC) and turning basin. Given shallowed depths within the FNC and turning basin, these cargo vessels also typically sail on a rising high tide.

Outreach with the Port and the USACE has continued throughout the EIS process. In early 2022, the EIS Project Team met with the Port and USACE to further discuss the Draft EIS findings, and the proposed approach and timing of sediment management that would occur in West Bay as part of the project. During these meetings, the USACE confirmed that its responsibility is to conduct maintenance dredging to maintain navigational depths in the FNC. The EIS Project Team provided dredge records and imagery that showed that the FNC was historically dredged by USACE, for many decades before construction of the 5th Avenue Dam. That dredging supported the Port of Olympia and other commercial navigation within the historic Deschutes Estuary. Maintenance dredging is proposed under the Estuary Alternative, similar to the historic need and to similarly support ongoing navigational use of West Bay.

Coordination with the USACE and Port will continue after the EIS process is completed. The forthcoming Port-led dredging in West Bay to address accumulated and contaminated sediments should be well coordinated with the timing and approach for implementation of this project. The



USACE will also be heavily involved in future regulatory approvals required to construct this project; as described in EIS Supporting Chapter 8.0, a USACE permit and other authorizations will be required prior to project construction.

Comments asked why the EIS makes an assumption that maintenance dredging would occur in West Bay in the next 10 years prior to project implementation.

The EIS assumes that dredging would occur within West Bay in the next 10 years, prior to removal of the 5th Avenue Dam. There are a number of reasons that this assumption was made.

- Outreach with the Port, USACE, and existing West Bay marinas was used to evaluate existing maintenance dredging frequencies and known plans for future maintenance dredging by these different entities.
- The Port has noted that present-day cargo vessels are known to lighten their loads and sail on a rising tide when calling at the Port, due to existing sediment accumulation in the FNC and turning basin. This impacts operations at the Port.
- Much of the accumulated sediments that are impacting Port operations are contaminated. They must be removed (remediated) to restore the health of the marine environment and ensure the health of consumers of fish and shellfish.
- The Port has taken action recently in support of future dredging within the USACE FNC and turning basin in addition to their own berths, to address sediment accumulation and contamination.
- Requirements of the Washington State Department of Natural Resources (WDNR) lease to the private marinas include a minimum water depth below marina facilities.
- The USACE's mission, based on the federal navigational servitude doctrine, is to maintain navigation, which is currently impeded by sedimentation in the FNC and turning basin.

Completing the needed dredging in West Bay before removal of the 5th Avenue Dam by Enterprise Services is important for the following reasons:

1. It focuses Port dredging on existing accumulated/contaminated sediment and avoids the need to remove additional sediment that will be deposited after the Estuary Alternative is constructed.
 - a. This reduces the amount of contaminated sediment that must be removed by the Port.
 - b. This reduces the amount of material that must be disposed upland, and accordingly reduces costs and environmental impact of the Port-led dredging in West Bay.



2. Following completion of the needed dredging in West Bay and removal of the 5th Avenue Dam, the maintenance dredging that would be conducted as a component of the Estuary Alternative would focus on removal of newly deposited sediment.
 - a. Newly deposited sediment is expected to be chemically and biologically suitable for in-water disposal.
 - b. Dredging sediment suitable for in-water disposal is easier to permit and more certain to be completed.
3. It increases the likelihood of federal funding for future maintenance dredging in the FNC within West Bay.
 - a. The USACE is regulatorily precluded from dredging in Model Toxics Control Act-designated areas but can provide funding for dredging if the dredged material is suitable for open water disposal.

In response to comments on the Draft EIS, additional detail has been included in the Navigation Discipline Report to describe potential impacts if the assumed dredging does not occur in West Bay in the next 10 years. The EIS does recognize that there is uncertainty in the timing to complete these large dredge events and that these activities may occur later than anticipated.



Water Quality

Comments stated that the EIS should have relied more heavily upon the findings from the 2015 Ecology Water Quality Improvement Report.

The EIS included data and findings from the Washington State Department of Ecology’s (Ecology’s) 2015 Water Quality Improvement Report as well as information from other sources such as other Ecology reports, water quality data and reports from Thurston County, and the water quality data collected by the EIS Project Team in 2019 and 2021. The purpose of the EIS analysis is to provide an independent analysis that includes the appropriate level of information for decision-makers to evaluate the project alternatives, including their potential significant impacts, feasible mitigation measures to reduce impacts, and their ability to meet project goals. As noted in WAC 197-11-440 (6)(b)(i), information in an EIS should be presented in “a non-technical manner that is easily understandable to laypersons whenever possible...only significant impacts must be discussed...” To accomplish this, the EIS focused on key water quality parameters/issues within the Project Area. This included those water quality parameters and their related water quality standards that were highlighted by Ecology in their Water Quality Improvement Report. This also included biological endpoints (algae, aquatic plants, and salmon habitat [using dissolved oxygen as a surrogate measure of habitat availability since oxygen is so important to aquatic life]) to describe the range of potential impacts. The EIS analysis addressed potential impacts to the Capitol Lake Basin and Budd Inlet, while Ecology’s work primarily focused on impacts to Budd Inlet. Lastly, the EIS incorporates recent data not available to Ecology in 2015, in order to reflect the most recent water quality conditions.

Enterprise Services has determined that the methodology used is consistent with SEPA requirements and is appropriate to make a reasoned decision among the EIS alternatives. Enterprise Services acknowledges that consultants relying solely on models that predict attainment of specific water quality standards may have differing opinions, but by incorporating additional studies and focusing on key issues, the EIS makes reasonable conclusions that outline the trade-offs and impacts among the alternatives.

Comments requested that the EIS include an analysis of the ability of the alternatives to meet water quality standards and TMDL allocations.

Regulatory compliance for the alternatives, relative to water quality, is determined by Ecology given the agency’s responsibility to implement portions of the Clean Water Act. In response to comments received on the Draft EIS, the water quality analysis has been expanded to include summary statements regarding potential regulatory compliance for the alternatives, based on Ecology’s interpretation of their model findings. This includes supplemental information regarding potential compliance with both numeric and narrative dissolved oxygen water quality standards. These updates better align the Final EIS with Ecology’s determination of regulatory compliance based on the 2015 Water Quality



Improvement Report. These additions have been included in Section 4.3 of Final EIS Supporting Chapter 4.0 and in Section 5 of the Water Quality Discipline Report (Attachment 7).

Draft Budd Inlet Total Maximum Daily Load (TMDL) allocations prepared by Ecology since release of the Draft EIS describe that the Managed Lake Alternative “may not deplete dissolved oxygen levels in Budd Inlet at any time or location beyond the impact of the natural estuary condition.” Ecology has also stated that the determination of the amount of dissolved oxygen depletion under the Managed Lake Alternative would need to be made using a mechanistic model using the same assumptions as the TMDL, unless another approach is approved through administrative order. This key determination by Ecology has also been included as part of the regulatory compliance discussion in Section 4.3.4.3 of Final EIS Supporting Chapter 4.0.

Comments stated that the Draft EIS over-emphasized the importance of dissolved oxygen and total organic carbon, and did not accurately incorporate Ecology’s model findings related to total organic carbon and its impacts on dissolved oxygen in Budd Inlet.

The EIS evaluation’s emphasis on dissolved oxygen and total organic carbon is consistent with the emphasis that is placed on these parameters in Ecology’s 2015 Water Quality Improvement report, and key water quality concerns in the Project Area. As Ecology described in their summary of the modeling results, total organic carbon generated by Capitol Lake is predicted to result in an increased oxygen demand (as biological oxygen demand [BOD]) in Budd Inlet and was identified by Ecology as a primary cause of the continued decrease in dissolved oxygen in late summer and late fall. While Capitol Lake is not the only source of BOD to Budd Inlet, Ecology’s model indicates that the 5th Avenue Dam has the single largest impact on dissolved oxygen in Budd Inlet.

The data Ecology used to develop the model are from 1997 to 2004. To support the EIS analysis, additional, more current data were collected in 2019 and 2021. The EIS compares the historic and recent field data with model predictions (evaluation of model predictions against field data is a commonly accepted practice). The evaluation indicated that there was uncertainty in the model predictions and that the model predictions could be overstating the impact of Capitol Lake on dissolved oxygen depletion in Budd Inlet. To acknowledge this uncertainty, the potential impact of dissolved oxygen improvement to Budd Inlet was conservatively described in the Draft EIS as one-half of the modeled benefit. In response to comments on the Draft EIS, the Final EIS has been revised to describe this as a range of no discernable difference to the full improvement. This revision acknowledges the full range of uncertainty.

An overriding concern, mentioned by all technical and third-party reviewers, was the overall paucity of data on total organic carbon. Data available for Ecology’s modeling included 2 years, 1997 and 2004, while available data for the Draft EIS included 1 additional year (2019). Two to three years of summertime monthly data spread over a 20-year period do not comprise a comprehensive reflection of interannual variability. In addition, one of those years represents an anomaly in total organic carbon



concentrations due to herbicide treatments. The lack of field data for this key predictive parameter contributed to the level of uncertainty attributed to model predictions in the Draft EIS. Additional total organic carbon data were collected in 2021 and are included in the Final EIS. While the 2021 data support the findings of the EIS, they do not resolve the overall issue of the lack in total organic carbon data, and uncertainty remains.

Comments stated that using data only from 2004 to 2014 to evaluate water quality trends is an inaccurate representation and is biased by values from 2004. The trend analysis should have been based on pollutant loads rather than concentrations to account for changes in flow and its impacts on pollutant loads.

After additional review of the data, the trend analysis in the Final Water Quality Discipline Report and Final EIS has been revised to eliminate 2004 and include only the most recent 10 years of data; 2005 to 2014. During this time period, the data continue to indicate that there are statistically significant improving trends in phosphorus, transparency (as Secchi disc depth), and pH. Chlorophyll also exhibited a positive trend but fell short of being statistically significant. The most recent 10 years of data represent the period when aquatic plant management activities had been discontinued. The trends that were observed may be a function of the lake evolving from an algae-dominated system to an aquatic plant-dominated system or a co-dominated system when lake management activities stopped. This time period also represents the period after the brewery closed and stopped discharging, when the City of Olympia initiated an illicit discharge detection elimination program in the basin, and when the Capitol Lake Adaptive Management Plan was adopted. Regardless of the possible cause(s) for changes in lake condition, the data indicate that trends in multiple parameters all support a conclusion that lake productivity has been decreasing and, therefore, water quality has been improving over the time period. More recent data from 2019 and 2021 confirm these improved water quality conditions. These trends are not apparent if older data are included in the analysis; again, possibly due to a change in lake management activities. Trend analysis results from the long-term dataset have been added to the Water Quality Discipline Report for perspective, but the interpretation of improving recent trends has been retained.

In response to the comment that pollutant loads should have been used in the trend analysis rather than pollutant concentrations, pollutant concentrations were used to be consistent with Ecology's use of water quality concentrations in determining consistency with water quality standards, the use of concentrations in Ecology's model predictions, and the use of concentration data by Ecology to evaluate water quality trends in the Deschutes River. Further, because pollutant load calculations are driven by the flow component of the equation used to calculate loads, they can mask water quality trends. However, the Water Quality Discipline Report has been modified to include a pollutant load comparison for total organic carbon and total nitrogen, including for the late summer period, which Ecology has identified as the critical period for lake influence.



Comments stated that water quality in Capitol Lake is a reflection of inputs from the Deschutes River Basin and that actions should be taken within and throughout the Deschutes River to improve water quality in Capitol Lake.

As described in the Draft EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes TMDL and other efforts are expected to improve water quality in the Deschutes River over the long term, which should result in improvements to water quality in the Project Area.

However, the EIS evaluates direct or indirect water quality impacts associated only with implementation of the project alternatives. Those impacts will only occur within the Capitol Lake Basin and Lower Budd Inlet, and will have no influence on conditions upstream of Tumwater Falls. Because project implementation will not impact the area upstream of Tumwater Falls, the EIS does not include a discussion of potential changes in water quality upstream as a result of actions by others.

Comments stated that there are multiple methods of controlling algae including chemicals and aerators, which should be considered before spending millions of dollars on dam removal.

Section 4.3 of EIS Supporting Chapter 4.0 acknowledges the range of management methods available for the control of both aquatic plants and algae, including chemical and physical techniques. Evaluating which of these methods would be most effective under a Managed Lake Alternative would require development of an adaptive lake management plan. If the Managed Lake Alternative is selected for long-term management, Enterprise Services would evaluate and select the control options that would best suit the lake and best achieve lake management goals and regulatory requirements.

Importantly, according to Ecology's model interpretation, it is the aquatic plants and related release of total organic carbon that are of concern to late summer Budd Inlet oxygen concentrations; therefore, controlling algae through chemicals or through use of aerators would not allay that concern. If implemented, a lake management plan would need to focus on opportunities to reduce the extent of total organic carbon release into Budd Inlet from all sources. Based on Ecology's existing TMDL allocation for the lake, and their requirement to use a mechanistic model with the same assumptions as used in the TMDL to predict potential improvements due to lake management activities, it would be very difficult to maintain any lake under any management scenario and achieve compliance with the TMDL.

Comments stated that the study area for the water quality analysis needs to be defined, and should include East Bay.

The study area for the water quality analysis includes Capitol Lake and its major inflow sources of the Deschutes River and Percival Creek, as well as West Bay and East Bay of Budd Inlet, as defined in Section 3.1 of the Water Quality Discipline Report and Section 1.4 of EIS Supporting Chapter 1.0. These areas are included because they would be impacted (beneficially or adversely) by the project alternatives. Upstream areas in the Deschutes River and Percival Creek are not part of the study area



because these areas would not be impacted by implementation of the project alternatives. Exhibit 3.4 of the Final EIS and Figures 1.1 and 3.1 of the Water Quality Discipline Report have been revised to show the full study area for the water quality analysis, including East Bay.

Comments stated that a comparison of Capitol Lake to other lakes in Thurston County does not adequately reflect differences in depth, hydrology, and other important influences that affect water quality in lakes, and provides an overly simplified and irrelevant comparison.

The EIS provides a comparative evaluation of the project alternatives in a context that is meaningful and understandable to both decision-makers and the public. A practical mechanism for bringing this context to the public is to provide perspective by comparison to other similar waterbody types. The EIS provides a comparison of Capitol Lake to other area lakes, just as it provides a comparison of Budd Inlet to other area inlets. The EIS also provides a comparison of Capitol Lake to the Deschutes River. It is one of the complexities of the existing condition that Capitol Lake has many lake-like attributes and those attributes (e.g., increased productivity) are the cause of concern, but it has been defined as a river based on flow dynamics. Regardless of regulatory definitions, Capitol Lake is viewed as a lake by local residents, and the EIS includes multiple alternatives that would retain the system in a “lake-like” condition, further supporting the relevance of comparing it to other lakes the public may be familiar with.

Section 4.4 of EIS Supporting Chapter 4.0 notes that calculated detention times in Capitol Lake range from 0.6 to 7.9 days, and that this is well below the mean detention time of greater than 15 days that is used by the U.S. Environmental Protection Agency to designate a lake. The EIS acknowledges that Capitol Lake is dissimilar to other area lakes because it is so strongly influenced by inflow from the river; by providing the comparison to other lakes, this point is emphasized. The EIS states “differences [from other lakes in the region] are likely due to the atypical hydrodynamics of Capitol Lake: the large inflow from the river and low residence time.”

Capitol Lake water quality is described as good, yet there are water quality standard exceedances and visible algae and aquatic plants.

When the lake is described as having “good” water quality in the EIS, it is referring specifically to the two parameters most important to cold water fish habitat (dissolved oxygen and temperature) and to those parameters that impact public health (bacteria and toxic algae blooms). The EIS does acknowledge there are exceedances of water quality standards for dissolved oxygen and temperature (as well as other parameters), but in relation to what is typical for a eutrophic lake, those exceedances are relatively minor. Typically, eutrophic lakes have long periods of very low dissolved oxygen concentrations coupled with much higher temperatures than Capitol Lake, and in recent years many local eutrophic lakes have experienced toxic algae blooms, while Capitol Lake has not. Further, the algae population in the lake is dominated by diatoms as compared to the more nuisance green and blue-green algae that dominate other eutrophic lakes.



CAPITOL LAKE – DESCHUTES ESTUARY

Long-Term Management Project Environmental Impact Statement

As stated in the Draft EIS and Final EIS, the lake does support a dense community of aquatic plants. In this regard, it is similar to other eutrophic lakes in the region. While the plant biomass (per acre) is similar to other lakes, the plants are more visible in late summer when the river flow is low. This may add to the perception of particularly bad plant conditions.



Aquatic Invasive Species

Comments were received asking for further clarification about whether New Zealand mudsnails would survive under the Estuary and Hybrid Alternatives, and whether they would become established in Budd Inlet.

Capitol Lake is currently separated from Budd Inlet by the 5th Avenue Dam. However, there is documented movement of debris through the dam during high flow events, which provides an opportunity for New Zealand mudsnails to spread into Budd Inlet. In a letter submitted by the Washington Department of Fish and Wildlife (WDFW) on the Draft EIS, WDFW agreed that the 5th Avenue Dam does not function as a barrier preventing the spread of New Zealand mudsnails into Budd Inlet, and that the removal of the dam is not expected to create additional colonization opportunities beyond what currently exists.

In response to comments submitted on the Draft EIS and to support analysis in the Final EIS, a study was commissioned to investigate whether New Zealand mudsnails are currently present in Budd Inlet (Johannes 2022). The study occurred in April 2022 and investigated 21 sites, 16 of which were previously surveyed in 2011 and including several sites adjacent to various freshwater inputs. Marine fauna were present at most collection sites in Budd Inlet, indicating that conditions would allow for colonization if New Zealand mudsnails were tolerant to salinities. **No New Zealand mudsnails were found during this survey**, and the study concluded that year-round salinity levels are likely too high anywhere in Budd Inlet for New Zealand mudsnails to survive.

There are limited data, Best Available Science studies, or literature regarding New Zealand mudsnail salinity tolerance; however, available studies indicate that New Zealand mudsnail may be tolerant of salinities above 30 parts per thousand (ppt; or practical salinity unit). Although the salinity within Budd Inlet (between 23 and 28 ppt) is within the tolerance range for New Zealand mudsnails, the recent survey conducted by Johannes in 2022 found no New Zealand mudsnails in Budd Inlet. And, as indicated above, given movement of debris through the 5th Avenue Dam under existing conditions, New Zealand mudsnails would have colonized in Budd Inlet since their introduction into Capitol Lake more than 10 years ago, if conditions were generally suitable.

New Zealand mudsnail salinity tolerance is dependent on temperature and the rate of acclimatization to the higher salinity (LeClair and Cheng 2011). A study of New Zealand mudsnails in the Columbia River estuary found that mudsnails from brackish environments are more tolerant of acute salinity stress with LC₅₀ values (lethal concentration causing 50% mortality) averaging 38 ppt salinity versus only 22 ppt salinity for mudsnails from a freshwater source (Devils Lake; Hoy et al. 2012). The results of the study of salt-tolerant New Zealand mudsnails in the Columbia River estuary also found that, although the species was surviving, they were not thriving in a way that would significantly impact native populations. The lack of New Zealand mudsnails observed in Budd Inlet is likely indicative of



their salt tolerance and the LC₅₀ value of 22 ppt salinity for New Zealand mudsnails from a freshwater source like Capitol Lake.

Additional salinity data and New Zealand mudsnail distribution within Budd Inlet have been added to Sections 4.2.1.1 under subsections describing *Distribution and Abundance Within the Study Area and Management Approaches*, and in Sections 5.3.2, 5.5.2.2, and 5.6.2 of the Aquatic Invasive Species Discipline Report (Attachment 8).

Under the Estuary and Hybrid Alternatives, New Zealand mudsnails may continue to persist in areas of freshwater input, including the Deschutes River, Percival Creek, and stormwater outfalls. Those mudsnails would continue to be washed into Budd Inlet during storm events, but likely at much lower rates due to the smaller numbers in the smaller freshwater area. It is possible that New Zealand mudsnails would spread to nearby freshwater streams that also drain to Budd Inlet, and these streams could become a source in the future. The apparent lack of colonization by New Zealand mudsnails in Budd Inlet over the past 14 years from the large population in Capitol Lake suggests that they would not colonize Budd Inlet from smaller populations in the freshwaters draining to the lake basin under the Estuary or Hybrid Alternative. They are also not expected to thrive in the brackish environment if they are able to colonize Budd Inlet.

The WDFW letter submitted on the Draft EIS stated that the freshwater reflecting pool under the Hybrid Alternative would likely harbor mudsnails and provide possible recolonization opportunities. However, the potential eradication of New Zealand mudsnails is more likely in the freshwater pool than in the estuarine portion of the Hybrid Alternative because the small inflow rates and volume of the pool increase the feasibility of providing an extended contact time for effective treatment of the population, which is not possible in the mouth of the Deschutes River.

Given the existing presence and distribution of New Zealand mudsnail, control measures are suggested for all alternatives to reduce their density and numbers prior to any actions within Capitol Lake. Although it is unlikely that control measures can eradicate the New Zealand mudsnail completely since New Zealand mudsnails can repopulate from a single living organism, control measures would significantly reduce the population size and potential spread.

Comments were received suggesting various management approaches to reduce or control the New Zealand mudsnail population.

Management approaches for controlling New Zealand mudsnail populations are described in Section 4.2.1.1 of the Aquatic Invasive Species Discipline Report (Attachment 8) under *Management Approaches*. Mitigation measures described in Section 5.7 of Final EIS Supporting Chapter 5.0 include the Aquatic Invasive Species Management Plan to be prepared for the selected alternative to monitor New Zealand mudsnail abundance over time, identify which chemical treatments can be used, experiment with different chemical and non-chemical techniques to select the optimum treatment



methodology, specify best management practices for avoiding or minimizing the export of New Zealand mudsnails, evaluate how best to operate and monitor effectiveness of attended or unattended decontamination stations, and design and install educational signs to inform the public of the New Zealand mudsnail threat and requirements to prevent their spread. The range of potential management approaches will be evaluated further during development of the Aquatic Invasive Species Management Plan.

A large range of potential measures and approaches could effectively control the number and spread of New Zealand mudsnails. The approaches discussed in the Aquatic Invasive Species Discipline Report include meeting the “clean, drain, and dry” requirements under RCW 77.135.110 to be developed in consultation with WDFW’s Aquatic Invasive Species Unit and established in the Aquatic Invasive Species Management Plan. The following text has been added to Section 5.7.1.3 of the Aquatic Invasive Species Discipline Report to supplement those mitigation measures described for operation of all build alternatives.

Boat and foot access would be restricted to reduce the potential spread of New Zealand mudsnails from the Project Area for all action alternatives. Non-motorized boat access would be restricted to permanent attended or unattended decontamination stations located in Marathon Park, Tumwater Historical Park, and the Interpretive Center for all action alternatives, and possibly in West Bay Park under the Estuary and Hybrid Alternatives. All recreational boats leaving the stations would be decontaminated to prevent the spread of aquatic invasive species from the area, but would not be required to obtain an Aquatic Species Permit. Boat and equipment decontamination would be performed by a trained inspector at an attended decontamination station or would be performed by the user at an unattended decontamination station. Operations of attended or unattended decontamination stations will be determined for the Aquatic Invasive Species Management Plan based on the observed New Zealand mudsnail population and risk for off-site transport. Recreational boats would be inspected and decontaminated prior to launching at the decontamination station to prevent introductions of aquatic invasive species from other waters in accordance with the Aquatic Invasive Species Management Plan.

Although launching motorized boats into the former lake basin would be prohibited, motorboat access to marine waters within the former lake basin would not be prevented for the Estuary and Hybrid Alternatives. However, there is a low risk for marine motorboats entering the former lake basin because of the low trestle design of the proposed 5th Avenue Bridge. Also, these motorboats are unlikely to contact shoreline areas of freshwater input where New Zealand mudsnail may be present because of shallow depths at the nearshore inputs. Education signs would be installed at strategic locations to inform recreationalists of the New Zealand mudsnail and requirements for preventing their spread. Recreationalists would be required to decontaminate their boots at decontamination stations in areas of shoreline access.



A similar approach has been implemented in Whatcom County, where boats and equipment are inspected at four checkpoints before entering Lake Whatcom and Lake Samish to ensure they are clean, drained, and dry and are not transporting aquatic invasive species (Lake Whatcom Management Program 2022). Boats are decontaminated at a checkpoint if they are deemed to be an aquatic invasive species threat, which was performed on fewer than 10% of the inspected boats. The main aquatic invasive species of interest in Whatcom County lakes are the zebra mussel (*Dreissena polymorpha*) and quagga mussel (*D. bugensis*), but the program also includes the New Zealand mudsnail, Asian clams, Eurasian watermilfoil, and other invasive plants. Monitoring by WDFW has shown that this program has been effective in preventing the introduction of zebra or quagga mussels to Whatcom County as no species have been found in the lakes since the program began 10 years ago. To date, the program has conducted almost 100,000 inspections and has intercepted 29 boats transporting or suspected of transporting zebra or quagga mussels, 1,366 boats transporting vegetation, and another 3,579 boats that were either wet or found to be transporting standing water. In 2018, the program detected New Zealand mudsnails in Lake Padden and has since detected them in nearby streams. No mudsnails have been detected in Lake Whatcom, Lake Samish, or at any of the four checkpoints. Non-motorized watercraft usage hit record highs during the pandemic in 2020 and 2021, and similar management approaches have been effective in preventing the spread of aquatic invasive species.



Fish and Wildlife

Requests to clarify salmon use in the study area, specifically: (1) native coho runs in Percival Creek, and (2) origins of salmon in West Bay.

Data are limited on the current abundance of coho salmon in Percival Creek. Although few actual data exist, anecdotal information, such as the presence of a fly fishery in the historic Deschutes River estuary (prior to dam installation), indicates that native coho salmon utilized Percival Creek for spawning and rearing. However, various stocks of coho salmon have been planted in Percival Creek since 1953 (Hayes et al. 2008) and there are few data on the current stock origin and status of the species in Percival Creek. In response to comments, some additional information on abundance and distribution has been added to Section 3.5 of Final EIS Supporting Chapter 3.0 and Section 4.1 of the Fish and Wildlife Discipline Report (Attachment 9).

To the question of the origins of salmon in West Bay, information indicates that juvenile salmon have been detected in the South Sound, including within Budd Inlet, that originate from hatcheries as far north in Puget Sound as the Wallace River, a tributary to the Skykomish River. This is consistent with studies that have shown that both hatchery and wild origin juvenile Chinook salmon frequently migrate for long distances from their natal estuaries to non-natal estuaries. For example, studies in the Nisqually River estuary (the closest adjacent estuary to the east of Capitol Lake) showed that juvenile hatchery Chinook originating from other watersheds that were captured in the estuary during August and September accounted for 90% of all Chinook captured. These fish originated from nine Puget Sound rivers and 14 hatcheries, located as far away as 130 km from the Nisqually River. In response to comments, additional text on estuary function, including the use of estuaries by non-natal juvenile salmonids, has been added to Section 3.5 of Final EIS Supporting Chapter 3.0, and Sections 4.1.3.3 and 5.5.1.2 of the Fish and Wildlife Discipline Report (Attachment 9).

Requests by the Capitol Lake Improvement Protection Association (CLIPA) to review studies and reports attached to, and/or referenced in their comment letters and to reconsider the assessment of impacts and benefits to salmon based on these studies.

CLIPA provided several comments related to the evaluation of impacts and benefits to salmon, summarized as follows:

- Juvenile salmon reared in a freshwater environment such as Capitol Lake perform as well as those reared in an estuarine environment. CLIPA also suggests that growth of Chinook salmon in Capitol Lake is more rapid than growth rates observed in estuaries.
- The Draft EIS relies too much on theoretical rather than actual study findings; specifically, the Draft EIS confidently states that there would be substantial benefits for Chinook salmon without any substantiation.



- The Draft EIS places too much emphasis on the steep salinity gradient within Capitol Lake. The comments suggest that if the dam were removed, salmon will experience essentially the same salinity gradient at the base of Tumwater Falls. Also, since there is some overtopping of the dam during high tides, portions of the North Basin are already saline.
- The risk of predation on juvenile salmonids could increase if the dam were removed due to multiple compression points that would occur in the basin (the railroad trestle and I-5 bridge), an increase from the predation that occurs at the 5th Avenue Dam fish ladder.

The EIS Project Team has performed a detailed review of the studies cited in the comments to determine the applicability of these studies to the above-listed specific questions and comments. The primary literature cited in the comments include Engstrom-Heg (1955) and Koehler et al. (2006), as well as several other studies referenced in these papers and directly quoted in the comments. These studies, and other relevant literature that may be directly applied to the analyses of alternatives, have been summarized in an annotated bibliography of relevant literature on salmonids (see Fish and Wildlife Discipline Report). The bibliography includes studies pertaining to habitat, growth, and predation. The EIS Project Team also met with fisheries staff from WDFW during development of the bibliography and Final EIS to discuss relevant studies and the associated findings.

Several of the comments stated that the 2006 study by Koehler et al., which used bioenergetics modeling to estimate the naturally produced juvenile Chinook salmon in Lake Washington, showed that juvenile Chinook salmon had high consumption rates and were generally feeding close to their maximum ration. Based on estimated lineal growth rates of wild juvenile Chinook salmon, the study found that growth in these lake-reared Chinook salmon appeared to be similar to that observed in Chinook salmon in estuarine and nearshore marine habitats in Puget Sound. However, extrapolating this study to Capitol Lake is complicated by the substantial differences in Lake Washington and Capitol Lake. These include physical, chemical, and biological conditions, with major differences in lake sizes, depths, configuration, volumes, trophic status, fish and invertebrate diversity and abundance, as well as the specific Chinook salmon stocks that utilize each lake. When considering these differences in the two waterbodies, it is not appropriate to assume that growth rates of Chinook salmon, either hatchery or wild fish, would be identical in Capitol Lake. Fisheries experts from WDFW agreed that drawing a comparison between the two systems is inappropriate. For example, Duffy (2003) suggests that spatial and temporal differences in environmental conditions and the forage base may significantly influence the potential for growth and survival of juvenile salmon entering different areas of Puget Sound, and demonstrated that growth rates in estuaries and nearshore marine habitats of Puget Sound were more variable, but at times exceeded the growth rates in Lake Washington. Healy (1982) found that growth rates in the Nanaimo River estuary exceeded the growth rates in Lake Washington.

Quotes included in several CLIPA-submitted comments on Chinook salmon studies focused on the rarity of a lake residence life history strategy and lake rearing for ocean-type Chinook salmon, in regards to a lake-fed river in Alaska (Burger et al. 1985). While the EIS Project Team recognizes the



rarity of the system described by Burger et al. (1985), that study focuses on run-timing, adult migration, and spawning in a lake-fed river system and does not discuss rearing or juvenile use of lakes. Capitol Lake is a man-made terminal lake in the Deschutes River system that is geomorphologically and ecologically different (reversed) from the lake-fed Kenai River.

A report by Engstrom-Heg (1955) was cited in some CLIPA-submitted comments as the primary basis for claims that Chinook salmon grow rapidly in Capitol Lake; however, this paper only considered data collected from a single year (1955) of hatchery Chinook salmon releases into the lake and did not assess the growth of hatchery releases into the estuary prior to dam installation, for comparison. In addition, the Chinook growth rates in Capitol Lake were not compared against a reference estuary, but rather they were compared to hatchery fish, whose growth is dependent on the composition, volume, and timing of fish feed application, as well as the water quality in the hatchery rearing ponds. Furthermore, this study was conducted 70 years ago, just a few years after establishment of the 5th Avenue Dam. Since that time, there have been substantial changes to the physical, biological, and chemical conditions and processes in the lake that affect the quantity and quality of aquatic habitat as well as changes in the presence and abundance of lake flora and fauna. No changes in the EIS to the characterization of juvenile Chinook use of the lake (under either the No Action or Managed Lake Alternative) or an estuary (under the Estuary and Hybrid Alternatives) were identified as being warranted based on review of the literature.

The EIS Project Team also revisited the literature to ascertain if the Draft EIS overstated the benefits that could accrue to Chinook salmon under the Estuary and Hybrid Alternatives, as asserted in some of the comments. The EIS Project Team found that a wide body of literature confirms the key role that estuaries in the Pacific Northwest play in supporting the growth and survival of juvenile salmonids, including Chinook salmon, as described in the Draft EIS. Estuaries provide habitat conditions that support juvenile salmon in their physiological transitions (smolting), provide refuge from predators, and provide elevated prey resources relative to freshwater and marine systems (Simenstad et al. 1982; Thorpe 1994; Magnusson and Hilborn 2003; Price and Schreck 2003; Campbell et al. 2017; Sharpe et al. 2019; Chalifour et al. 2020). The conclusions of these studies are generally supported by the collection of empirical data. No changes to the characterization of benefits under the Estuary and Hybrid Alternatives in the EIS are warranted based on review of the literature.

Similarly, some comments asserted that the EIS analysis placed too much emphasis on the abrupt salinity gradient that occurs under existing conditions, which would continue under the Managed Lake Alternative but be altered to a more natural gradient in the Estuary and Hybrid Alternatives. In addition, the comments suggested that if the dam were removed, salmon would experience essentially the same salinity gradient at the base of Tumwater Falls as they do under existing conditions at the dam outlet. It is acknowledged that with the current system, there is backflow of saltwater through the fish ladder at the 5th Avenue Dam once the tide reaches 15 feet, which creates brackish conditions in a portion of the North Basin at times. However, with dam removal under the Estuary and Hybrid Alternatives, modeling



shows that the estuary would be well mixed, with salinity ranging from 26 to 28 ppt [in West Bay] and 22 to 26 ppt in the North Basin, while salinity is partially mixed with a larger range from 14 to 22 ppt in the Middle Basin and 0 to 14 ppt in the South Basin, providing a gradual salinity transition over the entire basin length (approximately 1.5 miles). This salinity gradient (under the Estuary and Hybrid Alternatives) is not comparable to conditions with the 5th Avenue Dam in place. Under current conditions with the dam, juvenile salmon abruptly enter saltwater in West Bay (approximately 26–28 ppt) from freshwater or slightly brackish conditions in the North Basin versus the gradual salinity gradient over 1.5 miles through all three basins, as described above. Even at high tide and low river flows, fish coming from upstream would only have an initial transition from 0 ppt to 14 ppt, versus an increase of from near 0 ppt to near 30 ppt for fish exiting Capitol Lake through the existing dam. The primary benefit to juvenile salmon is the natural range of salinities that will occur over time, which in turn will allow the fish to gradually adapt their osmoregulatory systems to saltwater conditions. It has been clearly shown that a natural salinity regime is physiologically favorable and one of the key benefits that estuaries provide to juvenile salmon (Simenstad et al. 1982; Groot and Margolis 1991; Thorpe 1994; Price and Schreck 2003; Chalifour et al. 2020).

In addition to providing habitat for outmigrating fish from in-basin, estuaries support non-natal Chinook salmon juveniles, both hatchery and wild origin fish (Beamer et al. 2013). As described above, studies in the Nisqually River estuary showed that juvenile hatchery Chinook originating from other watersheds that were captured in the estuary in August and September accounted for 90% of all Chinook captured. These fish originated from nine Puget Sound rivers and 14 hatcheries, located as far away as 130 km from the Nisqually River. In addition, juvenile salmon originating from hatcheries as far north in Puget Sound as the Wallace River, a tributary to the Skykomish River, have been detected in the South Sound, including within Budd Inlet (S. Steltzner, personal communication). The abundance of juvenile fish from other basins that would utilize Capitol Lake under the Estuary Alternative is unknown (and is likely significantly less than in the Nisqually River estuary, based on the relative sizes of the systems); nonetheless, some number of both hatchery and wild non-natal juvenile Chinook salmon would utilize the estuary habitats for feeding, growth, and avoidance of predators.

Additional literature on potential difference in predation rates on juvenile Chinook in lacustrine systems versus estuarine systems was also considered in the bibliography. Review of this literature indicates that estuarine systems likely provide conditions that result in reduced rates of predation (see response below).

The literature described above is addressed in more detail in the annotated bibliography (see the Fish and Wildlife Discipline Report). During the meeting with fisheries staff at WDFW on these topics, WDFW concurred with the summarized analysis of these studies, and agreed with the overall findings in the Draft EIS relative to salmon and other anadromous fish species. In response to these comments, additional text on estuary function and use by juvenile salmonids has been added to Section 3.5 of Final EIS Supporting Chapter 3.0 and Sections 4.1.3.3 and 5.5.1.2 of the Fish and Wildlife Discipline Report (Attachment 9).



Requests to clarify migration conditions, the existing predation choke points, and how these choke points would change under the alternatives.

Several comments suggested that predation on juvenile Chinook salmon would increase under the Estuary Alternative, asserting that increased predation by marine predators on juvenile Chinook would occur at four “marine predator-friendly compression points.” While the EIS Project Team recognizes the importance of predation as a factor that directly affects juvenile fish escapement, along with habitat conditions, water quality, salinity, and other elements, the existing scientific literature suggests that predation on juvenile salmonids, including Chinook salmon, in an estuarine environment would likely decrease, as compared to the existing conditions of a freshwater man-made lake.

In response to this comment, additional information on existing predatory fish in Capitol Lake has been added to Section 3.5.1 of Final EIS Supporting Chapter 3.0. Under existing conditions, and as discussed in Section 3.5.1 and in the Fish and Wildlife Discipline Report (Attachment 9), populations of several predatory fish species utilize the lake. These include non-native smallmouth and largemouth bass, which are generalist predators, as well as sculpin species and cutthroat trout, all of which prey on juvenile salmonid outmigrants. In addition, WDFW (Freeman, pers. comm.) indicates that although the population size is currently unknown, some number of northern pikeminnow have also become established in the lake. Pikeminnow are voracious predators on juvenile salmon, particularly Chinook and coho salmon, in both riverine and lacustrine environments. Several of these species, including bass and pikeminnow, have been shown to utilize overwater structures (e.g., docks, piers, and bridges) that provide ideal shade and overhead cover for ambush predators. Both the existing railroad trestle and I-5 Bridge crossings over Capitol Lake provide such habitat for freshwater predators in Capitol Lake. Transition of a freshwater lake to estuarine habitat under the Estuary Alternative would result in a substantial decrease in the populations of freshwater predators on Chinook salmon, with the distribution of these species severely limited by the presence of saltwater or brackish water. Although some marine predation on salmonids could occur near these structures, as well as near the mouth of Percival Creek, these would be native marine fish species, and the levels of predation would likely be substantially less than under existing conditions.

Several comments asserted that the 1955 fisheries study in Capitol Lake (Engstrom-Heg 1955) showed that predation of juvenile Chinook salmon in the freshwater lake is rare to negligible. However, this study was conducted 70 years ago, just a few years after establishment of the 5th Avenue Dam. Since that time, there have been substantial changes to the physical, biological, and chemical conditions and processes in the lake that affect the quantity and quality of aquatic habitat, as well as changes in the presence and abundance of lake flora and fauna, including an increase in predators such as bass and pikeminnow.

Scientific literature on juvenile salmonids and estuaries, both in general and in Puget Sound specifically, indicates that estuarine habitat serves to decrease predation risk to small and young fishes by providing refuge to juvenile fish from turbid waters and nearshore habitat complexity (Simenstad et al. 1982; St.



John et al. 1992; Gregory 1994; Gregory and Levings 1998; Bottom et al. 2005; Heck et al. 2000; Alofs and Polivka 2004).

As no predation studies have been conducted in Capitol Lake since 1955, the current levels of predation on hatchery Chinook juveniles in Capitol Lake are unknown; however, under existing conditions, a major “marine water compression point” exists at the outlet of the 5th Avenue Dam, where anadromous fish must enter and exit the lake through a small fish ladder, thus exposing such fish to predation from marine mammal, avian, and piscivorous fish predators that congregate at the existing bottleneck created at the dam outlet. This constriction, currently the largest true “bottleneck” in the system, would be removed under the Estuary Alternative and allow outmigrating fish, including juvenile salmonids, to exit Capitol Lake through an outlet measuring up to 500-foot-wide (at high tide) versus an outlet measuring only 9.5-foot-wide under existing conditions. Levels of existing predation from marine and avian species should decrease substantially with the removal of the chokepoint.

The other “compression points” noted in the comment are the existing Railroad Bridge spanning approximately 210 feet over the North Basin, and the I-5 crossing spanning approximately 200 feet over the South Basin. While these structures represent the narrow points in the basin, and have bridge piers/piling bents in-water, which may represent better habitat for freshwater predators on salmonids (e.g., bass and northern pikeminnow), these crossings are existing structures that have substantial open water segments between bents. Expected predation on salmonids at these locations would likely decrease with the transition to estuarine conditions due to the reduction in freshwater predators that utilize in-water structures for foraging. Although there may be some predation by marine (mammals or fish) or brackish water species at these locations, the overall level of predation would likely decrease in the Estuary and Hybrid Alternatives as the remaining “compression points” in the system are substantially wider and have much more of an open-water component compared to existing conditions where a single, narrow “compression point” exists at the interface of fresh water and salt water.

The EIS Project Team prepared an annotated bibliography of relevant literature on salmonids, including habitat, growth, and predation, that would apply to Capitol Lake (see the Fish and Wildlife Discipline Report). Enterprise Services then met with WDFW fisheries staff to discuss the bibliography and the associated findings. On the topic of predation on juvenile salmon under existing conditions and a comparison of the potential effects on predation under the Estuary and Managed Lake Alternatives, WDFW indicated that the literature presented in the bibliography supports the analysis presented in the EIS that there would be a decreased predation risk to juvenile salmonids under the Estuary Alternative, as compared to both existing conditions and the Managed Lake Alternative. WDFW also agreed that it was not appropriate to assume the findings of Engstrom-Heg (1955) are applicable to subsequent and current conditions and that the vast majority of the scientific literature indicates that estuarine habitat provides conditions that juvenile salmon, including Chinook, utilize to avoid predation. In response to these comments, additional text on estuary function, including the reduction



of predation risks on juvenile salmonids, has been added to Section 4.5 of Final EIS Supporting Chapter and Section 5.5.1.2 of the Fish and Wildlife Discipline Report.

Concerns that freshwater mussels were not addressed in the Draft EIS.

Several comments expressed concern that the Draft EIS did not address potential impacts on freshwater mussels. Some of the comments provided anecdotal information regarding freshwater mussel presence in Capitol Lake. In response to these comments, information on freshwater mussels and documented presence in Capitol Lake, and potential impacts, has been added to Sections 3.5 and 4.5 of Final EIS Supporting Chapters 3.0 and 4.0.

Historic data on freshwater mussel species distribution and population status is generally lacking. One of the major challenges with understanding freshwater mussels is the overlap of characteristics that prevent the mussels from reliably being identified in the field. As scientific techniques advance, especially in genetics, mussels can more reliably be identified to species. Researchers are also reclassifying species, as the original observations in the 1800s based on taxonomy were not always correct.

As described in Section 3.5 (and in more detail in the Fish and Wildlife Discipline Report), the western freshwater mussel fauna from the Pacific region, which includes drainages flowing into the Pacific Ocean, Arctic Ocean, and the endorheic Great Basin, is composed of three genera (*Anodonta*, *Gonidea*, and *Margaritifera*).

A. oregonensis/*A. kenerlyi* are historically found in the Puget Sound region and commonly found in these drainages today. *A. oregonensis* have been observed in Capitol Lake (Pacific Northwest Native Freshwater Mussel Workgroup 2008 Meeting).

A. nuttalliana/*A. californiensis* are not likely to be present in Capitol Lake and found almost exclusively on the Columbia River Basin. *G. angulata* was historically more prevalent in Eastern Washington and found from the Columbia River (Kittitas County); Toppenish Creek (Yakima County); Yakima River (Benton County); the Snake River (Columbia County); Chehalis River (Grays Harbor, Lewis counties); Skookumchuck River (Lewis County); Spokane River (Lincoln County); the Columbia, Okanagan, Similkameen, Spokane and Little Spokane rivers, Osoyoos Lake, Palmer and Hangman creeks, and Spokane Falls (Okanagan County); and Colville River (Stevens County) (WDFW 2022).

M. falcata have been extirpated from much of the mainstem Columbia and Snake rivers; substantial declines, die-offs, or lack of recent reproduction have also been reported from the SanPoil River (Ferry County), Kettle River (Stevens County), the Little Spokane River (Spokane County), Snohomish River, Muck Creek (Pierce County), Bear Creek (King County), and Nason Creek (Chelan County) (WDFW 2022). In addition, this species inhabits cold creeks and rivers with clear, cold water and sea-run salmon or native trout including waterways above 5,000 feet in elevation, which is not present in Capitol Lake.



As described in Section 4.5, *A. oregonensis* found in Capitol Lake may be impacted by the creation of a tidal estuary if the areas they occupy in the lake increase in salinity. Freshwater travel in adult mussels is limited, and they are often negatively impacted in stream and reservoirs subject to significant changes in surface elevation. While some *A. oregonensis* may survive or repopulate in portions of the South Basin where salinity would be low, impacts on *A. oregonensis* would occur. However, the Estuary and Hybrid Alternatives would not put the overall population at risk since this species is not at risk in Washington State, is not a state or federally-listed threatened or endangered species, and is considered “Least Concern” on the International Union for Conservation of Nature (IUCN) Red List.

Requests to clarify the importance of Capitol Lake to bats, the likely impacts of the alternatives, and potential mitigation.

Several comments received on the Draft EIS requested clarification on potential impacts on local bat populations. While some comments suggested that bats could forage in the restored estuarine environment, or shift to other nearby lakes, other comments stated that the Draft EIS did not fully characterize the importance of Capitol Lake to local populations, including the Woodard Bay trestle colony. This colony is located out of the Project Area in Henderson Inlet, and has been described as the largest known maternity colony in Western Washington. Some of the comments assert that the loss of the constructed freshwater lake habitat would cause substantial negative impacts on the Woodard Bay trestle colony. The Draft EIS did, in fact, conclude that the loss of the constructed freshwater lake would result in a significant impact on the regional bat population, and specifically on the Woodard Bay trestle bat colony, mainly from the reduction of foraging sites. This conclusion, however, was based on a limited body of information sources.

Given the listed body of information sources used to support the Draft EIS findings, and in response to comments received on the Draft EIS, the EIS Project Team performed a detailed review of studies and other relevant literature that may be directly applied to the analysis of alternatives, and summarized these studies in an annotated bibliography of relevant literature on bats (see Fish and Wildlife Discipline Report). The EIS Project Team also facilitated discussions with a panel of WDFW biologists, and a local bat expert, during development of the bibliography for the Final EIS.

The purpose of the panel discussions was to review the comments received on the Draft EIS regarding bats, and identify additional data and/or information required to fully support the impact analysis in the Final EIS. Data and/or information was considered and included if it was from a scientific, citable source (i.e., peer-reviewed journal, white paper, technical study, etc.) and/or was conducted in a repeatable, scientific manner. Included were resources that summarized scientific studies and were themselves citable. These resources focused either on the bats and associated habitats in and around Capitol Lake, or on aspects of bat biology and ecology applicable to the species and system that are present but were from other regions. They specifically provided additional information on bat foraging and prey base, habitat associations and preference, and population response to enhancement projects. Collectively,



the information gathered provided additional background and context to support the Final EIS, but also verified data gaps in our understanding of the bats in the area surrounding Capitol Lake.

Bat populations in the Northwest have been only cursorily studied, leaving numerous gaps in the knowledge about their biology and ecology. Although the level of use of Capitol Lake by the bats roosting at the Woodard Bay trestle is largely unknown (see Section 3.5 of Final EIS Supporting Chapter 3.0), the lake provides foraging and/or drinking habitat for reproductive Yuma myotis and little brown bat. It is assumed that other bat species also use the lake for drinking and/or foraging, but the literature suggests that none of these species would use the lake exclusively, but instead, they would utilize a diversity of habitats in the region, including estuarine inlets, riparian corridors, forested habitat, and parkland. None of the species that utilize the lake are state- or federally protected threatened or endangered species, although a “Biodiversity Area and Corridor,” as identified by the state Priority Habitats and Species (PHS) program, has been mapped at Capitol Lake for bats. Additional information is included in Sections 3.5, 4.5, and 5.5 of Final EIS Supporting Chapters 3.0, 4.0, and 5.0 (see also the Fish and Wildlife Discipline Report) to reflect the additional information identified and considered.

To compensate for the data gaps, conservative assumptions that were used during the development of the Draft EIS to reach conclusions on potential impacts were reaffirmed for the Final EIS. As a result, the Final EIS concludes that the loss of Capitol Lake would potentially result in a significant impact on the regional bat population, and specifically on the Woodard Bay trestle colony, mainly from the potential reduction of foraging sites. It is acknowledged in the Final EIS that this conclusion is based on a limited body of information that does not support a full analysis.

Although conversion of Capitol Lake from a constructed, freshwater/open water system to an estuarine system would reduce freshwater foraging and drinking habitat, mitigation opportunities have been considered and proposed. The optimal mitigation strategy for this impact would be to replace the lost freshwater, open water habitat at roughly the same scale. Because of existing constraints in the region, it was determined that it is not practicable to construct freshwater habitat within the area of use of Woodard Bay trestle colony (estimated to be a 12-mile radius from the trestle). In the absence of feasible mitigation to offset the impact, the population could be studied and project effects documented as discussed with the WDFW panel of biologists. Additional mitigation opportunities that are feasible have been put forth in the Final EIS, although they would not directly mitigate for loss of freshwater habitat. These mitigation opportunities are based on the best available science, and will be tailored to support local bat populations by providing and/or protecting roosting habitat, foraging habitat, and/or prey base (see Section 4.5.8 of Final EIS Supporting Chapter 4.0).



Air Quality and Odor

Some commenters expressed concern about odors resulting from low tides under the Estuary and Hybrid Alternatives.

Commenters expressed concern about the potential for increased odors in the Project Area under the Estuary and Hybrid Alternatives due to restored tidal conditions. Potential odor impacts from the Estuary and Hybrid Alternatives are discussed in Sections 4.7.5.1 and 4.7.6.1 of EIS Supporting Chapter 4.0, which found that impacts would be less than significant in consideration of: (1) the variable tides and tidal range of Puget Sound; (2) the low intensity of odors expected to be produced by the estuary, similar to estuaries elsewhere within Puget Sound; and (3) the naturally occurring character of the odor produced by estuaries. Therefore, no mitigation is needed or proposed.

The EIS recognizes that odor emissions from estuaries are not constant, and that natural phenomena can occur that result in elevated hydrogen sulfide (H₂S) generation at times. These estuary odors would be similar to odors currently experienced in downtown Olympia and along the Port of Olympia peninsula from tideflats within Budd Inlet. Additionally, updates in Sections 4.7.5.1 and 4.7.6.1 recognize that other odors associated with the Estuary and Hybrid Alternatives may also arise following construction. Odors following removal of the 5th Avenue Dam would be a function of the decomposition of vegetation from the freshwater basin upon exposure to the tidal cycle and salinity. Odors may also be experienced in the future, much like they can be today, from extreme heat events in the Puget Sound region. These odors would be attributable to shellfish and seaweed being exposed to the open air during low tide periods. Such odors are generally a function of polysulfide compounds and are not driven by H₂S. Emissions of these odor compounds are not expected to be routine, and similar odors would be produced from nearby tideflats in Budd Inlet.

The EIS also recognizes that tolerances for estuary odors in downtown Olympia or in nearby residential areas may be less than that of the nearby estuaries' communities, and that for some portion of the population, any increase in estuary odors would be objectionable.

Related comments asked about stories of objectionable odors that emanated from the estuary prior to the 5th Avenue Dam construction. As discussed in Section 4.7.5.1, historical and anecdotal evidence of pre-dam odors (prior to 1951) is not reliable because they cannot be attributed to specific odor sources given the changes to discharges into the waterbody since that time. There have been many changes in sewage management, industrial activities and related discharges, and other unknown contributors in the Project Area since that time.



Draft EIS comments included requests for further clarification of the carbon sequestration potential of the alternatives.

As described in Section 3.7.3 of EIS Supporting Chapter 3.0, methane emissions are produced in all marsh systems where anaerobic conditions allow microbes to decompose organic matter. It is recognized that the net effect of marsh systems on greenhouse gases (GHGs) can vary widely from a net negative to a net positive, depending on the salinity and biomass of the system. However, studies have shown that freshwater systems produce more methane than brackish systems, and saline wetland systems produce negligible amounts of methane. As described in the Text Box in Section 4.7.5 of EIS Supporting Chapter 4.0, the increased salinities under the Estuary Alternative suggest that less methane would be released compared to the No Action or Managed Lake Alternative.

A related comment requested clarification of the carbon sequestration potential under the Estuary and Hybrid Alternatives given that most of the area would convert to tideflats and not vegetated marsh. It is true that unvegetated tideflats do not actively sequester carbon as much as vegetated marsh. However, tideflats are likely to maintain the pool of carbon, and tideflats release less methane compared to the permanently submerged bottom sediments in a freshwater system. Also, note that 85 and 82 acres of vegetated marsh would be constructed as part of the Estuary and Hybrid Alternatives, respectively, which would sequester more soil carbon through the biomass in the soil than would be expected in open water habitats under the Managed Lake and No Action Alternatives. This has been clarified in Section 3.7.3 of Final EIS Supporting Chapter 3.0.

The carbon sequestration potential was not quantified for this EIS. Numerical quantification of carbon sequestration rates involves detailed estimates of projected salinities, vegetation communities, primary productivity sedimentation rates, sediment chemistry, and climatic conditions. The acquisition and development of this information is beyond the scope of this EIS. Instead, expected trends in carbon sequestration are described in the EIS at a high-level for each alternative to illustrate comparative differences.

Draft EIS comments included requests to clarify consistency of the alternatives with the Thurston Climate Mitigation Plan.

The Draft EIS and Final EIS describe the GHG emissions from construction and operation of the action alternatives within the context of the regional goals for GHG emissions described in the 2020 Thurston Climate Mitigation Plan. However, no assertion was made as to the consistency of the alternatives relative to the mitigation plan due to the mixed picture of the alternatives. For example, the Managed Lake Alternative would have the least amount of GHG emissions related to equipment use from construction, but is expected to have the highest operational emissions related to dredged material disposal. The Managed Lake Alternative would also have more methane releases and less ability to sequester carbon. The Estuary Alternative, in contrast, would have more GHG emissions related to equipment use from construction, but would have lower operational emissions related to dredged



material disposal, less methane released, and more ability to sequester carbon. Sections 4.7.5 and 4.7.6 of Final EIS Supporting Chapter 4.0 have been revised to clarify that the Estuary and Hybrid Alternatives include one of the strategies (carbon sequestration) included in the Thurston Climate Mitigation Plan.

Importantly, the relative GHG equipment emissions depend on the type of dredged material disposal method (upland or in-water) that would occur for long-term management of the alternatives. Upland disposal requires trucking of the dredged sediment to a landfill approximately 250 miles from the Project Area, whereas much more sediment can fit on a barge and be taken to an in-water disposal site if the material is suitable. Upland disposal is assumed to be the only feasible disposal option for the Managed Lake Alternative, whereas in-water disposal is assumed feasible for the Estuary and Hybrid Alternatives. These assumptions are reflected in the calculations of operational emissions.



Land Use, Shorelines, and Recreation

Requests to clarify if project alternatives support the City of Olympia Shoreline Master Program.

The City of Olympia in their comments submitted on the Draft EIS stated that the City does not view all project alternatives as supporting the City of Olympia Shoreline Master Program. In response to these comments, revisions were made to Section 4.8.3.3 of Final EIS Supporting Chapter 4.0 to clarify that not all action alternatives would directly support the City of Olympia's SMP restoration priorities for the Budd Inlet estuary, and in Section 4.8.5.3 to acknowledge that the Estuary Alternative would accomplish Olympia SMP restoration priorities for the Budd Inlet estuary. No clarifications were needed in Section 4.8.4.3 (Managed Lake) as it already acknowledged that the Managed Lake Alternative does not directly support the City's restoration priorities for the Budd Inlet Estuary.

Requests to better describe differences in opportunities for water-based recreation opportunities amongst the alternatives.

As noted in the Draft EIS and Final EIS, all action alternatives would improve opportunities for recreational boating, but the opportunities differ. These distinctions in the recreational benefits were not listed in detail in the Draft EIS. The following discussion distinguishes the benefits among the action alternatives.

The Managed Lake Alternative would restore nonmotorized boating, which could include sailing and sailing lessons – this was explicitly mentioned in some comments. Boating could occur regardless of the tide cycle because the 5th Avenue Dam would remain under this alternative. The same would be true of the Hybrid Alternative, but the impounded area would be much smaller.

Under the Estuary Alternative, boating would also be restored but the extent of boating would be subject to tide cycles. Section 5.5.2.2 of the Discipline Report and Section 4.8.5.2 of Final EIS Supporting Chapter 4.0 have been revised to acknowledge that the longest period of daylight hours with low tide is during the summer, which would restrict boat use during certain summer daytime hours. Nonmotorized boating could occur in the North Basin at higher tides, with adequate water depth. Boating would be restricted to the main channel at low tides, where depths would be greater; however, the current would be a factor that could preclude some vessels or inexperienced recreationalists.

Boating in Budd Inlet, including sailing lessons, would not be adversely affected by any of the alternatives because the project would not change inundation of that area.

Tidal currents are a common consideration for boaters in Puget Sound. The Estuary Alternative would restore boating access to areas with increased tidal currents.



As described in Section 2.4.7 of EIS Supporting Chapter 2.0, the boat launch at Marathon Park is conceptually designed to extend approximately 100 feet from the existing shoreline. This would improve access at all tidal cycles. The design of this boat launch would be refined during the future design and permitting phase of the project.

Requests to better describe differences in how the project alternatives would support/not support future recreational opportunities (e.g., swimming).

As noted in the Draft EIS and Final EIS, all action alternatives would improve water quality and address invasive species in the Project Area. These efforts would improve conditions for swimming. However, because formal swimming facilities are not part of any action alternative, the EIS does not speculate on the ability of the action alternatives to support swimming. Operating formal swimming facilities is not within the scope of services or agency mission of Enterprise Services. If an entity were to pursue swimming in the future, the opportunities would differ among the action alternatives. The Managed Lake and Hybrid Alternatives could support freshwater swimming, if water quality criteria are achieved. Under the Estuary Alternative and within a portion of the Hybrid Alternative, swimming could potentially be supported, and would occur in a saltwater environment. Swimming would not be well supported at low tides, and tidal currents would be a potential hazard for swimmers.

Requests to provide linkages, or an integrated plan of shoreline access, in consideration of existing and planned regional trails and City of Tumwater trails.

Figure 3.8.4 of the Draft EIS and Final EIS shows existing trails in the Project Area, including the constructed portions of the regional trail system. The project would not affect or preclude any planned regional trail, including the regional trails planned along the Deschutes River, Percival Canyon, and West Bay. Providing additional trail connections is beyond the scope of this project given the project goals established by Enterprise Services and project stakeholders. The design and permitting phase will include a public process and coordination with local park agencies to ensure compatibility with future park and trail plans.



Cultural Resources

Draft EIS comments included requests for a more balanced description of historic built environment and precontact and Indigenous use context and history.

The Draft EIS contains substantial information on historic built environmental resources and comparatively less information on precontact and Indigenous use context and history. As acknowledged in the Cultural Resources Discipline Report (Attachment 13), this was due to the large volume of available information on historic built environment development context and history of the Capitol Lake area, and in response to scoping comments that requested that the EIS provide a thorough understanding of potential impacts on the historic built environment. Given that this was an area of repeated concern as expressed in many of the comment letters, the Final EIS includes the following changes:

- Additional information has been included in Sections 3.9 and 4.9 of the Final EIS supporting chapters, and in the Cultural Resources Discipline Report (Attachment 13) to describe the precontact-era and Indigenous use context in the study area.
- Some of the information on the historic built environment presented in Sections 3.9, 4.9, and 5.9 of the Final EIS supporting chapters, and in the Cultural Resources Discipline Report (Attachment 13) has been removed or summarized, directly in response to comments to present a more balanced level of information between historic built environment and cultural elements.
- The analysis and presentation of impacts under the Estuary and Hybrid Alternatives in Sections 3.9, 4.9, and 5.9 of the Final EIS supporting chapters have been updated relative to the State Historic Preservation Officer (SHPO) and the Department of Archeology and Historic Preservation (DAHP) Determination of Eligibility, which has further reduced the volume of information on historic built environment resources.

As described in Section 2.1 of the Cultural Resources Discipline Report, archaeological resources are commonly classified by whether they date to the period *before* contact between Native American and European American people (“precontact era”) or *after* contact (“historic era”). In the State of Washington, 1790 AD is often used as the dividing line between the precontact era and historic era.

Draft EIS comments included requests to include identification of Traditional Cultural Properties, Cultural Landscape, and/or Archaeological District.

Several comments requested that the Project Area be considered as a Traditional Cultural Property, Cultural Landscape, or an Archaeological District due to the complex precontact and historic period activities that occurred in the area.



As described in Section 3.9.3 of EIS Supporting Chapter 3.0, there are no documented Traditional Cultural Properties on file with DAHP. This was confirmed with DAHP during preparation of the Draft EIS. Although no Traditional Cultural Properties are documented at this time, the EIS Project Team recognizes that they could be identified in the future through consultation with local area tribes. Members of the EIS Project Team coordinated with representatives of the Squaxin Island Tribe in 2019 and 2022 to understand if there are cultural areas of concern of which the team needed to be aware. Tribal representatives expressed concern for the presence of recorded and probable unrecorded archaeological sites. The EIS Project Team anticipates further consideration of archaeological sites as well as potential Traditional Cultural Properties, Cultural Landscapes, and/or Archaeological Districts as part of consultation under Section 106 and/or Executive Order (EO) 21-02 during the design and permitting phase for the selected alternative. Identifying potential Traditional Cultural Properties and Cultural Landscapes is typically outside the scope of a SEPA EIS, and typically cannot be ascertained based on published historic and ethnographic sources alone. Identifying Traditional Cultural Properties and Cultural Landscapes commonly involves extensive consultation with groups and individuals who have special knowledge about and interests in the history and culture of the area to be studied. In the case of Traditional Cultural Properties, this means those individuals and groups who may ascribe “traditional cultural significance” to a location or locations (National Register Bulletin 38 *Guidelines for Evaluating and Documenting Traditional Cultural Properties*).

One of the comments suggested that a Cultural Landscape designation could extend from Tumwater Falls to north of the Port of Olympia, with a Treatment Plan to guide future decisions regarding conservation, protection, and preservation, and an Interpretive Plan to share traditional cultural knowledge. The recent Maritime Washington National Heritage Area was suggested as an example that could provide support and momentum for a Deschutes Estuary Cultural Landscape designation. It was suggested this could be funded as a mitigation measure and possibly with grant support. Section 4.9.7 of Final EIS Supporting Chapter 4.0 describes that additional consultation will occur as part of the Section 106 and/or EO 21-02 consultation processes, and this will likely include further evaluation of the Project Area as a Traditional Cultural Property, Cultural Landscape, and Archaeological District.

Related comments stated that since the Draft EIS included recommendations for a new historic district, it should also recommend a Cultural Landscape or Archaeological District. Note that the Final EIS has been updated to reflect SHPO and DAHP’s determination that Capitol Lake (Des Chutes Basin Project) is not eligible for listing in the National Register of Historic Places (NRHP), which removes reference to the recommended historic district. Therefore, the Final EIS does not recommend either new historic districts or a new Cultural Landscape or Archaeological District.



Draft EIS comments included requests for greater consideration of tribal resources and tribal values in the EIS.

Tribal resources are addressed in Sections 3.5.3 and 4.5.7 of EIS Supporting Chapters 3.0 and 4.0. The term “tribal resources” refers to the collective rights and access to traditional areas for gathering resources associated with a tribe’s sovereign or formal treaty rights. Tribal resources include plants, wildlife, fish, and shellfish used for commercial, subsistence, or ceremonial purposes. The EIS considers information about fishing, hunting, gathering, and traditional areas, including practices and areas used by the tribes, provided by the tribes and agencies during the EIS process. Making a determination of significance related to treaty-reserved rights is not part of this SEPA EIS. Mitigation associated with potential impacts on tribal resources would be addressed directly with affected tribes during government-to-government consultations under Section 106 and/or Executive Order 21-02 during the design and permitting phase. Mitigation measures are expected to be developed as part of the permitting, regulatory, and consultation processes for fish species and habitat, wildlife, and cultural resources, which could also affect tribal resources.

Section 4.14.3.4 of EIS Supporting Chapter 4.0, *Value of Ecosystem Services*, is the focus of the discussion on tribal values, and describes how the project alternatives may enhance cultural values for some and maintain status quo for others. In response to comments, clarifications have been made in the Final EIS to more fully capture the range of values (cultural, heritage, spiritual, and educational) derived from the Project Area.

Draft EIS comments included questions about how Enterprise Services sought tribal input on the EIS.

Enterprise Services recognizes that the Capitol Lake – Deschutes Estuary and surrounding area is of great importance to the Squaxin Island Tribe and other local area tribes, and has engaged the tribes during the EIS process. Engagement with the tribes is summarized in EIS Supporting Chapter 8.0. As described in Sections 8.2 and 8.3, representatives from the Squaxin Island Tribe have participated in the Executive, Technical, and Funding and Governance Work Groups. The EIS Project Team has coordinated with the Squaxin Island Tribe, the Chehalis Tribe, and the Nisqually Indian Tribe during the development of the EIS to request information relevant to cultural resources within the study area. The EIS Project Team also met separately with the Squaxin Island Tribe in 2019 to discuss the project and EIS effort, and to get early feedback on the EIS analysis. During the development of the EIS, the EIS Project Team requested information relevant to cultural resources within the study area from the Squaxin Island Tribe, the Chehalis Tribe, and the Nisqually Indian Tribe. The EIS Project Team also coordinated with the Squaxin Island Tribe, Nisqually Indian Tribe and the Confederated Tribes of the Chehalis Reservation fisheries group to obtain information in support of the EIS analysis.



Concerns that the Draft EIS included a recommendation of eligibility for a new historic district (the Des Chutes Basin Historic District).

The Final EIS has been updated to reflect Determinations of Eligibility received from DAHP subsequent to the Draft EIS. See Sections 3.9, 4.9, and 5.9 of the Final EIS supporting chapters for updates to the analysis and impact conclusions as a result of DAHP's Determinations of Eligibility. See also the Cultural Resources Discipline Report (Attachment 13 to the Final EIS). The SEPA process requires the identification of historic resources located on or near the site, and considers resources both listed and eligible for listing in national, state, or local historic registers equally.

When research and field work conducted during the preparation of the Draft EIS identified potential eligibility, the EIS Project Team included those in the SEPA evaluation, allowing consideration by DAHP and until a formal Determination of Eligibility was received from DAHP. Although some evaluation of individual resources had taken place previously, the area had not been evaluated in the context of a historic district collectively built as a single project. This prompted the review of Capitol Lake for potential historic district eligibility based on its original design and intended role. DAHP determined that it is not eligible for listing in the NRHP, as it lacked integrity to convey its original design and intended role. The Final EIS has been updated accordingly.

Requests to consider benefits that the Estuary Alternative would have on the existing historic districts in the study area.

Some comments suggested that the Estuary Alternative would benefit existing historic districts in downtown Olympia and Tumwater whose period of significance pre-dates the 5th Avenue Dam. The comments further suggested that the presence of the 5th Avenue Dam, 5th Avenue Bridge, and Deschutes Parkway should be assessed as potential impacts on existing districts, and therefore their removal should be considered a benefit.

Historic districts are established so that the elements that contribute to a historic district reside within the district boundaries. As such, boundary selection for the Olympia Downtown Historic District, and the New Market: Stehtsamish (prehistoric) Tumwater Historic District encompassed those resources that contribute to each district's historic significance. The district nominations did not identify resources in the Project Area as impacts on the integrity of the districts at the time of listing. The Olympia Downtown Historic District nomination addresses the positive influence that waterfront elements had on its development patterns, stating "The Olympia Downtown District is distinguished by its setting on the shores of Budd Inlet of Puget Sound and Capitol Lake." The nomination also notes that "No other community in Washington is comparable to this downtown area which offers two types of waterfront access, (salt and fresh water), buildings reflecting many architectural styles and eras, and important associations with territorial and state capitol history reflected in its buildings and sites" (Stevenson 2004). None of the waterfront elements were included in the district boundaries. The New



Market: Stehtsamish (prehistoric) Tumwater Historic District does not address Capitol Lake in the nomination as either a positive or diminishment to the district.

Concern that the Draft EIS did not analyze the historically significant design principles of the State Capitol Campus, or the City Beautiful Movement.

Several comments asserted that Capitol Lake is part of the Washington State Capitol Historic District, which is on the NRHP. There was concern that the Draft EIS did not evaluate impacts on the historic district from the project alternatives.

The elements of Capitol Lake are not within the boundary of the Washington State Capitol Historic District. This prompted the review of Capitol Lake for both individual and historic district (Des Chutes Basin Project) eligibility based on the original design, its intended role relative to the Capitol Campus, and its relationship to the City Beautiful Movement conveyed in the design principles employed by Wilder & White and the Olmsted Brothers for the Washington State Capitol Historic District. DAHP determined that neither the Des Chutes Basin Project nor the Capitol Lake – Deschutes Estuary are eligible for listing in the NRHP, as they lack integrity to convey their original design and intended role. The historic resources contributing to the Washington State Capitol Historic District substantially pre-date completion of Capitol Lake, and were listed as a historic district to the National Register without including Capitol Lake, which existed at the time of listing. DAHP's determination of not National Register eligible for both the district (Des Chutes Basin Project) and just Capitol Lake as a singular resource due to a lack of integrity eliminates the potential that Capitol Lake could be considered as eligible as part of an expansion of the Washington State Capitol Historic District.

Concern that the Draft EIS does not give enough attention to the Tumwater Historic District, including the historic Brewery Complex (Old Brewhouse Tower and adjacent buildings).

The Tumwater Historic District is described in the Sections 3.9.2.2, 4.9.2.2, and 4.9.4.2 of the EIS supporting chapters and in the Cultural Resources Discipline Report (Attachment 13). In response to these comments, additional clarifications have been added to Section 5.5.2.2 of the Cultural Resources Discipline Report describing that the estuary context and setting under the Estuary and Hybrid Alternatives would be more compatible with the historic waterfront character, particularly with regard to the setting and context for the historic brewery area. Related to this concern were requests for information on how the alternatives could improve the practicability of restoring or rehabilitating the Olympia Brewery. Because the project would not result in changes in the Tumwater Historic District, evaluating restoration opportunities for the historic Brewery Complex is outside the scope of this EIS.



Visual Resources

Requests to consider public opinion and the historic aesthetic context.

Several comments stated there was a lack of consideration of public opinion and the historic aesthetic context of Capitol Lake in the Draft EIS.

Section 4.10 of EIS Supporting Chapter 4.0 recognizes that the aesthetic value a viewer places on the landscape is subjective; some viewers prefer views of the open water of a lake to that of an estuary, and the reverse is true for other viewers. This is illustrated in the range of opinions expressed on the aesthetics of the project in the comments on the Draft EIS, and in other public processes before the EIS. While these differing opinions are acknowledged, the EIS analysis does not attempt to determine which group of these viewers is larger, nor would there be a reasonable way to conduct such a survey. Instead, the EIS analysis relies on policies adopted by the Cities of Olympia and Tumwater through which local priorities and requirements related to visual resources have been documented.

As described in Section 3.3 of the Visual Resources Discipline Report (Attachment 14), there is no prescribed method for visual resource analysis in the SEPA rules or in Enterprise Services' SEPA Policies. For this EIS, the Visual Resources Assessment Procedure for U.S. Army Corps of Engineers provided an accepted framework for visual assessment of the scale and character of the project. Potential compatibility impacts were evaluated in consideration of applicable policies to determine significance of the impacts. These policies were used to guide determinations of the compatibility of visual elements. They provide a context for determining whether the project is objectively harmonious with other landscape elements and characteristics, as envisioned in the adopted policies of the lead agency (Enterprise Services) and the jurisdictions affected by the project. The analysis of visual resource impacts and benefits was based on key factors often used in analysis of visual effects (spatial dominance, scale and contrast, and compatibility), and how those factors would change relative to existing conditions. An EIS directs an agency to compare changes to existing conditions rather than historic conditions. The analysis acknowledges that the scale of visual change under the Estuary or Hybrid Alternative would be substantial, and would be noticeably different from existing conditions at low tide levels. Despite the scale of the change, the Draft EIS and Final EIS describe that the landscape would remain natural in character and visually compatible, unified, and harmonious with its setting among parks and a scenic drive.

Some commenters object to calling the setting "natural," because the setting consists mainly of parks and greenbelt. City policies refer to the setting as "natural," and use of the term in the EIS analysis is appropriate. The setting is relatively natural within the context of an urban area. It is acknowledged that the setting is not a wild or rural environment, and the EIS does not refer to it as such.

As noted in the Draft EIS and Final EIS, existing policies support the preservation and enhancement of shoreline views, especially of natural shorelines, but do not express a preference for one or the other of



these types of shoreline views (e.g., lake or estuary). Therefore, the analysis did not place a higher value on one or the other of these shoreline types, but rather, considers the dominance, scale and contrast, and compatibility of the Estuary Alternative and its primary components. The EIS does acknowledge that the change from a lake to an estuary could be perceived as an adverse impact by some people, but lacking a policy preference and acknowledging that this perception is not shared by all, such a change is not considered an adverse impact in the EIS.

The historic aesthetic context includes a long period during which the Project Area was a relatively undisturbed estuary, several decades over which the estuary was increasingly modified and urbanized, and a recent period when construction of the 5th Avenue Dam created Capitol Lake. For questions regarding the historic aesthetic considerations, the Cultural Resources Discipline Report (Attachment 13) describes the complex historic development context that has influenced the visual character of Capitol Lake. The design for Capitol Lake reflected the aesthetic sensibilities of the time. Since the issuance of the Draft EIS, the Washington Department of Archaeology and Historic Preservation (DAHP) has issued a formal determination of eligibility and has determined that Capitol Lake is not eligible for listing in the National Register of Historic Places.

Note that the economics analysis also considered “visual aesthetics” as part of evaluating the demand for and value of ecosystem services, and described that changes in value of visual aesthetics depend on individual preferences between the distinct visual amenities of the different alternatives. See Section 4.14 of EIS Supporting Chapter 4.0 and the Economics Discipline Report (Attachment 18).

Requests for additional photo depictions of an estuary.

Several comments requested that photos of the historic estuary be included, and other comments requested that photos of similar, nearby estuaries (e.g., Mud Bay) be included to represent what the Estuary Alternative could look like. The assessment of visual resource impacts in the Draft EIS and Final EIS considers the changes that would occur compared to existing conditions (or baseline conditions). In many cases, the historic photos (pre-dam) would not reflect how the Estuary or Hybrid Alternative would look in the future due to historic-era development and activities that are no longer present along the shoreline. However, several historic photos of the basin (pre-dam) are included in the Cultural Resources Discipline Report (Attachment 13).

Regarding photos of other estuaries to depict what the Estuary and Hybrid Alternatives would look like, visual simulations were developed for the alternatives, including the Estuary and Hybrid Alternatives at low tide levels, to provide representative views that illustrate what the basin could look like. See Section 4.10 of EIS Supporting Chapter 4.0. In preparing these simulations, visits were made to nearby estuaries at Mud Bay and the Nisqually Delta to ensure that the simulations reflect likely conditions that would occur in the Project Area.



Requests for more information on the design and mitigation related to the barrier wall under the Hybrid Alternative.

Several comments requested more information on potential mitigation measures, including suggestions to construct landscaped islands along the barrier wall to minimize the visual impact. As described in the Draft EIS and Final EIS, if the Hybrid Alternative is selected for long-term management, the wall design and wall design treatments (mitigation) would be further developed. The Draft EIS and Final EIS also describe that significant adverse impacts would likely remain, even with the application of design treatments, due to the scale and contrast of the wall (see Section 4.10.8 of EIS Supporting Chapter 4.0). It is acknowledged that a landscaped island constructed along the west face of the barrier wall could potentially reduce the level of visual impact, but it would mean that the reflecting pool would be smaller, or the river channel moved westward, in order to address flow and erosion dynamics.

Other comments requested more details on the design and height dimension of the barrier wall. The characterization of visual impacts is based on a conceptual level of design, as is appropriate to support a SEPA EIS analysis. The barrier walls as presented in the visual simulations (Figures 4.10.12 and 4.10.13 of the Draft EIS and Final EIS) illustrate the approximate scale and visual impact.

Requests for new or refined visual simulations.

The process and rationale for selection of the key viewpoints used for the visual simulations in the Draft EIS and Final EIS are described in Section 3.3.1.3 of the Visual Resources Discipline Report (Attachment 14). The key viewpoints are intended as areas that would have the most meaningful changes under each alternative and provide representative views to illustrate potential impacts in the Project Area.

Several comments requested a new visual simulation from Deschutes Parkway to better illustrate the overall impact of the barrier wall under the Hybrid Alternative. The visual simulations included in Figures 4.10.12 and 4.10.13 of the Draft EIS and Final EIS illustrate the view of the barrier wall from the Marathon Park boardwalk at high and low tides. The barrier wall would similarly block views across the North Basin from Deschutes Parkway, although the barrier wall would be farther away. In addition, depending on the viewer's location along the parkway, the entire scope of the barrier wall length may not be visible to the viewer due to intervening vegetation. The view simulated from Marathon Park shows visual impacts that would be more conspicuous than from Deschutes Parkway, but similar enough that a reader can understand that similar impacts would be visible from the parkway. No additional visual simulation was determined necessary to illustrate the potential adverse visual impacts.

Other comments requested new visual simulations from Heritage Park and from a location to the northwest to illustrate changes that would occur under the Estuary and Hybrid Alternatives with removal of the 5th Avenue Dam, the new 5th Avenue Bridge, and the Deschutes Parkway realignment.



An additional simulation from the northwest to encompass the removal of the 5th Avenue Dam, the new bridge, and changes to the Deschutes Parkway (under the Estuary and Hybrid Alternatives) was requested; however, this visual simulation would not provide additional information on potential adverse visual impacts under the Estuary and Hybrid Alternatives that would change the analysis or its findings. An additional visual simulation from the suggested location at Heritage Park was not done as it would be similar to the simulation in the EIS at the Eastern Washington Butte, and was not determined necessary to capture or evaluate potential adverse visual impacts.

Comments on visual simulations included in Draft EIS Executive Summary.

Several comments indicated that the limited set of visual simulations included in the Draft EIS Executive Summary is misleading since it does not include simulations of the Estuary and Hybrid Alternatives at low tide. In response to these comments, visual simulations of the Estuary and Hybrid Alternatives at low tide (previously in the Visual Resources section of the EIS only) have been added to the Final EIS Summary.



Sediment Quality

Under the Estuary and Hybrid Alternatives, sediment from the Deschutes River would be transported into West Bay and there would be areas where it would cover known contaminated sediments. Comments requested clarification on whether this process would provide an environmental benefit, or not.

Settling of clean sediment over contaminated sediment is a common strategy in remediation design and reduces concentrations of surface sediment contamination over time—this is referred to as natural recovery or monitored natural recovery. The natural recovery of contaminated sediments occurs where newly deposited clean sediments are mixed with the existing contaminated sediments by various biological processes called bioturbation. In addition to natural degradation of some organic chemicals, concentrations of sediment contaminants become diluted by new deposits and ultimately decrease to levels that do not impair or significantly bioaccumulate in aquatic organisms.

Sediment cleanup strategies identified by the Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (USEPA) include monitored natural recovery, which is based on the process of diluting contaminated sediments with new, uncontaminated sediment, and is often used in areas with relatively low sediment contamination and a clean sediment supply. Higher concentrations of contamination require removal by dredging or in situ sediment remediation, which can include capping (the addition of a thick layer of clean materials to prevent upward migration of contaminants into the biologically active zone), enhanced natural recovery (the addition of a thin layer of clean materials to dilute contaminant concentrations in the biologically active zone), and various amendments (the addition of an organoclay mat to prevent upward migration of contaminants; the addition of activated carbon to adsorb organic chemicals, phosphate additives to treat metals, and other additives to adsorb, deactivate, or degrade contaminants). Sediment cleanup in Puget Sound primarily consists of monitored natural recovery because most cleanup areas have relatively low contaminant concentrations; the next most common remedial strategies are in situ sediment remediation for moderate contaminant concentrations and dredging for high contaminant concentrations.

Ecology would consider the increased deposition of clean sediment in parts of West Bay to be natural recovery. This may occur on the western shoreline of West Bay where sediment can accumulate without impacting navigation; the western shoreline is currently characterized by shallow intertidal habitat and not as a navigational area.

Representative samples have been taken from the sediment that would be deposited by the Deschutes River into West Bay; this sediment has low contaminant concentrations that would be considered clean and would likely work well for natural recovery in parts of West Bay, especially the shallower areas of intertidal habitat on the western shoreline. It is assumed that dredging (removal), capping, or dredging



followed by capping would be required for areas with greater levels of contamination, which are largely in the deeper areas along the eastern shoreline that are used for navigation.

Remediation of contaminated sediments, through dredging and/or capping in these areas, where natural recovery is not recommended, is the responsibility of the Port of Olympia (and potentially other parties) and is expected to be completed before removal of the 5th Avenue Dam. The EIS Project Team, in coordination with the Port of Olympia, has assumed that the eastern shoreline where there is known sediment contamination would be dredged in the next 10 years, before construction of the Estuary or Hybrid Alternative would be complete. This is consistent with recent actions taken by the Port of Olympia to reinitiate remedial design and to have documents ready to conduct the required dredging in the late 2020s. In addition to addressing sediment contamination, dredging is also needed because navigation is impacted in these areas and dredging would restore authorized navigational depths.

In the future, maintenance dredging for the Estuary and Hybrid Alternatives would remove the recently deposited clean sediment from navigation areas along the eastern shoreline of West Bay that had been remediated during earlier Port of Olympia-led sediment cleanup. The post-dredge sediment surface of these areas would be the same elevation and of similar sediment quality to the surface left after sediment remediation and therefore is not expected to require additional dredging or remediation efforts.



Transportation

Comments requested clarifications on the option of transporting dredge sediment by rail for Managed Lake Alternative.

As described in the Transportation Discipline Report (Attachment 16), because the project site is directly served by rail, it may be possible to use rail to haul sediment removed during future maintenance dredging from the project site. The feasibility of using rail would depend on a number of factors to be determined prior to the future maintenance dredge event, which would occur in the 2050s. These factors include whether or not the destination for dredged sediment is adequately served by rail, availability of offloading equipment at the final destinations, and feasibility of the rail line to provide service in conjunction with other commitments. The EIS acknowledges that the use of rail to transport dredged sediment may be feasible and that it would reduce truck trips and may lower traffic operational impacts along haul routes. It would also reduce costs compared to hauling by trucks; and all reasonable cost-saving measures would be explored prior to completion of the work.

To haul dredged materials entirely by rail would require an average four or five train trips per weekday (20 to 25 trains per week) over the entire 18-month maintenance dredge period, which may be more than could be supported with the rail infrastructure that is available now and in the future. For comparison, the existing line carries about three trains per week. Additionally, this volume of train trips would degrade vehicle traffic operations at the at-grade rail crossings. As described in the Transportation Discipline Report Section 5.3.1.6, “each 10-car train is expected to block vehicular traffic for 2 to 4 minutes at each at-grade crossing.” (See Figure 4.4 for a map of rail lines.) This level of delay would be rated as a poor (Level of Service [LOS] F) condition for a vehicle intersection. Therefore, it is expected that the effect of maintenance dredging on traffic operations would still be significant with the use of rail, or a combination of truck and rail. The traffic impacts that would result from recurring maintenance dredging for the Managed Lake Alternative, utilizing trucks, rail, or a combination of both, are considered to be significant.



Economics

Comments stated that the Draft EIS did not provide a detailed analysis of the likely economic impact of West Bay maintenance dredging on boating in West Bay under the Estuary and Hybrid Alternatives.

As described in EIS Supporting Chapters 2.0 and 4.0, Sections 2.3.1 and 4.2.5, maintenance dredging in West Bay is estimated to occur every 5 to 6 years at the Olympia Yacht Club, every 10 to 12 years at other West Bay marinas, and every 20 to 24 years to maintain marina access out to the Federal Navigation Channel, depending on the alternative. Actual dredge implementation would be informed by sediment monitoring (at least annually), and dredging would only occur when needed to avoid significant impacts to navigation in West Bay. The estimated duration of a dredge event is 2 months within affected portions of the Olympia Yacht Club and in marina access areas, and 1 month at other West Bay marinas, assuming a 10-hour, 5-day-per-week schedule. Dredging would occur only during approved in-water work windows, currently between July 16 and February 15 annually, for these marine waters. Maintenance dredging would follow best management practices and would minimize impacts on marinas by avoiding peak periods of use to the greatest extent possible (i.e., summer months). See the Navigation Discipline Report (Attachment 6), Table 5.7, Maintenance Dredging Production Assumptions for more detail on dredge practices.

The frequency of maintenance dredging in West Bay would increase under the Estuary and Hybrid Alternatives, but would be similar in practice to maintenance activities that the marinas currently perform. In addition to timing dredge activities to avoid times of peak use (dredging would require 2 months within a 7-month in-water work window), dredging would be focused within the marina only where it is needed to maintain depth. Thus, marinas may move vessels to different slips as dredging occurs. Additional details about how dredge implementation would minimize costs and risks to marinas are available in the Navigation Discipline Report (Attachment 6). No additional analysis of the economic impact of West Bay maintenance dredging on marinas and boating has been identified as warranted given the following: (1) practices described in the discipline report would minimize economic impacts on marina operations; (2) work would occur in impacted areas only, and vessels could be moved to other open/adjacent slips in non-work areas; (3) dredging could occur during off-peak seasons; (4) any disruptions are unlikely to have a financial impact beyond what marinas in Puget Sound routinely experience and plan for; (5) based on current conditions within a Memorandum of Understanding that has been developed across the Funding and Governance Work Group (FGWG) for long-term maintenance dredging, marinas would not be required to provide funding for dredging beyond the No Action Alternative; and (6) regardless of this project or the alternative selected for implementation, the marinas have new conditions in DNR leases that will increase the frequency of dredging compared to historic conditions.



Based on coordination with the marinas, it is understood that more than 10% of the slips at each marina in West Bay are routinely vacant. The vacant slips could be used to temporarily moor vessels during maintenance dredge events, which is consistent with general practices to minimize revenue loss during routine marina maintenance activities.

Comments requested that the Final EIS better describe the economic value of recreational boating in West Bay and the direct and indirect impacts of multiple years of construction and maintenance dredging disruptions under the Estuary and Hybrid Alternatives.

In response to these comments, additional information about the economic value of recreational boating in West Bay has been added to the Economics Discipline Report (Attachment 18) and to Final EIS Supporting Chapter 3.0, Section 3.14.

Construction activities are not expected to disrupt operations at the West Bay marinas. In response to comments received on the Draft EIS, Enterprise Services revisited the design and construction approach for the Estuary and Hybrid Alternatives and has adjusted the alternatives to avoid long-term closure of the 5th Avenue Bridge. The 4- to 5-year construction closure of 5th Avenue SW, adjacent to West Bay, is no longer anticipated. Temporary closure, lasting approximately 1 month or less, may occur. No construction activities would occur in West Bay.

Access to the marinas via downtown surface streets would be maintained throughout the duration of the construction period. The in-water work that is needed to construct all alternatives would be contained within the Capitol Lake Basin (upstream of the 5th Avenue Dam) and staged from Marathon Park. Therefore, construction is not expected to disrupt access to, or operations at the marinas.

After construction, maintenance dredging is proposed to avoid significant impacts on the marinas, not to create them. Compared to current practices, maintenance dredging would increase in frequency; depending on which alternative is selected, maintenance dredging is expected to occur every 5 to 6 years at the Olympia Yacht Club and every 10 to 12 years at the other West Bay marinas. Dredging can be scheduled to avoid peak periods of use and is estimated to take 1 to 2 months to complete, focusing on the areas that need dredging based on sediment monitoring, which is unlikely to be the entire footprint of the marina. Dredging would follow best management practices to avoid cost and risk to marina infrastructure and ensure that marinas can operate around dredge activities. These practices would minimize economic disruption to marinas and their customers by limiting changes in access and costs incurred to prepare the marina infrastructure for dredging and then restore it to pre-dredge conditions. The scale of disruption is consistent with routine maintenance that occurs commonly at marinas in Puget Sound (for example, the Port of Everett oversees coordinated maintenance dredging at its marinas, there has been historic dredging at Zittel's Marina in Thurston County, and there are dredge plans to maintain operations at the Oak Harbor Marina on Whidbey Island and at Squalicum Harbor in Bellingham).



Comments stated that the Draft EIS did not describe the direct impacts of the Estuary and Hybrid Alternatives on recreational boating and the marinas if maintenance dredging does not occur or the indirect impacts on waterfront services.

If maintenance dredging does not occur, operations at the West Bay marinas would be significantly impacted over time as sediment accumulates and navigational depths shallow. At the Olympia Yacht Club, if the proposed maintenance dredging does not occur, approximately 10% of the slips could be impacted in approximately 5–6 years after construction. The sediment accumulation pattern would likely be similar to present conditions, with shallower areas in the marina accumulating sediment first and deeper areas remaining accessible. Based on hydrodynamic and sediment transport modeling, the level of anticipated impact could increase under the Estuary Alternative to 20% of marina slips impacted in 12 years, 30% in 18 years, 40% in 24 years, and 50% in 30 years. For the other West Bay marinas, under the Estuary Alternative, it is estimated that 10% of slips could be impacted after 12 years, 20% after 24, and about 25% of slips after 30 years.

This would result in economic costs to the marinas and losses in value to the community associated with the goods and services the marinas produce. Potential costs include reductions in economic well-being of marina customers/members, who could incur additional travel costs, moorage costs, and other personal costs if they have to moor elsewhere; loss of value for community members who benefit from activities and events the marinas support; and changes in tax revenue distribution for local jurisdictions from marina-related economic activity. Assuming that visitation associated with the marinas is not replaced by other uses of the waterfront, indirect effects to downtown businesses—particularly those that cater directly to marina demand such as repair shops and fuel supply—would also experience adverse impacts. In response to this comment, additional discussion has been included in Section 5 of the Economics Discipline Report to clarify the impacts on marinas and the associated economic activity and economic value they support should dredging not occur.

The project includes a plan for maintenance dredging. The FGWG has executed a Memorandum of Understanding to memorialize broad areas of agreement regarding funding for increased maintenance dredging in West Bay through 2050, with opportunity to extend.

Comments included concerns that the economic analysis in the Draft EIS does not address the indirect economic impacts of multi-year closure of the 5th Avenue Bridge under the Estuary and Hybrid Alternatives.

Multiple comments requested that the Final EIS include additional information about design options to avoid and mitigate impacts related to closure of the 5th Avenue Bridge for the Estuary and Hybrid Alternatives, including indirect economic impacts. As a result of these comments, Enterprise Services coordinated with the City of Olympia and identified a new approach to 5th Avenue Bridge replacement that avoids the long-term closure of the 5th Avenue corridor during construction. This new approach has



been incorporated into the Estuary and Hybrid Alternatives, as described in the Global Response for Alternatives.

Comments included concerns that the economic analysis in the Draft EIS does not address the indirect economic impacts of multi-year construction on downtown businesses and Olympia's waterfront.

Section 5.3.1.2 of the Economics Discipline Report (Attachment 18) describes how construction activities of all types, durations, and magnitudes are not uncommon in downtown. Final EIS Supporting Chapter 5.0, Section 5.14.2.2, has been expanded to bring in more of the information from the discipline report. The new approach to the 5th Avenue Bridge replacement avoids the long-term closure of 5th Avenue SW under the Estuary and Hybrid Alternatives, and brings this project in line with typical construction-related disruption in downtown Olympia.

Comments requested a description of how ongoing sediment management would be funded/implemented for all project alternatives, including any impacts on jurisdictions that would bear the costs of ongoing maintenance.

The Final EIS and Economics Discipline Report have been updated to reflect progress of the FGWG regarding development of a funding strategy for ongoing sediment management (see Supporting Chapter 7.0 of the Final EIS and the Funding and Governance Memorandum of Understanding [MOU] [Attachment 23]). This funding strategy is specific to the Estuary Alternative. Under the Managed Lake Alternative, the State of Washington would be responsible for funding sediment management costs within Capitol Lake; no project-related sediment management would occur under the No Action Alternative. Funding for sediment management under the Hybrid Alternative has not been analyzed.

The Economics Discipline Report describes the benefits and economic activity that ongoing sediment management under the Estuary Alternative would support related to maintaining the working waterfront and recreational boating in West Bay. It also notes that providing funding for sediment management would produce opportunity costs for local governments, who allocate financial resources to this project instead of other local and regional priorities. The estimated sediment management costs through 2050 are provided in the MOU and represent the level of funding support for each jurisdiction that contributes funds. The extent and magnitude of the opportunity costs associated with this funding would depend on what the funders would have spent the money on if the project did not happen. These long-term financial arrangements have important economic implications (both in terms of ongoing benefits and potential tradeoffs) but will remain somewhat uncertain until FGWG members finalize a binding Interlocal Agreement and Enterprise Services secures funding to construct the project.



Comments stated that the Draft EIS did not assess the costs to businesses to manage sediment.

The Final EIS and Economics Discipline Report have been updated to reflect the progress the FGWG has made to provide a funding and implementation strategy for ongoing sediment management (see Supporting Chapter 7.0 of the Final EIS and the Funding and Governance MOU [Attachment 23]). Under this agreement, members of the FGWG and the U.S. Army Corps of Engineers (USACE) would provide funding for increased costs for sediment management as a result of estuary restoration, above the costs that would be incurred under the No Action Alternative. The private marinas would be responsible for sediment management costs consistent with the No Action Alternative (i.e., the cost they would incur in the future for sediment management if no project alternative were implemented). This means that private businesses would not experience an increase in sediment management costs as a result of implementing any project alternative when future sediment management requirements (such as changed DNR lease terms) are factored into the analysis.

Comments included requests to more thoroughly describe and quantify impacts on LOTT and ratepayers under the alternatives relative to TMDL allocations.

The Final EIS and Economics Discipline Report have been updated to describe the current understanding of impacts on LOTT and ratepayers under the alternatives consistent with the draft Total Maximum Daily Load (TMDL) for Budd Inlet, which the Washington Department of Ecology (Ecology) released in June 2022. Ecology modeling suggests that the Estuary and Hybrid Alternatives would improve dissolved oxygen conditions in Budd Inlet. This may result in Ecology assigning less stringent discharge reduction requirements for LOTT and stormwater dischargers under the Estuary and Hybrid Alternatives, likely resulting in reduced, deferred, or avoided regulatory compliance costs compared to the No Action and Managed Lake Alternatives.



RESPONSES TO SPECIFIC COMMENTS

This section of Attachment 22 contains copies of all comments received on the Draft EIS, and responses to those comments. This introduction explains the organization of comments and responses, and describes how to locate a response to a specific comment. Comment letters/emails/website comments were initially organized by date received, and by the type of entity providing the comments, in the following order:

- Government agencies (federal/state/local/tribal governments)
- Organizations
- Individuals
- Public hearing comments

Each comment letter/email/website comment received was given an identifying (ID) number (e.g., F-1), and each specific comment within that letter was numbered sequentially (e.g., F-1-1, F-1-2, etc.). Similarly, using a verbatim transcript of the meeting, each speaker at the virtual public meeting and each specific comment by that speaker was assigned an identifying number (e.g., H-1-1). Attachment 22 also contains several index tables (in matrix format) that enable a reader to find their comment letter and the associated responses. The index tables, organized by the entity type as shown above, list each comment letter received; the name and/or organization of that comment; and a hyperlink to the reproduced comments and associated responses in this PDF. Separate index tables are presented for each entity type in the bulleted list above (e.g., Federal Government Agency). Because of the length of the reproduced comments and associated responses (over 1,000 pages), the best way to navigate this attachment is digitally, using the bookmarks and hyperlinks within the PDF, as well as searches in this PDF (i.e., using *Edit/Find* or *Control-F* on an IBM PC computer, or *Command-F* on a Mac computer).

Following each index table, each comment letter and its corresponding responses appear side by side, with the comment letter on the left side of the page and the responses on the right side. Comments have been delineated and numbered within each comment letter. Each specific comment is marked in the margin with the number of the comment and correlative response.

A few additional notes to help readers in reviewing the responses to comments:

- Several comment letters included attachments or exhibits, which were reviewed and considered by the EIS Project Team but are not reproduced on the following comment/response pages due to length.
- Where a specific comment is addressed by information in one or more Global Responses, the response refers to the Global Response(s). Where a specific comment is addressed by another specific response, the reader is referred to the other response to avoid duplication.
- Numerous comments and responses in this attachment refer to the Executive Summary of the Draft EIS, which remains unchanged. The Executive Summary has been updated and expanded for the Final EIS, and is now referred to as the Final EIS Summary.



CAPITOL LAKE – DESCHUTES ESTUARY

Long-Term Management Project Environmental Impact Statement

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CAPITOL LAKE – DESCHUTES ESTUARY

Long-Term Management Project Environmental Impact Statement

Responses to Comments from Agencies and Tribes



Index of Comments from Agencies and Tribes

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Responses to Comments from Federal Agencies

F-1

COMMENT

RESPONSE

8/27/2021 Roundcube Webmail :: Capitol Lake Draft EIS comments

Subject **Capitol Lake Draft EIS comments**

From Dysart, Dana M CIV USARMY CENWS (USA)
<Dana.M.Dysart@usace.army.mil>

To comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>


Cc CENWS-Section408 <CENWS-Section408@usace.army.mil>, Reese,
Amy R CIV USARMY CENWS (USA) <Amy.R.Reese@usace.army.mil>,
Dierich, Elizabeth V (Gimmy) CIV USARMY CENWS (USA)
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<Laura.A.Boerner@usace.army.mil>

Date 2021-08-26 15:37

• EIS 408 letter final.pdf(~176 KB)

Please find the attached comments from the Seattle District US Army Corps of Engineers on the Draft EIS for the Capitol Lake Deschutes Estuary project.

Dana Marie Dysart, P.E.
Section 408 Program Manager
Seattle District, USACE
206-316-3970



F-1

COMMENT

RESPONSE



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, SEATTLE DISTRICT
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Planning and Environmental & Cultural Resources Branch

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, WA 98504-1476

Attn: Carrie Martin, Project Manager

Re: Comments on the Capitol Lake – Deschutes Estuary Long-Term Management
Project Draft Environmental Impact Statement (DEIS)

Dear Ms. Martin,

The Seattle District, U.S. Army Corps of Engineers (the Corps) has recently completed a review of the Capitol Lake DEIS. We recommend further discussion regarding several assumptions used in the analysis with respect to the Corps Navigation and Regulatory authorities. We believe these discussions can help provide better clarity that will help inform a more complete analysis of the alternatives presented in the DEIS.

As reflected in the DEIS, the proposed project will impact the Olympia Harbor Federal Navigation Channel and turning basin originally authorized by the Rivers and Harbors Act of January 21, 1927 and modified in subsequent Acts. The DEIS makes assumptions on the frequency of maintenance dredging which are not accurate. While the Corps has authority to dredge, actual dredge frequency is subject to Congressional appropriation as funds are prioritized nationally. This project was last dredged in 2007, limited to only material suitable for open water. Currently, there are portions of the channel that are shoaled above authorized depths. However, the Corps has been prohibited from conducting maintenance dredging subject to resolution of the state cleanup area.

As stated in the DEIS, a detailed review of the impacts of the proposed alternatives by the Corps is required under the Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408) (Section 408).

As part of the Section 408 evaluation, the project will be reviewed to ensure it is not injurious to the public interest and would not impair the usefulness of the adjacent Federal project. Adverse effect on channel maintenance is reviewed by looking at several factors: impacts to navigation traffic, channel profile, proposed project causing a change in the frequency and/or method of dredging; impacts of channel dredging; and whether operation and maintenance costs to the authorized Federal project would increase due to the proposed project.

F-1-1 In response to comments on the Draft EIS, Enterprise Services met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, Enterprise Services also described that the Estuary Alternative would restore sediment loading, similar to conditions that existed before the 5th Avenue Dam was constructed. For many decades before 5th Avenue Dam construction, the USACE dredged the federal navigation channel to support commercial navigation at the Port of Olympia.

The Port of Olympia was also in attendance at this meeting and described the likely pathway and timing for remediating contaminated sediment in Budd Inlet, and reestablishing navigational depths that are needed for Port operations.

Formal engagement with the Corps will occur during the design and permitting phase, which will occur following issuance of the Final EIS pending funding availability.

F-1-2 Implementation of the Estuary Alternative would restore sediment conditions in West Bay to conditions more similar to what existed before the 5th Avenue Dam was constructed in 1950.

Before 1950, the USACE conducted dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary. The USACE has provided records to show that dredging was completed in the Budd Inlet Navigation Channel in 1893, 1909, 1924, 1931, 1938 and 1948. The Budd Inlet Federal Navigation Channel was created within the Deschutes Estuary and maintained in that state, with sediment loading from the Deschutes River for many decades. Notably, the 1909 dredge event led by the USACE was to deepen the navigation channel to support establishment of the Port of Olympia. The Port of Olympia has existed in the same location since the 1920s and operated for many decades in the Deschutes Estuary, with the support of USACE-led maintenance dredging.

Construction of the 5th Avenue Dam in the 1950s was to provide a landscape architecture feature for the Washington State Capitol Campus. An indirect effect of its construction has been reduced sediment loading in West Bay and to the Federal Navigation Channel, but this was not its intended purpose. Downstream users, including the USACE, the Port of Olympia and marinas have benefited from the avoided costs since 1950, given that sediment has been artificially captured upstream, but these entities also existed for many decades in a Deschutes Estuary configuration.

F-1-1

F-1-2

F-1-3

F-1

COMMENT

RESPONSE

Under the Estuary Alternative, maintenance dredging is proposed to avoid significant impacts to navigation. The Funding and Governance Work Group would provide funding for maintenance dredging of the increased sediment from the Estuary Alternative; and costs associated with dredging equivalent to the No Action Alternative are expected from the Port of Olympia and private marinas. Consistent with federal responsibilities, it is assumed that the USACE will provide funding for all maintenance dredging needed in the Federal Navigation Channel to maintain authorized depths. It is noted that federal dredging is subject to Congressional appropriations.

Please see Final EIS Supporting Chapter 7.0 for more detail on planning-level costs and the anticipated funding approach. Chapter 7.0 also outlines a key assumption that dredging and remediation of known contaminated sediment will occur in Budd Inlet before removal of the 5th Avenue Dam under the Estuary Alternative. That dredging would be led by the Port of Olympia and would reestablish authorized depths; it should also allow the future accumulated sediment to be disposed of in-water.

F-1-3 During development of the Draft EIS, Enterprise Services engaged the USACE as part of the Technical Work Group to review regulatory feasibility of the action alternatives. In these meetings, the change to sediment conditions in West Bay was described; maintenance dredging was proposed to avoid significant impacts to navigation; and historic dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary was acknowledged.

Please refer to Final EIS Supporting Chapter 2.0 for the proposed approach to maintenance dredging under the action alternatives. Section 4.2 of Final EIS Supporting Chapter 4.0 and the associated Navigation Discipline Report (Attachment 6) provide an analysis of potential impacts to navigation and the approach to avoid significant impacts to navigation. Maintenance dredging is recommended along with sediment monitoring (bathymetric surveys at least annually) to increase certainty that maintenance dredging is responsive to actual environmental conditions. Under the Estuary Alternative, maintenance dredging is estimated to occur at an approximately 6-year frequency, though dredging in the Federal Navigation Channel and turning basin is only estimated to be needed at an approximately 12-year frequency. It should be noted that the average dredge frequency of the Federal Navigation Channel and turning basin in the Deschutes Estuary, before construction of the 5th Avenue Dam, was approximately 11-years.

F-1

COMMENT

RESPONSE

Final EIS Supporting Chapter 7.0 outlines the proposal for shared funding for increased maintenance dredging under the Estuary Alternative.

F-1

COMMENT

RESPONSE

-2-

F-1-4 Please see Final EIS Supporting Chapter 7.0 for more detail on planning-level costs and the anticipated funding approach.

Please also see responses to Comments F-1-1, F-1-2 and F-1-3.

F-1-5 It is assumed that the sediment removed during maintenance dredging in the Estuary and Hybrid Alternatives would be disposed at an allowable in-water location within the Puget Sound. This assumption is based on the suitable chemical quality of the Deschutes River sediment, which was sampled as part of the EIS analysis to get a representative understanding of sediment quality. The Deschutes River sediment would be naturally deposited in West Bay under the Estuary and Hybrid Alternatives and removed during recurring dredge events to avoid significant impacts to navigation and to maintain a working waterfront and recreational boating. Because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for freshwater aquatic invasive species persistence in deeper waters where dredging would occur. To evaluate the validity of this assumption, a survey was conducted for the Final EIS to determine whether New Zealand mudsnail have established in Budd Inlet, given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnail were found during this survey. See the Aquatic Invasive Species Discipline Report (Attachment 8) for additional analysis and rationale that support the assumption that in-water disposal of dredged material from the Estuary and Hybrid Alternatives would not pose a risk relative to spreading invasive species.

F-1-4

Initial review of the information provided suggests several areas that will require more analysis as part of the Section 408 review. First, the DEIS indicates as much as 743,400CY of sediment being released to West Bay Federal Navigation Channel over a 30 year timeframe (for the Hybrid Alternative). An action of this size impacts the usefulness of the Federal project by increasing dredging frequency and associated maintenance costs. The DEIS identifies initial dredging, long-term maintenance dredging program, and a sediment monitoring plan to help reduce significant impacts to less than significant under the Estuary and Hybrid Alternatives. However, it does not indicate the responsible party for this action or the timing. This information will be critical to review the impact to the Federal project.

F-1-5

Secondly, additional information will be required to validate that the proposed action will not further increase dredging costs by creating conditions that will impact the suitability of dredged material for open-water disposal. If the sediment does not qualify for open-water disposal, the long-term maintenance costs are grossly underestimated. As presented in the DEIS, there is insufficient information supporting both chemical quality compliance and absence of Aquatic Invasive Species (AIS) to verify that open water disposal could be permitted for future dredging events. To evaluate open-water disposal suitability, the Dredge Material Management Program (DMMP) agencies require a suitability determination that includes both chemical testing and compliance with RCW 77.135.040. Both DMMP and Washington Department of Fish and Wildlife should be consulted to determine appropriate survey techniques to determine impacts to dredge material quality in the Federal navigation Channel and associated impacts to dredge material disposal.

For any questions regarding the path forward on the Section 408 process and to schedule a meeting please contact me at (206) 316-3970 or dana.m.dysart@usace.army.mil.

Sincerely,

DYSART.DANA.M Digitally signed by
DYSART.DANA.M; DN: cn=DANA.M; o=USACE; ou=USACE; email=DANA.M@USACE.MIL; c=US
ARIE.1289657459 DN: cn=ARIE.1289657459; o=USACE; ou=USACE; email=ARIE.1289657459@USACE.MIL; c=US

Dana M. Dysart, P.E.
Section 408 Program Manager
U.S. Army Corps of Engineers,
Seattle District

Before future dredge events, sampling for chemical quality and invasive species would occur, in coordination with the DMMP, to confirm suitability of the dredged material for in-water disposal. Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events.

Responses to Comments from State Agencies

S-1

COMMENT

RESPONSE

S-1-1 Thank you for your comment. Please see the Global Response for the Preferred Alternative Identification Process.



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Hotline: 1-800-562-6000

Annette Meyer
Acting Director, Department of Enterprise Services
1500 Jefferson Street SE
Olympia, WA 98501

August 24, 2021

Dear Acting Director Meyer:

Please accept these comments on the Department's draft environmental impact statement regarding the future of Capitol Lake.

I write today in full support of the Managed Lake Alternative and in opposition to the Estuary and Hybrid options.

Having served in several different capacities as a state legislator over the last 28 years, including multiple roles with oversight over the Capitol campus and the capital budget, I am familiar with the long history of the Lake and the endless debate over its future. While much of the discussion over the years has been at the local level, the future of Capitol Lake is really an issue of statewide concern and importance. All Washingtonians deserve to enjoy the beauty of their state capital.

With the right management and care, Capitol Lake can be allowed to reach its full potential - that of an iconic reflecting pool and public watershed that highlights the beauty of our capitol, as well as the scenic wonder of the surrounding area. Beyond simply the superior aesthetic benefits, a well-managed lake would facilitate recreational opportunities and economic incentives.

Proper stewardship of the Lake would include a dedicated sediment management effort. This would ensure drastically improved water quality over the Lake's currently underutilized status. Flora and fauna - including salmon, birds, and even Olympia's local bats - could thrive, while providing the region a picturesque resource area for the enjoyment and entertainment of the community and residents across the state.

To understand why the estuary or hybrid options would be inferior, one just has to imagine the idea of visiting the Capitol Building on a sweltering summer day at low-tide. Converting Capitol Lake into swampy mudflats would be an odorous detriment to the Capitol campus, the downtown Olympia urban corridor, waterfront businesses, and the many existing local parks along the lakeside.

I want to thank you for your continuing work on this long-standing project. It is one that has taken many years to get this far, and one that may take many more if a viable path forward cannot be reached.

Sincerely,

Senator Mark Schoesler

Committees: Rules • Ways & Means

S-1-1

S-2

COMMENT

RESPONSE

8/26/2021

Roundcube Webmail :: CLDE DEIS comment letter

Subject: **CLDE DEIS comment letter**
From: Lentes, Gwendolen A (DFW) <Gwendolen.Lentes@dfw.wa.gov>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Cc: Martin, Carrie R. (DES) <carrie.martin@des.wa.gov>
Date: 2021-08-25 16:49



- CLDE 2021 DEIS comment letter.pdf(~159 KB)
- Attachment-08-Aquatic-Invasive-Species-Discipline-Report-2021-0623(AIS Unit2).pdf(~5.5 MB)
- Johannes 2021 PROPOSED REMOVAL OF CAPITOL LAKE DAM AND POTENTIAL SPREAD OF Potamopyrgus antipodarum.pdf(~1.4 MB)

Hello and to Whom it May Concern:

The Washington Department of Fish and Wildlife appreciates the opportunity to comment on the Department of Enterprise Services' (DES) Draft Environmental Impact Statement (DEIS) for the proposed long-term management of Capitol Lake and the Deschutes Estuary in Thurston County. Please see the attachments above (3) for details and comments on specific resources identified in the DEIS. Thank you.

Sincerely,
Gwen Lentes
Assistant Regional Habitat Program Manager
Region 6, Olympia Office
Washington Department of Fish and Wildlife
(360) 972-4232; Gwendolen.Lentes@dfw.wa.gov

S-2

COMMENT

RESPONSE



State of Washington
DEPARTMENT OF FISH AND WILDLIFE REGION SIX
Mailing Address: 48 Devonshire Road, Montesano, WA 98563 · 360 249-4628 · TDD 360 902-2207
48 Devonshire Road, Montesano, WA

August 25, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary DEIS
P.O. Box 41476
Olympia, WA 98504-1476

RE: Capitol Lake – Deschutes Estuary DEIS
ATTN: Carrie Martin, DES Environmental Planner for CLDE DEIS

Dear Enterprise Services,

The Washington Department of Fish and Wildlife (WDFW) is responsible for managing and conserving fish and wildlife resources in our state. We appreciate the opportunity to comment on the Department of Enterprise Services' (DES) Draft Environmental Impact Statement (DEIS) for the proposed long-term management of Capitol Lake and the Deschutes Estuary in Thurston County.

WDFW wishes to provide additional details and comments on specific resources identified in the DEIS:

- Numerous Aquatic Invasive Species (AIS) occur in Capitol Lake, of which the New Zealand Mud snail (*Potamopyrgus antipodarum*, NZMS) has proven particularly difficult to manage. WDFW experts agree that the 5th Avenue dam does not currently function as a barrier preventing the spread of mud snails into West Bay. Removal of the 5th Avenue dam is not expected to create additional colonization opportunities beyond what currently exists (Johannes 2021). It should be noted that a version of the hybrid alternative with a freshwater reflecting pool would likely harbor mud snails and provide possible recolonization opportunities and therefore should be avoided. Furthermore, please see 'attachment 8' for edit suggestions that are critical to making the DEIS technically accurate for NZMS and general AIS issues.
- Capitol Lake is used by bats from Woodard Bay and other maternity colonies in the region. Converting the area from a freshwater lake to an estuary would reduce the amount of forage habitat available to these bats. It is possible but unknown if this population of bats would shift to forage on other bodies of freshwater nearby if the lake were converted to an estuary. We suggest that an interdisciplinary group of experts is brought together to develop a plan to further understand impacts to bats and mitigation that could offset those impacts.

S-2-1 The Aquatic Invasive Species (AIS) Discipline Report was revised to acknowledge that NZMS would need to be managed in the freshwater pool to prevent its spread to other freshwater systems, in accordance with the WDFW-approved AIS Management Plan. It is also acknowledged that management of NZMS would be more effective in the freshwater pool than in the Deschutes River and other freshwaters draining to the estuary because of the low flushing rate and simple shoreline habitat of the freshwater pool. The AIS Discipline Report was also updated to incorporate edit suggestions provided by WDFW.

S-2-2 In response to this comment, the EIS Project Team met with WDFW and a local bat biologist identified by WDFW for a panel discussion on available, relevant literature and potential impacts and mitigation. Information obtained during these discussions informed the updates in the Final EIS. See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

S-2-1

S-2-2

S-2

COMMENT

RESPONSE

S-2-3 Thank you for your comment. Please see the Global Response for the Preferred Alternative Identification Process.



State of Washington

DEPARTMENT OF FISH AND WILDLIFE REGION SIX

Mailing Address: 48 Devonshire Road, Montesano, WA 98563 · 360 249-4628 · TDD 360 902-2207
48 Devonshire Road, Montesano, WA

S-2-3

Removing the dam under the estuary alternative would restore tidal circulation to the basin, enabling the restoration of estuary processes and functions long forgotten to this watershed. These benefits would not only be seen in the newly restored estuary, but the effects of restored processes would be felt throughout the Puget Sound. The estuary option compliments all other efforts being made in Budd Inlet and southern Puget Sound to support salmon. WDFW has previously expressed support for the estuary alternative (2009 CLAMP letter) and maintains that position after reviewing the 2021 DEIS materials.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Phillips".

Larry Phillips, Regional Director
Washington Department of Fish and Wildlife

cc: Carrie Martin, DES Environmental Planner for CLDE DEIS

S-3

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: ECY SEPA 202103537 - Capitol Lake - Deschutes Estuary Long-Term Management - Comments

S-3-1

Enterprise Services appreciates Ecology's detailed review of the Draft EIS.

Subject: **ECY SEPA 202103537 - Capitol Lake - Deschutes Estuary Long-Term Management - Comments**



From: ECY RE SWRO SEPA COORDINATOR
<swrosepacoordinator@ECY.WA.GOV>
To: comment@capitollakedeschutesestuaryeis.org
<comment@capitollakedeschutesestuaryeis.org>
Cc: Rockett, Derek (ECY) <droc461@ecy.wa.gov>, Middleton, Thomas (ECY) <tmid461@ECY.WA.GOV>, Bengel, Greg (ECY) <gben461@ECY.WA.GOV>, Lattimore, Charlotte (ECY) <CLAT461@ECY.WA.GOV>
Date: 2021-08-27 11:49
Priority: Highest

- 202103537 ECY Comments.pdf(~198 KB)

Carrie Martin, Project Manager:

Thank you for the opportunity to comment on the Capitol Lake - Deschutes Estuary Long-Term Management Project. Ecology's comments are attached.

[[Statewide SEPA Register](#) No. 202103537]

Have a great day,

Garret Peck
SEPA Coordinator | Southwest Regional Office
Desk: 360-407-6300 | Cell: 360-480-3300



S-3-1

S-3

COMMENT

RESPONSE



August 27, 2021

Carrie Martin, Project Manager
Washington State Department of Enterprise Services
1500 Jefferson St SE
Olympia, WA 98501

Dear Carrie Martin:

Thank you for the opportunity to comment on the draft environmental impact statement (EIS) for the Capitol Lake - Deschutes Estuary Long-Term Management Project. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

SOLID WASTE MANAGEMENT: Derek Rockett (360) 407-6287

All removed debris and dredged material resulting from this project must be disposed of at an approved site and be in compliance with Chapter 173-350 WAC, Solid Waste Handling Standards. Contact the local jurisdictional health department for proper management of these materials.

TOXICS CLEANUP: Thomas Middleton (360) 407-7263

The proposed Capitol Lake – Deschutes Estuary Long-Term Management Project has the potential to impact a large number of known or suspected contaminated sites as well as exposing previously unknown contaminated sites downstream of the proposed project. To search and access information concerning the known sites see <http://www.ecy.wa.gov/fs/> and <https://fortress.wa.gov/ecy/gsp/SiteSearchPage.aspx>. The number and type of sites impacted is highly dependent on which alternative is selected.

If contamination is suspected, discovered, or occurs during the future Capitol Lake -- Deschutes Estuary Long-Term Management Project, testing of the potentially contaminated media must be conducted. If contamination of sediment, surface water, soil, or groundwater is readily apparent, or is revealed by sampling, the Department of Ecology must be notified. To notify Ecology, contact the Environmental Report Tracking System Coordinator at the Southwest Regional Office at (360) 407-6300. For assistance and information about these sites, contact Sandy Smith with the Toxics Cleanup Program at the Southwest Regional Office at (360) 407-7269.

- S-3-2 Enterprise Services appreciates Ecology's detailed review of the Draft EIS. See responses to specific comments below.
- S-3-3 The Sediment Quality Discipline Report has been updated to include these solid waste handling requirements. It is acknowledged that additional sampling and analysis of sediment would be required before dredging and disposal. This activity would occur during the design and permitting portion of the project and would be reported to Ecology. The project would be conducted in accordance with Solid Waste Handling Standards, as the commenter noted, and all other applicable environmental regulations.

S-3-2

S-3-3

S-3

COMMENT

RESPONSE

Carrie Martin
August 27, 2021
Page 2

**WATER QUALITY/WATERSHED RESOURCES UNIT:
Greg Benge (360) 690-4787**

Erosion control measures must be in place prior to any clearing, grading, or construction. These control measures must be effective to prevent stormwater runoff from carrying soil and other pollutants into surface water or stormdrains that lead to waters of the state. Sand, silt, clay particles, and soil will damage aquatic habitat and are considered to be pollutants.

Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48 RCW, Water Pollution Control, and WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and is subject to enforcement action.

Construction Stormwater General Permit:

The following construction activities require coverage under the Construction Stormwater General Permit:

1. Clearing, grading and/or excavation that results in the disturbance of one or more acres **and** discharges stormwater to surface waters of the State; and
2. Clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more **and** discharge stormwater to surface waters of the State.
 - a) This includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, **and** discharge to surface waters of the State; and
3. Any size construction activity discharging stormwater to waters of the State that Ecology:
 - a) Determines to be a significant contributor of pollutants to waters of the State of Washington.
 - b) Reasonably expects to cause a violation of any water quality standard.

If there are known soil/ground water contaminants present on-site, additional information (including, but not limited to: temporary erosion and sediment control plans; stormwater pollution prevention plan; list of known contaminants with concentrations and depths found; a site map depicting the sample location(s); and additional studies/reports regarding contaminant(s)) will be required to be submitted. For additional information on contaminated construction sites, please contact Carol Serdar at Carol.Serdar@ecy.wa.gov, or by phone at (360) 742-9751.

Additionally, sites that discharge to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorous, or to waterbodies covered by a TMDL may need to meet additional sampling and record keeping requirements. See condition S8 of the Construction Stormwater General Permit for a description of these requirements. To see if your site discharges to a

S-3-4 Thank you for this comment. Please refer to EIS Supporting Chapter 9.0, which states that a NPDES Construction Stormwater General Permit would be required for construction given the disturbance of more than 1 acre and discharge of stormwater to Capitol Lake. This is consistent with the water quality standards outlined in WAC 173-201A and referenced in this comment.

S-3-5 There is no currently known contaminated soil or groundwater in the area that would be disturbed by construction. Additional site characterization is likely to occur during the design process, and as needed, Enterprise Services would coordinate with the regulatory agencies in response to the findings, including all coordination needed to avoid or minimize potential environmental impacts from project construction. Several permits would be required from Ecology prior to construction and Enterprise Services would engage meaningfully to obtain these permits.

S-3-6 Comment noted; thank you for this additional guidance. Discharge parameters, sampling requirements and record keeping would be coordinated during the process to obtain a NPDES construction stormwater general permit. See EIS Supporting Chapter 9.0, which states that Enterprise Service would obtain a NPDES construction stormwater general permit from Ecology prior to construction.

S-3-4

S-3-5

S-3-6

S-3

COMMENT

RESPONSE

S-3-7 Comment noted; the dam safety permit has been added to the Final EIS Supporting Chapter 9.0.

Carrie Martin
 August 27, 2021
 Page 3

S-3-6

TMDL or 303(d)-listed waterbody, use Ecology's Water Quality Atlas at:
<https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx>.

The applicant may apply online or obtain an application from Ecology's website at:
<http://www.ecy.wa.gov/programs/wq/stormwater/construction/-Application>. Construction site operators must apply for a permit at least 60 days prior to discharging stormwater from construction activities and must submit it on or before the date of the first public notice.

WATER RESOURCES: Charlotte Lattimore (360) 407-6066

S-3-7

Under RCW 90.03.350, if the Capitol Lake, Deschutes Estuary Long Term Management plan includes the removal of the Fifth Avenue Dam, this project will require a Dam Safety construction/decommissioning permit for this project. This permit can be found by entering the following link into your search engine:
<https://apps.ecology.wa.gov/publications/summarypages/ecy07038.html>.

Please submit the construction/decommissioning permit and the required documentation to:

WA Department of Ecology
 Dam Safety Office
 P.O. Box 47600
 Olympia, WA 98504-7600

For more information, please contact Charlotte Lattimore by e-mail at clat461@ecy.wa.gov or by telephone at (360) 407-6066.

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology
 Southwest Regional Office

(GMP:202103537)

cc: Derek Rockett, SWM
 Thomas Middleton, TCP
 Greg Bengel, WQ
 Charlotte Lattimore, WR

S-4

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Capitol Lake-Deschutes Estuary Draft EIS Comments

Subject: Capitol Lake-Deschutes Estuary Draft EIS Comments
From: Sullivan, Lawrence (ECY) <Lsul461@ECY.WA.GOV>
To: Meyer, Annette (DES) <annette.meyer@des.wa.gov>, comment@CapitolLakeDeschutesEstuaryEIS.org <comment@CapitolLakeDeschutesEstuaryEIS.org>
Cc: Jeff Dickison <jdickison@squaxin.us>, cselby@ci.olympia.wa.us <cselby@ci.olympia.wa.us>, pkmet@ci.tumwater.wa.us <pkmet@ci.tumwater.wa.us>, ejz@portolympia.com <ejz@portolympia.com>, tye.menser@co.thurston.wa.us <tye.menser@co.thurston.wa.us>, lparshle@ci.olympia.wa.us <lparshle@ci.olympia.wa.us>, Doenges, Rich (ECY) <rdoe461@ECY.WA.GOV>, Kolosseus, Andrew (ECY) <AKOL461@ECY.WA.GOV>, Martin, Carrie R. (DES) <carrie.martin@des.wa.gov>, McGowan, Vincent (ECY) <vmcg461@ECY.WA.GOV> [2 more...](#)
Date: 2021-08-27 15:46



- Table-Detailed Comments-Ecology.pdf (~315 KB)
- Capitol Lake DEIS Comment letter_Aug2021.pdf (~342 KB)

Dear Director Meyer,

Thank you for the opportunity to comment on the Capitol Lake-Deschutes Estuary Draft EIS. Attached, please find Washington State Department of Ecology's comment letter and table of detailed comments. Please let me know if you have any questions.

Regards,

Lawrence Sullivan
Supervisor, Water Cleanup & Technical Assistance Unit
Water Quality Program
Department of Ecology
(564) 999-3585

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=7&_mbox=INBOX%2FDEIS%20Processed%2014&_action=print&_extain=1

1/1

S-4

COMMENT

RESPONSE

S-4-1 Enterprise Services appreciates Department of Ecology's detailed review of the Draft EIS and follow-up coordination. Please see responses to specific comments.



August 27, 2021

Annette Meyer, Director
 Washington State Department of Enterprise Services
 1500 Jefferson St SE
 Olympia, WA 98101

Re: Draft Capitol Lake-Deschutes Estuary Environmental Impact Statement (DEIS)

Dear Director Meyer:

The Washington Department of Ecology (Ecology) appreciates the opportunity to provide comments on the Department of Enterprise Services (DES) *Draft Environmental Impact Statement (EIS) for the Capitol Lake - Deschutes Estuary Long-Term Management Project*. The Deschutes/Capitol Lake/Budd Inlet watershed is a critical natural resource and it is ecologically important to Puget Sound, but it also suffers from water pollution problems that will be exacerbated as the area continues to grow. Ecology is currently developing a water cleanup plan (also called a Total Maximum Daily Load, or TMDL) for the marine waters of Budd Inlet. Additionally, a water cleanup plan for the Deschutes watershed upstream from Capitol Lake has been developed by the Environmental Protection Agency (EPA). The lake management alternatives considered in the DEIS Capitol Lake will have important impacts on water quality in the area and especially on Budd Inlet.

The general comments in this letter, along with the specific comments provided in table format stem from an initial review of the DEIS by Ecology's Environmental Assessment Program, Water Quality Program, Toxics Cleanup Program, and Shorelands and Environmental Assistance Program. Although Ecology understands the intent of the DEIS is to cautiously compare long-term management alternatives, DES must also comply with state water quality standards. Budd Inlet will only meet water quality standards if all sources contributing to oxygen depletion do their part. We look forward to working with DES to address these issues as you move toward issuing the final EIS.

Most of the general comments below are specific to Attachment 7, Water Quality Discipline Report (WQDR) of the Draft Capitol Lake-Deschutes Estuary Environmental Impact Statement (DEIS). The WQDR is the foundation for material presented in Section 3.3, of Chapter 3 (Existing Conditions and Affected Environment) and Section 4.3 of Chapter 4 (Long Term Impacts, Benefits and Mitigation).

The WQDR analysis builds upon several approaches and assumptions that have misapplied the science. As a result, some DEIS statements regarding benefits or impacts of alternatives with respect to water quality and compliance with water quality standards are inaccurate. We suggest that the WQDR and relevant portions of the chapters be revised so that the document provides objective context to the DEIS process.

S-4-1

S-4

COMMENT

RESPONSE

Director Meyer
August 27, 2021
Page 2

S-4-1

We are submitting both general and specific comments on the WQDR. The general comments provide a big picture characterization of concerns relating to the WQDR. Some details are provided in the general comments section. The specific comments section connects statements made in the WQDR with our suggested edits and supporting details. Though comments presented cite specific portions of the WQDR, they also apply to corresponding segments of Chapters 3 and 4, as mentioned above.

We recognize the considerable effort invested in developing the DEIS. Coalescing the large body of work conducted over decades by researchers from multiple entities is an enormous task. Ecology stands ready to offer technical assistance and any clarification that would be helpful. We look forward to working with DES as you move toward the creation of the final EIS.

General Comments

1. Unsupported assumptions about the impact of Capitol Lake

The Budd Inlet model, a mechanistic model originally created for the Budd Inlet Scientific Study and then further developed and used for Ecology studies, provides predictions about the impact of Capitol Lake on dissolved oxygen depletion in Budd Inlet. The DEIS states an intent to “avoid potentially overstating improvements from the dam removal” (WQDR, page 75). Accordingly, DEIS qualitatively adjusts Budd Inlet model predictions (Table 5.2 in WQDR) by “assuming half of the improvement”, according to the footnote.

S-4-2

Such an assumption lacks a basis and leads to unsubstantiated estimates of the impact of the Capitol Lake dam. Moreover, such a qualitative value adjustment suggests that a considerable amount of human-caused oxygen depletion within the inner inlet is unrelated to the dam—implying little to no capacity for other discharges into Budd Inlet. That claim is not supported by detailed water quality mechanistic modeling.

In addition, there are other specific approaches, assumptions or interpretations that are either unclear or flawed which relate to the impact of Capitol Lake. We present comments specific to those in the detailed comments section.

2. Limited comparison leads to incomplete context about Budd Inlet dissolved oxygen depletion

S-4-3

The DEIS generalizes that other South Sound inlets experience similar levels of oxygen depletion as Budd Inlet. Figure 4.12 (page 4-35, WQDR) shows the cumulative days of model predicted dissolved oxygen noncompliance reported in Ahmed et al. 2019. The WQDR states: “These model results also indicate that the low DO issues of Budd Inlet are not atypical for Inlets in South Puget Sound...” However, Budd Inlet is atypical with respect to its DO depletion magnitudes compared to those of other regional inlets.

S-4-2

The EIS compares the historic and recent field data with model predictions (evaluation of model predictions against field data is a commonly accepted practice). The evaluation indicated that there was uncertainty in the model predictions and that the model predictions could be overstating the impact of Capitol Lake on dissolved oxygen depletion in Budd Inlet. To acknowledge this uncertainty, the potential impact of dissolved oxygen improvement to Budd Inlet was conservatively described in the Draft EIS as one-half of the modeled benefit. In response to comments on the Draft EIS, the Final EIS has been revised to describe this as a range of no discernable difference to the full improvement. This revision acknowledges the full range of uncertainty.

S-4-3

Information that provides greater context about Budd Inlet dissolved oxygen (DO) depletion has been added in the Final EIS from the recently released Draft Budd Inlet DO TMDL. The Final EIS acknowledges that the model shows a relatively high maximum daily depletion of DO in Budd Inlet due to anthropogenic sources when compared to other South Puget Sound inlets.

S-4

COMMENT

RESPONSE

Director Meyer
August 27, 2021
Page 3

The DEIS omits another figure and text also contained in Ecology’s 2019 report. Budd Inlet is the location with the maximum predicted magnitude of human-caused dissolved oxygen depletion in the region (refer to Figure 26 and page 64 in Ahmed et al., 2019).

3. Reported Capitol Lake trends in DEIS may not be reflective of longer-term data

Using monthly Thurston County data from 2004-2014, the WQDR implies (Section 4.1.1.1) that conditions in the lake have improved because of various temporal trends including an apparent slight tendency towards lower chlorophyll and greater Secchi depths suggesting improvements in visibility. However, by omitting observations prior to 2004 and omitting variables that influence water quality such as flow, the analysis is incomplete and appears to unduly hinge on data used as the starting point.

Ecology obtained the entire Thurston County dataset and conducted a Kendall rank correlation analysis for four parameters: Secchi depth, chlorophyll (Chl_a), total phosphorus (TP) and total nitrogen (TN). We used the same approach as was used for the WQDR. As in the DEIS, we used a p-value of 0.05 as the threshold for statistical significance. The statistics in the table below show that no discernable trend can be ascribed to the concentrations of any of these parameters using the same monthly dataset that was used in the DEIS, but over its whole timeseries (1999-2014).

1999-2014	Secchi depth (m)	Chl_a (ug/L)	TP (surface) mg/L	TN (surface) mg/L
Kendall's Tau	0.073	-0.036	-0.089	0.100
p_value	0.360	0.653	0.260	0.196

Furthermore, we also find no clear, discernable trend in estimated chlorophyll loads, as shown in the figure below. To estimate chlorophyll loads, we used river flows corresponding to each day of the complete Thurston County monthly North Basin Capitol Lake data set (from 1999 to 2014). The long-term tendency (blue line) in the chlorophyll load vs. time plot suggests a small increase in chlorophyll over time (an adverse trend with respect to water quality instead of an improving trend as the DEIS reports). However, we do not consider this result to consist of a discernable trend because the Kendall’s Tau for the chlorophyll load data set (0.09) reflects poor agreement, and the p-value (0.25) reflects a moderate probability of that result arising randomly. Further work should be done to look for any potential seasonal load trends using the entire dataset.

S-4-4

The Assessment of Long-Term Water Quality Trends in the Water Quality Discipline Report (Attachment 7) has been updated with further analyses. The most recent 10 years of consecutive water quality data collected by Thurston County from 2004 (i.e., 2005 through 2014) for Capitol Lake and the Deschutes River was compiled to evaluate existing conditions. No longer included in the analysis is the October 13, 2004 data for chlorophyll that was suggested to be an outlier. In addition to representing the most recent 10 years of data, this time period was selected because it represents the period when aquatic plant management activities had been discontinued, the Olympia brewery closed and stopped discharging, the City of Olympia initiated an illicit discharge detection elimination program in the basin, and the period after the Capitol Lake Adaptive Management Plan was adopted. This dataset, which represents interannual variation associated with 10 years of data, was used to assess recent long-term trends in annual and summer conditions to ensure that the data used in the analysis are reflective of existing conditions. Since trends were observed and because of the changes in operating conditions, data from before this period would not have reflected existing conditions. The comment focuses on the analysis of trends in chlorophyll; however, significant improvement in Capitol Lake water quality was observed in surface pH, surface total phosphorus (TP), pheophytin, and Secchi depth from May through October. The improving trend in chlorophyll during this 6-month period was not significant; however, other significant and improving Capitol Lake water quality trends were found with spring TP, summer surface temperature and pH, and fall surface pH, surface TP, and chlorophyll.

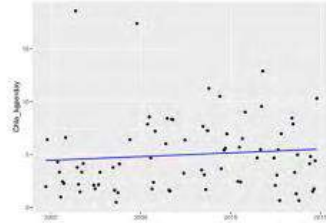
S-4-4

S-4

COMMENT

RESPONSE

Director Meyer
August 27, 2021
Page 4



It is important to note that there were two extremely high outliers in terms of chlorophyll loads observed on May 16, 2001 and October 13, 2004. These outliers are much greater than 1.5 times the interquartile range. It is unclear what caused those outliers, but it is clear that the October 2004 outlier exerts influence on the reported 2004-2014 trend because it is so extreme and it occurs at the beginning of that period. Incorporating into the analysis just a few more data points available for the second half of 2003 changes the statistical significance of the weak trend reported in the DEIS for chlorophyll, making it non-significant using the same p-value threshold used in the DEIS, as further detailed below.

The reason cited in the DEIS for starting the trend analysis in 2004 is that the Olympia Brewery had stopped operating. It seems arbitrary to use that event to segregate the data. Nonetheless, an article published by The Olympian indicated that the Olympia Brewery stopped operating in June 2003. Ecology conducted the same analysis as in the DEIS for chlorophyll in the lake starting July 2003. We added the available four more monthly data points from the latter half of 2003 to the data series used in the DEIS. Results indicate no discernable trend for chlorophyll concentrations or loads in the lake using the mid-2003 to 2014 time series (Kendall's Tau = -0.109 and -0.029 and p-values are 0.23 and 0.75 for concentration and load, respectively).

In summary, several weak temporal concentration trends highlighted in the DEIS do not hold up when the longer-term data set is analyzed. The DEIS reported trends are influenced by data from an extremely high outlier event at the beginning of that time period selected for analysis. Rather than representing water quality improvement as the DEIS implies, the reported trends appear to be an artifact of the time period selection as well as the choice to not account for climatological and hydrological influences reflected via covariate factors such as flow. Therefore, the assertion in the DEIS that Capitol Lake's "water quality is improving" does not seem to adequately characterize the available long-term data.

4. Description of Capitol Lake's water quality in DEIS is misleading

The DEIS concludes that water quality in Capitol Lake from 2010-2014 and 2019 is "relatively good" in terms of "physical characteristics important to aquatic life" (page 4-15, WQDR).

S-4-5

The Water Quality Discipline Report and EIS comparisons to other local lakes have been expanded to provide more information on the differences between Capitol Lake and other lakes in the area. These lakes were selected for comparison because they present a range of conditions and are lakes that many local residents are familiar with and therefore provide perspective for the public. In terms of the water quality parameters most important to cold water fish, temperature and DO, Capitol Lake is cooler and has more oxygen than the other lakes, and exhibits good water quality compared generally to eutrophic lakes. The chlorophyll concentrations are low considering the high concentrations of phosphorus and nitrogen. The algae community is dominated by diatoms, a generally preferred algae because they do not create nuisance conditions and the lake does not experience toxic algae blooms. Thus, from a human aesthetic and health perspective, Capitol Lake also has good water quality compared to other lakes in the area. It is acknowledged that it is confusing to describe a lake as having 'good' water quality while simultaneously stating that it does not meet all of the water quality standards all of the time. However, this discussion provides the reader with a greater understanding of the degree of water quality impairment that goes beyond a pass-fail assessment of water quality standards attainment. The assessment of 'good' water quality is based on the relative comparison to what is most commonly experienced in eutrophic lakes in the region.

S-4-4

S-4-5

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However, data presented in the DEIS itself clearly shows that the lake is eutrophic. The trophic state of a lake is an indication of its water quality. The trophic state index of Capitol Lake, particularly the North Basin, which has consistently had a trophic state index greater than 50 (Thurston County, 2014), is more indicative of poor rather than good water quality. For example, the WQDR (page 4-4) does point out that: “A dense community of aquatic plants has existed in the lake for decades.” In contrast, a lake with good water quality is one that would have clear, cool waters with little or moderate planktonic and aquatic plant growth.

The “relatively good” water quality description in the DEIS is associated to a comparison with other Thurston County Lakes pointing to instances in which individual parameters in Capitol Lake are deemed better. However, the Thurston County lakes used for comparison possess much different hydrological attributes and exhibit water quality impairments of their own. The relevance of such a comparison is questionable.

Differences in water quality among lakes due to degree of stratification and wetland influence are to be expected. Lakes used for comparison in the DEIS are deeper than Capitol Lake and have experienced consistent stratification for periods of several months. On the other hand, Capitol Lake is thought of as a well-mixed lake in which stratification occurs with less frequency. Furthermore, two of the lakes used in the comparison (Black and Long Lake) are influenced by extensive wetland systems, and the other (Ward Lake) is a spring-fed kettle lake. Consequently, this set of lakes constitute fundamentally different water bodies that are not suited for comparison with Capitol Lake, a shallow, eutrophic lake fed by a river at the entrance to an estuary.

Ecology’s most recent water quality assessment includes Capitol Lake in the list of impaired waters, or 303 (d) list, for total phosphorus, ammonia, fecal coliform and non-native aquatic species. Additionally based on the 2019 data presented, the DEIS states that during the summer the lake occasionally does not comply with the state standards for temperature, pH, DO, and total dissolved gas (TDS), and that it continually exceeds the trophic-state Action Level for TP for Puget Sound lowland lakes.

As repeatedly detailed in Thurston County’s annual monitoring reports, Capitol Lake does not fit a “good water quality” description. In fact, Thurston County scientists classified Capitol Lake’s water quality as “poor” in every report they authored corresponding to the five-year period cited in the DEIS as qualifying as “relatively good” (Thurston County Lake Report 2009-2011, Thurston County Capitol Lake Report, 2013 and Thurston County Capitol Lake Report, 2014). Furthermore, 2019 observations, which are slightly worse for chlorophyll-a and Secchi depth in the North Basin compared to those reported for the mean of the 2010-2014 period, do not generally depart from those of previous years. So, stating that the water quality in Capitol Lake is “relatively good” during any of those years stands in disagreement with the most recent scientific reports about the lake.

S-4-5

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5. The DEIS does not adequately address compliance with water quality standards in Budd Inlet

The intent of the DEIS is to compare long-term management alternatives. One key aspect of such comparison must be compliance with water quality standards.

While the DEIS includes some information about water quality standards, it does not make clear that full compliance with water quality standards in Budd Inlet, including the anthropogenic dissolved oxygen depletion limit contained in the standard, is a necessary goal. While meeting state water quality standards may not be a requirement of the DEIS, it is essential to the health of Budd Inlet and it is also important that state agencies continue to work together to ensure that state standards are achieved. Budd Inlet will only meet water quality standards if all sources contributing to oxygen depletion do their part.

The approaches used in the WQDR are largely qualitative and general. While such approaches may provide insights, they do not capture complexity inherent in Budd Inlet's biogeochemistry. So, the WQDR approaches are not adequate for demonstrating how alternatives under consideration will perform in terms of water quality standard compliance. For example, to demonstrate compliance of an alternative with both parts of the dissolved oxygen standard, detailed mechanistic modeling analysis should be conducted.

The DEIS is erroneously describing the impact on Budd Inlet dissolved oxygen. Section 4.2.2.1 of the DEIS correctly identifies the applicable water quality standards from WAC 173-201A. It correctly states there are two parts to the standards. The first part is a one-day minimum dissolved oxygen limit, and areas of Budd Inlet do not meet these standards under natural condition. The DEIS also correctly identifies a second part of the standard that allows for human-caused depletion in such situations. WAC 173-201A-210(1)(d)(i) states: "When a water body's D.O. is lower than [the one-day minimum] and that condition is due to natural conditions, then human actions considered cumulatively may not cause the D.O. of that water body to decrease more than 0.2 mg/L."

In this situation, the estuary, as the natural condition, by definition is in compliance with the water quality standards. Any human action (either a singular action or actions considered cumulatively) that causes the DO of the waterbody to decrease by more than 0.2 mg/L is in violation of the water quality standard. When sections 5.4.2.1 (managed lake) and 5.5.2.1 (estuary) of the DEIS are taken together, the DEIS predicts that lake would cause 0.25-0.75 mg/L lower dissolved oxygen in Budd Inlet than the estuary. While Ecology believes these estimates are under predictions, they are clearly above the allowed 0.2 mg/L allowance and would singularly violate the water quality standards in WAC 173-201A-210(1)(d)(i).

In Section 8.0, the DEIS states: "changes in DO would be considered an improvement if DO levels generally were expected to increase in the lower inlet. The change would be considered a major improvement if it is predicted that DO would change from frequently not meeting criteria to nearly always meeting criteria in the majority of the inlet." By definition, the natural estuary

S-4-6

The EIS has been revised to include more information and emphasis on water quality standards compliance in Budd Inlet, including new subsections specifically addressing how each alternative would comply with water quality regulations. The revisions include information from the recently released Draft Budd Inlet DO TMDL. As provided in the Draft Budd Inlet TMDL, Ecology has stated that Enterprise Services may not deplete dissolved oxygen levels in Budd Inlet at any time or location beyond the impact of the natural estuary condition, and the TMDL provides a small oxygen depletion rate that would be allowed if Enterprise Services retained the lake, but overall compliance with the TMDL under the Managed Lake Alternative would be very difficult and is not assumed. The Hybrid Alternative does not fully implement a natural estuary condition, and Ecology has not modeled this alternative; therefore, compliance with the TMDL allocation is also not assumed under the Hybrid Alternative. Ecology has determined that only the Estuary Alternative is known to comply with requirements of the Draft TMDL for Budd Inlet and therefore is the only alternative known to meet applicable water quality standards. Ecology does provide that if an alternative other than the Estuary Alternative is selected, Enterprise Services must show how water quality standards would be met through mechanistic water quality modeling.

S-4-6

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S-4-7 Thank you for the continued collaboration with Enterprise Services on the Capitol Lake - Deschutes Estuary Long-Term Management Project.

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always meets the water quality criteria. The DEIS identifies a 0.25-0.75 mg/L depression in Budd Inlet DO caused by the lake, which exceeds the allowed 0.2 mg/L. Therefore, the impact is clearly significant. However, the DEIS mistakenly identifies the impact as "minor to moderate", despite it clearly being significant according to the EIS's own findings and definitions. Please correct the impact finding to "Significant" to accurately describe the EIS's findings.

S-4-6

It is unclear if the hybrid alternative would meet water quality standards as the EIS only identifies downstream DO impact as "similar" to the estuary. Water quality modeling would be needed to show if the hybrid meets water quality standards.

The mitigation measures mentioned in the DEIS in section 5.7 are unlikely to bring a managed lake into compliance, but water quality modeling would be needed if they are used in an attempt to meet water quality standards.

S-4-7

Thank you again for the opportunity to comment on the DEIS. We look forward to the opportunity to engage and work with you on this important effort. Please don't hesitate to contact me at rich.doenges@ecy.wa.gov or (360) 789-9500 or Lawrence Sullivan at Lawrence.sullivan@ecy.wa.gov or (360) 407-6389.

Sincerely,



Rich Doenges
Southwest Regional Director

Enclosure

cc: Laura Watson, Director, Department of Ecology
Vince McGowan, Water Quality Program Manager, Ecology
Andrew Kolosseus, SWRO Water Quality Section Manager, Ecology

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ID	Page	Topic	Comment	Suggested Edit
1	ES-1	Alternative impacts analysis	The DEIS states that operational impacts are described in terms of water quality standards: <i>“Operational impacts are described primarily in terms of water quality standards ... The water quality standards assessment specifically focuses on dissolved oxygen (DO) because low DO concentrations have been a long-term problem in Budd Inlet and it has been the focus of water quality improvement planning efforts, including those of this project.”</i> However, the analysis does not accomplish that. The DEIS contains only a qualitative analysis rather than detailed quantitative analyses to understand the impact of alternatives on meeting water quality standards.	Re-write sentence to reflect that: The operational impact assessment in the DEIS is based on qualitative judgements. In terms of impacts to water quality standards in Budd Inlet, the DEIS assessment does not account for biogeochemical patterns that can produce low DO events. The degree to which the operational impacts of alternatives result in exacerbation of low DO events cannot be ascertained without a detailed, quantitative analysis able to replicate key biogeochemical patterns within the inlet.
2	ES-1	Context of current impacts of lake to Budd Inlet	The DEIS states: <i>“Eventually there may be impacts on Budd Inlet water quality due to increased nutrient and sediment loads (derived from the river) when the lakes capacity to retain sediments is lost.”</i> Why is there no mention that the existing condition has impacts to Budd Inlet now, instead of eventually? Other DEIS sections cite results from studies that point to current impacts related to nutrient loads coming from the river and the lake as well as dynamics of water movement from dam operations. But this point is not mentioned in the executive summary.	Re-write the italicized sentence to improve context about the nature of the current impacts upon Budd Inlet from the lake and river.
3	ES-2	Impact of no-action and managed alternative	The DEIS states: <i>“In lower Budd Inlet, there would be no change in impact on water quality compared to existing conditions...”</i>	Modify sentence and Table ES-2 to note that no changes in water quality in Budd Inlet from the no-action and managed lake alternative would mean that water quality standards are expected to continue to not be met under that alternative.

S-4-8

S-4-8

The Water Quality Discipline Report (Attachment 7) and Final EIS have both been revised to include specific impact statements related to numeric and narrative water quality standards. The paragraph mentioned in this comment has been revised and now describes the operational impact assessment in the EIS as being based on a comparative evaluation of alternatives and their predicted benefits or impacts on humans and cold-water fish habitat availability, as well as on predicted attainment of water quality standards.

S-4-9

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This sentence refers to the eventual condition of the No Action Alternative, when the lake-like attributes of Capitol Lake will reflect riverine conditions to an even greater extent than it currently occurs. A statement had been added to the Final EIS that the change from a waterbody with lake-like conditions to more riverine conditions will happen over a continuum of unknown duration, and that for the purpose of the Final EIS, it was assumed that the waterbody will continue to exhibit lake-like conditions and continue to influence water quality in Budd Inlet. In a number of places in the Final EIS, it has been repeated that under existing conditions, water quality does not comply with standards.

Regarding impacts in Budd Inlet under the No Action and Managed Lake alternatives, explanatory text has been added to Section 3.3 of the Water Quality Discipline Report (Attachment 7) and the Final EIS, and is reflected in the Executive Summary, describing that as is standard in an EIS, the impacts of alternatives are described by comparison to baseline or existing conditions. The EIS does not imply that existing conditions are consistent with water quality standards. A specific regulatory compliance section has been added to the impacts assessment for each of the action alternatives that describes compliance with water quality standards.

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S-4-9		to Budd Inlet	According to Table ES-2, there is no long-term impact in Budd Inlet under both no action and the managed lake alternative. However, it is important to note that improvements are needed upstream of Budd Inlet for the inlet to meet water quality standards. If there is no improvement to Budd Inlet water quality, how will water quality standards be met in Budd Inlet?		
S-4-10	4	ES-2	Impact of alternatives	The executive summary does not mention total dissolved gas (TDG) and its expected levels within the context of evaluating alternatives. Though TDG is discussed in other sections (page 4-11) it is also left out of the Analysis of Impacts section (page 3-6). The total dissolved gas in the lake can, at times, higher due to enhanced productivity. That is not mentioned as part of the water quality evaluation of the lake. Lower productivity, when accomplished under an alternative, would lead to lower TDG, which would be a positive impact.	Include a section discussing the impact of high productivity on TDG, associated with a eutrophic system, under each of the scenarios.
	5	ES-2	Deschutes TMDL and phosphorus	DEIS states that under the managed lake alternative pollutant sources would eventually be reduced through Deschutes TMDL. However, since a primary source of phosphates is from the sediments (see comment #34), large reductions of phosphates are much harder to accomplish in this system.	Include the following: Sediments are a primary source of phosphates—which the Deschutes TMDL implementation may not readily reduce.
S-4-11	6	ES-2	Impact of alternatives	The DEIS states: "In Budd Inlet there is expected to be modest improvement in DO conditions due to changes in circulation patterns and potential	Instead of this statement in the DEIS, include information directly from Roberts et. al. 2015 that

S-4-10 The purpose of the Executive Summary and the analysis of impacts sections is to highlight the key issues used to differentiate alternatives, and TDG was not considered a key parameter as it has not been the focus of previous studies. The main body of the Discipline Report acknowledges that high TDG concentrations in the lake can be attributed to higher productivity and that TDG concentrations currently exceed water quality standards.

Additional explanation on potential sediment-derived phosphorus has been included in Section 4.1.4 of the Water Quality Discipline Report (Attachment 7). See also response to Comment S-4-35.

S-4-11 The Water Quality Discipline Report (Attachment 7) and EIS have both been revised to remove the term "modest" and replace it with "minor to moderate" to use terminology consistent with the significance criteria defined for the water quality analysis. Text has been added to provide more explanation of why the range of expected changes in DO is considered minor to moderate within the context of SEPA, as defined in Section 3.3 of the Water Quality Discipline Report (Attachment 7); this is based on the area and magnitude of predicted change as suggested by the mechanistic model. Additional language has been added for each alternative to clarify water quality standards compliance; refer to Sections 5.4.3, 5.5.3, and 5.6.3 of the Water Quality Discipline Report (Attachment 7) for a discussion of regulatory consistency. See also the Global Responses for Water Quality.

TDG is not mentioned in the Executive Summary and was not addressed at length in the EIS because the lake is not listed for TDG exceedance and because TDG was not the focus of previous studies. However, a sentence has been added to the Executive Summary that DO can exceed the TDG standard, which is typical for a eutrophic lake.

The section referred to in the comment describes impacts on the lake basin; impacts to Budd Inlet are described in Section 5.5.2.1 of the Water Quality Discipline Report (Attachment 7).

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			<p><i>changes in nutrient loading after the dam is removed.</i></p> <p>Based on water quality mechanistic modeling, Roberts et al. 2015 found that the additional organic carbon load from the lake and the difference in hydraulic regimes result in large magnitudes of bottom DO depletion within inner Budd Inlet.</p>	<p>discusses in detail the impacts in Budd Inlet based on water quality mechanistic modeling.</p>	
S-4-11	7	ES-2	Impact of alternatives	<p>The DEIS states that the removal of the dam will replace the well oxygenated lake water with low DO inlet water. This qualitative statement does not capture the complexities of the system. There is a difference between a well-oxygenated lake and a lake that, at times, has TDG levels that are too high – as can happen in a eutrophic system. As shown in the DEIS in Table 4.3, median TDG values in the lake were around 125%, with a maximum observed value around 168%. Additionally, it is important to mention when referring to dam removal, that it is predicted to reduce the seasonal organic carbon load to Budd Inlet by preventing freshwater algal proliferation that is currently present in the lake.</p>	<p>Incorporate more information about DO levels regarding alternatives that incorporate dam removal. Suggested overview about this topic is below:</p> <p>Changes in DO levels under a dam removal scenario are best examined via process-based mechanistic modeling. Dam removal is predicted to reduce the seasonal organic carbon load to Budd Inlet by preventing freshwater algal proliferation and reducing organic detritus that is currently present in the lake. Consequently, dam removal is predicted to result in significant (greater than 1 mg/L) improvements to bottom DO particularly in lower Budd Inlet during the critical period (late summer/early fall).</p>
S-4-12	8	ES-2	Impact of alternatives	<p>The DEIS states that there may be a possible increase in algae in Budd if dam removed. It is important to note that this can only be examined in detail via water quality mechanistic modeling. Published modeling results in Roberts et al. 2015 indicate that overall water quality in Budd Inlet is improved when dam is removed.</p>	<p>Include information in executive summary from Roberts et al. 2015 regarding improvements in Budd Inlet water quality if dam is removed.</p>

S-4-12

Clarification has been added to the Executive Summary of the Water Quality Discipline Report (Attachment 7) that the possible increase in algae in Budd Inlet would be a result of increased nitrogen input that is predicted by the mechanistic model, but that the same model indicates that overall water quality in Budd Inlet is predicted to improve. The Water Quality Discipline Report (Attachment 7) and EIS discuss water quality in terms of individual components of water quality (algae, aquatic plants, and DO) that are considered meaningful for evaluating the key differences between alternatives.

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S-4-13

S-4-14

9	ES-2	Impact of alternatives	An addition is needed to the statement about freshwater reflecting pool. DEIS states it would require active management to avoid impacts to public health and visual quality. But the DEIS does not mention consideration of water quality downstream in Budd Inlet. Downstream water quality, in Budd Inlet, needs to be considered for all alternatives.	Add a statement that downstream water quality is a consideration for all alternatives. In the case of the freshwater reflecting pool, management should include consideration of water quality downstream in the inlet.
10	ES-4, Table ES-2	Impact of alternatives	Impacts listed in Table ES-2 separate water quality impacts into: "DO concentrations and algae blooms" and "aquatic plants". This breakdown of water quality impacts constricts understanding of whole ecosystem changes and the resulting water quality. For instance, the DEIS descriptions about Table ES-2 referring to DO concentrations focus solely on simply higher DO levels as being better. However, if DO levels become too high, that cannot be considered an improvement. Evaluation of multiple key biochemical parameters at adequate temporal and spatial scales is needed to fully describe water quality impacts. What Table ES-2 does not provide is a clear, process-based indication of how each of the alternatives' long-term changes to physical channel morphology, water movement, and the deposition of dredged materials within the channel will affect the biota and the water quality. A process-based, or mechanistic, understanding of how the underlying chemistry and the mix of phytoplankton, macroalgae and rooted aquatic plants will shift with	Describe the limitations of the current DEIS approach and consider revising Table ES-2 to better incorporate a whole ecosystem approach.

S-4-13

S-4-14

The sentence has been modified to include minimizing impacts to Budd Inlet as part of the active management.

The water quality analysis in the EIS is not intended to describe in detail the potential permutations on all parts of the ecosystem from each alternative or to evaluate the degree of human-induced eutrophication on water quality. Its purpose is to provide an understandable, comparative analysis of alternatives with a focus on water quality factors that have historically been of most concern and that differentiate the alternatives. These include DO concentrations (the water quality component that has received the most study over the years), algae blooms (a human aesthetic and health issue), and aquatic plants (a human aesthetic and recreation issue). The different alternatives impact these attributes in different ways in different parts of the Project Area, and describing the components individually allows an understanding of how the alternatives are differentiated. The EIS Project Team and Enterprise Services evaluated the project alternatives comprehensively as part of the process to identify a Preferred Alternative. Please refer to Attachment 21 of the Final EIS for a summary of this review process.

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S-4-15

The text has been revised to state that there is “no change in impact,” which indicates that existing conditions may already be adversely impacted, but no changes are expected to occur in terms of improvements or worsening conditions. Table ES-2 in the discipline report now contains a specific line item related to each alternative’s compliance with water quality standards; in addition, a footnote has been added to Table ES-2 to explain that under existing conditions, there may already be adverse impacts. Similar updates have been made in the Final EIS Summary. See also response to Comment S-4-9.

Regarding Table ES-2 and the impacts under the Managed Lake Alternative, see responses to Comments S-4-9 and S-4-15.

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			<p>each of these alternatives is needed to evaluate the degree of human-induced eutrophication and water quality.</p>	
S-4-14	11	ES-4	<p>Impact of alternatives</p> <p>Table ES-2 lists benefits in terms of DO and algae blooms in Capitol Lake Basin with the no-action alternative as “minor to moderate”, states a “significant impact” in terms of aquatic plants and states “no adverse impact” in long-term WQ in Budd Inlet (DO conc, algal blooms).</p> <p>The basis for the categorizations in Table ES-2 are not clearly spelled out. What is meant by “minor to moderate benefit” in terms of water quality in the Lake from a no-action alternative? Benefit with respect to what and when? Is the premise that a shallower lake, with more sediment deposition, results in better water quality? Can the impact of a progressively shallower lake from a water quality perspective be both “minor” and “significant”, as this table implies? It is also unclear what is meant with “No adverse impact”, as there currently already are adverse impacts.</p> <p>Mechanistic modeling has shown strong influence of the lake on Budd Inlet’s water quality due to:</p> <ol style="list-style-type: none"> 1. Algal blooms and organic detritus in the lake are a significant source of organic carbon load to the Inlet. 2. Dam changes the hydrodynamics in Budd Inlet. 	<p>Revise table ES-2 so that the no-action alternative is more accurately reflected in terms of current impacts and potential future impacts.</p>
S-4-15				

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12	ES-4	Impact of alternatives	Table ES-2, shows the no action and the managed lake alternative impacts categorized as "No significant and unavoidable adverse impact" with respect to Budd Inlet. Since the baseline is the current condition, and the DEIS states that there will be no change in impact under the managed lake alternative, the table inaccurately shows "No significant adverse impacts" in the last column for both alternatives. Roberts et al. 2015, using process based, mechanistic water quality modeling, reports on the downstream impacts of the lake to Budd Inlet.	Note in Table ES-2 that the no-action and managed lake alternatives do present significant impacts downstream (Budd Inlet).
13	2-6	NPDES permits	Scope of potentially impacted permits is larger than what is listed (those in Deschutes watershed), and could include all those draining to Budd Inlet.	Revise language to indicate that the scope of potentially impacted permits is larger than what is listed.
14	3-1	Study area	East Bay does not appear to be included in the study area in Figure 3-1.	Include East Bay in the study area designated in Figure 3.1, as described in the narrative.
15	3-3	Study referenced	The DEIS references the South Puget Sound Dissolved Oxygen Study: Water Quality Model Calibration and Scenarios (Ecology, 2014) used to compare Budd Inlet to other South Puget Sound Inlets. It is important to note that this study does not include the impact of Capitol Lake in Budd Inlet. In addition, although page 3-3 states this study was used for comparison of inlets, the DEIS more used Ahmed et. al. 2019 report for that purpose.	Change the reference in page 3-3 to Ecology's 2019 report (Ahmed et al.2019), which is the study used for the comparison.

S-4-15

S-4-16

S-4-17

S-4-18

S-4-16 The list of potentially impacted permits has been removed and replaced with a general discussion about the types of permitting discharges and to refer to the TMDLs for more information.

S-4-17 East Bay has been included in the study area designated in Figure 3.1, as described in the narrative.

S-4-18 The reference in page 3-3 has been revised to include Ahmed et al. (2018) as well as Ecology (2014) since both information sources were used to compare the Inlets. It is acknowledged that the South Sound model does not explicitly evaluate impacts from Capitol Lake, and therefore it represents existing conditions with the lake in place.

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S-4-19 See the Global Responses for Water Quality.

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16	3-4, 4-2, 4-5	Trend analysis	<p>The WQDR (page 3-4) states that lake and river data utilized for analysis starts in 2004 but does not mention that earlier data are available. Page 4-5 states: "The year 2004 was selected as the starting date to eliminate water quality data collected before 2004 when the brewery was still in operation."</p> <p>It is unclear why the closure of the brewery would dictate the time series for analysis of a long-term trend. Without clearly establishing that the brewery was a key driver to water quality trends in the lake, it does not make sense to segregate data. Discarding several years of data without a clear justification is not appropriate when trying to understand long term trends.</p> <p>Nonetheless, even if one wanted to segregate data before and after brewery discharges, one would not use 2004 as the delineation point, as was done in the DEIS. The selected time period in the DEIS for starting the trend analysis does not actually correspond to when the Olympia Brewery closed. The reported time when the brewery closed is June 2003 (www.theolympian.com/news/local/article24875277_0.html).</p> <p>The extremely large outlier event in October 2004 (which may be tied to large nutrient release from plant die-off following herbicide application in the lake that year) further confounds the trend analysis reported in the DEIS. See our general comments section on this topic.</p>	<p>Re-consider the timeline used for the long-term trend analysis. Use the entire dataset which begins in 1999 for completeness and objectivity. Consider conducting further trend analyses for loads, rather than concentrations, using the entire data set.</p> <p>Discuss why it is appropriate to include the full data set (1999-2014) in order to understand if there are any changes in the lake's long-term trend.</p>
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S-4-19

S-4

COMMENT

RESPONSE

S-4-20

Regarding the comments on the analysis of long-term impacts as presented in the Draft EIS, see response to Comment S-4-14 and the Global Responses for Water Quality.

Language has been added to the Water Quality Discipline Report (Attachment 7) that clarifies that the existing conditions is used as a benchmark for which to compare impacts of alternatives (as is standard for an EIS), and that this does not imply that water quality standards are currently being met. The reader is referred to the sections that address consistency with water quality standards (i.e., Sections 4.12, 4.2.2, 5.4.2, 5.5.2, and 5.6.2 of the Water Quality Discipline Report [Attachment 7]).

The impact analysis has been modified to include statements related specifically to the impact of alternatives on numeric and narrative water quality standards. This clarifies that the standard is not met under existing conditions.

See also responses to Comments S-4-9 and S-4-15.

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17	3-5	Impacts of alternatives	<p>The DEIS states: "Future long-term adverse impacts and beneficial effects associated with water quality conditions and management actions for each of the four project alternatives are evaluated using a combination of information on long-term trends, current conditions, and model predictions of environmental factors affecting water quality."</p> <p>See comment #10. An analysis of future long term adverse impacts and beneficial effects for all alternatives requires more work. The limitations of the current analysis are not spelled out. The trend analysis is misleading and based on an arbitrary starting point with a very large outlier. Mechanistic model predictions were overlooked or not appropriately considered.</p>	List the limitations of the DEIS analysis with respect to future long-term adverse impacts in this section.
18	3-7	Impacts of alternatives	<p>This section contains descriptions of the qualitative approach used to define various operational classifications: No Change, less-than-significant, and significant impacts, minor-to-moderate and substantial benefits.</p> <p>This approach may lead to the conclusion that existing conditions are good. However, existing conditions are already causing an adverse water quality condition. Apparently, here, the "no change" means impact perceived to not going to get any worse than it currently is. However, such an approach has obvious limitations. Using this approach, the DEIS cannot adequately address which alternatives meet water quality standards.</p>	<p>Discuss limitations of the approach taken.</p> <p>How does the DEIS address situations when existing condition has been shown to be adverse, such as impairing downstream marine waters?</p> <p>Include information relevant to how the DEIS addresses assessment of impact with respect to water quality standards. For example, in the case of downstream impacts, when DO concentrations in Budd Inlet are predicted to be naturally below the numeric criteria, cumulative impact of all anthropogenic loads/activities cannot deplete DO by more than 0.2 mg/L below reference conditions.</p>

S-4-20

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S-4-21

Regarding the use of terms “strong” and “weak” when referring to Kendall Tau’s trend, multiple references define the thresholds for strong and weak differently, depending on application and parameter. All text regarding the relative strength of a trend has been eliminated.

See also the Global Responses for Water Quality.

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				<p>When analyzing alternatives, the entire water quality standard should be considered.</p> <p>Replace the definitions of significant and substantial to “if it is predicted that DO would change from frequently not meeting criteria to nearly always meeting criteria in the majority of the inlet.” This definition is already used in section 8.0. The criteria from the state’s water quality standards are regulatory (codified in WAC 173-201A), objective, and quantitative. They are Washington State’s water quality standards established under the federal clean water act. Use the criteria from the water quality standards for the definition of “significant adverse impact” and “substantial benefits”.</p>
19	4-2	Trend analysis	<p>The DEIS states: <i>“The fact that there were strong trends for key parameters indicates that data from earlier in the data record is not representative of current conditions and therefore is not appropriate to use to evaluate current conditions.”</i></p> <p>It is unclear what this sentence is referring to. More specificity is needed--which parameters, which trends are qualified as “strong”, and why? The presence of a large outlier event at the start of the period puts in question whether the reported trend is real.</p> <p>The analysis performed for the DEIS has not demonstrated a strong improvement in key trends in water quality in the lake. The statistic mentioned,</p>	<p>Discuss that the choice of starting point makes a difference in estimated trends. Specify thresholds for what could be considered a strong or a weak trend and why. Instead of disqualifying data for what appears to be an arbitrary reason, use the entire data set to conduct analysis.</p>

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			<p>p-value, does not signify the underlying trend in rank is "strong" or "weak" but rather represents the probability of the trend occurring randomly.</p> <p>Ecology analyzed the full Thurston County data set for chlorophyll, secchi depth, TN and TP starting in 1999. We do not see strong trends. Tau values, which represent the degree of agreement of the rank correlations, fall below an absolute value of 0.33—an agreement that Kendall (1948) qualified as "poor". Furthermore, when using the entire data set, the p-values fall below the level of significance defined as the threshold of significance in the DEIS. As a result, we don't see discernible trends for chlorophyll, secchi depth, TN and TP for the entire data sets. Further analyses should be conducted for loads, rather than concentrations, using the entire data set.</p>	
S-4-22	20	4-3	Citation error	<p>The DEIS incorrectly cites Ecology 2020 as source of Capitol Lake detention time calculation, this is US EPA. No reference for Ecology 2020.</p> <p>Fix citation.</p>
S-4-23	21	4-3	Detention time	<p>DEIS states that detention time is 0.6 to 7.9 days when not considering low flow conditions.</p> <p>Use low flow (recent data) to estimate detention times for dredged lake. This would be the critical condition for the lake detention times.</p>
S-4-24	22	4-5		<p>The DEIS states: "Conversely, a positive trend in DO would also signify that DO is increasing but would represent an improving trend in water quality."</p> <p>Consider a sentence modification: "Conversely, a positive trend in DO <i>may</i> signify improving trend in water quality."</p>

S-4-22 The citation has been corrected.

S-4-23 The final Water Quality Discipline Report (Attachment 7) and Final EIS clarify how detention time is defined in the standards, and describe that it is based on the low-flow period and reports Ecology's calculation. These revisions include the detention time calculated from the water budget analysis and note that it is based on average conditions.

S-4-24 Since the increasing DO trend can be both positive and negative, the text has been modified to remove the example. Refer to Section 4.1.2 of Final EIS Supporting Chapter 4.0.

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S-4-25 See the Global Responses for Water Quality.

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			<p>However, if DO in a lake increases beyond supersaturation (due to increased productivity), it is not a positive trend.</p> <p>The DEIS later on, in page 4-11, does state that DO can also be too high and this could be referenced in the trends section.</p>	<p>Also, reference information from page 4-11 in page 4-5. The paragraph in page 4-11 of the DEIS that addresses this is the following:</p> <p><i>"DO can also be too high and result in supersaturated conditions that can also be a hindrance to aquatic life. This is measured as total dissolved gas or TDG. The TDG standard was established due to concerns with super-saturated conditions at dam spillways and the impact on fish. However, supersaturated DO is also common in eutrophic lakes and is associated with high rates of photosynthesis by plants and algae."</i></p>
23	4-9	Trends	<p><i>"Of these parameters, surface pH (negative Tau), surface TP (negative Tau), chlorophyll-a (negative Tau), and Secchi depth (positive Tau) all indicate lower productivity and an improving water quality trend."</i></p> <p>The trend analysis was done on concentrations, and do not necessarily reflect lower productivity. Concentrations vary depending on lake volumes, which depend on river flow, and for chlorophyll and algal growth parameters depend on other climatological factors such as temperature and light. Furthermore, only the sign of Tau is mentioned, not the magnitude of the rank correlation values themselves which are not in a range that signify clear, strong agreement between the rank order for time and concentrations. Lastly, the analysis appears to be heavily influenced by the starting date of the analysis, which includes at least</p>	<p>Re-word this sentence with qualifiers that incorporate the limitations of the analysis conducted.</p>

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Regarding water quality in the lake, see the Global Responses for Water Quality.

Regarding the cited reference (Colby, Spangler et al.), the reference supports the EIS assessment. This reference indicates that, typically, eutrophic lakes have poor oxygen conditions, chemical stratification, and poor transparency (caused by algae), and these conditions can be hard on salmonids. Capitol Lake does not stratify, has generally plentiful oxygen, and fair transparency, which is atypical for a eutrophic lake.

Regarding chlorophyll concentrations, the referenced sentence has been revised to restate that chlorophyll concentrations are in the range for eutrophic lakes and includes clarification that the concentrations are considered relatively low when compared to other lakes in the region and when viewed with respect to the phosphorus available.

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			one large data outlier near the beginning of the time series.	
24	4-15	Water quality in lake	<p>The DEIS states that WQ in lake is relatively good, while also acknowledging that lake is eutrophic (Table 4-4). The DEIS states: "Overall, the lake data (2010-2014 and 2019) indicate that Capitol Lake currently has relatively good water quality in terms of physical characteristics important to aquatic life"</p> <p>This sentence is inconsistent about what is known regarding eutrophic systems and habitat. A eutrophic lake is not considered "relatively good" for various aquatic organisms, including salmonids. See for example, Colby, P.; Spangler, G.; Hurley, D.; McCombie, A. <i>Effects of Eutrophication on Salmonid Communities in Oligotrophic Lakes</i>, Journal of the Fisheries Research Board of Canada, Vol.29. 1972</p>	Re-word this sentence to reflect impacts of a eutrophic lake to salmonids and other aquatic life.
25	4-15	Lake condition	<p>The DEIS states: "Chlorophyll concentrations are also relatively low, especially in light of the lake's eutrophic condition."</p> <p>However, observed chlorophyll concentrations are firmly within the range of eutrophic conditions. Note that Table 4.4 in the DEIS shows observed average chlorophyll concentration in Capitol Lake between 2010-2014 is 12.3 ug/L, and the eutrophic range shown in the same table is between 7.1 and 20 ug/L.</p>	Re-word or remove sentence.

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Regarding TOC, the Water Quality Discipline Report (Section 4.1.2) and Section 3.3.3.1 of Final EIS Supporting Chapter 3.0 have been revised to more clearly show the relationship of river and lake TOC concentrations, including during the critical season identified by Ecology’s model. TOC load estimates and comparisons have also been included to further demonstrate the relationship, with an emphasis on the critical season and time period.

See also the Global Responses for Water Quality and response to Comment S-4-27.

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S-4-26	26	4-17	Lake comparison	<p>The DEIS states: "Overall, Capitol Lake exhibits relatively good water quality when compared to other lakes in the area. The chlorophyll concentrations are low and Secchi depths are moderately good..."</p> <p>Comparison of Capitol Lake with other deeper lakes with much different hydrology is not a meaningful comparison. Refer to general comments section about this topic.</p>	<p>Re-write or remove this section. If the section remains, discuss how this comparison, with lakes that are deeper and hydrologically much different, is relevant to determining impacts and benefits of Capitol Lake/Deschutes Estuary management alternatives.</p>
S-4-27	27	4-19	TOC load increase in Capitol Lake	<p>Although the DEIS acknowledges that TOC in the lake is consistently higher than in the river, it does not put into perspective the difference in the additional load. Consider these DEIS statements:</p> <p>"TOC increased by approximately 1 mg/L between the Deschutes River and North Basin..."</p> <p>"While TOC in the lake is consistently higher than the river through most of the summer, they are both generally low overall (below 3 mg/L), with the important exception of the peak that occurs in the lake during late summer or early fall due to plant die-off."</p> <p>The first statement does not focus on the critical season when differences between the river and the lake are most accentuated, in the late summer/early fall during and following aquatic plant senescence.</p> <p>The second DEIS statements below refers to the 2019 monthly observations and qualifies the difference between the river and lake as being</p>	<p>Re-write this section.</p> <p>Put in perspective the human-caused TOC loads in the system by comparing lake loads with other anthropogenic discharges.</p> <p>For instance, consider the difference in TOC load between Capitol Lake and Deschutes River that can be estimated from 2019 measurements—particularly during the critical late summer/early fall season. The calculated mean difference of the TOC concentration between the lake (North Basin) and the river during the critical season using 2019 data from the DEIS is 2.21 mg/L. This is based on data from Table B-1 in the WQDR for surface and bottom TOC observed during September and October 2019, and the corresponding data from Table B-2 for Deschutes River.</p> <p>Calculating the additional TOC load from Capitol Lake using that difference in concentration between the lake and the river results in an estimated mean of about 1280 lbs/day during September-October 2019. That value is based on</p>

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			<p>"generally low overall", without a basis for that qualifier.</p>	<p>the mean daily Deschutes River discharge measured by the USGS (107.3 cfs) for that period.</p> <p>For comparison, the mean TOC load that LOTT discharged during September-October 2019 is estimated to be about 885 lbs/day. So, the additional TOC load from the lake compared to the river was roughly 144% larger than the TOC load coming from LOTT during September-October 2019.</p>
28	4-19	TOC	<p>Reference is made in the following sentence to an outlier TOC value measured in 1997. To accurately represent differences between lake and river measurements, temporal consistency of lake/river observations are important. From DEIS: "TOC increased by approximately 1 mg/L between the Deschutes River and North Basin which represents a 50% increase, but when compared to the range of TOCs measured in this system of f.e., up to approximately 30 mg/L. (LOTT 1998)..."</p> <p>Comparison of a 2019 TOC average increase in the lake to a 1997 lake TOC outlier doesn't provide a clear picture. Additionally, comparisons between lake and river concentrations should correspond to the time period each was taken to be meaningful. Why compare a relative difference from one year with an absolute value outlier measurement from another?</p> <p>Year to year variation in climatology, hydrology and oceanic conditions is a key driver for water quality experienced in the river, the lake and the inlet.</p>	<p>Re-write sentence. If comparing to data from other years, use consistency in comparisons of statistics (temporal relative lake/river average differences to corresponding lake/river relative average differences). Discuss causes for inter-annual variability. Be cautious when comparing to outliers, and if doing so, point it out.</p>

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It is acknowledged that there are numerous methods of estimating oxygen demand and that the relationships between TOC and expected BOD are tenuous and beyond the reach of the EIS. The sentence correlating TOC and BOD has been removed from the Final EIS and Water Quality Discipline Report (Attachment 7).

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			<p>Inter-annual variability differences matter. For example, March of 1997 was wetter and warmer than 2019; September 1997 also had a greater number of days higher than 70F and more precipitation than September, 2019.</p> <p>Additionally, during a few days in late July 1997, precisely when the outlier mentioned was observed, the lake experienced a drawdown.</p>	
29	4-20	BOD vs TOC in Lake	<p>The DEIS states: "Although an increase in TOC was noted in the lake it did not appear to result in a commensurate increase in BOD. Theoretical relationships related to stoichiometry and respiration can be used to estimate potential DO demand from TOC (Welch and Jacoby 2004). Based on these relationships, the mass ratio between oxygen and carbon is 3.89."</p> <p>It is unclear how the 3.89 mass ratio between oxygen and carbon mentioned in the DEIS was obtained.</p> <p>The methodology to estimate TOC from BOD-5 is the following:</p> <p>Assuming that the BOD-5 samples reported were unfiltered, one would need to use a reaction rate equation and estimated rate of reaction to convert to ultimate BOD, from which organic carbon could be then estimated. Welch and Jacoby (2004), the reference cited in the DEIS, contains a first order equation for BOD. Using the Welch and Jacoby (2004) first order rate of reaction equation, and an estimated reaction constant of 0.09 (estimated from</p>	<p>Re-write the paragraph starting with the italicized sentence in the DEIS, using reaction rate equations to describe the relationship between BOD-5, ultimate BOD and organic carbon.</p> <p>Suggested language to include in the new paragraph is below:</p> <p>Since ultimate BOD values were not measured, unfiltered BOD-5 samples can provide only a rough estimate of TOC. Assuming TOC analyses were derived from the same sample as the BOD-5 observations, 2 mg/L of BOD-5 in the lake, can be estimated to be around 5.5 mg/L of ultimate BOD, and would be expected to be about 2 mg/L of TOC.</p>

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In regard to the reporting limit of 4 stated in the QAPP, a reporting limit of 2 was achieved for all samples.

In regard to predicted relationships between TOC and BOD, see response to Comment S-4-28. We acknowledge that there are multiple ways to measure oxygen demand, and their relationship to TOC would differ.

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		values used for mechanistic modeling of the lake), a 2 mg/L BOD-5 value can be estimated to be about 5.5 mg/L ultimate BOD, which in turn can be estimated to be around 2 mg/L TOC. This is using the stoichiometric relationship of 2.67 grams of oxygen per gram of carbon. It is important to note that ultimate BOD was not measured, and so unfiltered BOD-5 conversions to TOC are rough estimates, not considering the hydrolysis rate of particulates in the calculation, and that the QAPP does not specify whether TOC analyses were derived from the same sample used for the BOD-5 observations.	
30	Impact of TOC on the inlet	The impact in Budd Inlet of TOC derived from the lake cannot be understood by solely considering the BOD-5 measured within the lake. Again, note that ultimate BOD was not measured. Additionally, the reporting limit for BOD-5 in the DEIS QAPP Addendum (Table C-1 in Appendix C) was 4 mg/L, a relatively high reporting value for lake or river waters. Furthermore, and more importantly, we are interested in BOD increases in the Budd Inlet side of the Capital Lake outlet, where freshwater algae die and exert an additional BOD. It has been documented that the dead algae exert 2.55 times the BOD compared with live algae (BOD of algal suspensions, Stanley Dea, PhD dissertation, Arizona State Univ. 1963). This additional or secondary BOD, implicit in TOC measurements, impacts Budd Inlet, but the DEIS does not mention it. Instead, the DEIS states:	Remove this sentence from the DEIS: "A further indicator that TOC concentration increases in Capitol Lake are not driving large changes in BOD are the BOD values themselves," since the data presented does not support the assertion made.

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The text has been revised in Section 4.2.4 of the Water Quality Discipline Report (Attachment 7) to clarify that Ecology’s model prediction is associated with the period in 1997 of near peak concentrations and the period of maximum difference between the lake and river, and that the relative difference is expected to vary as a result of interannual variation. The figure has been revised to remove the reference to the 1997 post-dam TOC prediction.

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			<p><i>"A further indicator that TOC concentration increases in Capitol Lake are not driving large changes in BOD are the BOD values themselves."</i></p> <p>This statement overlooks the fact that secondary BOD --the term used in Welch and Jacoby (2004) -- as well as lack of ultimate BOD data and high reporting limits for BOD-5 all limit the amount of information that can be derived from the 2019 BOD measurements.</p>	
31	4-21	TOC	<p>Figure 4.6 contains an error. The line drawn across all months, compared with 2004 and 2019 observations, and labeled: " <i>Estimated post-dam conc (Ecology 2015 b)</i>" is an inaccurate interpretation of the reference cited. The reference cited (Roberts et al., 2015) shows that the prediction corresponds to 1997 conditions and does not show a constant estimated "post-dam" concentration of TOC. Instead, it shows that TOC is predicted to vary seasonally, in line with the observations. TOC during late summer with the dam was predicted by Roberts et al. 2015 to be above 5 mg/L at its peak in September 1997. Conversely, for the estuary scenario, during the same 1997 peak period, TOC was predicted to be around 2 mg/L.</p> <p>Mechanistic model predictions are specific to conditions occurring in each of the model timeframes. Mechanistic models account for inputs such as atmospheric temperature, solar radiation, precipitation, flow—among other variables. The use of a near-peak prediction value for a 1997</p>	<p>Remove line labeled: " <i>Estimated post-dam conc (Ecology 2015 b)</i>", as it is not accurately representing results from the study cited.</p>

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S-4-31 See the Global Responses for Water Quality.

S-4-32 See response to Comment S-4-30.

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			<p>scenario as a constant to represent the "estimated post-dam concentration" and then the comparison with the monthly lake observations from two other years with different hydrology/climatology is not meaningful.</p> <p>For additional information refer to comment #41.</p>	
32	After D-1, page not numbered	Trend analysis	<p>The DEIS states: "The trends are determined to be positive or negative from the calculated Tau for the related time series. The Tau value indicates the sign of the trend and can be either positive (increasing) or negative (decreasing)."</p> <p>This description misses one important component of the Tau value—its magnitude. Kendall (1948) makes it clear that the absolute magnitude of Tau directly relates to how small (weak) or large (strong) the trend is.</p>	<p>Point out that the absolute magnitude of Tau values relates to the strength of the trend. Kendall (1948) considered magnitudes of around 0.60 "substantial", and of around 0.30 "poor".</p> <p>Kendall, M. Rank Correlation Methods, 1948</p>
33	4-30	TOC	<p>DEIS states that: "Ecology estimated that concentrations would be approximately 2mg/l without the dam as compared to approximately 5 mg/l with the dam (these estimated concentrations appear to represent an approximation of average conditions during summer months). . . . The concentrations mentioned in that sentence refer to near peak loads, in September 1997. Peak loads occur when TOC is accentuated due to senescence of aquatic plant material. The maximum difference between the lake and the estuary (no dam) is expected during late summer/early fall, though the</p>	<p>Clarify in the italicized sentence that the concentrations referenced for lake and estuary (without the dam) represent predicted conditions in September 1997 during near peak loads. Inter-annual climatological and hydrological variations impact the magnitude of that difference.</p>

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S-4-33

The phosphorus budget has been revised to include the assumption that the calculated residual phosphorus was attributed to internal loading based on Ecology’s sediment flux experiments. It is also noted that this is likely an overestimate based on field data, which indicates that phosphorus concentrations do not increase in the bottom waters of Capitol Lake, which is typically observed in lakes with high internal loading.

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			magnitude of the relative difference is expected to vary as a result of interannual variation. For additional information refer to comment #41.	
34	4-26 and Table 4.10	Phosphorus	The DEIS states: "Internal loading of phosphorus (derived from release from the sediments) was not calculated or accounted for as part of the phosphorus budget. In many lakes this is a significant source of summer TP loading (Nürnberg and LaZerte 2016), but in Capitol Lake the high DO and relatively low phosphorus concentrations measured in the bottom waters indicate that loading from sediments was not significant." Research conducted and reported on PO ₄ sediment fluxes was not used in this analysis.	Consider revising and including the following points: 1. Roberts et al. 2012 reports on measured PO ₄ fluxes from sediments in the different regions of the lake. The total PO ₄ load into the lake waters from sediment fluxes in summer months (May-Oct) is 955.7 Kg. Consider revising Table 4.10 so that it includes this load to Capitol Lake. 2. The residual TP in Table 4.1 is labeled as sedimentation. Note that this would also include phosphorus taken up by algae and macrophytes existing in the lake 3. Consider re-analyzing the phosphorus budget in terms of bioavailable P (PO ₄). A large portion of TP leaving the lake may be entirely due to algal P which is derived from PO ₄ . Less than half of TP from Deschutes River is PO ₄ . The PO ₄ flux from the sediments may be sufficient to support a healthy algal population.
35	4-27 and Figure 4.9	Phosphorus	The DEIS states there were likely relatively constant inputs of total phosphorus (TP) to the system that were not specifically represented in the TP budget. We agree with this assessment. That constant input is the phosphorus flux from the sediment that is not included in the TP budget.	Point out that the expected constant input of total phosphorus is most likely the phosphorus flux from sediment that is not included in the TP budget. May cite Ecology's studies and observations regarding this.

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S-4-34 See the Global Responses for Water Quality.

S-4-35 This sentence had been revised to indicate that while phosphorus concentrations will decrease, the lake is likely to continue to be eutrophic. Additional explanation states that based on the low chlorophyll concentrations relative to phosphorus concentrations, Capitol Lake appears to be nitrogen limited under existing conditions (i.e., with existing sediment flux). If phosphorus concentrations are substantively decreased, the lake could become phosphorus limited, which would change algae growth dynamics and further reduce chlorophyll concentrations.

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36	4-28	Ecology study	The DEIS states: "The supplemental data [Ecology] collected represents a comprehensive data set for some of the analytes such as TOC, BOD, and DIN that are key to the modeling predictions. As documented in the study, an herbicide treatment was performed in the summer of 2004 to eliminate Eurasian watermilfoil... Thus, the magnitude and seasonal relationships for nutrient and TOC discharges to Budd Inlet in 2004 would not have been typical." We agree that 2004 was not a typical year, and it should not be used as the starting point for a long-term trend analysis as the DEIS does. With respect to the use of 2004 data for lake model calibration, Roberts et al. 2012 (Appendix H) reports that Ecology accounted for the herbicide application, and developed kinetic rates for pre and post the application. Only the pre-application rates are used for further lake modeling. See other information about this in comment #43.	Re-write paragraph and point out that Ecology controlled for the atypical 2004 year in the modeling conducted. Ecology used pre-herbicide rates for model verification using 2001 data, per Roberts et al. 2012. Those pre-herbicide rates were also used for modeling conducted for 1997. The WQDR italicized language stating that 2004 was not a typical year for the lake is accurate, and clear grounds to re-consider the starting point of the DEIS trend analysis. As pointed out previously, the extremely large outlier in October 2004 could be the result of excessive amount of plant tissue senescence due to the application of herbicide in the lake that summer.
37	4-29	Phosphorus	States that if EPA target for Deschutes TMDL for TP are met then water quality in lake will greatly improve. Phosphorus sediment fluxes have been measured and shown to be significant (see information provided in comments 34 and 35). This source of phosphorus is not readily reduced.	Note that sediment fluxes may provide ample phosphorus for excessive algal growth.

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38	4-30, Table 4.7		The DEIS states: "Generally, the concentrations of nitrogen are higher in the river than in the lake. Similarly, in 2019 (Table 4.7), the mean TN concentration in the lake was only 62% of what was measured in the river." Table 4.7 compares 2019 Deschutes River TN values with 2010-2014 average TN values for North Basin.	Use temporally consistent data for TN in Table 4.7.
39	4-32	DO Standard	Table 4.12 does not adequately convey when the applicable water quality standard is met or not. The portion of the standard referred to in Table 4.12 is limited to the numeric criteria. The second part of the DO standard, when natural conditions are below numeric criteria, is not addressed in that table.	Clarify that Table 4.12 is comparing only to one part of the DO standard (the numeric criteria) and is missing information about compliance with the second part of the criteria.
40	4-37	Budd Inlet sediments	The DEIS states: "The average total organic carbon (TOC) concentration in Budd Inlet is 3.7%, which slightly exceeds the typical range of 0.5 to 3.5% for Puget Sound (Ecology 2019a)." The sentence above does not clearly convey observational records. Budd Inlet sediment TOC content does stand out compared to all the long-term sediment stations monitored in the Puget Sound. Partridge, et. al. (2018) point out that 95% of the long-term Puget Sound sediment stations have TOC levels less than 3%. They also point out that Budd Inlet observations show the highest organic carbon percentage among all long-term Puget Sound stations.	Modify sentence to provide a fuller picture: Budd Inlet sediments have the highest total organic carbon observed among long-term sediment monitoring stations in Puget Sound. Furthermore, few benthic animals are found at the Budd Inlet station. Taxa richness and abundance at Budd Inlet are the lowest of the long-term monitoring stations. (Partridge, et. al. 2018). Partridge, V., S. Weakland, M Dutch, D. Burgess, and A. Eagleston; <i>Sediment Quality in Puget Sound: Changes in chemical contaminants and invertebrate communities at 10 sentinel stations, 1989-2015</i> , WA Department of Ecology publication 18-03-005.

- S-4-36 The table and text have been revised to show only recent data for both the river and the lake.
- S-4-37 Table 4.12 has been revised to more clearly denote that this is the numeric DO standard, and the text has been modified to reference the narrative standard. Impacts (or benefits) to both the numeric and narrative DO standard are summarized in the alternatives impacts analysis (Section 5 of the Water Quality Discipline Report [Attachment 7]).
- S-4-38 The sentence has been revised to describe that sediment TOC concentrations in Budd Inlet are high relative to other Puget Sound sites, and that the benthic community has lower diversity and fewer individuals than other Puget Sound sites.

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S-4-39 See responses to Comments S-4-27 and S-4-30 and the Global Responses for Water Quality.

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Comment ID	Section	Topic	Comment	Response
41	4-41	TOC	<p>DEIS states that: "TOC is already within Ecology predicted range for an estuary. Under the modeled conditions (Ecology 2015b) it was predicted that without the dam the TOC concentrations at the outflow from Capitol Lake would be substantially lower (2 mg/L) than with the dam (5 mg/L). Yet, field data from 2004 and 2019 both indicate that average TOC concentrations in the outflow are already close to 2 mg/L. (Figure 4.7)."</p> <p>The inconsistencies of this argument are explained above (see comments 31, 33). Ecology predictions as reported by Roberts et al. 2015 are used incorrectly.</p> <p>Incongruently, the DEIS states that lake TOC averages for the years 2004 and 2019 are compared to a predicted value which is actually close to the peak TOC predictions for an estuary (without dam) scenario in September, 1997 reported by Roberts et al. 2015.</p> <p>The most critical period in terms of dissolved oxygen in Budd Inlet is late summer and early fall. The TOC observations fluctuate throughout the year, and in 2019, TOC is not 2 mg/L near the lake's outlet (North Basin) during the critical period of late summer/ early fall. Actually, the 2019 observed North Basin lake average (surface and bottom) TOC concentration were 3.6 mg/L and 6.3</p>	<p>https://apps.ecology.wa.gov/publications/documents/1803005.pdf</p> <p>Remove this misinterpretation, and the entire paragraph in page 4-41, from the DEIS. It is a misinterpretation of Ecology's modeling work. Make appropriate changes to conclusions in other sections of the DEIS.</p>

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		<p>mg/L in September and October, 2019, respectively. It is misleading in the DEIS to state that TOC concentrations are "already close to 2 mg/L" without qualifying when.</p> <p>The maximum observed North Basin lake surface TOC concentration in 2004 (Figure 4.7) was about 7.5 mg/L and in 2019 was about 6.7 mg/L. The predicted lake scenario maximum concentration was just under 6 mg/L in 1997 (Roberts et al. 2015). The timing of the maxima is late summer/early fall—for 2019 it is shown in Figure 4.7 in October. However, Figure 4.7 depicts only surface TOC data for 2019. The September 2019 TOC data for the lake bottom is reported in the DEIS as 5.3 mg/L. So, 2019 observations show that TOC North Basin lake levels, on a water column average, were higher in September than in the earlier part of that year.</p> <p>Estuary (without dam) TOC concentration predictions are not available for 2004 nor 2019. For 1997, the estuary TOC concentration predicted to occur at the time period corresponding to the lake maximum prediction was about 1.5 mg/L. The 1997 TOC estuary prediction fluctuated between above 2 mg/L and below 1 mg/L during that year (Roberts et al. 2015). This is inconsistent with the constant line drawn in the DEIS in Figure 4.7 at 2 mg/L and depicted as representing predicted conditions for 2004 and 2019.</p>	
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S-4-40 See response to Comment S-4-27.

S-4-41 The sentence has been revised to remove the reference to calibration.

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42	4-41	TOC	<p>The DEIS states TOC levels in lake and river are not substantially different than river. The term "substantially" is subjective. See comment # 27.</p> <p>Observations from 2019 show the largest TOC build up in the lake happens in late summer or early fall—as expected. This coincides with the critically lowest DO period in Budd Inlet. But the observed lake concentrations are higher than the river's at other times of the year as well.</p>	<p>Re-word to better reflect the difference between TOC river and lake. Remove the phrase "not substantially different", as it does not appear to have an objective basis. The late summer/early fall TOC build-up from the lake coincides with the critically lowest DO peak in Budd Inlet.</p>
43	4-41	Ecology Studies	<p>The DEIS states: <i>"Another factor contributing to uncertainty is that data collected from the lake in 2003-2004 that was used to calibrate the model were not reflective of typical lake conditions. As noted by Ecology (Ecology 2012), a lake herbicide treatment to kill aquatic plants produced immediate algae growth in the lake and increased TOC concentrations in the period following the applications. Additionally, the aquatic plant biomass grew back entirely over the summer and therefore was present to decompose in the fall and contribute to another increase in TOC release from the lake (Ecology 2012). Thus, the magnitude and seasonal relationships for nutrient and TOC discharges to Budd Inlet in 2004 would not have been typical."</i></p> <p>The first sentence in this paragraph reflects an incomplete understanding of how Ecology calibrated, verified and has applied the lake model. Ecology recognized the need to account for potential differences in model kinetics due to pre and post herbicide application. Roberts et. al. 2012</p>	<p>Remove the first sentence in the italicized this paragraph, as it is misleading due to an incomplete understanding of how Ecology calibrated, verified and has applied the lake model. Instead, note that Ecology controlled for the 2004 herbicide application during lake model calibration, verification and application.</p>

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A statement has been included in the Water Quality Discipline Report (Attachment 7) and Final EIS to reflect that multiple biogeochemical factors (including temperature, stratification, sediment, and water column fluxes) promote low DO events in marine waters and that a complex model such as Ecology’s is required to predict the interactions among these variables. Clarifying text has been added to emphasize that the EIS analysis provides a qualitative comparison of field data to the modeled predictions for the water quality parameters emphasized in Ecology’s reports.

Regarding the TOC statement in the Draft EIS referenced in this comment, see response to Comment S-4-29.

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			reports that to replicate behavior pre and post herbicide application, two sets of kinetic rates were developed. One set represented the pre-herbicide period, and the second set represented the post-herbicide period. In addition, as mentioned in Roberts et al. 2012, to verify the calibrated lake model, the verification period used was from 2001, based on the availability of boundary condition and verification data. During model verification the pre-herbicide kinetic rates from the calibration period were used to model the nutrients and phytoplankton growth in the lake. Accordingly, these pre-herbicide kinetic rates are also used for all subsequent modeling work, including Roberts et al. 2015.	
44	4-41	TOC- Lake and Budd Inlet dynamics	<p>The DEIS states that: <i>"The TOC data for 2019 also do not indicate that there was a relationship between TOC in the lake and decreased DO in Budd Inlet. TOC concentrations were fairly consistent and low throughout the summer in the lake and then increased in late summer or fall (Figure 4.7). Low DO concentrations in Budd Inlet start in July (Figures 4.10 and 4.11), well before the TOC concentration in the lake increases.</i></p> <p>The argument presented is disjointed for the following reasons:</p> <ol style="list-style-type: none"> 1) The qualitative DEIS argument implies the relationship between TOC in the lake and DO in the inlet can be understood by simply comparing concentrations and disregarding 	Re-write the paragraph to recognize the inherent complexity of the biogeochemical system that cannot be described by simply comparing concentrations. Remove the argument presented which is flawed.

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			<p>the dynamics of the system. That is a flawed approach.</p> <p>Multiple biogeochemical factors promote low DO events in marine waters—among them temperature, stratification, sediment and water column fluxes. To best understand the relationship between TOC in the lake and DO in the inlet, the analysis has to include all these other variables. Process-based mechanistic models coupled with observations have the ability to do that.</p> <p>Anthropogenic influences can exacerbate low DO events resulting in lower DO particularly near the bottom. For these reasons, the water quality standard restricts the anthropogenic influence in terms of dissolved oxygen to not more than 0.2 mg/L.</p> <p>2) The DEIS is not comparing 2019 observations in the lake with corresponding 2019 observations in the inlet. Figures 4.10 and 4.11 contain data from Budd Inlet from 1999-2017. Recognition of inter-annual variability is part of a comprehensive analysis.</p>	
45	4.41	TOC-Lake and Budd Inlet dynamics	<p>The DEIS states: "TOC did not exert the impact on DO demand that is predicted by stoichiometric relationships."</p> <p>In 2019, BOD was not measured in the inlet so this statement is apparently based on previous</p>	Revise sentence for accuracy or remove it.

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			statements about the relationship between TOC and BOD-5 measured in the lake. The reasons why this statement is incorrect are stated above (see comment 30.)	
46	5-3	Impact predictions – dredging	In a paragraph referencing dredging for the estuary alternative, DEIS states: <i>“The suspended sediments/plants would result in temporary and localized increased turbidity, decreased DO (due to increased BOD from suspended and dissolved organic matter), and reintroduction of previously buried nutrients to the waterbody.”</i> It is assumed that these impacts would result from any dredging operation under any alternative. Please clarify.	Clarify what is the impact of dredging operations under construction for all alternatives.
47	5-8	Managed Lake	The DEIS states that one objective of managed lake would be meeting applicable water quality standards. Previously, and in page 5-9, the DEIS states that there would be no changes to water quality under the managed lake alternative. These two different assertions are incongruent. Both assertions cannot be correct. Either water quality standards are met because managed lake water quality is improved compared to current water quality or standards are not met. If indeed, the managed lake alternative will meet water quality standards, specificity is needed as to how the managed lake will meet water quality standards, particularly in Budd Inlet.	Incorporate specificity as to how the managed lake alternative will meet water quality standards, particularly in Budd Inlet. Or, remove the objective under the managed lake alternative about meeting water quality standards—as implied from language in page 5-9 and elsewhere in the DEIS that points to no changes in water quality under a managed lake alternative.

- S-4-43 It has been noted in the section 'Impacts Common to All Action Alternatives' that this impact would occur for all alternatives.
- S-4-44 The management objective related to meeting water quality standards under the Managed Lake Alternative has been removed.

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48	5-13 5-14	Impacts of alternatives	<p>DEIS states: "...a DO improvement of half of what the model predicts is assumed for this analysis." This assumption was projected in the DEIS in Table 5-2.</p> <p>The adjusted improvement value in the DEIS seems entirely arbitrary. It appears to be based on inaccurate assumptions or misinterpretations about reported model results in Roberts et al. 2015.</p>
			<p>Remove this assumption from the DEIS and remove or make appropriate changes to Table 5-2. Accordingly, revisit the "minor to moderate benefit" qualification in the DEIS for water quality impacts from the estuary alternative.</p>
49	Attach ment 15	Report date	<p>The report cover page is dated June 2021 (final version), but the report footer date is November 2020.</p>
			<p>Please provide a consistent date for the report.</p>
50	Attach ment 15 2.2.2	Use of MTCA Methods A, B, and C for evaluating beneficial reuse	<p>Section 2.2.2 summarizes anticipated comparisons of sediment analytical data to MTCA cleanup Method A to evaluate sediment beneficial reuse scenarios, and refers to use of MTCA Method A to evaluate sediment for upland beneficial use. The report states chemical concentrations will be compared to Methods B or C cleanup levels for chemicals without Method A cleanup levels. However, the more appropriate criteria for evaluation of upland beneficial use of dredged sediments is MTCA Method B since there are no MTCA Method A values for some contaminants of concern, such as dioxins/furans. In general, MTCA does not allow mixing of methods when Method A is proposed¹ and use of MTCA Method C generally</p>
			<p>Project proponents should work closely with regulatory staff, including Ecology TCP, to evaluate the likelihood and feasibility of upland beneficial reuse of dredged sediments.</p>

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S-4-46

S-4-47

- S-4-45 The assumption of half of the improvement predicted by the model has been removed, and instead the analysis includes a range of no benefit to the full benefit predicted by the model to cover the entire range of potential benefit.
- S-4-46 The report date provided on the cover page and footers of the Sediment Quality Discipline Report have been updated and reflect the date of finalization, after comments on the Draft EIS had been addressed.
- S-4-47 As recommended, Table 2.3 in the Sediment Quality Discipline Report and associated text have been edited to reflect the use of MTCA Method B cleanup values, rather than MTCA Method A cleanup values. It is acknowledged that regulatory staff should be worked with closely to evaluate any upland beneficial reuse of dredged sediments during this project, and this has been added to Section 2.2.2 of the Sediment Quality Discipline Report.

¹ Concise Explanatory Statement for the Amendments to the Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC, Publication Number: 01-09-043, February 12, 2001 Response to General Question 9.1.4.

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			would not be allowed for evaluation of upland beneficial use of dredged sediments. Method A is typically used at smaller, more straightforward sites, with relatively few hazardous substances.	
51	Attachment 15 2.2.2 Pg. 2-3	Use of both fresh and marine criteria during construction	Section 2.2.2 proposes comparing sediment data to fresh water sediment criteria during construction within Capitol Lake. Protection monitoring of contaminated sediments that may be encountered during construction must be compared to both marine and fresh water sediment criteria because of interaction of fresh and marine waters within the Capitol Lake and Budd Inlet system, especially if the estuary or hybrid alternative is constructed. The more stringent of the fresh or marine sediment criteria would apply. If the estuary or hybrid alternative is constructed, comparison to both fresh and marine criteria, and application of the more stringent criteria, also will be required in the estuary areas formed in the current lake footprint.	If the estuary or hybrid alternative is constructed, comparison to both fresh and marine criteria, and application of the more stringent criteria, also will be required in the estuary areas formed in the current lake footprint.
52	Attachment 15 2.2.2 Pg. 2-4	Sufficiency of data to estimate regional background concentrations	Section 2.2.2 states sufficient data are not available to establish regional background concentrations for bioaccumulative chemicals (other than dioxin/furan and carcinogenic polycyclic aromatic hydrocarbons [cPAH] TEQs). However, Ecology's Toxics Cleanup Program (TCP) has not made a determination regarding the sufficiency of data available to develop South Puget Sound regional background concentrations for chemicals or chemical groups other than dioxin/furan, cPAH, and PCB congener	Use correct data for regional background concentrations for bioaccumulative chemicals.

S-4-48 The EIS Project Team agrees that sediments should be compared to freshwater and marine criteria based on the alternative selected, as described in Section 2.2.2 of the Sediment Quality Discipline Report, paragraphs 2 and 3. The sentence regarding the comparison of Capitol Lake sediments to freshwater criteria during construction applies to construction-related activities, including upland disposal or potential beneficial reuse.

S-4-49 The report has been revised to note that Ecology has not determined data sufficiency for some bioaccumulative chemicals. The natural background and determined regional background concentrations of bioaccumulative chemicals were correctly reported in the report tables. It is acknowledged that during cleanup projects, all bioaccumulative chemicals in sediment should be assessed based on site COCs and that site-specific cleanup criteria are based on many factors other than background concentrations and are beyond the scope of this project. The project approach is to provide a general characterization of sediment quality by comparing existing data to relevant benthic, human health, and DMMP criteria that are currently available in freshwaters and Budd Inlet.

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S-4-50 The 2020 sediment study results were submitted to Ecology’s EIM database shortly after issuance of the Draft EIS.

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			toxic equivalent quotients (TEQs). Ecology estimated dioxin/furan TEQ and cPAH TEQ regional background sediment concentrations in 2018. PCB congener TEQ sediment data available during preparation of the 2018 regional background report were determined to be insufficient to calculate regional background for South Puget Sound. ⁷	
53	Attach- ment 15 2.2.2 Pg. 2- 4	Include bioaccumul- ative chemicals in evaluations of sediment	Section 2.2.2 states that only regional background concentrations for dioxins/furan and cPAH TEQs in Budd Inlet were used for evaluating potential impacts of sediment quality to humans and higher trophic levels. The basis for this statement appears to be that other applicable regional or natural background values have not been established by Ecology for South Puget Sound. This approach is inconsistent with the SMS requirement to consider all bioaccumulative chemicals in sediment to protect human and environmental health (WAC 173-204-560).	Other bioaccumulative chemicals, in addition to dioxin/furan TEQ and cPAH TEQ, should be included in evaluations of sediment quality for Capitol Lake and Budd Inlet. This comment also applies to evaluations presented in Appendix A.
54	3.2.2	EIM Database	Data used in the analysis not uploaded to the EIM Database.	Please submit sediment data obtained during the 2020 sediment study (Herrera 2020a) to Ecology to be uploaded to EIM, per Ecology Policy 840, available at the following link: https://apps.ecology.wa.gov/publications/document/sr1609050.pdf .

⁷ South Puget Sound Regional Background, Final Data Evaluation and Summary Report, Publication Number: 18-09-117, May 2018, Section 1.2.

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S-4-51	55	3.2.2	PCB congener data	In Section 3.2.2, PCBs as Aroclors were compared to SMS benthic protection criteria. Sediment In Section 3.2.2, PCBs as Aroclors were compared to SMS benthic protection criteria. Sediment PCB congener data also would be required to evaluate bioaccumulative risk.	Include sediment PCB congener data in the evaluation of bioaccumulative risk.
S-4-52	56	4.1.1	Transformer spill	Section 4.1.1. States <i>The spill was cleaned up and remaining sediment does not exceed sediment quality criteria.</i>	Please revise this and similar statements in other sections of this discipline report, the main body of the DEIS, and other attachments in which they may appear to reflect the spill response was performed to address PCBs.
S-4-53	57	4.1.2	Use of average concentrations	Section 4.1.2 incorrectly uses average chemical concentrations in middle and north basin samples to compare to cleanup criteria.	Chemical analytical data should be compared to SMS benthic protection criteria point-by-point. Bioassays may be appropriate for further comparison. For chemical analytical data comparisons to bioaccumulative criteria, a surface weighted average concentration (SWAC) is used within a defined site or sediment cleanup unit.
S-4-54	58	4.2	Hardel Mutual Plywood	Remedial actions recently re-started for Hardel Mutual Plywood based on new information received by Ecology of additional contamination.	Please revise the discipline report to include the changed cleanup status for Hardel Mutual Plywood.
S-4-55	59	4.2.2	Use of average chemical concentrations	Section 4.2.2 incorrectly compares average chemical concentrations to SMS cleanup criteria. The appropriate comparisons for sediment data are point-by-point for SMS benthic protection criteria, and surface weighted average concentration (SWAC) for bioaccumulative criteria.	Please use the correct comparisons for the analysis.

S-4-51 As part of the 2020 sediment study sampling and analysis plan (Herrera 2020a) samples were not analyzed for PCB congeners because PCB congeners were not identified as a contaminant of concern (COC) for this project or for cleanup in West Bay. In addition, there are no natural background values for PCB congeners or any other chemicals for evaluating bioaccumulative risk in freshwater sediments. Therefore, samples were only analyzed for PCBs as Aroclors for comparison to SMS benthic criteria for freshwater and marine sediments.

S-4-52 Additional clarification was added to the sentence in the first paragraph of Section 4.1.1 that the spill response was performed to address PCBs. Spill cleanup was noted where the spill was mentioned in Section 3.2.1 of the discipline report and in the main body of the Draft EIS.

S-4-53 It is acknowledged that chemical data should be compared to SMS benthic protection criteria point-by-point, which is included in the 2020 sediment data report (Appendix A to the Sediment Discipline Report). Table 4.1 of the Sediment Quality Discipline Report presents arithmetic averages for the surface, dredge layer, and z-layer results for the Middle and North Basin samples for comparative purposes only. The text discussion in Section 4.1.2 of the Sediment Quality Discipline Report provides a summary of point data exceeding SMS benthic protection criteria for data that can be found in the Sediment Report (Appendix A). A footnote to Table 4.1 of the Sediment Quality Discipline Report has been added to clarify use of averages for comparative purposes only and to see Appendix A for individual sample results. Individual sample results exceeding benthic criteria are identified in the text and Appendix A. Individual and average concentrations of bioaccumulative chemicals are compared to natural and regional background concentrations for comparative purposes. Average concentrations were not area-weighted because the results are used for general characterization and not to assess cleanup units.

S-4-54 As noted by the commenter, Ecology rescinded its 2012 no further action determination on August 17, 2021. The Discipline Report has been revised to reflect the Site’s current status in Ecology’s Voluntary Cleanup Program, based on the 2020 due diligence investigations conducted at the Site, and additional supplemental remedial investigation data gap investigation activities completed for soil and groundwater.

S-4-55 Section 4.2.2 of the Sediment Quality Discipline Report correctly compares point data to benthic criteria and area-weighted average concentrations to

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background values for bioaccumulative chemicals (carcinogenic PAHs and dioxins/furans).

S-4-56

It is acknowledged that Budd Inlet is an active cleanup site with ongoing remedial activities. Available data were compared to criteria for a general characterization of existing conditions, not to assess a need for cleanup. The following text was added to Section 4.2.2 of the Sediment Quality Discipline Report to clarify the current status of Budd Inlet and potential changes in SWACs:

It should be noted that Budd Inlet is an active cleanup site and remedial actions in Budd Inlet are ongoing. As the remedial process advances and site boundaries or sediment cleanup units (SCUs) are identified, SWACs will be calculated for samples collected only within those defined areas. The SWACs presented in this report may be biased low, as the SWACs may contain sample results from areas outside of future defined site boundaries with little to no contamination (Sullivan 2022).

S-4-57

The title of Figure 5.1 was revised to reference that the range of rates applies to both the Estuary and Hybrid Alternatives. Although the Hybrid Alternative has slightly higher rates (see Table 5.1 for rate of deposition across the alternatives), boundaries for the range of rates depicted in Figure 5.1 do not differ between Estuary and Hybrid Alternatives based on the sediment deposition model.

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This sentence has been deleted from the Discipline Report.

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	60	4.2.4	Budd Inlet Cleanup	Summary statements presented in this section are inappropriate, because Budd Inlet is an active TCP cleanup site and remedial actions in Budd Inlet are ongoing.	Please revise this summary to reflect that sediment remedial actions are ongoing in Budd Inlet.
S-4-56	61	4.2.4	East and West Bay SWACs	In Section 4.2.4, West Bay SWACs are provided from the <i>Final Investigation Report, Port of Olympia Budd Inlet Sediment Site</i> , dated August 2016 for the Study Area; however, these SWACs were developed prior to establishing site boundaries or sediment cleanup units (SCUs). These SWACs may include areas below sediment cleanup criteria, lowering the SWAC. After site boundaries or SCUs are identified, SWACs for comparison to sediment cleanup criteria will be estimated only within those areas.	Please use the correct SWACs for the analysis.
S-4-57	62	5.1	Figure title	Figure 5.1 uses the wrong title.	Please revise the title for this figure to identify the alternative being presented (possibly the estuary alternative?). Please include additional figures as appropriate to present estimated sediment deposition for other alternatives.
S-4-58	63	5.5.2	Budd Inlet Sites	Section 5.5.2 states, "Sediment cleanups are being investigated only for the east portion of West Bay in the Port of Olympia Marine Terminal and Navigational Channel Turning Basin" is an incorrect statement and should be revised or deleted from the report. Sediment areas associated with multiple Budd Inlet waterfront sites, including the Port of Olympia Marine Terminal and Navigational	Please correct language.

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S-4-59 The terms “high quality” and “high sediment quality” have been removed from the sediment discipline report and replaced with "does not require clean-up relative to applicable standards" or some variation thereof.

S-4-60 Thank you. This additional information has been added to Final EIS Supporting Chapter 9.0.

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			Channel, are still being investigated and areas requiring cleanup have not yet been finalized.	
64	Attach ment 15	High quality sediment	The term 'high quality' used throughout the sediment discipline report in reference to sediment conditions in Capitol Lake, West Bay, and Budd Inlet does not have meaning under the Sediment Management Standards (SMS). Using this term is misleading because it implies no sediment contamination exists within Capitol Lake, West Bay, or Budd Inlet.	Suggest the term 'high quality' in reference to sediment be removed from the sediment discipline report, the DEIS body, and other attachments in which it may have been used.
65	Table 9.1.3 Pg. 9- 6	Permit Approval	For the Tumwater SMP, it states that the permit/approval would be an SDP, but in the regulatory trigger, it says that CUP requires Ecology approval. If the project will require a CUP, that should be stated in the permit/approval column.	Correct language in DEIS.
66	Table 9.1.3 9-6	Permit Approval	For the Olympia SMP, the DEIS says the project will need an SDP, CUP, and exemption. If any portion of a project requires an SDP, the entire project requires an SDP. It is not an option to grant a portion of a project an SDP exemption. Please note that a CUP requires a final decision from Ecology.	
67	3-86	SMA Text	Incorrect language used in text box.	Correct language to state, "Under the state's Shoreline Management Act (SMA), each city and county that contains a state shoreline or shoreline of statewide significance adopts a Shoreline Master Program (SMP) that applies to those waters and the adjacent land. Each SMP is based on SMA goals to protect the public trust by

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				ensuring public access, protecting shoreline ecology, and accommodating water-dependent uses. This is accomplished through regulations in the SMP that establish shoreline environment designations, and corresponding use and development standards."
68	Figure 3.8.3	Key language	Incorrect language is used in the key for the figure.	Island and Natural should be removed from the key, as they are not depicted on the figure.
69	4-66	Wetland mitigation	The DEIS states, "The barrier wall in the Hybrid Alternative would also fill approximately 1.2 acres (0.49 hectares) of estuarine deepwater habitat. Like the Estuary Alternative, the removal of the 5th Avenue Dam structure would restore approximately 3.3 acres (1.3 hectares) of a water of the U.S. A net loss of waters of the U.S. is not expected; however, the barrier wall would result in more fill than the Estuary Alternative. Overall, habitat complexity would be increased, and water quality and hydrologic functions would improve compared to the No Action Alternative. The habitat type that would be most affected (freshwater deepwater habitat) is relatively common in the region and would be replaced with a rarer habitat type (estuarine deepwater). Thus, direct impacts from fill and indirect impacts from shade under the Hybrid Alternative would be less than significant." This is reiterated in Table 4.6.3. The assertion seems to be that 1.2 acres of fill in the lake would offset by removal of the dam, so it's therefore not significant. However, given the definition of "significant impacts" in the DEIS, which is "permanent loss of	Please note that all impacts to wetland area and functions will need to be sufficiently offset by compensatory mitigation.

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S-4-61 This change has been made to the Legend on Figure 3.8.3.

S-4-62 In general, the impact analysis is meant to assess net changes in wetland area or function. This was made clear in the wording of the definition for less-than-significant impact, which says "An alternative has less-than-significant operational impacts if the *overall* area of permanent impact is less than 0.5 acre and the loss of wetland (area and function) can be fully offset through mitigation." In that case, overall was intended to mean *net*.

With the Hybrid Alternative, the gains in wetland area and function more than offset the fill impacts, so the net change is positive and the alternative is considered self-mitigating. At the same time, the Wetlands Discipline Report (Section 3.4.2) notes that compensatory mitigation will be provided to offset any impacts the regulatory agencies find are not self-mitigating.

To make this distinction more clear we have added the word **net** to the definitions of significant and less-than-significant in the Final EIS. This assumes that mitigation, if needed, would offset all permanent loss of wetland area or function and would occur in the vicinity of the project (within the same watershed).

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			more than 0.5 acres of wetlands or the loss of wetland function that cannot be replaced through mitigation," 1.2 acres of fill is significant. Please note that all impacts to wetland area and functions will need to be sufficiently offset by compensatory mitigation.	
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Responses to Comments from Local Agencies

L-1

COMMENT

RESPONSE

Please see the attached document for comments from the LOTT Board of Directors and additional staff-level comments. Thank you for the opportunity to review and comment.

L-1

COMMENT

RESPONSE

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Lacey | Olympia | Tumwater | Thurston County

August 20, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-1477

RE: Comments on the Capitol Lake – Deschutes Estuary Draft EIS
LOTT Clean Water Alliance

Thank you for the opportunity to review the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement. The LOTT Clean Water Alliance recognizes this is a major undertaking and reaching this milestone in the EIS process is a significant accomplishment. We commend the Department of Enterprise Services and the project team for all the work that has gone into the process thus far.

In general, LOTT finds that the Estuary Alternative would provide the greatest benefit to water quality in Budd Inlet, and this is of greatest importance to LOTT and LOTT ratepayers. As the draft Environmental Impact Statement (EIS) notes, the Washington State Department of Ecology has determined Capitol Lake and the 5th Avenue dam contribute more than any other source to human-caused water quality impairment in Budd Inlet. Ecology has a legal mandate to ensure water quality standards are met, and that sources of impairment reduce their respective nutrient loading to the inlet. If the lake remains in place, its contribution would not be adequately addressed, and Ecology would have no choice but to place added requirements on LOTT's discharge. The cost of these additional requirements is estimated to be as high as \$208 million. That would result in significant impact to LOTT ratepayers, who have already invested approximately \$60 million over the last three decades on the construction of nutrient removal treatment system upgrades. For these reasons, LOTT finds that the No Action or Managed Lake Alternatives would have significant detrimental impact on water quality in Budd Inlet and on LOTT ratepayers.

The additional comments that follow center on the EIS Water Quality analysis, which does not appear to be an objective comparison of impacts and benefits of the various management alternatives. The analysis and narrative throughout the EIS documents appear to downplay water quality impacts to Budd Inlet from the lake and minimize the potential benefits to Budd Inlet from the other alternatives. Comments below expand on these concerns.

- The EIS applies inadequate rationale for calling into question key findings of the Department of Ecology's Budd Inlet – Capitol Lake TMDL regarding the impact of the lake on oxygen depletion in Budd Inlet. One year of new data (2019) gathered as part of a qualitative EIS assessment is insufficient rationale to dismiss the peer-reviewed TMDL findings – the default should be to the more fully vetted quantitative TMDL assessment. The analysis states that per SEPA, the worst-case scenario should be

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- L-1-1 Enterprise Services appreciates LOTT Clean Water Alliance's detailed review of the Draft EIS.
- L-1-2 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
- L-1-3 Since release of the Draft EIS, Enterprise Services has remained in coordination with LOTT regarding potential impacts of the project alternatives, and other project topics. LOTT has continued to evaluate potential impacts of the alternatives and has adjusted its cost estimates for potential additional treatment requirements. LOTT has also found that treatment may be needed under any of the project alternatives; though, treatment under the No Action and Managed Lake Alternatives would be required much sooner and could not be incrementally installed. Additional information has been provided in Sections 4.13 and 4.14 of Final EIS Supporting Chapter 4.0 to reflect this new and updated information.
- The Draft EIS identified potential impacts to LOTT as a significant under both the No Action and Managed Lake Alternatives; this has not been changed.
- L-1-4 See the Global Response for Water Quality.

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L-1-2

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L-1-4	<p>applied in cases involving uncertainty, but this concept seems to be selectively applied. Surely Capitol Lake indeed contributing over 60% of the human-caused oxygen depletion to Budd Inlet is the worst-case scenario, but that is not the condition that is assumed in the analysis. Based on that scenario, it is clear that the Estuary Alternative would provide the greatest benefit to water quality in Budd Inlet. The No Action or Lake Alternative would have the greatest detrimental impact on water quality.</p>	L-1-5	See the Global Response for Water Quality regarding updates in the Final EIS that address the ability of the alternatives to meet water quality standards.
L-1-5	<ul style="list-style-type: none"> The EIS does not apply the same standard to the Water Quality analysis that Ecology is required to consider for impaired waters and that LOTT and others will be held accountable to – the combined anthropogenic contribution cannot increase DO impairment more than 0.2 mg/L. Capitol Lake should be held to the same standard and the Water Quality analysis should reflect this. Rationale used to dismiss this standard – that water quality will still be a problem in Budd Inlet regardless of actions related to the lake – is an erroneous and inappropriate conclusion that is again inconsistent with the way other dischargers will be managed. Based on the 0.2 mg/L threshold for human-caused impairment, it is clear that the No Action or Lake Alternative have the greatest detrimental impact. 	L-1-6	The impact analysis sections in Chapter 5.0 of the Water Quality Discipline Report has been modified to include regulatory compliance statements that clarify model predictions associated with water quality standards and achievement of TMDL goals. See also the Global Responses for Water Quality.
L-1-6	<ul style="list-style-type: none"> The impact of not addressing Capitol Lake’s contribution to Budd Inlet water quality impairment is discussed in the Public Services and Utilities Discipline Report, including the significant impact this could have on LOTT and LOTT ratepayers. It is not accounted for in the Water Quality analysis, which is one of the key project goals and is weighted more heavily than Public Service and Utility impacts. The fact that this impact is treated as a regulatory outcome rather than a key water quality impact is a major shortcoming of the analysis. The No Action or Lake Alternative have significant negative impact on water quality in Budd Inlet. 	L-1-7	See the response to L-1-6.
L-1-7	<ul style="list-style-type: none"> The Water Quality analysis is misleading regarding impacts to Budd Inlet from No Action and Managed Lake Alternatives. In multiple instances, the EIS states these alternatives would result in “no changes to water quality in Budd Inlet” or impacts are “not applicable”. It is misleading to make these statements based on the fact the impacts are part of existing conditions (the lake is already a lake). While the Managed Lake Alternative would not substantively change the impact to oxygen depletion in Budd Inlet from existing conditions, compared to the Estuary or Hybrid Alternatives, its impact is significant and applicable. 	L-1-8	See the Global Response for Water Quality regarding updates in the Final EIS that address the ability of the alternatives to meet water quality standards.
L-1-8	<ul style="list-style-type: none"> The Water Quality analysis should be based on a study area consistent with that considered in the Budd Inlet – Capitol Lake TMDL to fully and accurately consider the impacts of the alternatives on Budd Inlet. The extent of the study area utilized is unclear – the text refers to West and East Bay, but the Exhibits show only West Bay was considered and this was also stated by the project team at the July Technical Committee meeting. Also, it is misleading to refer to “Budd Inlet” when drawing conclusions as this implies the whole of Budd Inlet was considered in the analysis. <p>The LOTT Board of Directors feels strongly that the Water Quality analysis must be revised to fully incorporate the findings of Ecology’s Budd Inlet – Capitol Lake TMDL regarding the significant impact of the lake on oxygen depletion in Budd Inlet. Impacts to water quality in Budd Inlet must be assessed on a basis consistent with that which will be applied to other dischargers, including LOTT, and that basis is the TMDL. There is no relevant basis for weighing water quality impacts of the lake against some lesser standard.</p>		The study area figure has been revised to correctly match the description in the EIS.

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COMMENT


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L-1-8

LOTT staff have reviewed in full the draft EIS document and will submit detailed comments in addition to this letter. Again, thank you for the opportunity to comment.

On behalf of the LOTT Board of Directors,

Digitally signed by:

Pete Kmet, Board President
LOTT Clean Water Alliance

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RESPONSE



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August 20, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-147

RE: LOTT Staff-Level Comments on the Capitol Lake – Deschutes Estuary Draft EIS

Comment 1

The DEIS defines the Project Area as follows, "... includes the 260-acre Capitol Lake that is managed by the Department of Enterprise Services (Enterprise Services), and it extends to the northern point of West Bay of Budd Inlet. West Bay is not managed by Enterprise Services. However, project actions may occur in West Bay, so it is included in the Project Area. The parks and public space adjoining Capitol Lake and within the jurisdiction of Enterprise Services are also included in the Project Area." (DEIS, Section 1.4, page 1-3)

As stated, the project area does not include East Bay. Important water quality benefits are predicted to occur in East Bay if the dam is removed, thus East Bay should be included in the project area.

Comment 2

The DEIS defines the Water Quality Study Area as follows, "... includes Capitol Lake and its major inflow sources of the Deschutes River and Percival Creek, as well as West Bay and East Bay of Budd Inlet." (DEIS, Section 3.3 and Exhibit 3-27, page 3-15)

It is unclear why there is a difference in the Project Area and the Water Quality Study Area. LOTT contends that the Water Quality Study Area as defined above should be the Project Area. To not include it in the Project Area diminishes the importance of actions in Capitol Lake on East Bay. Exhibit 3-27 that accompanies the definition of the Water Quality Study Area does not include East Bay, which is contrary to its definition.

Comment 3

The DEIS stated that there are positive trends for water quality. "The trend analysis results indicate that Capitol Lake exhibited improving water quality from 2004 to 2014 based on significant improvement in temperature, total phosphorus, chlorophyll-a, Secchi depth, and fecal coliform bacteria." (DEIS, Section 3.3.3.1, page 3-22)

The most important water quality parameters for assessing the health of the lake and marine water quality is DO. DO shows a negative (worsening trend) in the surface water in the fall, and no other apparent trend. (Attachment 7, Table 4.1).

In Capitol Lake, the trend for TP, chlorophyll and pheophytin is decreasing (improving) which may indicate an improving trend for lake water quality. There is, however, no trend for TN, which is the limiting nutrient in most marine systems and therefore a concern to Budd Inlet. (Attachment 7, Table 4.1). Taken together, the decreasing DO and the lack of a trend for TN, indicate a possible worsening of water quality in Budd Inlet.

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L-1-9

L-1-10

L-1-11

- L-1-9 The figures in the Final EIS and in the Water Quality Discipline Report have been revised to show the full study area for the water quality analysis, including East Bay. See also the Global Response for Water Quality.
- L-1-10 The Project Area defines the area where project actions may occur. The study area is the area specifically included in the water quality assessment. See also response to Comment L-1-9.
- L-1-11 In regard to trends, as shown in Table 4.1 of the Water Quality Discipline Report (Attachment 7), no trend was detected in DO in the lake; although the Tau value was negative for fall, it was far from being statistically significant. There was a statistically significant improving trend in TN in the lake in the spring, but the statistical analysis did not indicate that TN was worsening in the lake in any season. Therefore, the contribution of these constituents from Capitol Lake to Budd Inlet would not be expected to contribute to a worsening trend in Budd Inlet DO over what currently exists. Conversely, with dam removal, Ecology's modeling and field data indicate that nitrogen contribution to Budd Inlet will increase. The Final EIS has been modified to emphasize in more places in the text that under existing conditions the lake is predicted to be contributing to problems in Budd Inlet.

In regard to a focus on improving trends in fecal coliform and temperature and their irrelevance to differentiating alternatives, in the Water Quality analysis, these and other parameters are described to characterize lake conditions, but the impact analysis relies solely upon DO, algae, and aquatic plants, since these water quality attributes are important to humans and cold-water fish and, in the case of DO, have been the focus of previous studies.

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L-1-11

The above excerpt, also demonstrates an often used reference to improving fecal coliform and temperature measurements, even though those two parameters are expressly called out as being irrelevant to the question of differentiating between the long-term water quality effects of the project alternatives (4.3.1). The repeated use of this data bolsters a picture of improved water quality and diminishes attention on the problem of dissolved oxygen.

Comment 4

The DEIS states that, "Comparing water quality data from 2010 through 2014 with state surface water quality standards (WAC 173-201A-602) indicates that the lake occasionally does not meet standards for temperature, dissolved oxygen, total dissolved gas, pH (Table 3.3.1)." (DEIS, Section 3.3.3.1, page 3-23)

L-1-12

The conclusion drawn that water quality in the lake is "generally good" is unsupported given the above statement. Also, high total dissolved gas (TDG) is a problem for fish survival. Since it does not meet standards under the current system, some mention of predicted TDG should be made for the estuary and hybrid alternatives.

Comment 5

The DEIS also states, "Overall, the monitoring data (2010 to 2014, and 2019) indicate that Capitol Lake currently has relatively good water quality in terms of physical and chemical characteristics important to aquatic life." (DEIS, Section 3.3.3.1, page 3-26)

L-1-13

Table 3.3.5 shows that over half of the parameters from the 2019 sampling, including TP, SRP, TN, NH3,NO3 +NO2, and BOD, are qualified because of the transformer and sewage spills. The parameters that are not qualified are chlorophyll, pheophytin, TSS, TOC, and DOC. The latter parameters are influenced by the former, and thus, offer little information. While the 2019 data was not used in the trend analysis, it is being used to bolster the argument that water quality is improving. Its use is questionable.

Comment 6

The DEIS states, "As described in Section 4.1.1.4 of the Water Quality Discipline Report (Attachment 7), BOD concentrations measured in 2019 were quite low in comparison to TOC concentrations in both the lake and the river; therefore, the TOC is largely made up of organic matter that is resistant to rapid decomposition. This observation implies that the decomposition of organic matter likely occurs very slowly in Budd Inlet, and it may not be contributing much to summer oxygen depletion. In summary, while Capitol Lake results in a modest increase in TOC to Budd Inlet, this TOC may not be exerting an immediate or substantial oxygen demand in the inlet during the critical summer months." (DEIS, section 3.3.3.1, page 3-32, 33)

L-1-14

There are many qualifiers in this statement...quite low, largely made up of, implies that, likely occurs, may not be, modest increase, may not be. This raises concern about the objectivity and scientific basis for this statement. It is questionable that the 2019 data set is adequate to discount the results of the 2012 & 2015 Budd Inlet TMDL study regarding the relative contribution of Capitol Lake to oxygen depletion in Budd Inlet.

Additionally, the BOD data in 2019 were qualified, and the use of the TOC data is questionable due to the 2019 spills. The conclusion that the TOC from the lake is not contributing much to the low oxygen demand is an assumption that is not backed by solid evidence.

Comment 7

The DEIS provides a summary statement, "Budd Inlet would experience minor to moderate benefits associated with improved dissolved oxygen, and algal blooms are expected to be largely the same as current conditions." The DEIS goes on to define substantial beneficial effects on water quality, "Substantial beneficial effects on

L-1-15

L-1-12 See the Global Response for Water Quality regarding the 2004 to 2014 water quality data, and updates in the Final EIS.

L-1-13 With regard to the influence of the transformer and sewer spills on 2019 data, with the exception of phosphorus, all of the parameters were within the same range in 2019 as in the earlier period and were considered to be acceptable to use in the analysis. Further, the spills would be expected to increase the concentration of these parameters; therefore, if the concentrations in 2019 had been biased by the spill, they would have been biased toward indicating poorer conditions in the lake. The lake data collected in 2021 were similar to the 2019 data for those parameters that were not qualified, which further confirms that the concentrations measured in 2019 (for all but phosphorus) are acceptable.

L-1-14 We acknowledge that the relationship between BOD and TOC is tenuous and beyond the reach of the EIS. This statement has been removed. See also the Global Response for Water Quality.

L-1-15 Ecology's modeling and the recent field data summarized in the EIS indicate that the lake reduces DIN loads to Budd Inlet; therefore, without the dam, nitrogen loading to Budd Inlet will increase. Additional information comparing loading of nitrogen and TOC has been included in the Final EIS to clarify the differences. The Final EIS also provides additional references to modeled predictions about the DO depletion attributed to the lake, and a regulatory analysis is included with each alternative that defines the model-predicted outcome in terms of achievement of water quality standards. This analysis concludes that the Estuary Alternative is the only alternative that is projected to comply with the TMDL and water quality standards.

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<p>L-1-15</p>	<p>water quality would occur if there was expected to be a substantive improvement in dissolved oxygen.” (DEIS page 4-34 inset summary on Key Findings, Table 4.3.2, page 4-35 side bar)</p> <p>According to Ecology’s modeling efforts, approximately 2/3 of the excess DIN loading is attributable to the existence of the Capitol Lake dam. (Roberts 2015, Figure 31) The upcoming TMDL will apportion waste load allocations to each of the various sources. As the greatest anthropogenic source to low dissolved oxygen in Budd Inlet, the estuary solution is predicted to significantly increase the level of dissolved oxygen in Budd Inlet. In the absence of the estuary solution, a greater portion of the TMDL burden will fall on LOTT and this will lead to the need for additional costly infrastructure. LOTT contends that the benefit of improved dissolved oxygen from the estuary solution would be substantial from a water quality perspective, as well as from a utility ratepayer perspective.</p>	<p>L-1-16 The text referred to in this comment has been clarified in the Final EIS to read “no change in impact,” and text has been added to clarify that under existing conditions, Ecology’s modeling predicts that the lake is currently impacting DO in Budd Inlet.</p> <p>L-1-17 See response to Comment S-4-9. Text has been added to the Final EIS to clarify that the current condition is not in compliance with the TMDL and water quality standards.</p>
<p>L-1-16</p>	<p>Comment 8 The sidebar on page 4-36 defines a TMDL as follows, “A TMDL is a formal plan that outlines discharge limits of problematic pollutants to improve water quality in an impaired waterbody.” (DEIS, Section 4.3.2 Sidebar, page 4-36)</p>	<p>L-1-18 The Water Quality Discipline Report (Attachment 7) and Final EIS have been modified so that the impacts analysis addresses only impacts from the action alternatives and no longer assumes potential impacts/improvements from implementation of the TMDLs, although these are described generally. Using this approach, there are “no changes in impact” to the algae community under the Managed Lake Alternative. The sidebar has been revised to be consistent with the findings.</p>
<p>L-1-17</p>	<p>This sidebar and the discussion on this page of the lake’s impact on water quality in Budd Inlet is entirely lacking in context for the reader of the existing influence of the lake on Budd Inlet. While it is explained in section 3, it should be included in this discussion as vital context. The statement from page 3-25 could be added to the sidebar to address this, “An Ecology modeling study of Budd Inlet indicated that the largest human-caused contributor to low dissolved oxygen problems in Budd Inlet was loading of nutrients and TOC from Capitol Lake.”</p> <p>Comment 9 In Table 4.3.1, Summary of Long-Term Water Quality Impacts: Managed Lake Alternative, the impact on “Low dissolved oxygen in Budd Inlet–Effects from possible decreased TOC loading from Capitol Lake” is given as “No change in impact as loading will be similar to current conditions” (DEIS, Section 4.3.4, page 4-39)</p>	<p>L-1-19 The statement in the Final EIS has been revised to indicate that the model predicts that the lake is responsible for the majority of the human-caused DO depletion to Budd Inlet. In appropriate places in the text, the amount of depletion attributed to the lake has been included.</p>
<p>L-1-18</p>	<p>The TMDL work that is cited by the EIS project team as a reference finds the impact of Capitol Lake to be Significant, so this conclusion is misleading and inaccurate. Capitol Lake in the No Action Alternative and in the Managed Lake Alternative will result in similar TOC loadings and they both perpetuate a significant, unavoidable impact to water quality in Budd Inlet per the TMDL.</p> <p>Comment 10 The DEIS states the following in the text, “While there could be measurable decreases in the algae community and fewer occurrences of algal blooms due to decreased nutrients, the changes may not be noticeable to the public. This finding is supported by scenarios modeled by Ecology. Ecology evaluated potential impacts on lake quality from watershed improvements, dredging to 13 feet, and alum treatments; the modeling indicated that these measures would not have a meaningful effect on lake water quality.” In the side-bar summary, however, the benefits to algal bloom are considered, “minor to moderate”. (DEIS, Section 4.3.4.1, Page 4-40, 41)</p>	
<p>L-1-19</p>	<p>It appears that water quality improvement for the managed lake is over-predicted in the messaging about the lake. According to the text, the potential benefits are only minor. Please also see the discussion about the definition of benefits, comment 21, in this context.</p> <p>Comment 11 The DEIS states, “Although low dissolved oxygen concentrations are typical of inlets in South Puget Sound, a portion of the dissolved oxygen depletion that Budd Inlet experiences has been attributed to Capitol Lake and</p>	

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the 5th Avenue Dam, and this lake/dam-derived depletion would continue to occur.” (DEIS, Section 4.3.4.2, page 4-41, 42)

L-1-19 To state that, “a portion of the dissolved oxygen depletion that Budd Inlet experiences has been attributed to” diminishes the findings of Ecology. The language differs from language used in section 3 and seems intent on minimizing this impact. The phrases, “a portion” and “has been attributed to” do not convey the weight and significance of the TMDL study conclusions. Rather, the statement should read, “the majority of human-caused dissolved oxygen depletion in Budd Inlet is attributed to Capitol Lake and the 5th Avenue dam in the 2012/2015 TMDL study.” Additionally, for scientific accuracy cite the Ecology sources and list the percent depletion that has already been published.

Comment 12
The DEIS states, “The Managed Lake Alternative would have no change to water quality in Budd Inlet compared to existing conditions because there would be no changes in dissolved oxygen or other habitat conditions for cold water fish, and no change in the extent or frequency of algal blooms.” (DEIS, Section 4.3.4.2, page 4-42)

L-1-20 Is the EIS exercise limited to a strict comparison of each alternative only to existing conditions, or is it intended as a comparison of alternatives (to each other)? In the discussions of the No Action and Managed Lake Alternatives, repeated reference to “no change” “no impact” is misleading as it does not recognize and convey that the existing conditions created by the lake play a significant role in water quality impairment in Budd Inlet per the TMDL. The introduction states the EIS is intended to consider the effectiveness of alternatives in meeting project goals and one of the goals is water quality, so it does not appear this analysis should be limited to comparing alternatives to existing conditions.

Comment 13
The DEIS states, “Under the Estuary Alternative, the existing lake basin would become part of the estuary, which by design would result in extensive changes in the water quality of the lake basin to conditions typical of an estuary. Compared to Capitol Lake where dissolved oxygen conditions are generally good throughout the basin, dissolved oxygen concentrations in this area would be very low under the Estuary Alternative during certain periods. In the long-term, **significant unavoidable adverse impacts** to the lake basin would occur under the Estuary or Hybrid Alternative because the lake basin would be converted from a well-oxygenated freshwater lake to an estuary with low oxygen conditions that would not meet numeric water quality criteria.” (DEIS, Section 4.3.5.1, page 4-43, and Section 4.3.8, page 4-39).

L-1-21 The DEIS framework regarding the applicability of dissolved oxygen standards in Capitol Lake versus Budd Inlet are difficult to understand. Capitol Lake is a man-made lake that technically is still a river. It is due to this unique circumstance that the oxygen levels in Capitol Lake are good. The north basin of the lake, on the other hand, was originally an estuary and the conversion of this estuary to a lake is largely responsible for its low dissolved oxygen. The conclusion that conversion of the lake to the estuary would have a significant unavoidable impact on the lake basin is based upon a very narrow definition that is not logical. The lake would be converted back to an estuary which has a different oxygen regime and that conversion would also increase oxygen in Budd Inlet. The oxygen criteria in the lake basin does not apply after it is converted to an estuary. The lake basin will become part of a larger body of water, the estuary and Budd Inlet. Table 4.3.2, Summary of Long-Term Water Quality Impacts: Estuary Alternative, lists “**Low dissolved oxygen in lake basin**—Effects of transition to an estuary” as a category of impact. This category is illogical because there will no longer be a lake basin. The categories that should replace this are “Low dissolved oxygen in estuary/ West Bay” (since this will now be one body of water) and “Low dissolved oxygen in East Bay”.

L-1-20 See response to Comment S-4-9. The EIS was prepared to facilitate a comparison of alternatives, including from the No Action, or baseline condition as required under SEPA. The Water Quality Discipline Report (Attachment 7) has been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards, which is the best regulatory point of comparison.

L-1-21 As is standard in an EIS, the impacts of alternatives are described by comparison to baseline or existing conditions. The EIS does not imply that existing conditions are the natural condition or the preferred condition. It is acknowledged that there are unique circumstances associated with the project. There are two different waterbodies to consider: a freshwater lake and a saltwater estuary. The lake is managed as a lake but defined as a river, and major ecosystem changes are anticipated when the lake/river becomes an estuary. In addition, each alternative has varying impacts on each of the two waterbodies. The EIS is organized to allow a comparison of impacts by each of the affected waterbodies and provides a comparative assessment that addresses the unique circumstances. The EIS addresses both the general spatial and temporal changes in oxygen concentrations as well as whether oxygen criteria (water quality standards) are met. It is a unique aspect of the project that under the Estuary Alternative, oxygen concentrations will be significantly lower in the former lake basin than what currently exists but at the same time will meet water quality standards as defined by Ecology. This is described in the EIS, which also states that the lower oxygen concentrations are typical of the estuary environment. Additional emphasis on attainment of water quality standards has been included in the Final EIS. See also responses to Comments S-4-9, S-4-15, and S-4-20, and the Global Responses to Water Quality comments.

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<p>L-1-22</p>	<p>Comment 14 The DEIS states, "To account for uncertainties and exercise caution to not be overoptimistic, this analysis evaluated dissolved oxygen improvements after dam removal at half of what the model predicted, based on the lower TOC concentrations measured in 2019 compared to older data used in the model. Consistent with SEPA requirements, when there are data gaps or uncertainties, an analysis should identify a worst-case outcome (WAC 197-11-080). In this case, "worst-case" can mean lower levels of water quality improvement than predicted by other analyses." (DEIS, Section 4.3.5.2, pages 4-44, 45, re-stated from Water Quality Attachment 4-40)</p> <p>The decision to cut the model predictions in half are not warranted. The model is a peer-reviewed and quantitative product. Models are calibrated and do not rely on the specific input values, but are designed to predict based on relationships among the different variables. The 2019 data is suspect due to the spills that occurred and as is, represents only six months of data. To cut the prediction in half is a crude method of prediction and is neither peer-reviewed nor quantitative. To provide this as a substitute for scientific work is not appropriate.</p> <p>It is peculiar that this DEIS should determine that there are data gaps and uncertainties with the modeling work, but not consider gaps and uncertainties with the present work on Capitol Lake, when 2019 was a sampling year marred by spills and the trends analysis is not clearcut, as described above. In fact, if this rationale is applied in an objective manner, then the worst-case test should also be applied to the Managed Lake Alternative. In that case, the worst-case would be that the findings of the TMDL are correct or even under-estimated. In this worst case, the Managed Lake's impact on dissolved oxygen in Budd Inlet is significant and its contribution to low dissolved oxygen can be remedied via the Estuary solution.</p>	<p>L-1-22 Data collected in 2021 further confirmed the findings from 2019, and therefore the analysis was retained. In multiple places, the EIS acknowledges that field data are generally lacking, especially in relation to those parameters that are the primary focus of the model predictions. This lack of field data (as well as the field data results) contribute to the uncertainties. In regard to how uncertainties were applied to define a worst case, the field data (from multiple years) indicated that the model could be overstating the lake's potential contribution to DO depletion in Budd Inlet; none of the field data indicated that the lake's potential contribution was likely being understated. While worst case was defined as the model overpredicting the lake's impact, the analysis in the Final EIS addresses the full range of potential impact/benefit.</p> <p>In regard to how model predictions were used, the assumption of half of the improvement predicted by the model has been removed, and instead the analysis includes a range of no benefit to the full benefit predicted by the model to cover the entire range of potential benefit.</p> <p>The worst case has been applied to the Estuary Alternative because of the modeling involved; the same type of modeling was not completed for the Managed Lake Alternative, so conservative assumptions were applied instead.</p>
<p>L-1-23</p>	<p>Comment 15 The DEIS stated the following, "Comprehensive monitoring of the lake used by Ecology to make predictions under the TMDL was last completed over 15 years ago, and water quality has changed significantly over the past decades. The analysis of more recent data (i.e., 2004 to 2014, and 2019) indicates significant improvement in both the lake and river during that time. This information implies that the background conditions on which the model was developed likely have changed." (DEIS, Section 4.3.5.2, page 4-46)</p> <p>Because models rely on the interplay of various factors and the relationships between them, the age of the data should not be reason to discount the results of the model. The model will require updating if there is new information about how the various factors interact or more accurate ways to predict the outcome. The age of the data does not imply that the model is not valid.</p>	<p>L-1-23 The lack of more recent annual data records is one of several factors contributing to uncertainty in the model outcomes. See Section 4.3 of the Water Quality Discipline Report (Attachment 7) for additional discussion.</p>
<p>L-1-24</p>	<p>Comment 16 The DEIS states, "As Ecology develops and implements its TMDL for the Deschutes River/Capitol Lake/Budd Inlet, it may modify allocations for major dischargers, which could result in more stringent permit requirements for LOTT and other dischargers. The issue of discharge allocations is complicated, and there is some uncertainty as to how Ecology would assign allocations in the future. If LOTT and other dischargers were required to implement additional measures as a result of Capitol Lake not meeting its future waste load allocations, the most stringent targets would be expected under the No Action Alternative because substantive improvements in water quality could not be expected in the absence of any long-term water quality management plan. This could result in LOTT and other dischargers being required to increase treatment effectiveness, beyond the current high levels of treatment. Increased nutrient removal and/or diversion of treated water would increase the costs for treatment of wastewater and stormwater discharges, which would be passed on to ratepayers, which would be a significant impact." (DEIS, Section 4.13.2.2, page 4-175 and Utilities Attachment, page ES-2)</p>	<p>L-1-24 See the Global Response for Water Quality. Sections 4.3.5 of Final EIS Supporting Chapter 4.0 and Section 5.5.2 of the Water Quality Discipline Report (Attachment 7) have been revised to include an acknowledgement that the Estuary Alternative is the only alternative that would comply with the TMDL and water quality standards, and that any other alternative would be required to perform mechanistic modeling to determine if water quality standards would be met.</p>

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L-1-24

LOTT appreciates the discussion on the potential regulatory repercussions on LOTT if DES fails to meet a future TMDL allocation, however, this is not just a regulatory impact. It represents a major water quality impact that is not discussed or reflected in the Water Quality analysis. The fact that the TMDL is not yet complete and allocations have yet to be assigned does not diminish the findings of the 2012/2015 reports regarding the lake's impact on Budd Inlet water quality. The Managed Lake alternative would perpetuate that water quality impact. Please incorporate the TMDL allocation information into the analysis on water quality.

Comment 17

The DEIS states, "The City of Olympia, LOTT, and Port of Olympia have outlined measures that would be implemented at different RSLR projections as part of the City of Olympia Sea Level Rise Response Plan. However, overland flooding from Capitol Lake Basin for the extreme river flood event under the No Action Alternative would result in water surface elevations in the downtown area that exceed the flood protection elevations set in the Olympia Sea Level Response Plan. As a result, there could be **significant impacts** on stormwater and other utilities that could be affected during extreme river flood events under the No Action Alternative. ... Under the Estuary Alternative, the modeled flood elevations predicted in the Heritage Park area would be mitigated by the improvements planned under the Olympia's Sea Level Rise Response Plan. Compared to the No Action Alternative, the reduced extent of overland flooding under the Estuary Alternative would have a minor beneficial effect on utilities." (DEIS, Section 4.13.2.2, page 4-176 and Section 4.13.5, page 4-178)

LOTT appreciates the discussion of sea level rise and flooding, and the ties drawn between the Olympia Sea Level Rise Response Plan and impacts that would or would not be mitigated under the different alternatives.

Comment 18

Table 7.1.1 acknowledges the following for the No Action and the Managed Lake Alternatives, "Potentially significant costs to LOTT Clean Water Alliance (LOTT) because more extensive water quality treatment is likely to be required by the Washington State Department of Ecology." (DEIS, Section 7.1.4, Page 7-5)

Please amend the statement that those significant costs will not only be to LOTT, but to LOTT ratepayers.

Comment 19

The DEIS states, "The planning-level cost estimates presented in Table 7.1.1 have been developed based on the conceptual design components for the project alternatives (Chapter 2.0, Project Alternatives and Construction Approach). The accuracy of these construction and long-term maintenance dredging estimates will increase as design is advanced further". (DEIS, Section 7.1.4, Page 7-5)

Please clarify and annotate the year for costs for all estimates. Are all present-worth costs? The table mixes one-time costs with future periodic costs, so costs given in today's dollars would be appropriate.

Comment 20

The DEIS states the following, "Thurston County conducts year-round monitoring of the river, in monthly intervals, at Tumwater Falls Park for temperature, FC bacteria, turbidity, TP, NO3+NO2, and NH4. Although monitoring continued past 2014, the analysis was constrained to this data set to coincide with the data set used in the assessment of Capitol Lake. This data set was used to identify long-term trends, and to develop the phosphorus budget and to support the alternatives analysis." (Water Quality Attachment, 3-4)

L-1-25

Thank you for your comment.

L-1-26

The text in Table 7.1.1 about potential impacts to LOTT has been revised altogether to reflect the Draft Budd Inlet TMDL that was issued by Ecology in June 2022. The note now reads: LOTT Clean Water Alliance (LOTT) would need to invest in additional water quality treatment sooner to meet TMDL allocations provided by the Washington State Department of Ecology.

L-1-27

Escalation has been removed from the planning-level costs provided in the Final EIS. Planning-level costs are now provided in 2022 dollars.

L-1-28

It is not the purpose of the EIS to describe and evaluate all of the data available, but to constrain the analysis to information that supports the analysis and helps to differentiate the alternatives. Thurston County's data are available online.

L-1

COMMENT

RESPONSE

L-1-28

Although it makes sense to constrain the data analysis from years 2004-2014, the additional data should be shown so that the reader can assess whether there have been any significant change to the water quality in the river since 2014.

Comment 21

The DEIS defined long-term operational benefits in the following way:

Minor-to-moderate benefits: Beneficial effects on water quality are minor to moderate if there is an expected limited to modest improvement in DO and limited or modest improvement in the extent or frequency of algae blooms, as determined using standard analytical techniques, and/or limited to modest improvement in the areal extent of aquatic plants. These water quality improvements would be expected to result in limited to modest improvements in habitat conditions for cold water fish.

Substantial benefits: Beneficial effects on water quality are substantial if there is expected to be a substantive improvement in DO and a visually noticeable decrease in the extent or frequency of algae blooms and/or decrease in the areal extent of aquatic plants. These improvements would be expected to result in a substantial increase in habitat conditions for cold water fish. (Water Quality Attachment, 3-7, 8)

L-1-29

These definitions are qualitative and subjective. The definitions would also be more useful if they were broken out into minor, moderate, and substantial. Currently, moderate benefits are lumped with minor benefits, which diminishes their significance.

Additionally, any benefit that helps meet the upcoming TMDL should be seen as substantial, since Ecology's waste load allocations will need to be met. LOTT's understanding is that both Capitol Lake and LOTT will receive waste load allocations. If DES fails to meet the waste load allocation for Capitol Lake, water quality impacts to Budd Inlet will be substantive and more responsibility to address low dissolved oxygen conditions will fall to LOTT and its ratepayers.

Comment 22

The DEIS states, "Due to concerns that these events may have impacted water quality, 2019 data were compared with those from previous years (2010–2014) (Table 4.6). The data comparison indicates that there were only minor differences in surface TN, chlorophyll, and phaeophytin; and there appears to have been a decrease in Secchi depth (a measure of transparency) in the Middle Basin, which could likely be a reflection of cleanup activity disturbance. However, the TP increased substantially; the average TP concentration in the Middle Basin in 2019 was seven times higher than the average measured in previous years, and in the North Basin concentrations were twice as high as the average measured in previous years (Figure 4.3) ... Due to this issue, TP and SRP data from 2019 is not used in this analysis. Data from other parameters collected in 2019 was generally within the expected range of historically observed values (Table 4.6) and was accepted for use in this analysis." (Water Quality Attachment, 4-14, 15)

L-1-30

The acceptance or non-acceptance of the data seems to be flawed for the 2019 dataset. The TP and SRP values were not in agreement with what was anticipated and these data were discarded, while the other data which were only slightly different than previous years were accepted. It does not seem prudent to accept data based on the fact that they were in line with that which was expected. The 2019 spill events could have affected all of these parameters, and so their use is suspect.

L-1-31

Comment 23

The DEIS states the following, "Overall, Capitol Lake exhibits relatively good water quality when compared to other lakes in the area". (Water Quality Attachment, 4-17).

L-1-29

The significance criteria have been revised to provide additional measurable attributes where appropriate in Section 4.3 of Final EIS Supporting Chapter 4.0 and Section 3.3 of the Water Quality Discipline Report (Attachment 7). The focus of the criteria was on impacts to beneficial uses of the waterbody, in particular habitat for cold water fish. A regulatory analysis section has been added for each alternative to discuss the potential compliance with Ecology's TMDL. See also the Global Response for Water Quality.

L-1-30

See response to Comment L-1-13.

L-1-31

See the Global Response for Water Quality regarding comparison of Capitol Lake to other lakes.

L-1

COMMENT

RESPONSE

L-1-31

The emphasis on the good water quality of Capitol Lake is misleading. Capitol Lake is not a lake; it is a river, as is acknowledged in the Water Quality attachment, section 4.1.1. The biggest reason that Capitol Lake has good water quality is that the Deschutes River flows into it. The riverine inputs serve to mix the water and to keep Capitol Lake relatively cool and oxygenated compared to other area lakes.

Comment 24

The DEIS states, "... it was necessary to first evaluate the extent to which the spill and/or spill related activities may have resulted in increases in BOD, TN, or TOC due to either increased algal biomass and/or release or movement of additional organic matter that would increase carbon. As described above and shown in Table 4.6, there appeared to be no impact on algal biomass from the spill; chlorophyll concentrations in 2019 were similar to 2010 to 2014 data. Further, TOC concentrations measured in 2019 were lower than those measured in 2004. TN was also nearly the same in 2019 as it was in 2010–2014. Based on this, it was assumed that BOD, TN, and TOC appeared to be unaffected by the spills; and therefore, comparisons to Deschutes River data could reasonably be made." (Water Quality Attachment, 4-18)

It is not clear that there is no impact on BOD, TN, TOC or algal biomass from the spill. The years 2015-2018 are unknown, and there is the possibility that the spill of transformer oil inhibited algal growth in 2019.

Comment 25

The DEIS states, "TOC increased by approximately 1 mg/L between the Deschutes River and North Basin which represents a 50% increase, but when compared to the range of TOCs measured in this system of (i.e., up to approximately 30 mg/L (LOTT 1998)), the 1 mg/L can be put into perspective." (Water Quality Attachment, 4-19)

The LOTT data to which this reference refers was sampled in August 1997, and may be an outlier. Other summer values (approximately 10) taken during this timeframe were in the 4-5 mg/L range. As well, the brewery was operational during this time, adding more TOC to the system. Comparing the increase of 1 mg/L to the older 1998 values is a misleading characterization.

Comment 26

The DEIS states, "Sources of DIN calculated in the LOTT study are summarized in Table 3.3.7. Focusing on the summer months, which is the period of concern for low dissolved oxygen, nutrient loading estimates show that Puget Sound was by far the largest contributor of DIN to Budd Inlet and that the load from sediments was the next largest source. Combined, these two major sources were predicted to contribute all but 3% to 14% of the summer DIN load to Budd Inlet. Both Capitol Lake and LOTT are predicted to have a larger influence in inner Budd Inlet compared to the entire inlet, where combined they were predicted to contribute 5% to 22% of the summer DIN load." (DEIS, Section 3.3.5.3, page 3-43, 44, re-stated from Water Quality Attachment 4-36)

The recitation of the apportionment of DIN, according to the methods used in 1998 is concerning. The current way of thinking and of regulating nutrients is to consider only anthropogenic sources, the sources we can control. By referencing the loading from Puget Sound and sediments, the DEIS minimizes the contribution of nutrient loading from Capitol Lake and applies a different, lesser standard to water quality in Budd Inlet than that currently applied to other sources of DIN contributions.

Comment 27

The DEIS stated the following. "Ecology predicted that, without the dam, the TOC concentration at the outflow from Capitol Lake would be substantively lower (2 mg/L) than with the dam (5 mg/L), under modeled conditions. Yet, field data from 2004 and 2019 indicate that TOC concentrations in the outflow are much less than 5 mg/L on average and trending downward; they were already less than 2 mg/L in 2019, except during fall

L-1-32 See response to Comment L-1-13.

L-1-33 The section comparing TOC relationships between the lake and river has been revised (see Section 4.1.2 of the Water Quality Discipline Report [Attachment 7] and Section 3.3.3.1 of Final EIS Supporting Chapter 3.0), and the reference to the high value as indicative of the range in TOC concentrations measured has been removed. The section has also been expanded to include a TOC load comparison to provide perspective.

See also the Global Responses to Water Quality comments.

L-1-34 The purpose of the text is to summarize general conditions as related to DIN contributions to Budd Inlet and, as such, included natural sources in addition to anthropogenic sources. Its purpose is to provide a comparative perspective on the major sources of DIN. Anthropogenic sources and specifically Capitol Lake as an anthropogenic source and its predicted contribution to DO depletion are described in Section 4.3.4.2 of Final EIS Supporting Chapter 4.0.

L-1-35 See response to Comment S-4-30. The EIS evaluation relies heavily on Ecology's findings but includes other evaluations to ensure an independent analysis.

L-1

COMMENT

RESPONSE

L-1-35

aquatic plant dieback. Further, data collected from the lake in 2003 and 2004 and used to calibrate the model were not reflective of typical lake conditions due to a lake herbicide treatment that resulted in a mid-summer spike in TOC concentrations as well as the typical spike that occurred during fall plant die-off. Thus, the magnitude and seasonal relationships for nutrient and TOC discharges to Budd Inlet in 2004 would not have been typical. All considered, the monitoring data indicate uncertainty in model predictions of TOC and the effects of Capitol Lake on Budd Inlet dissolved oxygen depletion.” (DEIS, Section 4.3.5.2, pages 4-46, re-stated from Water Quality Attachment, page 4-41)

According to Ecology’s 2012 technical report (Roberts), the model was calibrated using data from 2004, taking into account the herbicide application. The model was then verified using data from 2001. Refinement of the model was achieved over 1500 separate model runs which explored the relationship among various factors. It does not seem prudent to discount a well-vetted model with so little evidence of its shortcomings.

Text from Ecology’s 2012 report reads, “The calibration period adopted for the study was May 18 to September 30, 2004, based on the availability of boundary condition and calibration data. While not anticipated in the original study design (Roberts et al., 2004), during this period, herbicide was introduced into Capitol Lake to control invasive milfoil, the dominant macrophyte (see Appendix C for pre- and post-application plant biomass). The sudden die-off of the invasive milfoil released nutrients into the lake that contributed to excessive algal growth.... The model successfully captured the long-term system trend for nutrients and the response to the herbicide application. (p 195, 2012 Ecology)

In addition the model was peer-reviewed a number of times as documented in the 2012 and 2015 Ecology publications.

Thank you for the opportunity to comment on the draft EIS. If you have questions regarding any of these comments, please feel free to contact Lisa Dennis-Perez at lisadennis-perez@lottcleanwater.org or 360-528-5719.

References

Roberts, M., A. Ahmed, G. Pelletier, and D. Osterberg. Publication # 12-03-008, June 2012, Deschutes River, Capitol Lake, and Budd Inlet Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load Technical Report: Water Quality Study Findings

Roberts, M., G. Pelletier, and A. Ahmed. Publication # 15-03-002, September 2015, Deschutes River, Capitol Lake, and Budd Inlet Total Maximum Daily Load Study Supplemental Modeling Scenarios.

L-2

COMMENT

RESPONSE

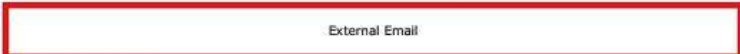
8/24/2021 Roundcube Webmail :: FW: Capitol Lake - Deschutes Estuary Draft Environmental Impact Statement

Subject: **FW: Capitol Lake - Deschutes Estuary Draft Environmental Impact Statement**
From: <info@capitolakedeschutesestuaryeis.org>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-23 15:50



- Capitol Lake DEIS 08112021.pdf(~3.1 MB)
- Thurston County Comments on Capitol Lake Project 11-08-2018.pdf(~784 KB)

From: Katelyn Johnson <katelyn.johnson@co.thurston.wa.us>
Sent: Thursday, August 19, 2021 5:10 PM
To: Meyer, Annette (DES) <annette.meyer@des.wa.gov>
Cc: Tye Menser <tye.menser@co.thurston.wa.us>; Carolina Mejia-Barahona <carolina.mejia@co.thurston.wa.us>; Gary Edwards <gary.edwards@co.thurston.wa.us>; Ramiro Chavez <ramiro.chavez@co.thurston.wa.us>; Robin Campbell <robin.campbell@co.thurston.wa.us>; DOR Thurston County Leg Authority <amy.davis@co.thurston.wa.us>; Thomasina Cooper <thomasina.cooper@co.thurston.wa.us>; Sara Develle <sara.develle@co.thurston.wa.us>; Robin Courts <robin.courts@co.thurston.wa.us>
Subject: Capitol Lake - Deschutes Estuary Draft Environmental Impact Statement



Good afternoon Ms. Meyer,

Attached please see the Thurston County Board of Commissioners' letter regarding the above mentioned.

Thank you,

Katey Johnson

Executive Assistant to County Manager Ramiro Chavez
Thurston County Commissioners' Office
Office: (360) 786-5440
Cell: (360) 463-1169

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=8&_mbox=INBOX%2FDEIS%20Processed%2010&_action=print&_extwin=1

1/1

L-2

COMMENT

RESPONSE



COUNTY COMMISSIONERS

John Hutchings
District One
Gary Edwards
District Two
Bud Blake
District Three

BOARD OF COUNTY COMMISSIONERS

November 9, 2018

Mr. Bill Flare, Assistant Director
Department of Enterprise Services
P.O. Box 41476
Olympia, WA 98504

RE: Capitol Lake/Lower Deschutes Watershed EIS

Dear Mr. Flare:

The Thurston County Board of Commissioners would like to submit comments regarding the Scope of Work for the upcoming Environmental Impact Statement (EIS) for the Capitol Lake/Lower Deschutes Watershed project.

We believe it is crucial to include an analysis of the upper Deschutes Watershed in the EIS for this project. It appears the current study area includes water quality research only in the Lower Deschutes Watershed and Capitol Lake. An assessment of commercial and residential activities on the Upper Deschutes watershed is also necessary, as it contributes to water quality in the lower basin and in the lake. It is important to gather data of land activities of the Upper Deschutes as part of the EIS process, leading to making informed decisions as to the future of Capitol Lake.

We look forward to your response to our comments. Please feel free to contact Ramiro Chavez, P.E. PgMP, County Manager at (360) 754-2960 or ramiro.chavez@co.thurston.wa.us if you have any questions.

Thank you.

Sincerely,


Bud Blake, Chair


John Hutchings, Vice-Chair


Gary Edwards, Commissioner

Building # 1, Room 269, 2000 Lakeridge Drive SW, Olympia, Washington 98502-6045 (360) 786-5440
TDD 7-1-1 or call 1-800-833-6388

L-2-1

The EIS analysis of water quality conditions in the Capitol Lake Basin and in Lower Budd Inlet utilized all relevant water quality data. This data is reflective of all inputs into these waterbodies, including inputs from the Deschutes Watershed. During development of the EIS, state and federal agencies adopted the water quality improvement plan for the Deschutes River, which intends to address key issues that contribute to water quality impairments. As described in the EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes TMDL and other efforts are expected to improve water quality in the Deschutes River over the long term, which should result in improvements to water quality in the Project Area. Conversely, actions taken by this project in the Capitol Lake - Deschutes Estuary will not affect water quality upstream of Tumwater Falls.

See also the response to Comment L-2-2.

L-2-1

L-2

COMMENT

RESPONSE



COUNTY COMMISSIONERS

- Carolina Mejia
District One
- Gary Edwards
District Two
- Tye Menser
District Three

BOARD OF COUNTY COMMISSIONERS

August 19, 2021

Acting Director Annette Meyer
Washington State Department of Enterprise Services
1500 Jefferson St SE
Olympia, WA

Re: Thurston County Comments on Capitol Lake-Deschutes Estuary Draft Environmental Impact Statement (DEIS)

Dear Acting Director Meyer,

Thank you for the opportunity for Thurston County to review the draft Environmental Impact Statement for Capitol Lake-Deschutes Estuary and for your recent comprehensive presentation to the Board of County Commissioners (BoCC) on this project.

A previous letter sent by the BoCC on November 9, 2018, (attached for reference) asked for this project to include analysis of water quality impacts on the Upper Deschutes watershed. Thurston County continues to be concerned the DEIS does not clearly communicate these impacts and asks below for additional information to be added.

With this letter, the County focuses on the four project goals and related analysis in the DEIS:

1. Improve water quality
2. Manage sediment accumulation and future deposition
3. Improve ecological functions
4. Enhance community use of the resource.

Improve water quality

Current water quality issues are described by the Department of Ecology in Ecology publication number 12-03-008: **Deschutes River, Capitol Lake, and Budd Inlet Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load Technical Report**. This report describes the serious water quality issues in the basin, including the upper watershed, and the steps needed to correct the problems.

The County is concerned the DEIS does not clearly communicate the differential water quality impacts among the alternatives in keeping with this Ecology report. On page xxiv of the report it states: *"The combined effects of current nonpoint and point sources exceed the loading capacity of both Budd Inlet and Capitol Lake for nutrients with the lake in place. With Capitol Lake in place, more of Budd Inlet and Capitol Lake would violate standards for DO under critical conditions than with a restored Deschutes estuary. If the lake were to revert to an estuary, a smaller portion of Budd Inlet would violate standards for DO, and the geographic area that is currently Capitol Lake would meet marine water quality standards for DO under all nutrient loading alternatives. Load reductions are needed under either alternative and will be developed in the Water Quality Improvement Report."*

The unnecessary warming of the water is called out in Ecology's water quality reports as adding to the dissolved oxygen and temperature exceedances observed in water quality for the Deschutes and surrounding watersheds and

Building # 1, Room 269, 2000 Lakeridge Drive SW, Olympia, Washington 98502-6045 (360) 786-5440

L-2-2

L-2-3

L-2-2 The EIS evaluates direct and indirect water quality impacts associated only with implementation of the project alternatives. Those impacts will occur within the Capitol Lake Basin and Lower Budd Inlet, and will have no influence on conditions upstream of Tumwater Falls. See also the Global Response for Water Quality.

L-2-3 Please see the Global Responses for Water Quality.
Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7) have been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards and TMDL allocations.

As described in the Draft EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes TMDL and other efforts are expected to improve water quality in the Deschutes River over the long term, which should result in improvements to water quality in the Project Area. However, the EIS evaluates direct or indirect water quality impacts associated only with implementation of the project alternatives. Those impacts will only occur within the Capitol Lake Basin and Lower Budd Inlet, and will have no influence on conditions upstream of Tumwater Falls. Because project implementation will not impact the area upstream of Tumwater Falls, the EIS does not include a discussion of potential changes to water quality upstream as a result of actions by others.

Please also see the Global Responses for comments on the Hybrid Alternative, which has been modified to include a freshwater reflecting pool rather than a saltwater reflecting pool. The reflecting pool would have a constant input of cool, artesian water and would be maintained at a higher, constant elevation compared to the saltwater reflecting pool that would vary under tidal conditions.

L-2

COMMENT

RESPONSE

L-2-3 Capitol Lake. Acknowledgement of how this Ecology report is being captured in the DEIS analysis would be helpful, as well as a more clear accounting of how different alternatives will positively or negatively impact the already serious water quality issues in the basin and Budd Inlet. For example, the DEIS should describe how a reflecting pool would affect water temperature. Solar heating of the water retained behind the wall with little circulation would likely affect the temperature of the water contained in the reflecting pool, and therefore when released or in contact with tidally induced water, may exacerbate water quality problems because of high water temperatures/ lower dissolved oxygen levels.

L-2-4 As for impacts to the upper watershed, page xxi of the Ecology document 12-03-008 Deschutes River, Capitol Lake, and Budd Inlet Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load Technical Report describes how the configuration of Deschutes Estuary or a managed Capitol Lake would impact water quality standards for surrounding tributaries.¹ It is notable that tributaries emptying into a managed lake would have higher water quality standards applied than if they were emptying into an estuary.

As described by the County in our letter sent November 9, 2018, water quality standards upstream in the Deschutes watershed should be included in the analysis in the DEIS. We request this information be added to the DEIS.

Sediment management

L-2-4 A description of how ongoing sediment management would be funded/implemented for all alternatives should be added, including any impacts on jurisdictions that would bear the costs of ongoing maintenance.

Improve ecological functions

L-2-5 The DEIS should include a more detailed description of how an estuary would provide a natural control/elimination of the invasive New Zealand mud snail.

Enhance community use of the resource

L-2-6 Thurston County is concerned that a managed lake or hybrid option that retains water behind an 8-13 foot wall (estimation based on measurements discussed among the technical CLDE group) would create a visual impact that, from water/pedestrian level, a person would be looking at the outside of a wall, not a reflecting pool.

As for recreational uses, it is clear the ability for active use (boating, swimming) is limited due to invasive species present in the lake, which if allowed to propagate elsewhere could cause irreparable harm to other environments. It is unclear in the DEIS how well the "clean-out" areas would work and what assurances there would be for consistent use by the public to clean off kayaks and other small boats or equipment. Examples from how these stations have effectively worked elsewhere would be helpful to include in the DEIS. Thurston County is concerned that without footwear, boats, and other personal flotation devices being consistently cleaned off, the odds of invasive species being transmitted to other watersheds is very likely.

L-2-7 Thurston County notes that while in-water recreational use may be limited by an estuary option, the boardwalk at Nisqually Wildlife refuge is a big attraction for the refuge and is regularly used by the public to view all the incredible wildlife and plants associated with the Nisqually Estuary. The Draft EIS states that "estuary habitat is scarce and valued in the region compared to freshwater ponds and lakes" and that "estuarine wetlands provide some of the most productive and valued habitats on earth." An analysis of relative value associated with public use of the different alternatives would enhance the DEIS and help identify a preferred alternative.

L-2-8

¹ Ecology document 12-03-008 "If the dam were removed, the Deschutes estuary would be an extension of Budd Inlet, which would fall under the aquatic uses defined for marine areas south of latitude 47° 04' N (south of Priest Point Park). In this circumstance, the designated uses to be protected in Percival Creek would switch to those of other tributaries to Budd Inlet. Whether Capitol Lake reverts to an estuary in the future affects the applicable water quality standards and nutrient targets for Capitol Lake and Budd Inlet, and possibly for the Deschutes watershed."

L-2-4 Please see Final EIS Supporting Chapter 7.0 for a summary of the funding approach for the project alternatives. Please also see Attachment 23 of the Final EIS for the Memorandum of Understanding for shared funding of increased maintenance dredging under the Estuary Alternative. Each entity evaluated the potential financial impact and capability during the process to develop the MOU and associated ongoing coordination as part of the Funding and Governance Work Group.

L-2-5 Additional information has been added to Section 4.2.1.1 of the Aquatic Invasive Species (AIS) Discipline Report regarding New Zealand mudsnail distribution and abundance within the study area and management approaches. Please also refer to the Global Responses for Aquatic Invasive Species.

L-2-6 Comment noted. EIS Supporting Chapter 4.0, Section 4.10.6, acknowledges the adverse impacts of the barrier wall under the Hybrid Alternative as significant.

L-2-7 Management approaches for controlling New Zealand mudsnail populations are described in Section 4.2.1.1 of the Aquatic Invasive Species (AIS) Discipline Report under Management Approaches. Mitigation measures described in Section 5.7 of this report include the AIS Management Plan to be prepared for the Preferred Alternative to monitor New Zealand mudsnail abundance over time, identify which chemical treatments can be used, experiment with different chemical and non-chemical techniques to select the optimum treatment methodology, specify best management practices for avoiding or minimizing the export of New Zealand mudsnails, evaluate how best to operate and monitor effectiveness of attended or unattended decontamination stations, and design and install educational signs to inform the public of the New Zealand mudsnail threat and requirements to prevent their spread. A similar approach has been implemented in Whatcom County, where boats and equipment are inspected at four checkpoints before entering Lake Whatcom and Lake Samish to ensure they are clean, drained, and dry and are not transporting AIS. Monitoring by WDFW has shown that this program has been effective in preventing the introduction of AIS of interest to Whatcom County as no species have been found in the lakes since the program began 10 years ago. The range of potential management approaches will be evaluated further during development of the AIS Management Plan.

Please also refer to the Global Responses for AIS, which describe effectiveness of decontamination stations for preventing the spread of AIS in other areas.

L-2

COMMENT

RESPONSE

L-2-8


The EIS identified potential adverse impacts as well as substantial benefits for each of the project alternatives. The Land Use, Shorelines and Recreational Discipline Report has been updated to include additional discussion on the potential differences in recreational use across the alternatives. The process used to identify a Preferred Alternative for the Final EIS considered these differences, and also considered a wide range of other values, with habitat values being among the factors considered.

L-2

COMMENT

RESPONSE

Thank you for the opportunity to comment. If you have any questions concerning the comments contained above, please contact Thurston County Director of Community Planning and Economic Development, Joshua Cummings, at 360-754-4995, or joshua.cummings@co.thurston.wa.us.

 (Initials)
County Manager/Asst. County Manager


Tye Menser, Chair

Gary Edwards, Vice-Chair

Carolina Mejia, Commissioner

L-3

COMMENT

RESPONSE

Please accept the attached resolution and list of comments as the City of Olympia's to the draft Environmental Impact Statement for the Capitol Lake-Deschutes Estuary Long-Term Management Project.
Thank you..

L-3

COMMENT

RESPONSE

L-3-1

Enterprise Services appreciates the City of Olympia’s detailed review of the Draft EIS. Also see the Global Response for the Preferred Alternative Identification Process.



City of Olympia | Capital of Washington State
P.O. Box 1967, Olympia, WA 98507-1967
olympiawa.gov

August 24, 2021

Washington Department of Enterprise Services
c/o Ann Larsen – Capitol Lake/Low Deschutes Watershed EIS
Post Office Box 41476
Olympia, Washington 98504

Dear Ms. Larsen:

SUBJECT: Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project

The City of Olympia appreciates the opportunity to comment on the Draft Environmental Impact Statement (EIS), for the Capitol Lake – Deschutes Estuary Long-Term Management Project. We understand that careful and thorough analyses and findings are essential to the environmental review process. We thank you for the recent Washington Department of Enterprise Services presentation to City Council and your answers to our questions.

The attached resolution, approved by City Council on August 10, 2021, summarizes the City’s concerns and requests. In general, The City finds that the Estuary Alternative would:

- provide the rare opportunity to restore scarce tidelands and estuarian habitat,
- be the most beneficial to tribal populations,
- address social justice and equity impacts associated with the No Action and Managed Lake Alternatives,
- substantially benefit anadromous fish and marine fish,
- be the most beneficial for controlling invasive species,
- be beneficial for reducing downtown Olympia flooding,
- be the most beneficial to Budd Inlet water quality,
- be better aligned with local climate adaptation goals than the Managed Lake Alternative,
- be the least impactful to regional LOTT Clean Water Alliance and stormwater utility ratepayers,
- be the most natural and environmentally sustainable, and
- be the least cost alternative over the 30-year planning horizon.

Given the above findings, the Olympia City Council requests that the Estuary Alternative be selected as the only clear Preferred Alternative for the final Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project.

Please accept the enclosed resolution and attached list of comments compiled by City staff as the City of Olympia’s response to the draft EIS. We are committed to the EIS process at both the elected official

Mayor: Cheryl Selby **Mayor Pro Tem:** Clark Gilman **City Manager:** Jay Burney
Councilmembers: Jim Cooper, Yén Huýnh, Dani Madrone, Lisa Parshley, Renata Rollins

L-3-1

L-3

COMMENT

RESPONSE

L-3-1


Ann Larsen, Department of Enterprise Services
August 24, 2021
Page 2

and staff levels. We feel you and your consultant team have prepared a thorough and sincere draft EIS. Let us know how we can help.

If you have questions, please contact Eric Christensen, Water Resources Director, at echriste@ci.olympia.wa.us or 360.570.3741.

Sincerely,


Cheryl Selby
Mayor


Clark Gilman
Mayor Pro Tem


Jim Cooper
Councilmember


Yên Huỳnh
Councilmember


Dani Madrone
Councilmember


Lisa Parshley
Councilmember


Renata Rollins
Councilmember

EC:lm
Enclosures

L-3

COMMENT

RESPONSE

L-3-2 Please see the Global Response for the Preferred Alternative Identification Process.

RESOLUTION NO. M-2248

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OLYMPIA, WASHINGTON, SUPPORTING THE ESTUARY ALTERNATIVE FOR LONG-TERM MANAGEMENT OF CAPITOL LAKE – DESCHUTES ESTUARY

WHEREAS, the Washington State Department of Enterprise Services (DES) is conducting an environmental review process under the State Environmental Policy Act for the Capitol Lake – Deschutes Estuary Long-Term Management Project; and

WHEREAS, through Engrossed Substitute Senate Bill 6095, the Washington State legislature required DES to develop an environmental impact statement to consider alternatives for Capitol Lake. The alternatives considered must include, at a minimum, a lake option, an estuary option, and a hybrid option. The environmental impact statement will also consider sediment transport and locations within lower Budd Inlet. The department must work with affected stakeholders to develop mitigation plans. The environmental impact statement must also consider an expanded area around Capitol Lake and Budd Inlet including the Port of Olympia for the economic analysis. The environmental impact statement must consider the use of equal funding from nonstate entities including, but not limited to, local governments, special purpose districts, tribes, and not-for-profit organizations; and

WHEREAS, through Engrossed Substitute Senate Bill 6248, the Washington State legislature required DES to complete a draft environmental impact statement with at least the three options of a managed lake, an estuary, and a hybrid lake by June 30, 2021, with the intent of a final environmental impact statement that includes identification of a preferred alternative for Capitol Lake management be completed by June 30, 2022; and

WHEREAS, on June 30, 2021, DES released the Draft Environmental Impact Statement (draft EIS), for the Capitol Lake – Deschutes Estuary Long-Term Management Project including information on long-term management alternatives and key findings from the technical analyses; and

WHEREAS, the draft EIS is currently out for public comment until August 13, 2021, and no further opportunity for public comment is anticipated; and

WHEREAS, the draft EIS does not identify a Preferred Alternative; and

WHEREAS, the Preferred Alternative will be selected by DES with support from their project team and input from Work Groups and the Community Sounding Board; and

WHEREAS, the majority of the draft EIS project area lies within the city limits of Olympia and is part of the downtown community, our cultural and economic hub for which we have invested significant resources; and

WHEREAS, the entirety of the draft EIS project area lies within the Squaxin Island Tribe treaty lands; and

WHEREAS, the draft EIS (page 4-118) states that “the Estuary Alternative would beneficially affect tribal populations through the cultural, heritage, spiritual, and educational value that an estuarine environment provides;” and

WHEREAS, the draft EIS Executive Summary (page 35) states that “Reintroducing tidal hydrology to the Capitol Lake Basin would benefit many of the species of importance to local area tribes, including salmon and shellfish, and potentially other fish and wildlife, as well as plants.” These benefits are also important to the community and region as a whole; and

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COMMENT

RESPONSE

L-3-3 Please see the Global Response for the Preferred Alternative Identification Process.

WHEREAS, the draft EIS (page 7-11) states, that “The Managed Lake Alternative would perpetuate historic inequities, particularly for tribal populations that have experienced ongoing adverse effects from changes to the ecosystem since non-Indigenous settlement of the region and continued loss of connection to the natural environment”; and

WHEREAS, the draft EIS Executive Summary (pages 4 and 5) states that “Due to historical declines, estuary habitat is scarce and valued in the region compared to freshwater ponds and lakes, which remain relatively abundant” and “Estuarine habitat in the South Sound has experienced severe reductions in both the quantity and quality of such key habitats for fish” and “Because of this, the transition in habitat type from freshwater lake to estuary would be highly valuable.” This makes the Estuary Alternative a unique and rare opportunity and would provide an important example of the State’s commitment to restoring Puget Sound, salmon, and Southern Resident Orca in its Capitol City; and

WHEREAS, the Draft EIS Executive Summary (Page 40) states that under the Estuary and Hybrid Alternatives, “the 5th Avenue Bridge would be closed for approximately 4-5 years for replacement”. This will have a significant impact on access to downtown, overall mobility in the Olympia and the ability to maintain utility services; and

WHEREAS, the draft EIS Executive Summary (page 17) states “The mixing of freshwater and saltwater in estuarine environments creates some of the most productive and valuable habitat on earth. The reestablishment of estuarine conditions by reintroducing saltwater and tidal influences to the Capitol Lake Basin would substantially improve ecological functions in the Project Area. In addition to supporting key ecological processes, estuarine conditions would provide productive habitat for shellfish, salmon, other anadromous species, and marine fish in the area, potentially including Endangered Species Act-listed Chinook salmon (non-hatchery) and steelhead trout. Shallow water habitats with salt marsh vegetation along the shoreline would provide preferred forage and rearing habitat for juvenile salmon.” This makes the Estuary Alternative a unique and rare opportunity and would provide an important example of the State’s commitment to restoring anadromous species (salmon), and Southern Resident Orca in its Capitol City; and

WHEREAS, the draft EIS (page 4-63) states “Under the Estuary and Hybrid Alternatives, the conversion of freshwater lake habitat to a tidally influenced brackish estuary would substantially benefit anadromous fish and marine fish, potentially including ESA-listed Chinook salmon and steelhead trout, as well as shellfish”; and

WHEREAS, the consumption of ESA-listed Chinook salmon has long been linked to the survivability of ESA-listed southern resident killer whales and the estuary option results in substantial beneficial effects on salmon including Chinook which is a key recommendation to recover ESA-listed killer whales; and

WHEREAS, the draft EIS (page 4-69) states that with the Estuary Alternative, “Aquatic invasive species that are intolerant to saltwater (e.g., New Zealand mudsnail, Eurasian watermilfoil, curly pondweed) would be largely eradicated from the area with the transition from freshwater to saltwater”; and

WHEREAS, the draft EIS Water Quality Discipline Report (page 5-14) estimates that with the Estuary Alternative there will be an improvement (“minor to moderate benefits”) in dissolved oxygen in Budd Inlet over the Managed Lake and Hybrid Alternatives; and

WHEREAS, the draft EIS (page 4-106) states “Maximum water levels for the Estuary Alternative would be slightly (≤1 foot [≤0.3 meters]) lower than those of the No Action and Managed Lake Alternatives” and “During extreme river floods (with 2 feet [0.61 meters] of RSLR), the Estuary Alternative would reduce the extent and intensity of flooding compared to the No Action and Managed Lake Alternatives”; and

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COMMENT

RESPONSE

- L-3-4 Please see the Global Response for the Preferred Alternative Identification Process.
- L-3-5 Please see response to Comment L-3-30.

WHEREAS, the draft EIS (page 4-184) indicates the total cost of estuary alternative over 30 years would be \$70 to \$271 million dollars less than the Managed Lake and Hybrid Alternatives; and

WHEREAS, the draft EIS (page 4-176) states "As part of a future Capitol Lake/Budd Inlet TMDL to reduce nutrient loading in Budd Inlet, Ecology is expected to issue load allocations to Capitol Lake if it remains a lake. If Capitol Lake does not meet its future load allocations, LOTT, and other nutrient sources within the Capitol Lake Basin, including stormwater dischargers, will likely be required to improve water quality of their discharges by increasing treatment and/or reducing their discharges during the summer. These measures would increase the costs for treatment of wastewater and stormwater discharges, which would be passed on to ratepayers." However, the draft EIS does not quantify the potential costs to affected regional ratepayers; and

WHEREAS, the draft EIS (page 4-119) states "Removing the dam would re-establish pre-Deschutes Basin Project tidelands and estuary functions associated with historic use patterns of the estuary"; and

WHEREAS, the creation of a "Des Chutes Basin Project Historic District" recommended in the draft EIS (page 3-96) would recognize only those historic elements related to the creation of Capitol Lake, to the exclusion of the extensive cultural and historic resources adversely impacted by that project and its subsequent alteration of the entire Deschutes Estuary ecosystem. Instead of focusing on a single period of significance the entire EIS project area should be designated a Cultural Landscape, with a Treatment Plan to guide future conservation and preservation decisions including mitigation of operational effects of any selected alternative; and

WHEREAS, the draft EIS Economics Discipline Report (page ES-7) states "The Estuary and Hybrid Alternatives would provide more opportunity for carbon sequestration and less methane emissions than the Managed Lake Alternative, with the Estuary providing slightly more storage capacity than the Hybrid Alternative. Both the Estuary and Hybrid Alternatives are better aligned with local climate adaptation goals than the Managed Lake Alternative"; and

WHEREAS, the process for prioritizing selection criteria for the Preferred Alternative solicited from the Work Groups and Community Sounding Board was not informed by the analyses and findings of the draft EIS; and

WHEREAS, the Estuary Alternative would provide the rare opportunity to restore scarce tidelands and estuarine habitat, would be the most beneficial to tribal populations, would address social justice and equity impacts associated with the No Action and Managed Lake Alternatives, would substantially benefit anadromous fish and marine fish, would be the most beneficial for controlling invasive species, would be beneficial for reducing downtown Olympia flooding, would be the most beneficial to Budd Inlet water quality, would be better aligned with local climate mitigation and carbon sequestration goals than the Managed Lake Alternative, may be the least impactful to regional LOTT Clean Water Alliance and stormwater utility ratepayers, would be the most natural and environmentally sustainable, would honor traditional cultural and spiritual values of the land and waters in Budd Inlet as a whole, and would be the least cost alternative over the 30-year planning horizon;

NOW, THEREFORE, BASED ON THE RECITALS ABOVE, THE OLYMPIA CITY COUNCIL DOES HEREBY RESOLVE as follows:

1. The Olympia City Council hereby supports selection of the Estuary Alternative as the only clear Preferred Alternative for the final Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project.
2. The Olympia City Council hereby requests DES to perform a more rigorous scientific process for prioritizing selection criteria for a Preferred Alternative.

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COMMENT

RESPONSE

L-3-6 | 3. The Olympia City Council hereby requests that, given the impacts to the Squaxin Island Tribe and to address equity and social justice impacts, the Squaxin Island Tribe's input in the Decision Durability selection criteria be weighted more heavily than other partners given treaty rights under the Medicine Creek Treaty of 1854 and Tribal interests in the health of the Budd Inlet ecosystem as a whole.


L-3-7 | 4. The Olympia City Council hereby requests the ability to provide additional input on selection of the Preferred Alternative to be identified in the final Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project.

L-3-8 | 5. The Olympia City Council hereby requests the formation of the Deschutes Watershed Council be included in the final recommendations to create a formal collaborative body to move restoration forward, as was also recommended in the proposed Deschutes Watershed Restoration and Enhancement Plan.

L-3-9 | 6. The Olympia City Council hereby requests that as a part of evaluating the Estuary Alternative, that a temporary 5th Avenue bridge structure be installed during construction to provide redundancy in this vital part of the City's transportation and utility network between West Olympia and downtown Olympia.


L-3-10 | 7. The Olympia City Council hereby thanks DES for the opportunity to comment on the draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project.

PASSED BY THE OLYMPIA CITY COUNCIL this 10th day of August, 2021.




 MAYOR

ATTEST:



 CITY CLERK

APPROVED AS TO FORM:



 CITY ATTORNEY

L-3-6 | Comment noted. Please see the Global Response for the Preferred Alternative Identification Process, which includes a description of how tribal values were considered. Please also refer to Attachment 21 of the Final EIS, which describes the decision-making process.

L-3-7 | Comment noted. Please see the Global Response for the Preferred Alternative Identification Process. Please also refer to Attachment 21 of the Final EIS, which describes the decision-making process that incorporated feedback from the City of Olympia, among other stakeholders and the Squaxin Island Tribe.

L-3-8 | This comment is a statement that does not affect the environmental analysis in the Draft or Final EIS. The Deschutes Watershed Council would be created as a result of separate legislative action. Enterprise Services has discussed the potential future coordination with the Deschutes Watershed Council with the Funding and Governance Work Group, in response to this comment and in regard to long-term management of the Estuary Alternative. The Memorandum of Understanding for long-term management of the Estuary Alternative does not preclude future coordination with the Deschutes Watershed Council.

L-3-9 | Please see the Global Response for the Estuary and Hybrid Alternatives. These alternatives have been revised to build a new 5th Avenue Bridge before the existing bridge is removed for construction. These alternatives no longer have a long-term bridge closure.

L-3-10 | Enterprise Services appreciates the City of Olympia's detailed review of the Draft EIS.

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COMMENT

RESPONSE



Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project

Page Reference	Issue	Comment
L-3-11 Executive Summary (pages 4 and 5)	The draft EIS Executive Summary states that "Due to historical declines, estuary habitat is scarce and valued in the region compared to freshwater ponds and lakes, which remain relatively abundant." And "Estuarine habitat in the South Sound has experienced severe reductions in both the quantity and quality of such key habitats for fish." and "Because of this, the transition in habitat type from freshwater lake to estuary would be highly valuable."	In the final EIS, please acknowledge that this makes the Estuary Alternative a unique and rare opportunity that would provide an important example of the State's commitment to restoring Puget Sound, and salmon and Southern Resident Orca populations.
L-3-12 Executive Summary (page 13)	Statements about future water quality improvements omits that water quality gains in Budd Inlet from the estuary/hybrid alternatives would likely not be realized in another alternative and likely not in any other suite of future actions that could be required via a TMDL.	This is important context to include as restoration of circulation, natural fresh /salt salinity gradients, and estuarine nutrient transport and cycling cannot be realized in a managed lake alternative.
L-3-13 Executive Summary (page 13)	It seems speculative that water quality standards might be met in a reflecting pool.	It is also possible that they would not meet. Why only state one side of this range of possibilities? Where is the data that shows that "tidal water would be exchanged twice daily and that water would be cooler, with higher dissolved oxygen concentrations, and less algae than the estuarine water outside of the reflecting pool."?
L-3-14 Executive Summary (page 16)	The focus on aquatic plants seems a side issue to the larger impacts on ecology from the dam on Budd Inlet water quality, loss of rare and valuable estuarine and salt marsh habitat, natural sediment transport and salt/freshwater gradients.	Emphasis on the alterations to ecological function created by the dam seems more relevant to the overall selection of a preferred alternative than the concerns about aquatic plants in the lake.

Page 1

- L-3-11 The importance of estuarine habitat for salmon and Orca populations are described in Sections 3.5 and 4.5 of EIS Supporting Chapters 3.0 and 4.0.
- L-3-12 The Final EIS Summary includes updates (from the Draft EIS Executive Summary) to describe that modeling conducted by Ecology identifies Capitol Lake as the primary contributor to low dissolved oxygen conditions in Budd Inlet, and that Ecology has stated that the Estuary Alternative is the only alternative that could meet water quality standards because it would constitute a 'natural estuary' condition.
- L-3-13 Please see the Global Response for comments on the Hybrid Alternative, which describe that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool. As such, the analysis summarized in this comment has been removed from the Final EIS.
- The Final EIS Summary has been revised (from the Draft EIS Executive Summary) to state that within the freshwater reflecting pool of the Hybrid Alternative, an adaptive management plan would be implemented to meet specific lake management objectives.
- L-3-14 Please also note that Enterprise Services developed a Preferred Alternative identification process that considered a wide range of information, including performance against project goals, other environmental impacts and benefits, environmental and economic sustainability, construction impacts, and feedback from engaged stakeholders (referred to as Decision Durability). The decision-making process goes beyond findings from the water quality analysis. Please refer to Attachment 21 which provides more detail on the decision-making process and the findings from this evaluation.

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RESPONSE

City of Olympia Comments on the Draft EIS for Capitol Lake
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Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project		
Page Reference	Issue	Comment
L-3-15	Executive Summary (page 24) The draft EIS Executive Summary states that Under the Managed Lake Alternative, flooding from extreme river flood events would not be mitigated by the Olympia Sea Level Rise Response Plan.	The Olympia Sea Level Rise Response Plan acknowledged the potential for changes in Capitol Lake as a result of the EIS process and provided adaptation strategies that could be considered with all of the action alternatives. Regardless of the future of Capitol Lake, the eastern shoreline along Heritage Park will need to be modified in order to prevent both existing and future downtown flooding. Different alternatives could present subtle changes in how the shoreline is modified to address sea level rise. The plan also acknowledges that near-term (by 2024) strategies for elevating the landscape in low areas of Heritage Park should be implemented to reduce existing river-driven flooding.
L-3-16	Executive Summary (pages 26-27) Figures ES.5 and ES.6 depict overviews for the Managed Lake and Estuary Alternatives.	In the final EIS, please revise Figures ES.5 and ES.6 to indicate that the landscape elevations within Heritage Park will need to be increased to prevent flooding in downtown Olympia. It is assumed that with the Hybrid Alternative, the reflecting pool barrier wall will fulfill this purpose.
L-3-17	Executive Summary (page 27) Dam removal callout on Figure ES.6	Mention benefits to natural processes, salinity mixing zone and increase of aquatic habitat by 3.3 acres from Dam removal. Also applies to Figure ES.7.
L-3-18	Executive Summary (page 29) Table ES.2 Hydrodynamics	Hydrodynamics – No mention of improved fresh/salt salinity gradient and potential benefits to larger Southern Budd Inlet circulation from Estuary Option. Water levels in flood scenarios are not contextualized with degree relative to flood elevations. Sediment transport to Budd Inlet is also a benefit to nearshore habitats supporting resiliency to sea level rise and a more natural distribution and release of sediment and freshwater.
L-3-19	Executive Summary (page 30) Table ES.2 Water Quality	Uncertainty in water quality improvements from a yet to be developed adaptive lake management plan are not mentioned in Managed Lake alternative, but uncertainty is highlighted in potential water quality improvements to Budd Inlet in Estuary Alternative.

L-3-15 In response to this comment, the characterization of potential impacts under the No Action and Managed Lake Alternatives (in Section 4.13 of Final EIS Supporting Chapter 4.0 and in the Final EIS Summary), has been changed in recognition that the Olympia Sea Level Rise Response Plan is considered an adaptable framework.

L-3-16 As clarified in the Final EIS (see Sections 4.8.2.1, 4.8.4.1, 4.8.5.1 of Final EIS Supporting Chapter 4.0), it is anticipated that future flooding predicted in Heritage Park area would be addressed by the improvements under the Olympia Sea Level Rise Response Plan. Based on other comments from the City, we understand that the Sea Level Rise Response Plan recognizes that different alternatives could present subtle changes in how the shoreline would need to be modified to address flooding, and given the adaptability built into the Sea Level Rise Response Plan, planning improvements of the plan would be adjusted based on the selected alternative and all relevant modeling.

L-3-17 The additions recommended in this comment have not been made; please refer to the more detailed discussion of changes under the Estuary Alternative provided in Final EIS Supporting Chapter 2.0. Please do note that this callout has been updated to describe that the configuration would constitute natural estuary conditions and would be in compliance with the TMDL.

L-3-18 Table ES.2 in the Draft EIS Executive Summary is a high-level summary of potential long-term impacts and benefits. The information requested by the commenter is addressed in the main body of the EIS, including benefits to the restoration of historical salinity and sedimentation patterns.

Regarding the potential for sediment transport into Budd Inlet to benefit nearshore habitats, it is expected based on modeling that an increase in sedimentation in Southern Budd Inlet would be focused on the eastern shoreline. Minor increases in the sedimentation rate along the more-natural shorelines of western Budd Inlet are predicted (maximum change of 0.6 and 0.7 cm/year increase for the Estuary and Hybrid Alternatives, respectively).

L-3-19 The water quality section of Table ES.2 has been fully revised to reflect the updated water quality analysis (see Table 2 of Final EIS Summary).

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RESPONSE

City of Olympia Comments on the Draft EIS for Capitol Lake
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Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project		
Page Reference	Issue	Comment
L-3-20 Executive Summary (page 31)	Table ES.2 Fish and Wildlife	In estuary alternative highlight the beneficial effects on shorebirds, wading birds, shellfish, diving and dabbling ducks as described in the fish and wildlife discipline report as moderate to substantial (Fish and Wildlife page 5-49 and DEIS 4-71 table 4.5.2) Also increase of deepwater habitat by 3.2 acres from dam removal as moderate beneficial effect (Fish and Wildlife 5-30)
L-3-21 Executive Summary (page 31)	Table ES.2 Wetlands – benefit of restoring 3.3 acres of waters of the US via dam removal is not listed as a beneficial effect.	Mention restoration of 3.3 acres of deepwater estuary habitat of 3.3 acres from Dam removal should be mentioned in wetlands under estuary and hybrid alternatives. (from page 4-81)
L-3-22 Executive Summary (page 31)	The Fish & Wildlife Discipline Report page 5-36 states: "The Estuary Alternative would enhance the salmon production of the basin by providing additional refuge habitat for juvenile salmon and would increase the estuarine benthic organism prey for salmon. Overall, this would have a corresponding minor beneficial effect for orcas that may occasionally visit Budd Inlet." This statement is also substantially captured in Section 4.5.5 of the EIS.	In the final EIS Executive Summary, please acknowledge the Estuary Alternative's minor beneficial effect for orcas in Table ES.2.
L-3-23 Executive Summary (page 32)	In Table ES.2 for the Land Use, Shorelines, & Recreation discipline, the Managed Lake Alternative proposes coordination with the Olympia Sea Level Rise Response Plan on design parameters for the flood protection design of the Heritage Park berm to account for extreme river flooding.	In the final EIS, please revise Table ES.2 under the Estuary and Hybrid Alternatives to also propose coordination with the Olympia Sea Level Rise Response Plan on design parameters for the flood protection design of the Heritage Park berm to account for extreme river flooding.
L-3-24 Executive Summary (page 32)	The summary of key findings from the Air Quality and Odor discipline states that the long term impacts and benefits, including opportunities for carbon sequestration and methane emissions, are the same for the Estuary and Hybrid Alternatives.	In the final EIS, please revise the summary of Air Quality and Odor impacts in Table ES.2 to acknowledge these differences in greenhouse gas emissions and potential for carbon sequestration between the Estuary and Hybrid alternatives.

- L-3-20 In response to this and other comments on the Draft EIS, the summary of impacts and benefits for Fish and Wildlife has been clarified in the Final EIS Summary.
- L-3-21 See response to Comment L-3-109.
- L-3-22 Thank you for your comment. This has been added into the Final EIS Summary.
- L-3-23 As described in the Land Use, Shorelines, and Recreation Discipline Report, under extreme flood conditions, the Estuary Alternative would reduce the extent and intensity of flooding compared to the No Action and Managed Lake Alternatives. Extreme tide flooding under the Estuary Alternative is addressed by the current berm design included in the Olympia Sea Level Rise Response Plan. As such, a statement has been added to the Final EIS Summary table to note that "Ongoing coordination with the Olympia Sea Level Rise Response Plan team would ensure that modeled tidal-driven events continue to be mitigated by the planned improvements in Heritage Park."
- L-3-24 Comment noted; this information has been added to Table 2 in the Final EIS Summary to better align with the greenhouse gas discussions in Sections 4.7.5.3 and 4.7.6.3 of Final EIS Supporting Chapter 4.0.

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Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project		
Page Reference	Issue	Comment
L-3-24	This is not consistent with the Air Quality and Odor Discipline Report which states: - "Of the three action alternatives, the hybrid alternative would generate the highest levels of GHG emissions during construction (Attachment 11, page 5-14)" and - "The hybrid alternative would have slightly less net carbon sequestration when compared to the Estuary Alternative because of the decreased area of saline marsh in the North Basin (Attachment 11, page 5-16)."	Please also acknowledge that the Estuary and Hybrid alternatives are better aligned with local climate adaptation and mitigation goals than the Managed Lake Alternative.
L-3-25	Executive Summary (page 35) The draft EIS Executive Summary states that "Reintroducing tidal hydrology to the Capitol Lake Basin would benefit many of the species of importance to local area tribes, including salmon and shellfish, and potentially other fish and wildlife, as well as plants."	Please acknowledge that these benefits to the natural environment are also of importance to the community and region as a whole.
L-3-26	Executive Summary (page 40) The Draft EIS suggests that under the Estuary and Hybrid Alternatives the 5th Avenue Bridge would be closed for approximately 4-5 years for replacement.	This has a very large impact on access to downtown and overall mobility in the Olympia. Please describe how this impact is anticipated to be mitigated. It is important to note that without an alternate east-west route (such as the 4th Avenue bridge), loss of the 5th Avenue Bridge would cripple transportation and emergency vehicle access in the City. Has a temporary bridge, similar to what was implemented with the 4 th Avenue bridge replacement following the Nisqually earthquake, been given consideration? If not, could the proposed 5th Avenue pedestrian bridge be redesigned to allow its use as a temporary vehicular bridge during construction?

L-3-25 In the context of the Fish & Wildlife analysis, this statement relates to tribal resources, which includes tribal fishing and gathering practices and treaty rights. Community and regional priorities are in large part reflected in plans and policies that direct the protection and restoration of fish and wildlife and their habitats. These priorities are described in various places in the Draft EIS and Final EIS, including in the Fish & Wildlife Sections (3.5, 4.5, and 5.5 of EIS Supporting Chapters 3.0, 4.0, and 5.0). See also Economics (Sections 3.14 and 4.14 of EIS Supporting Chapters 3.0 and 4.0) for information on community values in the context of the demand for and value of ecosystem services.

L-3-26 Please see the Global Response for the Estuary and Hybrid Alternatives, which have been modified and no longer require long-term closure of 5th Avenue.

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COMMENT

RESPONSE

L-3-27

The Department of Natural Resources (DNR) is a member of the Funding and Governance Work Group, and has been active in the development of a shared funding and governance approach. Please refer to Attachment 23 of the Final EIS for a Memorandum of Understanding that outlines the proposed governance responsibilities after project construction, and the shared funding approach for maintenance dredging.

DNR has also been engaged in the project Work Groups and provided direct feedback on the decision-making process developed by Enterprise Services for this project. Throughout the EIS process, Enterprise Services did not receive any requests to formally share in the responsibility for the procedural or substantive content of the EIS as a co-lead agency. Enterprise Services served in the lead position in past planning processes that sought to resolve environmental conditions in the Project Area, or to identify the preferred approach for long-term management. Enterprise Services served in the position of lead agency under SEPA and maintained a commitment to solicit and consider comments from the Work Groups throughout the EIS process.

Enterprise Services will continue to follow terms of the long-term lease, including those highlighted in this comment.

L-3-28

Comment noted. Please see the Global Response for the Preferred Alternative Identification Process. Please also refer to Attachment 21 of the Final EIS, which describes the decision-making process.

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Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project		
Page Reference	Issue	Comment
L-3-27	The draft EIS states that the aquatic lands of Capitol Lake are managed by Enterprise Services under long-term lease agreement from the Washington State Department of Natural Resources (DNR). The current lease agreement was established in 1998, for a term of 30 years (through 2028), with the option for one 20-year extension (through 2048). Based on the scope of this project, it is assumed that a new governing body may be formed for long-term management of the Capitol Lake – Deschutes Estuary before the lease term expires, and management authority would be transferred from Enterprise Services.	Given this: 1. Although the Washington State legislature has tasked DES with doing so, given that DNR is the landlord and DES is the tenant, is it appropriate for DES to be the decision maker for the Preferred Alternative? 2. In the final EIS, please provide greater detail of what the governing body for long-term management of the Capitol Lake – Deschutes Estuary is envisioned to be. 3. The terms of the lease (Section 7.3) require that "prior to any construction, alteration, replacement, removal or major repair of any improvements (whether Landlord-Owned or Tenant-Owned), Tenant shall submit to Landlord plans and specifications which describe the proposed activity. Construction shall not commence until Landlord has approved those plans and specifications in writing." Given this, it appears that DNR has the final approval of the Preferred Alternative. Please address this in the final EIS. 4. The terms of the lease (Section 7.4) indicate "Tenant-Owned Improvements shall be removed by Tenant by the Termination Date unless Landlord notifies Tenant that the Tenant-Owned Improvements may remain. If the Landlord elects for the Tenant-Owned Improvements to remain on the Property after the Termination Date, they shall become the property of Landlord without payment by Landlord." Section 7.1 of the lease indicates the 5 th Avenue dam is a tenant-owned existing improvement. Given this, it appears that DNR has the authority to request the removal of the dam by the termination of the lease. Please address this in the final EIS.
L-3-28	The draft EIS provides selection criteria for the Preferred Alternative.	To promote fairness and equity across the many aspects of the community, please include social justice and equity as a selection criterion.

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City of Olympia Comments on the Draft EIS for Capitol Lake
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Page Reference	Issue	Comment
L-3-29	1-19 The selection criteria for the Preferred Alternative include Environmental and Economic Sustainability.	There does not appear to be an evaluation or mention of Environmental and Economic "Sustainability" in the draft EIS (particularly Chapters 3 or 4).
L-3-30	1-20 The draft EIS provides a prioritization of the selection criteria for the Preferred Alternative.	Thus far the process for prioritization of the criteria does not appear to have been rigorous and was not informed by the findings of the draft EIS. Performance of a more rigorous process for prioritizing and weighting the selection criteria, with input from the Work Groups and Community Sounding Board, is necessary before a Preferred Alternative can be selected.
L-3-31	Chapter 2 Deschutes reconfiguration	With the reconfiguration, please add an evaluation of vehicle LOS at 4th and Simmons and the lower roundabout (top of 4th Ave bridge).
L-3-32	2-30 Boardwalk design/construction	Boardwalks at Billy Frank Jr Nisqually NWR were constructed on prior disturbed areas (levees and service roads) with subsurface geotechnical investigation to support diamond pier/pin pile system. This design may not be feasible in unconsolidated/placed sediments in the lake/estuary scenario.
L-3-33	2-30 to 2-32 Section 2.3.4 on Community Use, and throughout report	Makes no mention of the Tribes' uses and value of the estuary for educational and spiritual purposes. The report should consider our contemporary Tribes as part of the broad community of the project area and include their traditional, current and future envisioned uses and values here and in other sections that enumerate the community uses and benefits of each alternative. See text in section 4.14.3.4 re importance to Tribes of water quality, habitat, aesthetics, cultural, heritage, spiritual & educational value of "ecosystem services" of the estuary. That language should appear in benefits lists and community use sections.
L-3-34	2-31 The draft EIS states Outside of the Project Area, a decontamination station may also be installed in West Bay.	Consider changing West Bay to Budd Inlet. The Swantown Marina boat launch located in East Bay is a primary access point for boaters in Budd Inlet.

- L-3-29 Environmental and Economic Sustainability was not evaluated in the EIS because it is not an element of the environment under SEPA. However, it is one of the criteria for decision-makers (see Section 1.12 of Final EIS Supporting Chapter 1.0 for information on the decision-making process used to identify the Preferred Alternative).
- L-3-30 In response to this comment from the City of Olympia, Enterprise Services provided another opportunity for the Work Groups and Community Sounding Board to discuss criteria weighting, before Enterprise Services completed the decision-making process. As documented in Attachment 21 of the Final EIS, criteria weighting did not affect the outcome of the decision-making process - there was too large of a delta between the Estuary Alternatives and the other project alternatives.
- L-3-31 Please see the Global Response for Transportation. The Estuary and Hybrid Alternatives would build a new 5th Avenue Bridge before the existing bridge is closed and demolished. As a result, a long-term bridge closure that would adversely affect the 4th Avenue Bridge is avoided. The new 5th Avenue Bridge and new Olympic Way connector would intersect Deschutes Parkway with a roundabout. This configuration would provide connections between Olympic Way and Deschutes Parkway that do not exist today, and is expected to reduce traffic that currently circulates between these two corridors in downtown Olympia. This configuration has been designed in coordination with the City of Olympia.
- L-3-32 This example was provided as a potential foundation that may be feasible for this project, and one that would minimize potential impacts to the aquatic environment. The design phase would include a geotechnical analysis with subsurface exploration to ensure appropriate structural foundation design. If an alternate design approach was identified, it is not expected to have substantial adverse impacts or significant changes to the types of impacts analyzed in this EIS.
- L-3-33 "Community Use" as referred to as one of the goals for long-term management, was defined by the Work Groups in Phase 1 in terms of how to restore the basin for recreational use under any of the action alternatives (Managed, Lake, Estuary, or Hybrid). We recognize that this term, more broadly, can be expanded to other uses. Please see the Global Response for Cultural Resources for information on how tribal values were addressed throughout the EIS. Please also see the Global Response for Preferred

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- Alternative Identification, which describes how tribal values were considered in decision-making.
- L-3-34 In response to this comment, the Final EIS has updated to describe that decontamination stations could be installed at existing boat launches in Budd Inlet. Specific locations of decontamination stations would be identified during future design and permitting efforts.

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- L-3-35 The intention for this trail shown on Figure 2.4.4 of the Final EIS is to connect to the future planned trail in West Bay Park, which is still being designed. The trail connection would be coordinated with the City of Olympia during final design.
- L-3-36 Comment noted. Under the Managed Lake Alternative, the 5th Avenue pedestrian path is now called a non-vehicular bridge, to accommodate all modes of non-vehicular transportation.
- Under the Estuary and Hybrid Alternatives, this separate bridge structure is no longer proposed. Rather, the new 5th Avenue Bridge would have separated and dedicated bicycle and pedestrian lanes on both sides to increase non-vehicular transportation in the corridor. Enterprise Services has consulted with the City of Olympia on the conceptual design for the new 5th Avenue Bridge.
- L-3-37 See response to Comment L-3-36.
- L-3-38 See response to Comment L-3-36.
- L-3-39 See response to Comment L-3-35.
- L-3-40 Comment noted. Enterprise Services coordinated with the City of Olympia on the proposed new 5th Avenue Bridge and Deschutes Parkway reconfiguration under the Estuary and Hybrid Alternatives. Feedback from the City of Olympia has been incorporated into those conceptual designs, which include wide sidewalks, dedicated bike lanes, and connections to existing trails.

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L-3-35	2-41 At-grade pedestrian path (under 5 th Avenue bridge?)	Further explain this at-grade path. A path on the ground should be described more fully including who it serves and what it connects to. Will it connect to the planned West Bay Trail?
L-3-36	2-42 5 th Avenue pedestrian bridge	Consider referring to this as a "pedestrian/bicycle" bridge. It is described as intending to serve bicyclists, and multimodal. It would be clearer to put bicycle in the title. This bridge will significantly improve bicycle access in the area.
L-3-37	2-42 5 th Avenue pedestrian bridge	Width of bridge is 14ft. Because bidirectional travel by bicyclists and pedestrians is expected, consider a wider design, 16 ft is recommended. A multiuse trail is 12 feet. Sky distance should be added for the railings. Unlike an at grade trail, people using the bridge will shy from the railing, narrowing the effective travel space.
L-3-38	2-42 5 th Avenue pedestrian bridge	It is assumed that this pedestrian and bicycle bridge will be built to remain permanent; this should be stated. The function and aesthetics of this bridge should be developed with the City of Olympia and community involvement.
L-3-39	2-46, 2-47 At-grade pathway connection between 5 th Avenue Pedestrian Bridge and Deschutes Parkway.	Continue to maintain the at-grade pathway connection under both the 4 th and 5 th Avenue bridges regardless of the chosen Alternative. The at-grade pathway connection is critical to providing safe pedestrian and bicycle connectivity and for future connection with Olympia's waterfront trail.
	2-47 Deschutes reconfiguration	The design of this connection should consider be integrated with the design of the future planned West Bay Trail.
L-3-40	2-47 Deschutes reconfiguration	The design of this connection should assume wide sidewalks and enhanced bike lanes. The number of lanes, the bicycle and pedestrian access, intersection treatment, and the aesthetics should be developed with the City of Olympia and community involvement.

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2-47	Deschutes Parkway reconfiguration	See chapter 5 comment below. The impacts of closing the 5 th Avenue bridge are significant and not fully mitigated by the Deschutes Parkway reconfiguration.
2-48	New 5 th Avenue bridge	The final EIS should state the design of this bridge should be developed with the City of Olympia and community involvement. Specifically, the number of lanes, the bicycle and pedestrian features, and bridge aesthetics. The use of guardrail should be removed from the description at this stage.
2-49	Deschutes reconfiguration	The final EIS should state function and aesthetics of this connection should be developed with the City of Olympia and community involvement.
3-15	The draft EIS states that "For the EIS water quality analysis, the study area includes Capitol Lake and its major inflow sources of the Deschutes River and Percival Creek, as well as West Bay and East Bay of Budd Inlet." This does not agree with the study area boundary depicted in Exhibit 3.27.	If the water quality analysis study area includes the Deschutes River and Percival Creek, as well as West Bay and East Bay of Budd Inlet, please revise the study area boundary depicted in Exhibit 3.27.
3-91	Section 3.9, Cultural Resources – Methodology	The cultural resources study scope includes the project area +.25 mi buffer. However, the resulting recommendation includes designation of a historic district area narrowly related to creation of Capitol Lake to be called "Des Chutes Project Historic District." This proposed district may be useful for isolating the historic elements that would see significant adverse impact (demolition, loss) from a preferred option that removes the dam. But that is its only, speculative, marginal utility. Structures (including the Lake) that are believed eligible for listing and which will be impacted by a preferred alternative should be thoroughly documented as a mitigation measure – regardless of which alternative is chosen. For this reason, the recommendation for a narrowly drawn historic district comes across as a tone-deaf to the array of cultural resources in and along the waterway, that continues to discount and defer consideration of the cultural, pre-contact, and historic

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L-3-41 Please see the Global Response for the Estuary and Hybrid Alternatives.

L-3-42 Please see response to Comment L-3-40.

L-3-43 Comment noted. Based on comments received on the Draft EIS, Enterprise Services revised the 5th Avenue Bridge design to avoid the long-term closure that was originally anticipated. Enterprise Services engaged the City of Olympia in this coordination and the conceptual design reflects feedback from that process. The Final EIS Supporting Chapter 2.0, Section 2.4.8.2, acknowledges that Enterprise Services would engage the City of Olympia and stakeholders in future design efforts for a new 5th Avenue Bridge and Deschutes Parkway reconfiguration, as appropriate.

L-3-44 Thank you for this comment. The study area figure has been revised to correctly match the description in the EIS.

L-3-45 Regarding the previously recommended Des Chutes Basin Historic District and the consideration of a Cultural Landscape Designation, see the Global Response for Cultural Resources.

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		resources that were adversely impacted by the creation of the Lake in the first place. Those lost or impacted resources disproportionately reflected the presence of marginalized populations (Little Hollywood, Olympia's Chinese Community, and our Tribal Community's presence throughout the waterways of Budd Inlet). They also include the commercial industries of the South basin and residential properties and neighborhoods impacted by dredge spoils and redirected transportation routes over water, bridges, and land. A more progressive and unifying approach would be to pursue a Cultural Landscape designation for the project area from the Falls to North Port that acknowledges and documents without bias the many, cumulative human uses over time, creates a Treatment Plan to guide future decisions regarding conservation, protection, and preservation, and develops an Interpretive Plan to share those many stories. The recent creation of Washington's National Maritime Heritage Area could provide support and momentum for a Deschutes Estuary Cultural Landscape designation within the NMHA. The work could be funded as a mitigation measure and possibly with grant support.
3-119	Street map	Union Avenue is an arterial; map shows it as a major Collector
3-120	Transit routes	Transit routes on 4 th and 5 th Avenue are mentioned. Two Intercity Transit routes, 12 and 42, use Deschutes Parkway and should also be mentioned.
3-120	Transit routes and ridership pre-pandemic	Add more discussion of transit routes, including a map of the routes in the affected area. Also, provide transit ridership numbers (possibly boardings/ disembarkments on these routes at the Olympic Transit Center). There are a significant number of people who ride buses and will be impacted by a future project.

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L-3-46 Comment noted; Figure 3.12.1 has been updated in the Final EIS Supporting Chapter 3.0, Section 3.12.

L-3-47 Routes 12 and 42 were listed in the text and table as routes that use 5th Avenue. That has been updated to show that these routes use both 5th Avenue and Deschutes Parkway SW.

L-3-48 The Estuary and Hybrid Alternatives would replace the 5th Avenue Bridge before closing the existing 5th Avenue corridor for dam demolition. Therefore, the project is not expected to adversely affect transit. During design of the new 5th Avenue Bridge, the design team will work with transit agencies to relocate stops as appropriate with the new design.

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3-121	Bicycle facility definitions.	Use the term "Bike Corridor" instead of "Bike Street."
3-121	Bicycle facility definitions.	Remove the sentence that states: "These designations are consistent with..." It is not needed and is inaccurate (Bike Corridors are not Class III bike facilities.)
3-122	Docks as trails	Docks are shown as trails and this is mentioned in the text. Many of these docks are locked and not open to the public. Suggest not showing docks as trails.
3-123	Map of bike facilities	The Bike Corridor on 7th goes to Washington; shown on map as going to Capitol.
Chapter 4	Section 4.3 recommends monitoring water quality, invasive species and aquatic plants to evaluate whether the objectives are being met.	It is recommended that a collaborative partnership, like the Deschutes Watershed Council, be established or consulted to monitor implementation of the Preferred Alternative's long-term management. This would be consistent with the WRIA 13 Committee recommendations.
Section 4.1	Beneficial effects of restoring sediment transport to Budd Inlet for habitat, marine food webs and SLR adaptation is not mentioned in this section.	Sediment is not only a problem to be resolved. There are many beneficial effects of restoring natural sediment transport to lower Budd Inlet. Please include benefits to existing habitat in southern Budd Inlet of restored natural sediment transport processes in addition of impacts.
4-3	The draft EIS states the modeled +100-year river flood event will cause high water levels of up to 17.4 feet (5.3 meters) NAVD 88 in the North Basin, 17.7 feet (5.4 meters) NAVD 88 in the Middle Basin, and 21.0 feet (6.4 meters) NAVD 88 in the South Basin.	These elevations appear to take into account 2 feet of RSLR. Please indicate it in the narrative. The narrative does not appear to mention this.
4-3	The draft EIS states water levels in Budd Inlet will reach 16.1 feet (5.0 meters) NAVD 88 during the 100-year tide	These elevations appear to take into account 2 feet of RSLR. Please indicate that in the narrative. The narrative does not appear to mention this.
4-3 and 4-5	The draft EIS states during extreme high tides (i.e., the 100-year tide), elevated water levels in Budd	This is not quite accurate. Regardless of the season, at even moderate high tides, marine water often enters the lake through

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L-3-49 The text has been reviewed to ensure it is using City of Olympia bike facility definitions. The term "Bike Street" is consistent with terminology used by the Thurston Regional Planning Council (see <https://trpcweb.org/bikemap.htm>). The future bike facility map has been updated, and references to docks as transportation facilities have been removed.

L-3-50 The map of bike facilities has been updated as requested.

L-3-51 This response acknowledges the commenter's position. Partnerships, such as one with a Deschutes Watershed Council, would be further considered during design and permitting and could be further evaluated if the Deschutes Watershed Council is formed.

L-3-52 Text has been updated in Final EIS Supporting Chapter 4.0, Section 4.1, to acknowledge that sediment transport patterns would be restored to a more natural condition under the Estuary and Hybrid Alternatives. Section 4.5.5 acknowledges that salinity gradients would be restored under the Estuary and Hybrid Alternatives, benefitting ecological function and habitat.

L-3-53 The text in Final EIS Supporting Chapter 4.0, Section 4.1.2.1, has been updated to clarify that the water levels include 2 feet of RSLR.

L-3-54 The Final EIS Supporting Chapter 4.0 (Section 4.1) and the Hydrodynamic & Sediment Transport Discipline Report have been updated to describe the backflow that occurs through the fish ladder during extreme tidal events. However, given the small width of the fish ladder (9.5 ft) relative to the width of the North Basin (~2,660 ft) and small hydraulic gradient, the volume of water traveling upstream during the period of time would not affect water levels in the North Basin.

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	Inlet are prevented from entering Capitol Lake by the 5 th Avenue Dam.	the fish ladder. It is suggested that the narrative be changed to say "during extreme high tides, marine water from Budd Inlet is limited/reduced from entering Capitol Lake by the 5 th Avenue Dam."
L-3-55	The text box in the right-hand column of the page appears to be blank.	The text box in the right-hand column of the page appears to be blank.
L-3-56	4-8, 4-9, 4-10 and 4-11 The draft EIS states "numerical model results for maximum water levels at specific locations throughout the study area graphically illustrated in Figures 4.1.1 (for extreme river flood event) and 4.1.2 (for extreme tidal flood event), both with 2 feet (0.61 meters) of RSLR, are listed in Tables 4.1.1 and 4.1.2."	Please add a note in the titles or footnotes in both figures and tables acknowledging that they represent conditions with 2 feet of RSLR. Should the paragraph end "both with 2 feet (0.61 meters) of RSLR, and are listed in Tables 4.1.1 and 4.1.2."
L-3-57	4-8, 4-9 and 4-10 The draft EIS states numerical model results for maximum water levels at specific locations throughout the study area graphically illustrated in Figures 4.1.1 (for extreme river flood event) and 4.1.2 (for extreme tidal flood event), both with 2 feet (0.61 meters) of RSLR, are listed in Tables 4.1.1 and 4.1.2.	Please provide similar figures and tables for existing conditions without sea level rise.
L-3-58	4-9 and 4-10 Maximum water levels are not depicted within the reflecting pool for the hybrid alternative in Figures 4.1.1 and 4.1.2.	Is this because water levels within the reflecting pool were not modeled? If so, please explain that in the narrative.
L-3-59	4-11 Maximum water levels for an extreme tidal flood event with 2 feet of RSLR are listed in Table 4.1.2.	The water level elevations on the north side of the 5 th Avenue Dam are higher for the No Action and Managed Lake Alternatives than they are for the Estuary and Hybrid Alternatives. This is not intuitive. It would seem that with no or little flow from the lake, water levels outside the dam would not be higher. Does this have to do with the total volume of water within the hydrodynamic study area?
L-3-60	4-11 Maximum water levels for an extreme tidal flood event with 2 feet of RSLR are listed in Table 4.1.2.	The top elevations of the radial gates and fish gate are not provided. Does the hydrodynamic model take into account the top

- L-3-55 This has been corrected in the Final EIS.
- L-3-56 The EIS text and figure titles have been clarified in response to this comment.
- L-3-57 The figures and tables for existing conditions without sea level rise are provided in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5) in Figures 4-44 and 4-45 and in Tables 4-18 and 4-19. The future project conditions are assumed to include sea level rise, and therefore, only the "with sea level rise" figures and tables are provided in the main body of the EIS.
- L-3-58 The commenter is correct, water levels in the Hybrid pool were not simulated in the hydraulic model and are not shown in Figures 4.1.1 and 4.1.2. This has been clarified in Section 4.1.6 of Final EIS Supporting Chapter 4.0. Additionally, note that the Hybrid Alternative has been revised to include a freshwater, groundwater fed reflecting pool rather than a saltwater reflecting pool with tidal exchange. The freshwater reflecting pool would have a constant water level that could be design similar to existing water levels in Capitol Lake.
- L-3-59 The maximum water level comparisons were drawn for two events for all the alternatives as listed in Table 4.1.1 and Table 4.1.2 of the Draft EIS. Table 4.1.2 lists the maximum for 100-year tidal flood event coming from the north direction.

The maximum water levels on the north side of the 5th Avenue Dam gates are slightly (0.3 feet) higher under the No Action and Managed Lake Alternatives compared to the Estuary and Hybrid Alternatives. This is due to the 5th Avenue Dam blocking tidal flow causing the water surface to rise (or 'pile up') near the dam under the No Action and Managed Lake alternatives. In contrast, under the Estuary and Hybrid Alternatives tidal/river flow is not blocked by the 5th Avenue Dam. Model results extracted farther north (farther away from the 5th Avenue Dam) are the same for all four alternatives.
- L-3-60 See the Global Responses to Comments on Hydrodynamics and Sediment Transport.

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L-3-60		elevations of the radial gates and fish gate? With 2 feet of RSLR, will tidal elevations be higher than the top of any or all of the gates? If so, the water elevations in the North Basin for the No Action and Managed Lake Alternatives do not appear to support this.
L-3-61	4-62 Chemical control of invasive plants and New Zealand mud snail.	Do not support chemical controls for mollusks or plants as a long-term management option for these species. Reintroduction of natural salinity regime and containment seems a more viable approach. Continued chemical control has off target effects and negative impacts on water quality and dissolved oxygen as plant materials decompose.
L-3-62	4-82 Table 4.6.2 beneficial effect of restoring 3.3 acres of aquatic habitat is not listed. This is a net gain impact not less than significant.	Included dam removal restoration of 3.3 acres of waters of the us as a benefit in table 4.6.2 first row/impact finding, as listed on page 4-81.
L-3-63	4-84 Pin pile viability uncertain – at least using same system as used at Billy Frank Jr Nisqually NWR.	Boardwalks at Billy Frank Jr Nisqually NWR were constructed on prior disturbed areas (levees and service roads) with subsurface geotechnical investigation to support diamond pier/pin pile system. This design may not be feasible in unconsolidated/placed sediments in the lake/estuary scenario.
L-3-64	4-86 Under the key findings for carbon sequestration, the draft EIS describes the vegetated marshes established under the Estuary and Hybrid alternatives as more consistent with the goals of the Thurston Climate Adaptation Plan, but does not reference the Thurston Climate Mitigation Plan.	Please revise this statement to clarify that the Estuary and Hybrid alternatives are also consistent with the carbon sequestration goals of the Thurston Climate Mitigation Plan.
L-3-65	4-91 The draft EIS states that the Managed Lake Alternative “would not promote consistency with the Guiding Principles in the 2017 Thurston Climate Adaptation Plan, capturing and storing GHG emissions”, but does not reference the Thurston Climate Mitigation Plan. The Managed Lake alternative is also inconsistent with the TCMP	Please revise this statement to clarify that the Managed Lake alternative would also not promote consistency with the carbon sequestration goals of the Thurston Climate Mitigation Plan.

- L-3-61 Comment noted. Please see the remaining content in Section 4.4.7.2, which describes the potential adverse effects of chemical treatment. The adaptive management plan would be implemented following review and approval of the Washington State Department of Fish and Wildlife.
- L-3-62 See response to Comment L-3-109.
- L-3-63 Comment noted. Geotechnical studies and more detailed assessments of potential boardwalk design will be completed during the later design phase for the selected alternative. Given that all action alternatives would include boardwalks, and on the same substrate, this did not affect the ability of the analysis to differentiate impacts between the alternatives. All alternatives would require a similar construction approach for this project element.
- L-3-64 See the Global Response for Air Quality & Odor.
- L-3-65 See the Global Response for Air Quality & Odor.

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	strategy to sequester carbon through habitat restoration.	
L-3-66	Statement that Estuary alternative is less consistent than other alternatives in long term GHG emissions seems inconsistent with table below and table 4.7.2 if in water disposal is an option.	Include text to acknowledge the estuary alternative has the least greenhouse gas emissions associated with construction and operation compared to other action alternatives if in water disposal is viable as shown in Table 4.7.4 when compared to Table 4.7.2 on page 4-90.
L-3-67	The draft EIS states: "Within the context of regional GHG emission goals described in the 2020 Thurston Climate Mitigation Plan, [the Estuary Alternative] is less consistent than the Managed Lake or No Action Alternative in terms of reducing long-term GHG emissions associated with construction and operation activities. However, the Estuary alternative promotes the greatest levels of consistency with Guiding Principles in the 2017 Thurston Climate Adaptation Plan."	This statement is misleading as currently written and could be interpreted to suggest that the Estuary alternative is inconsistent with the Thurston Climate Mitigation Plan (TCMP). However, creating opportunities for carbon sequestration through ecosystem preservation and restoration is an important strategy identified in the TCMP to achieve regional greenhouse gas reduction targets, and as such the Estuary Alternative is entirely consistent with the climate mitigation goals and strategies of the TCMP. In the final EIS, please revise this statement to clarify that the Estuary Alternative is consistent with the carbon sequestration goals and strategies described in the 2020 Thurston Climate Mitigation Plan.
L-3-68	The draft EIS states: "Within the context of regional GHG emissions goals described in the Thurston Climate Mitigation Plan to reduce GHG emissions 45% below 2015 levels by 2030 and 85% below 2015 levels by 2050, [the Hybrid Alternative] is less consistent in terms of reducing long-term GHG emissions associated with construction and operation activities. However, the Hybrid Alternative provides more consistency than the Managed Lake Alternative with Guiding Principles in the 2017 Thurston Climate Adaptation Plan by improving the	This statement is misleading as currently written and could be interpreted to suggest that the Hybrid alternative is inconsistent with the Thurston Climate Mitigation Plan (TCMP). However, creating opportunities for carbon sequestration through ecosystem preservation and restoration is an important strategy identified in the TCMP to achieve regional emission reduction targets, and as such the Hybrid Alternative is consistent with the climate mitigation goals and strategies of the TCMP. In the final EIS, please revise this statement to clarify that the Hybrid Alternative is consistent with the carbon sequestration goals

L-3-66 The Final EIS includes clarifications related to consistency with the Thurston Climate Mitigation Plan (see the Global Response for Air Quality & Odor). As described in EIS Supporting Chapter 4.0, Section 4.7, the relative GHG emissions from equipment would change depending on the type of disposal (upland or in-water). As described in Section 4.7, equipment emissions for all action alternatives, regardless of the type of disposal, would fall below Ecology’s GHG reporting threshold and are therefore considered less than significant.

L-3-67 See the Global Response for Air Quality & Odor.

L-3-68 See the Global Response for Air Quality & Odor.

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L-3-68	ability to reduce, capture, and store GHG emissions, but less than the Estuary Alternative.”	and strategies described in the 2020 Thurston Climate Mitigation Plan.
L-3-69	4-101 Statement that all action alternatives are supported by the Olympia SMP seems inconsistent with DEIS findings that estuary and hybrid alternatives offer higher gains in ecological function, restored estuarine habitats and intertidal influence	It does not seem that all action alternatives are equally supported by the Olympia SMP. Please revise to state that the estuary and hybrid alternatives are more consistent with the SMP. Current working seems inaccurate or at least misleading. As stated on page 4-104 “Managed Lake Alternative would not directly support the priorities of the Olympia SMP Restoration Plan for restoration of the Budd Inlet Estuary.”
L-3-70	4-107 Discussion of flooding seems to understate the change in river flood elevations in the estuary alternative compared to numbers presented in Table 4.1.1 on page 4-11	River flood information for both estuary and hybrid alternatives for river flooding is over 2 feet lower than in alternative that maintain the lake based on Table 4.1.1
L-3-71	4-113 Section 4.9, Cultural Resources: Long Term Impacts and Benefits	See comments on Section 3.9 regarding creation of a “Des Chutes Project Historic District.” The approach to the Cultural Resources Discipline within the draft EIS is to separately addresses “cultural resources” i.e., the pre-contact Tribal and archaeological interests, and “historic (built environment) resources” i.e., primarily post-contact history. While practical, this approach significantly reduces the emphasis on cultural resources due to the lack of traditional documentation; especially in this instance, where so much of that pre-contact evidence of human habitation was lost or obscured with the creation of Capitol Lake and its chain of irretrievable alterations to the estuary ecosystem. Segmenting history into pre- and post-contact periods is especially unhelpful however in considering long-term impacts and benefits of the proposed alternatives, since those impacts (good and bad) accrue to the entire community inclusive of the Tribes. Similarly, mitigation measures to be determined within a NEPA process should not be compartmentalized, nor limited to the loss of the Lake and its structural accessories, but considered in terms of the

L-3-69 See the Global Response for Land Use, Shorelines, and Recreation regarding consistency with the Olympia SMP.

L-3-70 In response to this comment, Section 4.8.5.1 of Final EIS Supporting Chapter 4.0 has been clarified to explain that maximum water levels for the Estuary Alternative would be around 2 feet lower than those of the No Action and Managed Lake Alternatives.

L-3-71 Please see the Global Response for Cultural Resources for responses related to the cultural analysis approach and Final EIS updates on pre- and post-contact periods. Regarding the commenter's concern about segmenting history into pre- and post-contact periods, this is the typical approach for a cultural resources analysis in a SEPA document where the analysis is guided by relevant federal and state laws.

The commenter is correct that mitigation measures will be determined within a NEPA process under Section 106 and will consider broad impacts on all protected cultural resources, including traditional cultural properties and/or cultural landscapes. Sections 4.9.7.1 and 5.9.6.1 of EIS Supporting Chapters 4.0 and 5.0 describe the Section 106 process. These sections have been updated in the Final EIS to recognize that consultation may also occur under Executive Order 21-02.

Mitigation measures for archaeological resources (which in the Draft EIS were only included in Section 5.9.6.1) have also been added to Section 4.9.7.1 in the Final EIS.

Data recovery and interpretation would be measures stipulated through the consultation process and permits described in Sections 4.9.7.1 and 5.9.6.1 but have been added to the list of measures in the Final EIS to make these explicit.

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		<p>broad impacts of the undertaking and its effect on the entire estuary and its human community – reflective of the impacts of the Lake's creation.</p> <p>In addition, much more ink should be spent detailing what is known of Tribal activity in the area. The report notes that the area was once "an important regional hub of indigenous trade and transportation" (p. 3-99, section 3.9.3.1) but there is no further mention and no citation for this info on Native commerce, social activity, and travel. Deeper research and documentation is merited.</p> <p>Data recovery and interpretation should be included among the list of possible mitigation measures both for construction and for long-term operational impacts, in relevant sections of the report.</p>
4-118	The draft EIS states that the Estuary Alternative would beneficially affect tribal populations through the cultural, heritage, spiritual, and educational value that an estuarine environment provides.	Given the identified impacts to the Squaxin Island Tribe, and given the Squaxin Island Tribe's treaty rights under the Medicine Creek Treaty of 1854, and to address equity and social justice impacts, the Squaxin Island Tribe's input in the Decision Durability selection criterion should be weighted more heavily than other Work Groups and Community Sounding Board.
Section 4.11	Mud Minnow and freshwater mussels are not addressed in the draft EIS.	Staff reports that Olympia mud minnow and freshwater mussels may occur in the lake.
4-166	Dredging and moving of spoils. Importance of rail and barge.	There are three stated options for transporting dredging spoils: truck, rail, and barge. Greater emphasis should be placed on rail and barge for transfer of spoils as much as possible to reduce street and traffic impacts.
4-166	Dredging and moving of spoils. Use of rail.	While it is stated that traffic on streets with at grade trail crossing will be impacted with the transport of dredging materials by rail, this impact is likely far less significant than the impacts to traffic from truck transport. There likely to be significantly fewer at-grade

L-3-71

L-3-72

L-3-73

L-3-74

L-3-72 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process. Please also refer to Attachment 21 of the Final EIS, which describes the decision-making process.

L-3-73 Mudminnow occurrence as documented in existing studies is described in Section 4.1.1.2 of the Fish and Wildlife Discipline Report (Attachment 9). However, additional research indicated that two Olympic Mudminnow were collected among the 320 fish collected in isolated pools in Percival Cove using electrofishing during the 1997 lake drawdown (Entranco 1997). Even though Hayes et al. (2008) found that Capitol Lake is not preferred habitat for Olympic mudminnow, this species was added to Table 4.1 -'Fish Species Potentially Present in the Study Area' in the Fish and Wildlife Discipline Report for the Final EIS.

Regarding freshwater mussels, see the Global Response for Fish & Wildlife.

L-3-74 The contractor would determine the transport method used for dredge spoils, based on the intended disposal location, which would either be in-water or upland, depending on chemical quality and presence of invasive species. For the Estuary and Hybrid Alternatives, dredging would occur in West Bay rather than in Capitol Lake. The dredged sediment is expected to be suitable for in-water disposal and would be loaded onto a barge for transport to the in-water disposal site. However, given the inherent uncertainty in sediment quality, upland disposal has also been estimated and would likely require truck transport. Under the Managed Lake Alternative, the choice between rail and truck will depend on the targeted disposal location and whether it can be reached by rail, on rail capacity, and on any equipment needed to move sediment to and from a rail line and its transload and offload locations. Before dredging, the contractor would evaluate all potential cost saving measures, which could include rail transport from the site if upland disposal is required.

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		rail crossings and they tend to be further from the downtown when compared to the impacts of trucks on intersections.
L-3-74	4-166 Dredging and moving of spoils. Pavement repair.	Use of trucks to move spoils will impact traffic congestion, as stated. Use of trucks will also have a significant impact on the condition of the asphalt of these streets and should be stated and evaluated. Pavement restoration is mentioned in Chapter 5 page 78. A similar statement should be made about long term dredging and hauling operations.
L-3-75	4-174 The draft EIS states that "under the No Action and Managed Lake Alternatives, impacts would be significant if Ecology requires LOTT and other dischargers to implement more stringent actions for stormwater and wastewater discharges to improve water quality and meet regulatory standards in the basin."	This may require LOTT to discharge to infiltration basins (currently not permitted in Thurston County) or possibly relocate treatment plants. These costs have the potential to exceed the estimated costs for the CLDE action alternatives. Can the potential utility and ratepayer costs of this impact be quantified?
L-3-76	4-181 Key finding box – Ecosystem services language seems to understate value of estuarine alternatives compared to managed lake.	In the final EIS, please acknowledge the potential significant impact to LOTT and other dischargers in Section 4.3 and Table ES.2. The estuary alternative provide a larger suite of ecosystem services that are more fitting in this landscape context. Estuaries are rare on the landscape and can only exist at this type of location. It seems inappropriate to equate the ecosystem services provided by an estuary in this location with an artificial managed lake. A huge lost opportunity if the ecosystem services that could be provided by an estuary are not actualized at a site in this landscape position and ecological context.
L-3-77	5-2 Key Findings Box	Punctuation Extra period in the last sentence.
L-3-78	5-7	BMPs. Throughout the chapter there are several references to BMPs. It would be helpful to describe/list some or provide a link to a list.
L-3-79	5-9 Chapter 5	Typical permit requirements related to concrete and high pH concerns Describe or provide reference to what typical permit requirements might be. Use of acronyms Define acronyms used.

- L-3-75 The Public Services and Utilities analysis have been updated to reflect the Draft TMDL for Budd Inlet that was released by Ecology in June 2022.
- Based on the draft TMDL allocations, if other sources do not meet their load allocations and water quality standards are not being met in the watershed, LOTT and other utility discharges could be required to implement additional treatment. LOTT and other utility discharges would almost certainly need to implement additional treatment sooner under the No Action and Managed Lake Alternatives. This would result in increased costs for ratepayers, but this has not yet been defined by LOTT.
- L-3-76 The Key Finding Box in Section 4.14 of EIS Supporting Chapter 4.0 under the heading "Demand for and Value of Recreation and Ecosystem Services" recognizes the ecosystem service benefits would be "more pronounced for the Estuary and Hybrid Alternatives." It does not equate the ecosystem services associated with estuaries and those that would be present under a Managed Lake Alternative, and specifically identifies that the types of ecosystem services that contribute to the well-being of tribes and those who value natural ecosystems would be adversely impacted by the continued "anthropogenic harm to the balance of functions from the natural ecosystem" under the Managed Lake Alternative and No Action Alternative.
- The extra period in the last sentence in the Key Findings box on Page 5-2 noted and corrected.
- L-3-77 Comment noted, BMPs would be further defined during design and permitting. The Draft EIS and Final EIS provide enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives.
- L-3-78 General WDFW HPA conditions require that for any concrete cast in-place, concrete forms must remain in place until the concrete is fully cured. This clarification has been added to Section 5.3 of Final EIS Supporting Chapter 5.0.
- L-3-79 Comment noted. A final technical edit will be completed on the Final EIS to confirm that all abbreviations are spelled upon first usage in the document (rather than first usage in each chapter). See also the List of Abbreviations (Attachment 1).

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L-3-80	5-14 Upland disposal sites	Further description of potential sites – how close to site. Could affect traffic control plans, etc.
L-3-81	5-16, Section 5.4.6 Mitigation measures implemented	Reference is to what DES would do. Wouldn't this work be done by a Contractor? If so, wouldn't it be prudent to incorporate permit requirements into Plan/Spec package?
L-3-82	5-16, Section 5.4.6.1	Second paragraph references WDFW approved BMP's. Only place WDFW approved BMP's are referenced in the Chapter. Are these particular BMP's really unique to this body of work? Suggest a link to the WDFW BMPs.
L-3-83	5-18, Sections 5.5.2 and 5.4.2.2	Consistency 5.4.2.2 says animals would avoid construction activity. This is the only place that suggests this. Is this accurate?
L-3-84	5-33	Odor section Odor due to decaying organic matter dredged up is not included. Does it need to be? Whether during construction or after, especially in the Estuary option?
L-3-85	5-43, Section 5.8.2	Walking distance impacts Information does not clearly articulate that pedestrian routes will be extended, and that the route will not be flat, it will be the portion up/down the slope along Deschutes to 5 th Ave to 4 th Ave
L-3-86	5-43, Section 5.8.3	Temporary trail trestle Provide a description of what this might look like/where installed. Is there a cost difference? – incorporate into cost section as applicable. Provide this option consistently in future sections. It shows up intermittently.
L-3-87	5-44 to 46, Sections 5.8.4 – 5.8.6.1	Recreationalists ability to use other portions of the trail around the lake How realistic is this? With varying construction activities, parking, material deliveries, etc. will pedestrians safely and easily be able to navigate portions of the trail? How will homeless encampments either existing or as may pop up throughout construction be addressed? Including pedestrian/bicycle access/restrictions.

- L-3-80 Upland disposal site(s) would be identified during design and permitting for the Preferred Alternative; based on a variety of factors to include, volume of sediment, quality of sediment, availability of local landfills, and/or suitability for other potential reuse options. Traffic control plans would be developed based on the selected alternative and the disposal method/site.
- L-3-81 This reference to Enterprise Services has been revised to describe that the construction contractor would be required to comply with project permits, plans and authorizations, which will have conditions intended to avoid and minimize potential project impacts.
- L-3-82 The reference to WDFW-approved BMPs has been removed from Section 5.4.6.1 to broaden the range of BMPs that could be implemented during construction. However, the BMPs to reduce the risk of aquatic invasive species transport outside of Capitol Lake during construction will be coordinated with WDFW during design and permitting.
- L-3-83 The Final EIS has been clarified to state that mammal aquatic invasive species would likely avoid construction activities, and that BMPs implemented during construction would avoid or minimize the potential entrainment or entrapment of fish species during construction.
- L-3-84 Dredged spoils are unlikely to produce odor in the Project Area given that the material would not be stockpiled onsite. Also, maintenance dredging for the Estuary and Hybrid Alternatives would occur within vessel berths of West Bay, and the dredged material would not be expected to develop odors given the composition of the dredged sediment. Additional information has been added to Section 4.7.5 of Final EIS Supporting Chapter 4.0 to acknowledge that reintroducing saltwater to the basin could cause hydrogen sulfide concentrations to increase as freshwater vegetation dies and the chemistry of the underlying soils change. There is a potential for the surrounding area to experience odors during this transition of the freshwater system to an estuarine system. The limited releases of hydrogen sulfide gas are not expected to result in odor intensity emissions that rise to the level of causing a considerable nuisance.
- L-3-85 Section 5.8.3 of EIS Supporting Chapter 5.0 describes that, to minimize this impact, Enterprise Services would evaluate the feasibility of constructing the non-vehicular bridge prior to repair of the 5th Avenue Bridge in order to maintain a consistent trail loop connecting Heritage Park and Deschutes

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- Parkway. In response to this comment, the text has been clarified to describe that a detour could involve longer walking distances over steeper grades.
- L-3-86 Installation of a temporary trestle to support continued recreational access around the lake during construction is no longer being considered, for the following reasons:
- 1) Under the Estuary and Hybrid Alternatives, the new 5th Avenue Bridge would be constructed south of the existing 5th Avenue Bridge and Dam, and during construction, the existing 5th Avenue Bridge would continue to provide vehicle and non-vehicle access. Once construction of the new 5th Avenue Bridge was complete, vehicles and non-vehicle access would switch to it. There would not be a long-term interruption, as was originally envisioned under the concept provided in the Draft EIS.
 - 2) Under the Managed Lake Alternative, the non-vehicular bridge at 5th Avenue (for bikes, pedestrians, and other modes of transportation) could be constructed before repair work began on the 5th Avenue Dam. This would provide a new trail connection across the lake and would avoid an interruption.
- L-3-87 Most of the trail would be unaffected by construction activities. It is not uncommon for trail access to be maintained during large construction projects through use of temporary and safe detours, alternative access points, signage, and wayfinding elements (see Section 5.8.6 of EIS Supporting Chapter 5.0 for list of measures). See the Global Response for Land Management regarding the question of encampments.

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L-3-88	"Most of the recreation resources in the study area would remain open and continue to operate." Stated in many places in this section Provide alternative access points to recreation sites and trail detours	Is this over simplifying? Is there an effective way to show graphically? Will there be signage warning pedestrians if they need to turn around well in advance of actual closure? Will ADA considerations be met during construction? How feasible is this? Given closed streets/construction activity/ only access from street side, not the lake? Better graphic detail of detour routes and phasing of construction activity
L-3-89	Section 5.9.4 Archeological concerns	There is no mention of the reconstruction activity along Deschutes Parkway related to post earthquake conditions.
L-3-90	Section 5.10.2 Viewer impacts/restrictions	Are there alternate locations, along 5 th Avenue that could be enhanced to improve viewer/recreational activities?
L-3-91	5-61 Marathon Park closure	First bullet in 5.10.6.1 suggests access for visual access during periods of no construction, where feasible. What will the elements be that result in allowing access? Duration of opening/closings should be considered.
L-3-91	5-68 Traffic counts/commuter peak hours	Post COVID it is likely that employees will be able to continue to telecommute. How does this change affect stated levels of impact?
L-3-91	Acronyms	Include definitions of acronyms
L-3-91	Use of train	Some type of vehicle and/or equipment would be needed in order to remove/shuttle goods and materials from the train, if that option used. Not addressed.
L-3-92	5-68 Closure of 5 th Ave bridge for 4-5 years	Closure of the 5 th Avenue bridge is unacceptable. A temporary bridge is needed. With a closure, the only reasonable detour is 4 th Avenue. The resulting congestion could result in significant safety, economic and quality of life impacts.

L-3-88 Please see the revised description of the Estuary and Hybrid Alternatives in Final EIS Supporting Chapter 2.0 regarding early construction of the new 5th Avenue Bridge in the north end of the North Basin. The design changes would reduce the need for long-term detours for recreationalists. Long-term detours under the Managed Lake are not anticipated either because a non-vehicular bridge at 5th Avenue would be constructed before temporary closure of the roadway for dam overhauls. For the Managed Lake Alternative, Enterprise Services would evaluate the feasibility of constructing the new non-vehicular bridge prior to overhaul repairs of the 5th Avenue Bridge in order to maintain a consistent trail loop connecting Heritage Park and Deschutes Parkway.

Specific mitigation will be determined during the design and permitting phase for the selected alternative, likely in coordination with neighboring jurisdictions and as required through the local permitting processes.

Avoidance and minimization measures will include addressing accessibility, safety, and other considerations common to large construction projects. Recreational access is often maintained around large construction projects, and much of the construction activity for this project is located in-water rather than on adjacent trails.

This characterization of recreational impacts, including the updated approach to avoidance and the potential mitigation measures that would be developed in the future, should provide enough information for decision makers to evaluate the potential impacts and benefits of the project alternatives.

L-3-89 Reconstruction of Deschutes Parkway following 1965 and 2001 earthquakes is discussed in Section 4.2.5, Historic Development Context, of the Cultural Resources Discipline Report.

L-3-90 No visual access improvements to offset construction impacts have been identified.

As stated in Section 5.10.6.1 of EIS Supporting Chapter 5.0, during periods when construction is not occurring, the areas of restricted physical and visual access could be minimized to the extent feasible. There would likely be some elements of the construction staging that cannot be readily moved and stored off-site that would remain in place during non-construction seasons. However, it is acknowledged that some people find large construction projects to be visually interesting, and there could be opportunity to find safe viewing locations over the several years of construction, as feasible. These areas

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- would be coordinated with the construction contractor and well-marked, and could potentially occur along 5th Avenue.
- L-3-91 New analysis of the new 5th Avenue Bridge proposed under the Estuary and Hybrid alternatives does show traffic volume trends over time and the effect of the COVID-19 pandemic. The proposed bridge and west-end roundabout has been evaluated for various growth scenarios to determine the conceptual design configuration. That analysis showed that a two-lane 5th Avenue bridge would accommodate the pre-COVID-19 pandemic traffic volume plus extensive growth. If higher levels of growth are realized, additional capacity could be provided by increasing the size of the roundabout, but no additional lanes on the bridge would be needed. Further analysis would be performed to refine the bridge design after the Final EIS and could consider the paradigm shifts in commuting patterns post-COVID.
- The list of acronyms has been augmented in the Transportation Discipline Report.
- L-3-92 Please see the Global Response for the Estuary and Hybrid Alternatives, which indicates that in response to comments received on the Draft EIS, the construction approach for the 5th Avenue Bridge has been revised. A new 5th Avenue Bridge would be constructed before the existing bridge is removed for construction; this would avoid a long-term closure of the corridor.

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5-68	Closure of 5 th Ave bridge. Emergency vehicle access.	Relying on just one bridge (4 th Avenue) for east/west access could inhibit emergency vehicle access.
5-68	Closure of 5 th Ave bridge. Temporary bridge proposal and bike and pedestrian access.	A temporary 5 th Avenue bridge should not be in lieu of a pedestrian/bicycle structure; it should be in addition to or integrated with that structure.
5-68	Closure of 5 th Ave bridge. I-5 and SR 101 impacts	Without the 5 th Avenue bridge, and increased congestion on 4 th Avenue, there will be impacts to I-5 and SR 101 which should be described and evaluated.
5-71	Truck haul routes	Truck haul routes should use Deschutes Parkway and not 4 th and State, to avoid the impacts of trucks on the downtown businesses and residents. Significantly fewer people would be impacted by exclusively using, or prioritizing the use of, Deschutes Parkway.
Table 5.12.1	Applying time of day restrictions	To what extent would this affect project cost.
	Impact missing – Single east-west route via 4th Avenue Bridge	The table does not reflect the significant impact of only having the 4 th Avenue bridge available for traffic for a very long time. Accidents/weather events/earthquake could severely impact capacity on 4 th Avenue bridge. A temporary bridge should be incorporated into the mitigation options.
	Construction Worker Parking	Will this be restricted to specific locations with specific access to/from to minimize impacts to remaining street network?
	Street Capacity, Sidewalk, or Bike Lane Restrictions	A more robust evaluation of alt routes and impacts, given COVID related changes to traffic patterns should be completed
	Railroad usage	Would rail cars also be used for material storage?
	Impacts to Bus routes and emergency vehicle response	Address the impact of splitting routes/extending response times for buses and emergency response vehicles. Given the vulnerability of the 4 th Avenue bridge in the event the 5 th Avenue bridge is removed, will additional apparatus be needed on the West side?

L-3-92

L-3-93

L-3-94

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Comment noted. As described in the revised Transportation Discipline Report (Attachment 16), haul routes would utilize designated streets to the greatest extent possible and would be established in coordination with the Cities of Olympia and Tumwater during future design and permitting. Deschutes Parkway SW is not currently a designated truck route; however, the City of Olympia may prefer that trucks use Deschutes Parkway SW to access the site area rather than streets through downtown Olympia. Enterprise Services will continue to coordinate with the City of Olympia during the design and permitting phase, where stipulations like this can be evaluated and added to the project specifications as appropriate.

L-3-94

Table 5.12.1 has been revised to reflect the updates to the Estuary and Hybrid Alternatives, which includes constructing the replacement 5th Avenue Bridge before the existing 5th Avenue Bridge is closed for dam demolition.

Construction worker parking would be identified by the contractor as part of the Construction Transportation Management Plan (CTMP), which would be submitted to the City of Olympia for review.

There are limited rail storage tracks near the site, and if rail is used for other construction components, those storage tracks may be needed for rail operations. Therefore, there would be limited ability to use rail cars for materials storage. Potential use of the rail would be determined by the contractor.

Text related to pavement management has been updated per the comment.

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L-3-94	Pavement Degradation Due to Construction Traffic	Pavement condition must be managed during construction with FINAL restoration being done once work is complete. This applies to entire detour routes, not only in proximity of the Lake.
L-3-95	5-77, Section 5.12.4 Significance of impacts	Current report suggests that "The remaining impacts on surface transportation from construction of the Estuary Alternative would be less than significant. This does not adequately consider the vulnerability of only on east-west route via the 4 th Avenue Bridge.
L-3-96	5-78, Section 5.12.6.1 Measures Common to All Alternatives	Have all impacted parties been adequately considered; City (Public Works, Police, Fire, School District, Intercity Transit, State, Federal (USPS), commercial parties)?
	Construction Traffic Management Plan (CTMP)	Routes and conditions should be resolved early in the process with City of Olympia, as the impacts have potential for being significant. COVID impacts on traffic pattern changes should be evaluated in order to better reflect conditions during the proposed construction window(s). The Thurston Regional Planning Council (TRPC) has adjusted the county-wide transportation model to account for COVID impacts moving forward. Consider ride share incentives/opportunities for construction employees.
L-3-97	Measures identified to address the transportation impact of closure of the 5 th Avenue Bridge during construction.	Construct a 2-lane temporary bridge with consideration for bike and ped traffic. Vulnerability of the City without a redundant E-W route must be further evaluated. The duration of proposed construction is simply too long to go without a temporary bridge.
	5-79 Closure of 5 th Avenue bridge. Transit impacts.	There is minimal discussion of the impact to transit service with the closure of the 5 th Avenue bridge for 4-5 years. Not only will the routes on 5 th be impacted, but the congestion on 4 th will impact all

- L-3-95 Please see the Global Response for Transportation. The Estuary and Hybrid Alternatives would build a new 5th Avenue Bridge before the existing bridge is removed for construction. These alternatives no longer have a long-term bridge closure that would impact the 4th Avenue Bridge.
- L-3-96 Please see the Global Response for Transportation, which describes that the Estuary and Hybrid Alternatives have been revised to avoid a long-term bridge closure. A new 5th Avenue Bridge would be constructed before the existing bridge is closed and demolished. This plan has been developed in coordination with the City of Olympia.
- L-3-97 Please see the Global Response for Transportation. The Estuary and Hybrid Alternatives would construct a new 5th Avenue Bridge before closing and demolishing the existing 5th Avenue Bridge. This would avoid a long-term bridge closure and, therefore, construction of these alternatives is not expected to adversely affect transit. During future design and permitting of the new 5th Avenue Bridge, Enterprise Services will work with transit agencies to relocate stops as appropriate.

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L-3-97		buses that use 4 th and 5 th Avenues. This should be highlighted as an impact that is in addition to the congestion for passenger vehicles.
L-3-98	Reference to trail trestle	Reference to a temporary trail trestle is made as an alternative to the 5 th Avenue Pedestrian bridge. This needs further explanation. The construction of the 5 th Avenue Pedestrian bridge should be a priority and constructed at the beginning as stated elsewhere in the draft EIS.
L-3-99	5-81 to 85 Key Findings and subsequent paragraphs.	Can you really ensure that emergency services will not be compromised? Seems like a bold statement. Have Olympia and private response companies been approached to truth these statements? In subsequent pages this message of minimal impact to emergency service providers is repeated. Have discussions occurred with Puget Sound Energy (PSE)? Again, are the statements supportable? Will PSE and other private utility providers being giving this are first priority? The City requests to be involved in the determination of methods related to relocation of utilities during the design phase. Disagree that impacts on public services and utilities from the hybrid Alternative would be less than significant. Please re-evaluate including consideration of the vulnerability of a single east-west route connecting Olympia.
L-3-100	5-86 to 92 Economic info/projections	Was the Thurston Regional Planning Council (TRPC) consulted for baseline data? The downtown area is changing as a result of new residential units. New businesses are starting up and could be vulnerable to proposed closures. Minor adverse impact??
L-3-101	7-11 The draft EIS states that "The Managed Lake Alternative would perpetuate historic inequities, particularly for tribal populations that have experienced ongoing adverse effects from changes	Again, to promote fairness and equity across the many aspects of the community, please include social justice and equity as a selection criterion.

- L-3-98 The 5th Avenue Bridge replacement has been changed from the Draft EIS configuration. Please see the Global Response for the Estuary and Hybrid Alternatives.
- L-3-99 In response to comments on the Draft EIS, and concerns regarding a long-term closure of the 5th Avenue Bridge, a new 5th Avenue Bridge replacement concept has been incorporated into the Estuary and Hybrid Alternatives. This change has eliminated the long-term closure of 5th Avenue and associated impacts to public services, traffic, and other environmental elements. See the Global Response for Alternatives for more information.

As a result of this change, Sections 5.13 and 5.14 of Final EIS Supporting Chapter 5.0 have been updated to reflect a short-term closure only. Based on the new bridge replacement concept, and the short-term nature of any closures, any impacts on public services and utilities would be minor and temporary. In response to this comment, an additional mitigation measure has been added to Section 5.13.6 to describe coordination that would occur with the City of Olympia and utility providers during project design regarding relocation of utilities. Under the Draft EIS concept, utilities would have been directionally drilled below 5th Avenue to remain within the same corridor. This concept is no longer needed and potential utility impacts are minimized given that utility crossover would occur onto a new bridge, rather than below or around an active construction area.
- L-3-100 The EIS conclusions included in EIS Supporting Chapter 5.0, Section 5.14, reflect the analysis presented in the Economics Discipline Report, which includes an assessment of the market for residential development in downtown Olympia using the most up-to-date data available at the time of preparation. Key-informant interviews with developers, some of whom are engaged in developing new residential development in downtown Olympia, validated the assessment and supported the impact conclusions regarding development in downtown Olympia presented in the EIS.
- L-3-101 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process. Please also refer to Attachment 21 of the Final EIS, which describes the decision-making process.

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L-3-101	to the ecosystem since non-Indigenous settlement of the region and continued loss of connection to the natural environment.”	
L-3-102	Economics Discipline Report (pages 5-22) The draft EIS Economics Discipline Report Section 5.5.1 discusses the cost for construction of the Estuary Alternative.	In the final EIS, please acknowledge that State and federal funding for habitat restoration may be available to offset the cost for construction of the Estuary Alternative.
L-3-103	Attachment 5 Hydrodynamics and Sediment Transport Discipline Report 4-17 Figure 4-16 indicates a typical spring tide was used for the extreme river flood event.	Extreme river flood events typically occur in the winter (November through January). Would it not be more accurate to use a typical winter tide when modeling the extreme river flood event? Winter tides are generally greater than spring tides.
L-3-104	Attachment 5 Hydrodynamics and Sediment Transport Discipline Report 4-17 The 5th Avenue dam operation representation section discusses the East and West gates of the dam, but does not discuss the fish ladder.	Was the fish ladder modeled with the 5th Avenue dam operation representation? The top of the fish gate is substantially lower than the radial gates.
L-3-105	Attachment 7 Water Quality Discipline Report Prior Ecology TMDL studies indicate that the Capitol Lake Dam has the largest impact on dissolved oxygen levels in Budd Inlet overall, while the Draft EIS appears to reach some differing conclusions regarding water quality.	The draft EIS does not indicate whether the Department of Ecology reviewed the water quality analysis or whether Ecology concurs with the analysis. Please address this in the final EIS. If possible, please integrate the findings of the final TMDL for Budd Inlet in the final EIS.
L-3-106	Attachment 7 Water Quality Discipline Report Appendix A The draft EIS indicates the Water Resources Methodology for Capitol Lake – Deschutes Estuary was reviewed by an independent third-party expert or experts.	In the final EIS, please identify the independent third-party expert or experts.

L-3-102 The Final EIS Summary, Final EIS Supporting Chapter 7.0, and the Economics Discipline Report include updates to describe that if the Washington State Legislature provides funding for the next project phase, Enterprise Services could begin to pursue grant funding opportunities for project implementation. Construction funding is likely to include funds from a variety of sources, including federal, state, and potentially philanthropic.

L-3-103 A ‘spring tide’ popularly known as a “King Tide” refers to the ‘springing forth’ of the tide during the new and full moon. ‘Spring tide’ is a common historical term that has nothing to do with the season of spring (National Ocean Service <https://oceanservice.noaa.gov/facts/springtide.html>). ‘Spring tides’ (which occur when the Earth, sun, and moon are nearly in alignment) occur twice each lunar month resulting in larger average tidal ranges.

Use of a ‘spring tide’ was the original plan but eventually, a 1-year return period tide level was used as the boundary condition. The description of tidal boundary condition in the Discipline Report has been revised for the Final EIS.

L-3-104 The fish ladder was not modeled due to its smaller width of 9.5 feet (Figure 2-29 in the Hydrodynamics and Sediment Transport Discipline Report), understanding that it will have minor influence on hydrodynamics of the model.

The fish ladder has an adjustable weir at the upstream end that can be raised/lowered. Top elevation (EL) of the fish ladder at the upstream end (North Basin) can be adjusted from EL -5.0 feet to +0.0 feet, City of Olympia Datum. In comparison, the top of the east and west radial gates when fully closed is at EL +0.5 feet, City of Olympia Datum. When tide level in West Bay is higher than the adjusted top EL of the fish ladder (typically during extreme high tide events), backflow into the North Basin is observed for a limited time. Additional language has been added to the Discipline Report to describe the fish ladder and this observed backflow.

L-3-105 Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report.

L-3-106 The Water Quality Discipline Report included in the Draft EIS was reviewed by Dr. Raymond Tim. He was selected with support from the Technical Work Group, and his resume is provided on the project website with other supplementary materials.

L-3

COMMENT

RESPONSE

City of Olympia Comments on the Draft EIS for Capitol Lake
August 24, 2021
Page 23

Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project		
Page Reference	Issue	Comment
L-3-107	Attachment 9 Fish and Wildlife No mention of freshwater mussels in lake.	Staff reports that freshwater mussels are present on areas of Capitol Lake. Please investigate if present in the lake and include in mitigation discussion as a species to address and relocate if possible. Likely persist or recolonize in lower section of river/south basin.
L-3-108	Attachment 9 Fish and Wildlife (pages 4-27) Waterfowl like American wigeon, green-winged teal, and pintail use estuarine tidal mudflats extensively at Nisqually National Wildlife Refuge this is not listed in Table 4.8	This is not listed in Table 4.8.
L-3-109	Attachment 10 Wetlands (page ES-4) Table ES2 does not list beneficial effect of 3 ac of fill removal in estuary and hybrid alternatives (per page ES-2)	Please make note of beneficial effect of fill removal from 3 acres of deep water and tidal mudflats in Table ES2. Per section 5.5.2.4 page 5-20 this is a beneficial effect that is not listed in this table
L-3-110	Attachment 10 Wetlands - page 3-6 First bullet in section 3.4.2 lists loss of wetlands from placement of fill lists as an e.g. "removal of 5 th Avenue Dam" This is a benefit and expansion of waters of the US not a loss.	Remove dam removal from this list and state the beneficial increase of waters of the US of 3 acres from fill removed. Listed in section 5.5.2.4 page 5-20 as a substantial beneficial effect.
L-3-111	Attachment 18 Economics Discipline Report, page 3-12 The Economics Discipline report states "Managing sediment is a common cost of doing business for water dependent businesses (e.g., ports and marinas). Changes in physical and natural infrastructure that change sedimentation patterns may increase or decrease the cost of management, resulting in benefits or costs to affected entities. Costs materialize as businesses direct spending to sediment management and away from other opportunities. These costs could materialize through direct payments for private dredging activities, or increased taxes or fees paid as part of a cost-sharing agreement to address dredging on a public or community basis.	Although the draft EIS indicates there will be "no effect" on downstream economic activity, maintenance dredging will potentially have impacts on private marinas and the Port of Olympia. The cost of these impacts may even eventually lead to the need to relocate private marinas. Please consider mitigation of the costs of these impacts through grants or low-interest loan funding.
L-3-112	Attachment 18 Economics The Economics Discipline report indicates that regional work to develop a climate mitigation plan is	Please update this description to reference the completed plan. https://www.trpc.org/909/Thurston-Climate-Mitigation-Plan

- L-3-107 See the Global Response for Fish & Wildlife.
- L-3-108 Table 4.8 in the Fish and Wildlife Discipline Report (Attachment 9) lists wildlife habitat types in the study area (and the indicator species associated with those habitats). Note that the study area does not extend to the Billy Frank Jr. Nisqually National Wildlife Refuge. Also, note that the table is not intended to be an exhaustive listing of all species use in the study area.
- L-3-109 While we agree that removal of 3.3 acres of fill associated with removal of the 5th Avenue Dam would be beneficial, and should more than offset fill and shade impacts introduced by the in-water components of the alternatives, the EIS conservatively concludes fill and indirect impacts from shade under the Estuary and Hybrid alternatives to be less-than-significant. Additional wetland studies and more refined impact calculations would be completed during the design and permitting phase. This information would be used to identify overall impacts and any mitigation requirements in coordination with regulatory agencies. Please note that the wetlands analysis in the Draft EIS and Final EIS does identify "substantial beneficial effects" of the Estuary Alternative associated with improved hydrologic, water quality and habitat functions. Also, in response to this comment, the summary of fill and indirect shade impacts has been expanded in the Final EIS to describe that several acres of fill would be removed from the Project Area as a result of dam demolition.
- L-3-110 The first bullet in Section 3.4.2 of the Wetlands Discipline Report has been corrected in response to this comment.
See also response to Comment L-3-109.
- L-3-111 See the Global Response for Economics. The FGWG is developing a management agreement and funding strategy that will provide support to fund increased sediment management costs. See the Economics Discipline Report (Attachment 18) and Final EIS Supporting Chapter 7.0 for a description of the Funding and Governance Work Group progress toward a governance and funding agreement, as documented in an MOU that it intends to build into a binding Interlocal Agreement.
- L-3-112 According to the TRPC webpage, the plan was completed in 2020. This date has been updated in the Final EIS.

L-3

COMMENT

RESPONSE

City of Olympia Comments on the Draft EIS for Capitol Lake
August 24, 2021
Page 24

Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project		
Page Reference	Issue	Comment
L-3-112 Discipline Report, page 4-47	currently in progress. However, the plan was completed in January 2021.	
L-3-113 Attachment 18 Economics Discipline Report	The Economics Discipline report describes the Estuary and Hybrid Alternatives as more consistent with local climate change adaptation policies than the Managed Lake Alternative, but does not acknowledge consistency with local climate change mitigation policies.	Please revise these descriptions throughout this report to acknowledge that the Estuary and Hybrid alternatives are also consistent with local climate mitigation plans.
L-3-114 Throughout	Draft EIS notes that interested Tribes include the Squaxin, Nisqually, and United Chehalis, but there is no indication of representation or consultation beyond the Squaxin Island Tribe.	City of Olympia's cultural resources code (Olympia Municipal Code 18.12.120, 130, 140) requires consultation with interested Tribes.

L-3-113 In response to this comment, the description of consistency of the Estuary and Hybrid Alternatives with the Thurston Climate Mitigation Plan has been changed in the Final EIS, as well as in the Economics Discipline Report (Attachment 18).

See also the Global Response for Air Quality & Odor.

L-3-114 See the Global Response for Cultural Resources for information on how Enterprise Services coordinated with tribes during the preparation of the Draft EIS. Please note that formal consultation under Section 106 and/or Executive Order 21-02 would be initiated during the design and permitting phase. It appears that OMC 18.12.120, 130, and 140 referenced by the commenter apply to development review when an application is submitted.

L-4

COMMENT

RESPONSE

L-4-1

The Transportation Technical Report was updated for the Final EIS to reflect changes made to the transportation system proposed for the Estuary and Hybrid alternatives. These alternatives would construct a new 5th Avenue Bridge and new connection between Olympic Way and Deschutes Parkway SW. The new bridge and connector would have pedestrian and bicycle facilities and are proposed to be constructed before the existing 5th Avenue bridge is demolished. This would eliminate the potential long-duration impacts previously described in the Draft EIS to pedestrian and bicycle modes of travel, and results in a substantial benefit to the City of Olympia's non-motorized and trail network, with connections to the region.

The TTR was also updated to address a City of Olympia comment (See response to Comment L-3-49) related to use of its bike network maps and definitions, and relationship to the TRPC map. Further analysis or references beyond the City network were not needed to assess the impacts.



Members:
 City of Lacey
 City of Olympia
 City of Rainier
 City of Tenino
 City of Tumwater
 City of Yelm
 Confederated Tribes of the
 Chinook Reservation
 Nisqually Indian Tribe
 Town of Burdette
 Thurston County
 North Thurston Public Schools
 Olympia School District
 Tumwater School District
 InterCity Transit
 LOTT Clean Water Alliance
 Port of Olympia
 PUD No. 1 of Thurston County

August 26, 2021

Department of Enterprise Services
 Capitol Lake – Deschutes Estuary EIS
 PO Box 41476
 Olympia, Washington 98504-147

RE: Thurston Regional Planning Council Comments on the Capitol Lake – Deschutes Estuary Draft EIS

Thank you for the opportunity to provide comments on the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement (EIS). The 23 member organizations of Thurston Regional Planning Council (TRPC) appreciate Washington State's and the Department of Enterprise Services' (DES) efforts to evaluate the impacts of alternatives for long-term management comprehensively and objectively.

As the Metropolitan Planning Organization (MPO) and the Regional Transportation Planning Organization (RTPO) for the Thurston region, the following comments focus primarily on the transportation analysis supporting the EIS.

Associate Members:
 Lacey Fire District #3
 Puget Sound Regional Council
 The Evergreen State College
 Thurston Conservation District
 Thurston Economic Development Council
 Timberland Regional Library

The Transportation Discipline Report and the EIS omitted key information sources that would have greatly enhanced the analysis of short and long-term impacts, indirect and cumulative effects, and potential mitigation measures of the alternatives analyzed in the Draft EIS. As cited in the Transportation Discipline Report, the only element of TRPC work that was consulted in the analysis was the 2018 version of the Thurston County Bicycle Map. Foundational planning elements like the regional transportation plan, *What Moves You Regional Transportation Plan 2045 for the Thurston Region* (2020 or previous 2016 version), and the *Thurston Regional Trails Plan* (2007 and currently being updated) were not evaluated.

Both of these documents provide critical context, insight on potential impacts, and potential mitigation opportunities that were not examined in the EIS. For example, aside from mentioning that a broader trail system exists and providing a map of existing facilities, the EIS does not consider how the Capitol Lake Loop trail and bike lanes along Deschutes Parkway are vital to the regional trail system. It does not assess impacts and opportunities of the project associated with the planned West Bay, Percival Canyon Trail, Phase 4 extension of the Karen Fraser Woodland Trail (see EIS Figure 4.6). It also does not acknowledge the recently completed extension of the Deschutes Valley trail that connected Tumwater to the Capitol Lake loop trail at Tumwater Historical Park (Figure 1). These trail connections are an essential piece of the Thurston region's overall transportation strategy and should be recognized in the analysis of project-specific impacts.



Marc Daily
 Executive Director

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L-4-1

L-4

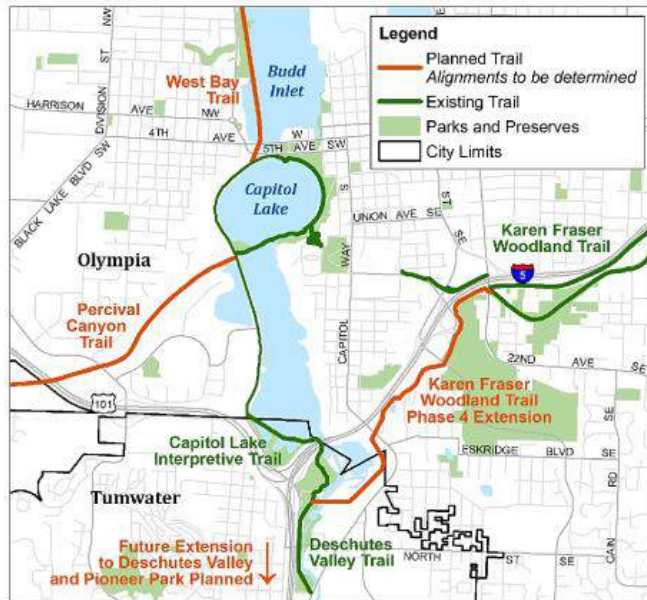
COMMENT

RESPONSE

L-4-2

For the Estuary and Hybrid Alternatives, the Draft EIS estimated that the 5th Avenue Bridge could be closed to traffic for four to five years during construction in order to demolish the existing 5th Avenue Dam, and after demolition, to build a replacement 5th Avenue Bridge in the same location. To eliminate the long-term closure of 5th Avenue, the Estuary and Hybrid Alternatives have been revised to construct a new 5th Avenue Bridge, south of the existing 5th Avenue dam and bridge, before demolition. The new bridge would serve both vehicular and non-motorized traffic (with separated lanes). It would connect from Deschutes Parkway SW on the west to 5th Avenue west of Simmons Street. The project would also construct a new Olympic Way connector between Deschutes Parkway SW and the roundabout at 4th Avenue. A new roundabout is proposed at the intersection of 5th Avenue/Deschutes Parkway SW/Olympic Way. The new facilities would provide connectivity between Olympic Way and Deschutes Parkway SW that do not exist today.

The new 5th Avenue Bridge would mitigate the previously-anticipated impact. No further mitigation would be needed.



All three alternatives include a pedestrian/bicycle bridge connecting 5th Avenue and Deschutes Parkway. TRPC supports this proposal, as it addresses an important recommendation in the Thurston Regional Trail Plan (2007, p. 3-49).

The EIS discusses potentially creating a temporary trail or completing the 5th avenue multi-use bridge prior to construction of the new 5th avenue bridge to mitigate for the roughly 4.5 years that 5th avenue will be closed to traffic. That would be helpful mitigation and yet evaluation of the project alternatives in relation to the Regional Transportation Plan and the Regional Trails Plan would have suggested additional mitigation options such as completing Phase 4 of the Karen Fraser Woodland Trail and/or the Percival Canyon Trail prior to closure of the 5th Avenue Bridge. Including these trail investments as mitigation would not only help address the construction-related impacts of 5th Avenue bridge reconstruction but would also provide long-term transportation benefit to the region and greatly enhance public access to the improvements made within the project area under any of the three action alternatives.

L-4-2

L-4

COMMENT

RESPONSE

L-4-2

In particular, completion of Phase 4 of the Karen Fraser Woodland Trail would eliminate the current gap between the Woodland Trail, Deschutes Valley Trail, and the Capitol Lake Loop Trail, greatly enhancing the regional trail systems function as a viable alternative to vehicular travel. More information on the remaining section of the Karen Fraser Woodland Trail can be found at <https://olympiawa.gov/city-services/parks/parks-and-trails/karen-fraser-woodland-trail.aspx>. TRPC urges that all of these planning documents be considered in the final EIS transportation analysis.

L-4-3

The Transportation Discipline Report and EIS also did not utilize readily available transportation modeling tools that would have improved analysis of impacts and mitigation measures. As the MPO and RTPO for the Thurston Region, TRPC develops and maintains the Regional Travel Demand Model. In addition, the region has invested in a dynamic traffic assignment model that is particularly well suited for analyzing different alternatives and construction-related transportation impacts and mitigation measures. The preparers of the EIS contacted TRPC about potentially performing transportation modeling for the evaluation, but did not ultimately choose to conduct modeling. The analysis of the short, long, indirect, and cumulative impacts would have been improved by alternative-specific transportation modeling of closures, detour routes, and transportation function of the completed project. This would foster more robust analysis of the impacts on transit, vehicles, freight movement, pedestrians and cyclists. Such modeling should be considered for the final EIS or at least as the preferred alternative moves further into project development.

L-4-4

One comment specific to the alternatives presented is in relation to the Deschutes Parkway bike lane along the north basin where Deschutes Parkway and 5th Avenue converge. Currently in both the northbound and southbound directions, the bike lane ends as it approaches the 5th avenue bridge due to width constraints. Under any of the alternatives, full connectivity of the bike lanes along both Deschutes Parkway and 5th Avenue should be provided for.

L-4-5

Lastly, it is unclear how the transportation analysis or the rest of the EIS dealt with the impacts on users with disabilities. Ensuring that our transportation system works for all users regardless of age, income, or ability is foundational to our regional transportation system. The Final EIS should more explicitly address potential impacts of the alternatives on differently abled users of the project area.

Again, TRPC appreciates the opportunity to review and provide comment on the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement (EIS) and look forward to working with the state and the Thurston region to move this important project forward.

Sincerely,



Marc Daily, Executive Director
Thurston Regional Planning Council

References

Thurston Regional Planning Council. 2020. What Moves You Regional Transportation Plan 2045 for the Thurston Region, Washington State. July 10, 2020. Olympia, Washington. <https://www.trpc.org/662/Regional-Transportation-Plan--What-Move>

Thurston Regional Planning Council. 2007. Thurston Regional Trails Plan. December 2007. Olympia, Washington. <https://www.trpc.org/DocumentCenter/View/928/Thurston-Regional-Trails-Plan-PDF?bidId=>

L-4-3

The characterization of transportation impacts provided by the Draft EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives.

The revised Estuary and Hybrid Alternatives no longer have long-term closures of the 5th Avenue Bridge, making further analysis unnecessary. A sensitivity analysis was performed for the new 5th Avenue Bridge and roundabout at the west end of the bridge, which determined that the proposed configuration (two vehicular lanes) would accommodate substantial growth in traffic. More detailed design analysis may be performed during design and permitting of the replacement bridge.

L-4-4

All action alternatives would include improved bicycle and pedestrian movement along the 5th Avenue corridor and Deschutes Parkway. Under the Managed Lake, this would be provided with a new non-vehicular bridge built to the south of the existing 5th Avenue Bridge. This non-vehicular bridge would provide a connection between the existing pathways at Heritage Park and existing pathways along Deschutes Parkway. It would support the frequently used walking path and would improve circulation for bicycles through the Project Area.

For the Estuary and Hybrid Alternatives, a new 5th Avenue Bridge would be constructed and replace the existing 5th Avenue Bridge. This new bridge would include grade-separated bike lanes and sidewalks in both directions. Please see Section 2.2 of Final EIS Supporting Chapter 2.0 and the Global Response for the Estuary and Hybrid Alternatives.

L-4-5

All alternatives propose a new accessible trail connection within the 5th Avenue corridor, between Deschutes Parkway SW and downtown Olympia. The new connection would cross the water at about the same grade as the existing street system, making it an accessible route for users with disabilities.

Construction impacts associated with the Managed Lake Alternative describe the potential impact of a short-term closure of 5th Avenue during jet grouting. It stated that, "Elevation differences between 4th Avenue and Deschutes Parkway may present challenges in providing a connection that would meet Americans with Disabilities Act (ADA) standards. If an ADA-compliant detour could not be established, this would be considered a significant pedestrian impact." To eliminate that impact, it was recommended that the non-vehicular bridge be constructed before this closure. Under the Estuary and

L-4

COMMENT

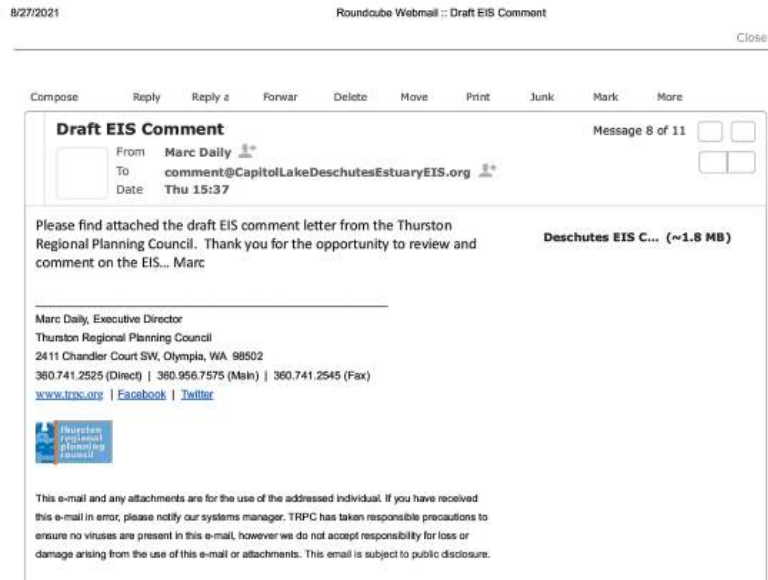
RESPONSE

Hybrid Alternatives, the new 5th Avenue Bridge, with bike and pedestrian paths, would be constructed before the existing 5th Avenue Bridge is closed and demolished.

L-4

COMMENT

RESPONSE



L-5

COMMENT

RESPONSE

Please see the attached letter, pictures, maps and staff comments.

L-5

COMMENT

RESPONSE

L-5-1

Comment noted. Enterprise Services appreciates the City of Tumwater's detailed review of the Draft EIS. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.



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August 26, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-147

RE: City of Tumwater Comments on the Capitol Lake/Deschutes Estuary EIS

Thank you for the opportunity to review the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement. The Draft EIS is a major milestone in the process of restoring this significant body of water. We would like to recognize the hard work that the Department of Enterprise Services staff and the consultant team have put into this analysis.

For the most part, we find the EIS is comprehensive in its scope and that it provides a great foundation for future decision-making. Along these lines, we have only a few comments on the Draft EIS as follows:

Preferred Alternative

At our August 10, 2021 Worksession, the Tumwater City Council discussed which alternative would be most beneficial to Tumwater and the region, given the current information in the Draft EIS. The Council was unanimous in support of one or both of the estuary alternatives (either a full estuary or hybrid alternative) for the following reasons:

- Lower Budd Inlet would be returned most closely to its natural state.
- This is the best opportunity to restore water quality and the natural ecosystem in Budd Inlet. It would also give salmon raised in the Deschutes watershed the best chance for survival by providing an opportunity to acclimate to salt water on release and fresh water when returning.
- Removing the dam would return the falls to a direct plunge into Puget Sound, restoring a unique geologic and cultural feature, supporting public recreation and tourism. This direct plunge would also inject much needed oxygen directly into lower Budd Inlet.
- The base of Tumwater Falls was an important cultural site for local tribes as illustrated by shell middens found in the vicinity of the falls during the expansion of I-5. Removing the dam would show respect for this cultural heritage.
- Based on historic photos (an example is attached), when the dam is removed, the south basin would eventually return to an open water/mud flat, restoring the historic waterfront in Tumwater's National Historic District. This would also open up views of the water from the

www.ci.tumwater.wa.us

L-5-1

L-5

COMMENT

RESPONSE

L-5-1 historic brewery area, as well as views of this area from across the river in Historical Park, complementing restoration of the historic Olympia Brewhouse and other historic buildings.

- Removing the dam would restore navigable access to Puget Sound from Tumwater, an important cultural feature that drew the Bush-Simmons party to this location to establish the first American settlement in Washington State.

During the discussion, several Councilmembers emphasized that, while either estuary alternative would achieve these objectives, their preference is for a full estuary. Other Councilmembers noted that while they supported the full estuary alternative, they did not want to preclude the hybrid alternative, should the community and/or other governmental bodies strongly support that alternative.

Impacts on Water Quality

L-5-2 We are also concerned that the EIS minimizes the impacts of the current Capitol Lake Dam and the benefits of removing that dam. Prior analysis by the Department of Ecology indicates the algae and plant growth in Capitol Lake, and its subsequent discharge and decomposition to Budd Inlet, is a major contributor to poor water quality in lower Budd Inlet. The LOTT treatment plant, which service area includes Tumwater, already has some of the most stringent discharge requirements for treatment plants that discharge to Puget Sound. If the dam is not removed, this could result in a reduction in the permitted discharge limits or require LOTT to install even more expensive treatment technology, significantly increase costs to residents and businesses served by that plant.

Flooding/Sea Level Rise

L-5-3 Please extend the flood analysis to the south basin. This should include an evaluation of whether levees or some other structure will be necessary to protect the historic structures in the National Historic District, the lift station on the south side of the south basin, and facilities in historical park on the west side of the basin. This should be done regardless of the alternative selected.

During flooding conditions the Deschutes River flows northeast directly into the bluff buttressing I-5, Capitol Boulevard, the railroad that serves downtown Olympia, a significant power line, and a major sewer line serving much of Tumwater before it makes its turn to the north under the I-5 Bridge. This area has experienced slope failures in the past and this will likely continue in the future. Regardless of which alternative is selected, the final EIS should include a requirement that options be evaluated for stabilizing the east shoreline of the south basin.

Conceptual Design of the North Basin

L-5-4 Our understanding is that the intent of both the Hybrid and Estuary Alternatives is to retain the north basin as a reflecting pool. However, the location of the island is right in the spot where that reflection occurs. If either of these alternatives is selected, the final EIS should include a requirement that reflection viewpoints be carefully considered when determining the location and geometry of these islands during the design process.

The visual representation shows trees growing on the islands in both the estuary and hybrid alternatives. Based on historical photos before the dam was built, if indeed the water is salt

L-5-2 Please see the Global Responses for Water Quality.

Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7) have been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards and TMDL allocations. Potential implications to LOTT as a result of the TMDL allocations is described in further detail in the Public Services & Utilities analysis (Section 4.13) and in the Economics analysis (Section 4.14) of Final EIS Supporting Chapter 4.0.

L-5-3 The hydrodynamic and sediment transport study included the South Basin, and model results including maximum water surface elevation and extent of inundation/flooding during extreme rain and high tide events have been presented for the South Basin.

As the commenter noted, a few built and natural assets within the South Basin are and will be exposed to risk of flooding and shoreline erosion regardless of which alternative is selected.

Risk of failure for the existing built and natural assets within the South Basin, before the EIS Preferred Alternative has been implemented, should be evaluated by the City of Tumwater to identify appropriate measures. Evaluation of vulnerable assets and need for flooding and shoreline erosion mitigation for the Preferred Alternative will be addressed during the design phase.

L-5-4 Maintaining a reflecting pool is not a stated goal of the project as described in EIS Supporting Chapter 1.0. However, design of the alternatives took into consideration maintaining a reflecting pool.

The comment also states that the Estuary Alternative would prevent any chance of reflection of the Capitol in the water. This is not correct. As shown in the simulation in Figure 4.10.3 of the Draft EIS and Final EIS, during higher tides, there would be a reflection of the Capitol Dome in the North Basin. The simulation used a water surface with slight wind, similar to the existing condition photo (Exhibit 3.55 in the Draft EIS and Final EIS).

It has been clarified in the Final EIS Supporting Chapter 2.0 (Section 2.3.2.1) that, during design of the selected alternative, the habitat islands could be moved and final design will take aesthetic considerations, such as views, into account along with other design considerations. Further, some of the habitat islands would be high enough above high tide level to support trees such as Sitka spruce and western red cedar, while others would not. As described in

L-5

COMMENT

RESPONSE

Section 4.10.7, as mitigation, view corridors could be created where low vegetation is used specifically to preserve views for various users.

L-5

COMMENT

RESPONSE

L-5-4

water, it is unlikely trees would survive. These illustrations should be revised to reflect salt water tolerant vegetation.

Trails

The regional trails plan provides for a trail across the South Basin, connecting the Olympia Woodland Trail with the Tumwater-Deschutes Valley Trail (see attached diagram). This is an important future trail connection that should be incorporated into whatever alternative is ultimately selected. It would also provide better access to the south and east side of the South Basin, providing for improved recreational opportunities as well as the ability to better patrol those areas than currently exist.

L-5-5

There are similar trails planned for the Percival Creek Corridor, as well as along the west shore of West Bay that should be incorporated into the final EIS.

The final EIS should also show the existing trails around Capitol Lake, in addition to the new boardwalks, so that an integrated plan of shoreline access is presented in the final EIS.

We strongly support the proposed improvement to the pedestrian/bicycle trail on 5th Avenue, which is part of the estuary and hybrid options. This would provide a significant improvement to access and trail connectivity in this area.

Utility Impacts

L-5-6

There is a Tumwater sewerage lift station on the southeast side of the South Basin as well as a major sewer interceptor that parallels the railroad tracks in the South Basin. Those are two utilities that were not described in the report and should be included in the final EIS. A map is attached showing these and other Tumwater utilities. It would be helpful to have a similar map included in the final EIS for Olympia and LOTT utilities.

Invasive Species

L-5-7

Should the dam be removed, the most likely location for small watercraft to launch from is the Port's Swantown Marina in East Bay. There are also small boat rentals at West Bay Marina and a boat launch at Boston Harbor. All of these facilities should have boat cleaning equipment installed, not just the boat launches in Capitol Lake.

Sediment Removal and Disposal

L-5-8

Maintaining navigability for the Port of Olympia and other marine businesses in lower Budd Inlet is very important to our local economy and many users. We are pleased to see that recognized in the Draft EIS.

Several of the alternatives call for dredging the lake and repositioning the sediments within the lake basin to reduce costs. While this approach to sediment management makes sense from an engineering perspective, much of that sediment will likely eventually be washed into the Bay. In essence this could transfer the cost of removing that sediment from a capital cost, which likely will be largely borne by the state and federal government, to a long-term management cost, which

L-5-5

See the Global Response for Land Use, Shorelines and Recreation. The commenter's support for the pedestrian/bicycle improvements that are part of all action alternatives is acknowledged.

L-5-6

In response to this comment, a new figure has been added to the Final EIS Supporting Chapter 3.0, Section 3.13, showing mapped utilities and pump stations the EIS project team received from the City of Tumwater and City of Olympia. The data received from the City of Tumwater shows three pump stations in and around the South Basin as well as numerous conveyance lines.

L-5-7

The Final EIS has been modified to describe that decontamination stations could be installed at existing boat launches in West Bay, if needed. The final location of decontamination stations will be confirmed during design and permitting, in coordination with the Washington State Department of Fish and Wildlife.

L-5-8

The results of high-resolution sediment modeling did not show that there would be meaningful erosion of the habitat islands. In the next phase of the project after the EIS, design criteria would be developed for the habitat islands. The design criteria would establish a design event (threshold) beyond which erosion may occur. The habitat islands would be designed (engineered) to this design event so that erosion would only occur during events exceeding that threshold. Coordination with local stakeholders will continue during this design and permitting phase.

Regarding the potential re-mobilization of sediment from the constructed habitat islands, the high-resolution sediment modeling did not show that there would be meaningful erosion of the habitat islands. In the next phase of the project after the EIS, design criteria would be developed for the habitat islands. The design criteria would establish a design event (threshold) beyond which erosion may occur. The habitat islands would be designed (engineered) to this design event so that erosion would only occur during events exceeding that threshold.

Regarding the potential use of an abandoned gravel mine, cost saving measures would be explored in the future, as needed and prior to maintenance dredging. However, purchase, permitting, and reuse of a gravel mine would have significant cost and regulatory implications.

L-5

COMMENT

RESPONSE

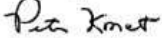
L-5-8

will likely be borne largely by local residents and businesses. The final EIS should take a closer look at this issue, including extending modeling over a longer timeframe and methods to stabilize this fill to minimize migration into the Bay.

There is currently a largely abandoned gravel mine off Rixie Road in East Olympia, adjacent to the railroad spur that services downtown Olympia and crosses the lake. Because dredging is a component of all active alternatives, an early action the State should consider is acquisition of this gravel pit for potential future disposal of dredged sediments. This will provide an upland alternative sediment disposal location, and minimize truck impacts, should open water disposal be impractical under any of the active alternatives. If not used initially, it can serve as reserve capacity for future dredging, should an upland disposal location be needed in the future.

Attached are additional technical comments from Tumwater staff. If you have questions regarding the comments in this letter or the attachment, please contact Dan Smith, Water Resources and Sustainability Manager, at desmith@ci.tumwater.wa.us or (360) 754-4140.

Sincerely,



Pete Kmet, Mayor
City of Tumwater

Attachment A – Historic Photos

Attachment B – TRPC Regional Trails Map

Attachment C – Utilities Map

Attachment D – Technical Comments from Tumwater Staff

C: Tumwater City Council

John Doan, City Administrator

Dan Smith, Water Resources and Sustainability Director

L-5

COMMENT

RESPONSE

Attachment A – Historic Photos



L-5

COMMENT

RESPONSE



Source of Photos: Tumwater Historic Brewery Site Study, June 12, 2015 by Cardinal Architecture on behalf of the City of Tumwater

L-5

COMMENT

RESPONSE

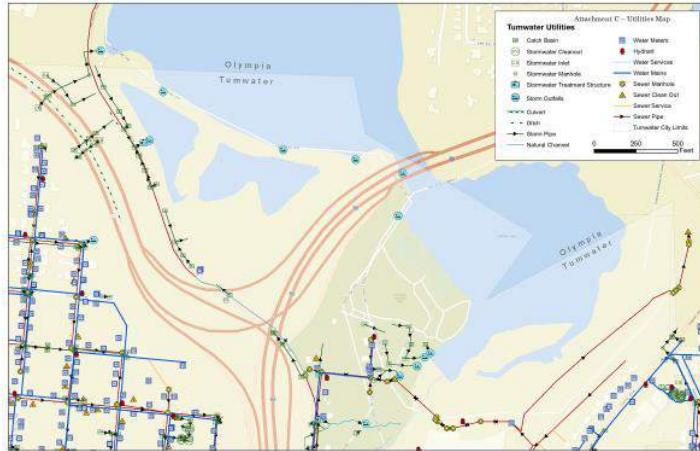
Attachment B – TRPC Regional Trails Map



L-5

COMMENT

RESPONSE



L-5

COMMENT

RESPONSE



Attachment D – Technical Comments from Tumwater Staff

City Hall
555 Israel Road SW
Tumwater, WA 98501-6515
Phone: 360.754-5855
Fax: 360.754-4138

CAPITOL LAKE / DESCHUTES ESTUARY DRAFT ENVIRONMENTAL IMPACT STATEMENT

COMMENT LOG

08/26/2021

Thank you for the opportunity to review the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement (DEIS). The City of Tumwater recognizes this is a major step in the EIS process and reflects significant effort completed by Department of Enterprise Services, the project team, and the community at large.

These comments focus on the study area, or scope of study, water quality, project costs, and the connection to previous studies, such as the Total Maximum Daily Load work completed by the WA Department of Ecology. These comments are a supplement to those provided by the Tumwater City Council.

STUDY AREA / SCOPE

- The DEIS defines the Project Area as the 260-acre Capitol Lake that "extends to the northern point of West Bay of Budd Inlet." The project area does not include East Bay where substantive water quality benefits are predicted to occur if the dam is removed. East Bay should be included in the project area.
- The DEIS defines the Water Quality Study Area as, "... Capitol Lake and its major inflow sources of the Deschutes River and Percival Creek, as well as West Bay and East Bay of Budd Inlet."

It is not clear why there is a difference in study areas, as projects completed within the project area will have an impact on water quality throughout. The project area and water quality area should match.
- The Water Quality analysis should be based on a study area consistent with that considered in the Budd Inlet – Capitol Lake TMDL to fully and accurately consider the impacts of the alternatives on Budd Inlet.

WATER QUALITY ASSUMPTIONS

- Water Quality Model – In Section 4.3.5.2, the DEIS notes that due to uncertainties and concerns of an overoptimistic analysis, improvements in dissolved oxygen predicted by the model would be assessed by half to reflect a "worst-case outcome," consistent with SEPA requirements when there are data gaps or uncertainties. The model referred to here is a fully calibrated, peer-reviewed (multiple times), quantitative product, while the uncertainties raised come from a limited data set acquired in 2019 that may have its own challenges, most notably from spills that occurred in the Deschutes River and Capitol Lake that year.

www.ci.tumwater.wa.us

L-5-9

Please see the Global Responses for Water Quality regarding the study area and the regulatory compliance discussion that has been added to the water quality analysis in the Final EIS.

Consistent with SEPA, the study areas identified in the Draft EIS and Final EIS encompass the areas where the project could result in significant adverse environmental impacts. As such, the study areas varied by environmental resource in terms of geographic extent and of level of analysis. For most resources, the study area was defined to end at West Bay, and for some resources like Water Quality, also East Bay. Whereas, the Project Area is defined as the area where direct project actions would occur.

L-5-10

Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report and regarding additional analysis of the ability of the alternatives to meet water quality standards and TMDL allocations.

L-5-9

L-5-10

L-5

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		L-5-11	Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report. Please also see response to Comment L-1-22.
L-5-10	<ul style="list-style-type: none"> Capitol Lake's impact on water quality does not appear to be addressed in the Water Quality Analysis. Given the connection made through the substantive TMDL work of water quality in Budd Inlet and Capitol Lake, AND the reality that water quality improvements are a key project goal, this should be considered in the water quality analysis and not just a regulatory outcome in Public Service and Utility impacts. It does not appear that the DEIS applies the same standard to the Water Quality analysis that regulation requires for impaired waters and that others will be held accountable to – the combined anthropogenic contribution cannot increase DO impairment more than 0.2 mg/L. Capitol Lake should be held to the same standard. 	L-5-12	Please see the Global Responses for Water Quality regarding additional analysis of the ability of the alternatives to meet water quality standards and TMDL allocations. This has been added to Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report.
L-5-11	<p>TOTAL MAXIMUM DAILY LOAD STUDY CONNECTION</p> <ul style="list-style-type: none"> The DEIS applies inadequate rationale for calling into question key findings of the Department of Ecology's Budd Inlet – Capitol Lake Total Maximum Daily Load (TMDL) regarding the impact of the lake on oxygen depletion in Budd Inlet. As noted above, one year of new data gathered in 2019 as part of a qualitative assessment is insufficient rationale to dismiss the peer-reviewed TMDL findings. The more fully vetted, peer reviewed quantitative TMDL assessment should set the standard. 	L-5-13	Please see response to Comment L-5-12.
L-5-12	<ul style="list-style-type: none"> The Water Quality analysis should incorporate the findings of Ecology's Budd Inlet – Capitol Lake TMDL, specifically the significant impact of Capitol Lake on oxygen depletion in Budd Inlet. As the TMDL sets the regulatory backdrop for addressing impacts to water quality in Budd Inlet, incorporating the TMDL findings provides a consistent basis for evaluating impacts from other dischargers, permit holders and project actions. 	L-5-14	In the Final EIS, escalation has been removed from the planning-level cost estimates given the impact that COVID-19 has had on inflation and the associated uncertainty in escalating costs into the future. The Funding and Governance Work Group also requested that planning-level cost estimates be reported in 2022 dollars to better support budgetary planning, which is also done in 2022 dollars.
L-5-13	<ul style="list-style-type: none"> In Section 4.13.2.2, Utilities, the DEIS notes that there could be a significant regulatory response to require wastewater treatment providers to increase treatment effectiveness, which would then be passed on to rate payers – and be a significant impact under the No Action Alternative. In addition to rates, the regulatory response may also include further discharge restrictions for other permit holders, like the City of Tumwater. These impacts would also be realized under the Managed Lake scenario. Please incorporate the TMDL allocation information into the analysis on water quality. 	L-5-15	Explanatory text has been added to Section 3.3 of the Water Quality Discipline Report (Attachment 7) and the Final EIS, and is reflected in the Final EIS Summary, describing that as is standard in an EIS, the impacts of alternatives are described by comparison to baseline or existing conditions. The EIS does not imply that existing conditions are consistent with water quality standards.
L-5-14	<ul style="list-style-type: none"> Table 4.3.1, Summary of Long-Term Water Quality Impacts: Managed Lake Alternative, suggests that low dissolved oxygen levels will experience "no change in impact as loading will be similar to current conditions." This is misleading, as the TMDL study referenced by this DEIS finds the impact to be Significant. As both the No Action and Managed Lake alternatives result in similar loadings, the long term effect remains Significant and Unavoidable to Budd Inlet. In addition, there are multiple instances the DEIS states these alternatives would result in "no changes to water quality in Budd Inlet" or impacts are "not applicable". These too are misleading based on the fact the impacts are part of existing conditions. While the Managed Lake Alternative would not substantively change the impact to oxygen depletion in Budd Inlet from existing conditions, compared to the Estuary or Hybrid Alternatives, its impact is significant and applicable. 		A specific regulatory compliance section has been added to the impacts assessment for each of the action alternatives that describes compliance with water quality standards.
L-5-15	<p>COSTS / FINANCE</p> <ul style="list-style-type: none"> Table 7.1.1 notes that "Potentially significant costs to LOTT Clean Water Alliance (LOTT) because more extensive water quality treatment is likely to be required by the Washington State Department of Ecology," as they relate to the No Action and Managed 		Thank you for this comment. Please note that this content has been changed altogether to reflect the Draft Budd Inlet TMDL issued by Ecology in June 2021; it now reads: LOTT would need to invest in additional water quality treatment sooner to meet TMDL allocations provided by Ecology.

L-5

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RESPONSE

L-5-15

Lake alternatives. In addition to LOTT, as an organization, those "potentially significant" costs will also impact residents and businesses of Tumwater, Olympia and Lacey as LOTT rate payers.

- Table 7.1.1 identifies planning level costs for construction and maintenance of the project alternatives, but does not identify any escalations for future years. Please clarify the basis for these costs, e.g., 2021 dollars, and if any escalators for future costs were included in the calculations.

TRANSPORTATION

L-5-16

- The Deschutes Parkway borders the entire western shoreline and appears to only get a brief mention in the DEIS. In 2001, during the Nisqually earthquake, the roadbed liquefied in places and is known to be unstable. Some consideration of impacts of tidal action and project alternatives should be made, as this is a major route of travel from Tumwater to Olympia.

L-5-16

The Hybrid and Estuary Alternatives include stabilization of the slope on Deschutes Parkway to resist erosive forces and additional pressure that would occur during tidal cycles. During the design phase, a geotechnical analysis would be conducted to determine the extent of the shoreline stabilization that would be required and whether additional or alternate measures are more appropriate/cost effective to avoid potential adverse impacts and to increase seismic resistance of Deschutes Parkway.

If you need clarification and have additional questions, please reach out to me at (360) 754-4140 or via email to dsmith@ci.tumwater.wa.us.

Regards,



Dan Smith
 Water Resources & Sustainability Director

L-6

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Port of Olympia's Public Comment Letter on the Capitol Lake-Deschutes Estuary Long-Term Management Plan D...

Subject: **Port of Olympia's Public Comment Letter on the Capitol Lake-Deschutes Estuary Long-Term Management Plan Draft Environmental Impact Statement**

From: Lisa Parks <LisaP@portolympia.com>

To: <comment@CapitolLakeDeschutesEstuaryEIS.org>

Cc: <commissioners@portofpoulsbo.com>, Leadership Team <Leadership_Team%POLY@portolympia.com>

Date: 2021-08-27 17:29



- Capitol Lake-Deschutes Estuary DEIS Comment Letter - Port of Olympia.pdf(~956 KB)

Good afternoon, Ms Martin,

Please find attached the Port of Olympia's public comment letter on the Capitol Lake-Deschutes Estuary Long-Term Management Plan Draft EIS. Thank you for the opportunity to provide input on this important community project. If you have any questions regarding the letter, please feel free to reach out to the Port's Executive Director Sam Gibboney or myself.

We look forward to continuing our participation in the Department of Enterprise Services' efforts over the next year as you work toward selecting a Preferred Alternative and issuing the Final Environmental Impact Statement.

We would very much appreciate confirmation that you have received this email and the attached letter.

Warm regards,

Lisa Parks | Capital Investments, Planning & Environmental Programs Director
Port of Olympia | 606 Columbia Street NW STE 300 | Olympia, WA 98501
P: 360.528.8020 | C: 509.679.1586 | E: lisp@portolympia.com
portolympia.com | ftz216.com | [Port of Olympia's Video](#)

L-6

COMMENT

RESPONSE

L-6-1 Enterprise Services appreciates the Port of Olympia’s detailed review of the Draft EIS.



606 Columbia St NW, Suite 300 | Olympia, WA 98501
360.528.8000 | F: 360.528.8090 | portolympia.com

August 29, 2021

Submitted via email: comment@CapitolLakeDeschutesEstuaryEIS.org

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, WA 98504-1476

Attn: Carrie Martin, Project Manager

Re: Port of Olympia Comments on the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement (DEIS)

Dear Ms. Martin,

On behalf of the Port of Olympia (Port), we are submitting comments in response to the Washington State Department of Enterprise Services’ (DES) Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement (DEIS) issued on June 30, 2021 as part of a State Environmental Policy Act (SEPA) review. We appreciate the opportunity to provide our comments for consideration in identifying and implementing an environmentally and economically sustainable long-term management alternative for this important community resource. Improving water quality, managing existing sediment accumulation and future deposition, improving impaired ecological functions and restoring and enhancing community use of the resource are important goals. Balancing these goals in the context of a diversity of deeply held perspectives and beliefs around Capitol Lake and the Deschutes Estuary is a significant and complex community challenge, and DES is to be commended for their on-going efforts toward achieving that balance.

The Port has participated on several of the Work Groups developed to provide input and support during the development of this DEIS. Representatives of both the elected Port Commission and Port staff attended the Executive, Technical and Funding & Governance Work Groups, and we look forward to continued participation during development of a Final Environmental Impact Statement (FEIS) and selection of a Preferred Alternative. We are committed to continuing our partnership with DES and various community stakeholder groups to create innovative solutions for an economically and environmentally sustainable Capitol Lake – Deschutes Estuary Long-Term Management Plan. Ultimately, this plan must seek to

Creating ECONOMIC OPPORTUNITIES by connecting Thurston County to the world by AIR, LAND, and SEA.
Commissioners | Joe Downing | Bill McGreor | E.J. Zita

L-6-1

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RESPONSE

L-6-1

conserve and restore this important community, historic, visual and recreational resource while recognizing sovereign treaty rights and tribal interests as well as Federal navigation and civil works stewardship. The amount of work and commitment to addressing this complex community issue captured in the DEIS is inspiring and the Port would like to extend our appreciation to all who have participated.

The DEIS states that DES has not yet selected a preferred alternative. It is our understanding that information received during the public comment period will be used, in part, to identify additional analyses that may be needed, to modify alternatives to better meet the project purpose and goals, and to supplement the initial prioritization/weighting of the preferred alternative selection criteria. In support of this iterative evaluation process, the focus of the Port's comments outlined below is on providing information to DES to help improve the environmental analysis, to address the methodology used in the analysis, and to request additional information and evaluation of additional and/or increased mitigation measures related to various aspects of the alternatives. The Port is not taking a position on a Preferred Alternative at this time.

L-6-2

The Port appreciates all of the work – at both the policy and technical levels – represented in the DEIS. Still, we are concerned the current investigations, analyses and vetting of certain basic assumptions and foundational issues are incomplete. These issues significantly impact the evaluation of all three alternatives, particularly from the standpoint of regulatory compliance, costs, economic impacts and project feasibility. There are assumptions made in the DEIS that are inconsistent with our understanding of Federal navigation and asset stewardship, as well as Federal permitting processes. Additionally, we believe more detailed investigations, analyses and refinement of assumptions needs to occur related to sediment management and disposal, community recreation uses, and implementation of mitigation measures, including funding commitments. As stated in WAC 197-11-400, one primary purpose for preparing an EIS is to assist in DES's consideration and decision making process related to this complex and significant community project action. The Port believes greater clarity around these important issues is required to ensure this purpose is being fulfilled.

Without additional investigations, robust analyses, and more detailed discussions related to mitigation measures, including how and when mitigation is implemented and by whom, the Port believes it is difficult to thoroughly and objectively assess the alternatives against the stated Project Goals, and to apply the prioritized selection criteria accurately. For example, one of our concerns related to the feasibility of obtaining federal permits tests the basic assumption/statement on Page 1-19, that *"...all three action alternatives are feasible from a technical and regulatory perspective (i.e., they have been screened for potential limitations that would make them impossible to permit, construct, or manage)..."*. The Port's specific concerns, requests for additional investigations and analyses, and suggested remedies are outlined more thoroughly below.

L-6-3

Navigation and Maintenance Dredging

Budd Inlet is the southernmost extension of Puget Sound, and the Port of Olympia has operated a marine terminal since the 1920's, currently providing ready access to local, regional and international markets. As authorized by Federal legislation, the United States Army Corps of Engineers (USACE) maintains a navigation channel into Budd Inlet that splits just north of the Port Peninsula to serve East Bay and West Bay. Additionally, USACE maintains a turning

L-6-2

During development of the Draft EIS, Enterprise Services engaged the USACE (and Port of Olympia, among other resource agencies) as part of the Technical Work Group to review regulatory feasibility of the action alternatives. In these meetings, the change to sediment conditions in West Bay was described; maintenance dredging was proposed to avoid significant impacts to navigation; and historic dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary was acknowledged. Please refer to EIS Supporting Chapter 2.0 for the proposed approach to maintenance dredging under the action alternatives, which has been proposed to avoid significant impacts to navigation, and to maintain a working waterfront and recreational boating in West Bay. Section 4.2 of Final EIS Supporting Chapter 4.0 and the associated Navigation Discipline Report (Attachment 6) provide an analysis of potential impacts to navigation and the approach to avoid significant impacts to navigation. Maintenance dredging is recommended along with sediment monitoring (bathymetric surveys at least annually) to increase certainty that maintenance dredging is responsive to actual environmental conditions. The Port of Olympia has been an integral part of the Funding and Governance Work Group, which has been working toward a Memorandum of Understanding to provide shared funding for maintenance dredging, through 2050. This is described in more detail in Final EIS Supporting Chapter 7.0. Chapter 7.0 also provides a most current description of the options for dredged material disposal, based on data collected during the EIS process.

L-6-3

Please see Attachment 21 which outlines the decision-making process for identifying the Preferred Alternative. Please also see responses to the more specific comments submitted by the Port.

Please see response to Comment F-1-1 and F-1-3.

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L-6-3

basin for large ships accessing the marine terminal within West Bay. The role of USACE, “...with respect to navigation is to provide safe, reliable and efficient waterborne transportation systems (channels, harbors, and waterways) for movement of commerce, national security needs, and recreation” (USACE Engineering Regulation 1105-100). In support of this purpose, USACE maintains these Federal assets through a variety of actions, including dredging to maintain serviceable and reliable depths and widths, as well as removing navigation hazards and underwater obstructions¹.

Because of its’ role and stated purpose, USACE is an important and integral partner and agency with jurisdiction and regulatory authority within the DEIS project area. While the Port does not presume to speak on their behalf, it is our understanding from communications with USACE staff that there hasn’t yet been substantive conversation with USACE to fully vet some of the assumptions made in the DEIS. Assumptions related to both navigation (dredging) and Federal regulatory components (permitting) that fall under the purview of USACE significantly affect the overall analysis – and basic feasibility – of all three alternatives. For example, Attachment 6 Navigation Discipline Report, makes an assumption that maintenance dredging in the West Bay navigation channel and turning basin (and other areas) will occur, “...within the next 10 years, prior to, or at implementation of, any of the proposed action alternatives” (page 3-3). While this is a shared, aspirational goal of the Port and USACE, it is by no means an assumption that can be made with any degree of certainty.

L-6-4

As briefly mentioned in the Navigation Discipline Report, efforts related to maintenance dredging have most recently, “...been delayed due to the chemical quality of the sediment which would require the sediment to be disposed of at a permitted upland facility” (page 4-10). Environmental contamination in the sediments of West Bay remain a significant and complex challenge for USACE, the Port and the Washington State Department of Ecology (Ecology). Unresolved issues remain related to dredge disposal and the complex interplay of federal and state authorities and requirements. While all partners are working collaboratively to develop innovative approaches, there are no guarantees these issues will be resolved in a timeframe allowing for the extensive analyses, permit reviews (both State and Federal) and allocation/securing of funding necessary to accomplish the maintenance dredging within a 10-year timeline.

L-6-5

Chapter 7 correctly identifies that the Federal navigation channel is currently impacted by sediment accumulation and needs to be dredged, which is further complicated by the presence of environmental contaminants. As indicated above, the Port, USACE and Ecology are working together to resolve the myriad of complex issues involved to enable implementation of the necessary dredging. However, the Port disagrees with the statement on page 7-12, “If this dredging does not occur, and if the Estuary or Hybrid Alternative is selected as the Preferred Alternative and is implemented, then additional sediment deposition from the project is not expected to significantly impact the Port of Olympia because navigation is already impaired.”

The DEIS contradicts this statement in several places, including in Attachment 6: Navigation Discipline Report and in the Executive Summary. For example, Table ES.2 Summary of Key Findings – Long-Term Impacts, Benefits, and Proposed Mitigation in the Executive Summary states the following with regard to navigation impacts related to the Estuary and Hybrid alternatives:

¹ <https://www.nws.usace.army.mil/Missions/Civil-Works/Navigation/>

L-6-4

The Navigation Discipline Report has been updated to include additional discussion to support the assumption of why dredging occurring in West Bay within the next 10 years (prior to the project) is anticipated. This information can also be reviewed in the dredging assumptions provided in the Global Response for Navigation. Key to this assumption is the fact that vessel navigation is already impacted by sediment accumulation and this accumulated sediment is contaminated and must be removed to restore health of the marine environment and to protect the health of fish and shellfish.

Based on coordination with the Port of Olympia, and recent action taken by the Port of Olympia to advance remedial design, it is assumed that dredging to remediate known contaminated sediment and restore authorized dredge depths in navigational areas of West Bay will occur within the next 10 years.

Completing the remediation of known contaminated sediments in West Bay before removal of the 5th Avenue Dam provides the following benefits.

It focuses the Port-led remediation on existing accumulated/contaminated sediment and avoids the need to remove additional sediment that will be deposited after the Estuary Alternative is constructed. This reduces the amount of contaminated sediment that must be remediated by the Port of Olympia.

Following construction of the Estuary Alternative, it allows maintenance dredging in West Bay to be paid for by shared federal, state and local funding, focused on removal of newly deposited sediment.

Newly deposited sediment is expected to be chemically and biologically suitable for in-water disposal.

Dredging sediment suitable for in-water disposal is easier to permit, less expensive to implement, and more certain to be completed.

3. It increases the likelihood of federal funding for future maintenance dredging in the federal navigation channel within West Bay.

L-6-5

Significance criteria for navigation defines impacts as significant if large vessels accessing the FNC and Port would be required to wait longer than four (4) hours for channel access due to water depth and low tide conditions caused by sediment deposition on more than one consecutive occasion, or over 10% of anticipated vessels would not be able to access leased moorage due to water depth caused by sediment deposition. The EIS assumes that both

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the Estuary and Hybrid Alternatives may have a significant impact, but that the impact can be reduced to less than significant with maintenance dredging and sediment monitoring.

If the implementation of a maintenance dredging program, currently proposed as part of the Estuary and Hybrid Alternatives, was not carried out, there would be an additional significant navigation impact to an area that is already impacted from existing conditions. Under existing conditions, relative to the significance criteria established in the EIS based on stakeholder coordination, navigation in the area is already significantly impacted. If needed dredging does not occur in West Bay before project construction, the area would continue to be significantly impacted.

Please see response to L-6-4 for more information on the assumed timing for remediation of known contaminated sediment in West Bay, which is expected to be complete in the next 10-years.

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L-6-5

"Navigational impacts from sediment deposition would be significant but could be reduced to less than significant if consistent funding is available for the long-term dredging program (with dredging estimated at a 6-year frequency), and with implementation of an annual sediment monitoring program to ensure that maintenance dredging is responsive to actual sediment deposition that is highly influenced by environmental conditions.

Pursuant to SEPA, the obligation to disclose, address, and mitigate impacts, particularly those created by a project action, is not negated by the existence of existing adverse conditions. The Port believes, in order to fulfill the purpose and intent of SEPA, the DEIS must assess the additional and cumulative impacts of the Estuary or Hybrid Alternatives on the navigation channel and turning basin should the assumed maintenance dredging not occur.

L-6-6

In addition to our concerns about the identified assumptions, above, we believe a more thorough investigation and analysis of the proposed mitigation measures related to sediment monitoring plans are needed prior to selection of a Preferred Alternative. Greater clarity and refinement of which party or parties would be responsible for ensuring identified monitoring plans are implemented, and how they will be funded, is needed to fully understand the durability of a Preferred Alternative decision.

L-6-7

The Port is requesting the assumptions, investigations and analyses related to any maintenance dredging that is to occur in West Bay, including the navigation channels and turning basin, be more fully vetted, with USACE engaged as a collaborative partner with jurisdiction and regulatory authority. Additionally, if either the Estuary or Hybrid option is selected as the Preferred Alternative, the Port requests maintenance dredging within West Bay, including to the full authorized depths in the Federal navigational channel and turning basin, be considered a prerequisite to and required component of construction to be accomplished prior to/commensurate with implementation of all other physical elements of the applicable alternatives. We are requesting the costs of performing the maintenance dredging be more thoroughly investigated, analyzed, and incorporated into the alternatives analysis prior to selecting a Preferred Alternative. Furthermore, a specific funding strategy, along with commitments to provide resources from identified funding partners, needs to be described.

Federal Permitting

L-6-8

Chapter 9 of the DEIS provides a comprehensive listing of the various permits required by Federal, State and Local government agencies, and acknowledges the process of obtaining permits and approvals will be complex and time consuming for all alternatives. There also appears to be additional information provided in the various discipline reports describing some permits in more detail, as they may be pertinent to the specific discussion in those reports. However, a comprehensive regulatory assessment of each alternative has not been provided in the DEIS to demonstrate whether the alternatives, as envisioned, are consistent with the various applicable regulations. Without this assessment, it is difficult to evaluate the probability of securing the numerous permits required, particularly from the Federal agencies that haven't been proactively involved in development of the DEIS. For example, USACE is required to conduct a Section 408 review on any project with the potential to alter or impact a Federal civil works project, which includes the navigation channel and turning basin in West Bay. If some component of the DEIS alternatives is determined by USACE to negatively impair the function of the navigation channel or turning basin, significant changes would have to be made to that project before it could be authorized to proceed.

L-6-6

The navigation analysis has been updated in Section 4.2 of Final EIS Supporting Chapter 4.0 and the Navigation Discipline Report (Attachment 6) with additional information on potential impacts if maintenance dredging is delayed or does not occur.

The analysis describes that within approximately 10-12 years post-construction, larger heavier commercial vessels calling at the Port of Olympia could be required to wait up to 4 hours for channel access due to water depth and low tide conditions. Wait times could increase if maintenance dredging is delayed further than approximately 10-12 years and operations may require adjustment. However, within the project time horizon, the port vessel berths would not be fully precluded from use but convenience and use of the south berth would be impacted, and this could increase Port operation costs affiliated with this berth.

Please refer to Attachment 23 of the Final EIS for a Memorandum of Understanding that outlines the proposed governance responsibilities after project construction, and the shared funding approach for maintenance dredging.

L-6-7

Dredging in West Bay before implementation of the Capitol Lake - Deschutes Estuary Long-Term Management Project is the responsibility of the Port of Olympia and other potentially liable parties. Dredging is needed to address existing sediment contamination. This sediment contamination has resulted in deferred maintenance dredging, and deferred maintenance dredging has resulted in impacts to navigational uses. As indicated by the Port of Olympia, cargo vessels are currently known to lighten their loads when calling at the Port of Olympia due to existing sediment accumulation. The private marinas have also described existing shoaling within their slips that impacts vessel access. These conditions exist absent of the Capitol Lake - Deschutes Estuary Long-Term Management Project.

The Final EIS has been updated to better describe that dredging is needed in West Bay before removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives. Through coordination with the Port of Olympia following the Draft EIS, and based on actions taken by the Port of Olympia to move toward remedial and dredging design by the mid-2020s, it continues to be reasonable to assume that the dredging to restore authorized depths would occur before removal of the 5th Avenue Dam.

In early 2022, the EIS Project Team met with the Port of Olympia and USACE to further discuss these assumptions, Draft EIS findings and the proposed

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approach and timing of sediment management that would occur in West Bay as part of the project. During these meetings, the USACE confirmed its responsibility for maintenance dredging in the federal navigation channel after known contaminated sediment is removed. Please refer to the Global Responses for Navigation for additional detail on this coordination.

Please also see Final EIS Supporting Chapter 7.0 for a description of an agreement among members of the Funding and Governance Work Group for shared funding to dredge the increased sediment above existing conditions under the Estuary and Hybrid Alternatives. This agreement assumes that navigational depths would be restored in West Bay prior to removal of the 5th Avenue Dam. The term of this agreement is anticipated through 2050, with opportunity for extension.

L-6-8

During development of the Draft EIS, Enterprise Services engaged the Technical Work Group to review regulatory feasibility of the action alternatives. Their ongoing engagement through development of the Draft EIS allowed Enterprise Services and the EIS Project Team to collect input as the scope of the EIS was developed, as technical methodologies and project alternatives were established. This engagement also helped Enterprise Services and the EIS Project Team to avoid assumptions that are not consistent with agency guidance and avoid project components that would not be approved by the agencies.

The Technical Work Group is comprised of technical staff from the following local and state agencies.

- City of Olympia
- City of Tumwater
- LOTT Clean Water Alliance
- Port of Olympia
- Squaxin Island Tribe
- Thurston County
- Washington Department of Fish and Wildlife
- Washington State Department of Archaeology and Historic Preservation
- Washington State Department of Ecology
- Washington State Department of Enterprise Services

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- Washington State Department of Natural Resources
- U.S. Army Corps of Engineers, ad hoc

The USACE did participate in the regulatory feasibility review of the action alternatives; this is documented in Final EIS Supporting Chapter 8.0 and in meeting notes posted to the project website. In these meetings, the change to sediment conditions in West Bay was described; maintenance dredging was proposed to avoid significant impacts to navigation; and historic dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary was acknowledged. In response to comments on the Draft EIS, Enterprise Services met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, Enterprise Services also described that the Estuary Alternative would restore sediment loading, similar to conditions that existed before the 5th Avenue Dam was constructed. For many decades before 5th Avenue Dam construction, the USACE dredged the federal navigation channel to support commercial navigation at the Port of Olympia. Formal engagement with the Corps will occur during the design and permitting phase, which will occur following issuance of the Final EIS pending funding availability.

L-6

COMMENT

RESPONSE

L-6-9

Existing environmental conditions and environmental regulations prohibit sediment from the Managed Lake from being disposed of in-water disposal due to the presence of the New Zealand mudsnail. However, in response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative. Environmental conditions and/or environmental regulations would have to change for the sediment to be considered suitable for in-water disposal. Dredging would not occur sooner than the 2050s under the Managed Lake Alternative, and conditions could change in that time, although there is no current indication of changes in that direction.

It is assumed that the sediment removed during maintenance dredging in the Estuary and Hybrid Alternatives would be disposed at an allowable in-water location within the Puget Sound. This assumption is based on the suitable chemical quality of the Deschutes River sediment, which was sampled as part of the EIS analysis to get a representative understanding of sediment quality. The Deschutes River sediment would be naturally deposited in West Bay under the Estuary and Hybrid Alternatives and removed during recurring dredge events to avoid significant impacts to navigation and to maintain a working waterfront and recreational boating. Because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for freshwater aquatic invasive species persistence in deeper waters where dredging would occur. To evaluate the validity of this assumption, a survey was conducted for the Final EIS to determine whether New Zealand mudsnail have established in Budd Inlet, given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnail were found during this survey.

Before future dredge events, sampling for chemical quality and invasive species would occur to confirm suitability of the dredged material for in-water disposal. This dredging would happen decades into the future and there is inherent uncertainty in the quality of future dredged material; as such, planning-level cost estimates are provided for both in-water and upland disposal. Both of these disposal options may be used during future dredge events; this is disclosed throughout the Draft EIS and Final EIS.

Enterprise Services will continue to engage with state and federal agencies, consistent with engagement through the EIS process.

L-6-8

The Port is requesting additional investigation and collaboration with all Federal, State and Local Government permitting agencies, including USACE, be conducted to complete a regulatory assessment of the various alternatives prior to selecting the Preferred Alternative, to better understand the feasibility of implementation. As mentioned earlier in this letter, without a thorough regulatory assessment, we do not believe the statement, "...all three action alternatives are feasible from a technical and regulatory perspective (i.e., they have been screened for potential limitations that would make them impossible to permit, construct, or manage.)" is accurate.

Sediment Management

Sediment management is identified in Chapter 7 as the project component with the greatest influence on planning-level construction cost estimates, across all three alternatives. As such, the Port is requesting additional, specific analysis - and consistent application - of all sediment management assumptions to bring greater understanding and transparency to this significant cost component. Specifically, we would like to see more investigation and analysis related to the different dredge disposal assumptions (for both construction and maintenance dredge activities) for all three alternatives. This additional work needs to include detailed and substantive discussions with the State and Federal agencies that regulate and permit dredge disposal.

L-6-9

We believe it is imperative the assumptions related to dredge material contamination and invasive aquatic species, for example, are more fully analyzed and consistently applied to the overall alternatives analysis. Because of the significant cost implications to all three alternatives, it is vitally important to ensure these assumptions are complete and defensible, from both an environmental remediation and clean up perspective, and from an economic one. The cost variant between upland and in-water dredge disposal methods is substantial, and assumptions as to which disposal methods will be required for the various alternatives needs to be consistently evaluated and applied. As such, the Port is requesting each of the alternatives be evaluated based on cost estimates considerate of both upland and in-water disposal of dredge materials.

Mitigation Implementation

The Port has participated on the Funding & Governance Work Group throughout the development of the DEIS, and agrees that an Interlocal Agreement model is well-suited for on-going, long-term management of this important community asset. We are requesting further investigation, analysis and collaboration among the potential participants in this governance model occur before a Preferred Alternative is selected. Development of a near-final draft Interlocal Agreement will demonstrate an on-going commitment to long-term management and funding by the parties to the agreement. It will also bring greater clarity and transparency to the alternatives analysis, particularly related to the viability of the alternatives requiring this governance structure, prior to selecting the Preferred Alternative. As stated in the DEIS, "Further delay in decision-making is not acceptable to the range of engaged stakeholders." (page 1-18). Without a clear management structure and demonstrated commitment from the parties that may be charged with long-term management and funding, the Port is concerned the feasibility of the alternatives reliant on entities other than the State of Washington may be in jeopardy.

L-6-10

L-6

COMMENT

RESPONSE

L-6-10 SEPA gives the lead agency wide discretion with regard to when and how to identify a Preferred Alternative. The Preferred Alternative can be identified at any time in the EIS process; and, early designation of a Preferred Alternative in no way restricts the lead agency's final decision.

Enterprise Services identified the Estuary Alternative as the likely Preferred Alternative in early 2022 based on an evaluation of the alternatives against decision-making criteria. Identifying the likely Preferred Alternative allowed the Funding and Governance Work Group to reconvene and consider how to provide shared funding and governance for long-term management. Enterprise Services described in early 2022 at this milestone, that if long-term funding and governance cannot be established, decision-making may need to be revisited.

The Funding and Governance Work Group has met continuously throughout 2022 to advance the agreement for shared funding and governance for long-term management. A Memorandum of Understanding has been developed to outline areas of agreement, and to demonstrate an ongoing commitment to long-term management and funding, as indicated in this comment.

Please refer to Final EIS Supporting Chapter 7.0 for a summary of the agreement reached regarding shared funding and governance of long-term management.

L-6

COMMENT

RESPONSE

L-6-11	<p>Recreation Access</p> <p>The Port is concerned the DEIS may be incomplete in its analysis and consideration of certain types of water dependent recreation, including from a social justice and equity perspective. For example, swimming in Capitol Lake has been an activity that has been enjoyed by the community in the past. It is an activity that has been widely accessible to people, regardless of income level. Currently, the DEIS indicates swimming isn't a responsibility of DES, so it isn't addressed. By comparison, kayaking is also an important activity that can occur regardless of the alternative selected. However, because of the equipment costs involved, it isn't necessarily accessible to people of all incomes. Kayaking also doesn't come under the purview of DES, but it is identified and considered as an activity to be accommodated. The Port is requesting impacts to all forms of recreation, including those that limit swimming, as well as potential mitigation measures to address those impacts, be identified and evaluated prior to selection of a Preferred Alternative.</p>	<p>L-6-11 Regarding future opportunities for swimming and how that is addressed in the Final EIS, see the Global Response for Land Use, Shorelines, and Recreation. Swimming requires formal facilities, water quality monitoring and oversight; these are not required to allow kayaking in the Project Area.</p>
	<p>Clarification</p> <p>The Port would like to take this opportunity to correct the following statement in Attachment 6 Navigation Discipline Report, page 4-6, Section 4.2.2:</p> <p><i>"The Port has indicated they would like to welcome Panamax and Neopanamax vessels (ships designed to the dimensions necessary to pass through the Panama Canal) to their berths, which could require berth deepening and widening (not presently included in the Port's near future planning documents)."</i></p>	<p>Regarding the request to consider impacts to all forms of recreation, the SEPA analysis considers changes relative to existing conditions. In this framework, all action alternatives result in a substantial benefit to recreation given the restored ability for active use of the waterbody that is prohibited today. Recreational impacts are not anticipated as a result of project operation, though there would be differences in the types of recreation supported, as described in the Land Use, Shorelines and Recreation Discipline Report.</p> <p>Refer to Attachment 21 for additional detail on the range of information that was considered in the process to identify a Preferred Alternative.</p>
	<p>In response to an inquiry from the DEIS technical team regarding the Port's long-term plans for the berth and turning basin related to accommodating different types of vessels, the Port replied: <i>Ideally, the Port would like the ability to berth partial panamax and neopanamax vessels that can maximize their laden drafts above the limitations we see today. The choke point for vessels in Olympia is based on transit and turning basin depths (emphasis added).</i></p>	<p>L-6-12 The reference has been fixed to reflect partially loaded panamax rather than large Panamax ships. Projected vessel type is based on ongoing coordination with the Port through the EIS process and their planning documents.</p>
L-6-12	<p>The above statement has been incorrectly interpreted as a desire to welcome full panamax or neopanamax vessels, which would require berth deepening or widening beyond current authorization.</p> <p>The Port of Olympia could currently accommodate a partially loaded panamax. In 2016, the M/V DN Vatan with a beam of 105' and DWT of 58,000 tons discharged at the Port of Olympia. It had to arrive partially loaded to make the draft. The final determination of timing safe transit through Budd Inlet and alongside at the Port of Olympia lies with the Puget Sound Pilots who have the latest bathymetry data of the channels, turning basin, and alongside at the berth.</p> <p>It is correctly noted that the Port's future planning documents do not contemplate berth deepening or widening beyond the current authorization. With this letter, we are confirming there has been no investigation, discussion or consideration related to seeking to increase the depth or width authorized for the Port's berthing area. We understand the DEIS does not assume an increase in the berth depth or width, and we would appreciate a correction to the Navigation Discipline Report to more accurately reflect the Port's currently adopted planning documents.</p>	<p>L-6-13 In response to this comment, Enterprise Services has facilitated additional coordination with the Port of Olympia, including the US Army Corps of Engineers as needed. This coordination has supported development of the Final EIS and the Memorandum of Understanding, which outlines an approach to provide shared funding for maintenance dredging under the Estuary Alternative. Enterprise Services intends to continue meaningful engagement with the Port of Olympia after the Final EIS, in the work to transition the Memorandum of Understanding into an Interlocal Agreement, and as needed to coordinate the Capitol Lake - Deschutes Estuary Long-Term Management Project with remedial actions being led by the Port of Olympia in West Bay.</p>
L-6-13	<p>Conclusion</p> <p>In conclusion, the Port of Olympia requests the additional investigations, analyses and</p>	

L-6

COMMENT

RESPONSE

L-6-13

collaborative discussions with regulatory agencies, particularly USACE, outlined in our comments above be completed prior to selection of a Preferred Alternative. We are committed to helping complete these requested additional tasks as may be appropriate, and to working with our community partners to resolve this complex community challenge and establish, finally, an actionable path forward toward a Capitol Lake-Deschutes Estuary Long-Term Management Plan.

Sincerely,



Joe Downing, President
Port of Olympia Board of Commissioners

L-7

COMMENT

RESPONSE

L-7-1	<p>The WRIA 13 Salmon Habitat Recovery Lead Entity (Lead Entity) supports the restoration of the estuary to the Deschutes River. The committee is responsible under RCW 77.85 to bring together tribes, municipalities, state and federal agencies, non-profits, and citizens to make science-based decisions on where to conserve and protect salmon habitat in South Puget Sound. The Lead Entity ranks projects annually, then submits them for funding through the Salmon Recovery Funding Board.</p> <p>South Puget Sound is a nursery for young salmon to rear, particularly Chinook salmon. Chinook salmon from watersheds throughout Puget Sound travel south to grow in the many small pocket estuaries in South Sound before heading out to the ocean. While these small pocket estuaries are crucial to salmon, the large estuaries present at the mouths of the big rivers throughout Puget Sound are essential the species survival.</p> <p>In addition to providing much needed estuary habitat, the restoration of the Deschutes River estuary will allow for sediment carried down the river to move into Budd Inlet and beyond, replenishing the beaches. This sediment provides places adjacent the shoreline for forage fish, such as surf smelt and sand lance, to spawn. These smaller fish are food for salmon at all of their life stages.</p> <p>The WRIA 13 Lead Entity is very supportive of the estuary restoration alternative.</p>	L-7-1 Comment noted; please also see the Global Response for the Preferred Alternative Identification Process.
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Responses to Comments from Tribes

T-1

COMMENT

RESPONSE

T-1-1 Restoring the Deschutes River estuary is the only ecologically sound option. A restored estuary will address the invasive species problem and provide critical habitat needed to recover salmon runs to the river and other nearby drainages. It is also the most cost effective option. Supplanting the natural estuary with an artificial lake was a failed experiment. It is now time to correct this shortsighted mistake.

T-1-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.


T-2

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Squaxin Island Tribe comment DEIS

Subject: **Squaxin Island Tribe comment DEIS**
 From: Scott Steltzner <ssteltzner@squaxin.us>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-27 19:11




- DEIS comments Squaxin Island Tribe - signed.pdf(~794 KB)
- Squaxin Island Tribe DEIS Comment Spreadsheet.xlsx(~21 KB)

Attached are comments from the Squaxin Island Tribe concerning the draft Environmental Impact Statement for the Capitol Lake-Deschutes Estuary planning project.

Please let me know if you have any questions.

Thank you, Scott



Scott Steltzner
 Fisheries Biologist
 Squaxin Island Tribe
 Natural Resources

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 Shelton, WA 98584

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T-2

COMMENT

RESPONSE

T-2-1

Enterprise Services appreciates the Squaxin Island Tribe's detailed review of the Draft EIS, and the continued collaboration on the Capitol Lake - Deschutes Estuary Long-Term Management Project. Please see responses to specific comments.



SQUAXIN ISLAND TRIBE

August 26, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-1476

Re: Capitol Lake – Deschutes Estuary Draft EIS comments

To Whom It May Concern:

The Squaxin Island Tribe appreciates the opportunity to review the draft environmental impact statement (DEIS) for the Capitol Lake-Deschutes Estuary Long-Term Management Project. We commend the Department of Enterprise Services and the consultant team for gathering and analyzing an impressive amount of data.

The Squaxin Island Tribe is descended from maritime people who have lived and prospered along the shores of the southernmost inlets of the Salish Sea for millennia. Their leaders signed the Medicine Creek Treaty with the U.S. Government in 1854, reserving the right to hunt, gather and fish at all usual and accustomed places. Tribal members continue to this day to exercise their Treaty rights for subsistence, ceremonial and commercial purposes. The original reservation was established on Squaxin Island in the center of the South Salish Sea. The Usual and accustomed fishing area has been recognized in federal court proceedings and encompasses all the waters south of the Tacoma Narrows, including the seven southern inlets—Case Inlet, Hammersley Inlet/Oakland Bay, Totten/Little Skookum Inlet, Eld Inlet, Budd Inlet, Henderson Inlet, and Carr Inlet. The Steh-Chas people were the occupants of the Budd Inlet area into which the Deschutes River drains.

The Tribe has for many years advocated for the restoration of an estuary environment. It is quite clear from the available information that an estuary would be better for fish, better for water quality, function better as an ecosystem, and be better for the culture and lifeways of the Squaxin Island Tribe. We believe that the information presented in this DEIS supports this concept, even though it is presented in such a way as to downplay information that would support an obvious conclusion.

The Department of Enterprise Services has done a remarkable job of appearing neutral in this effort to evaluate future management options for the mouth of the Deschutes River, even going so far as to decline to identify a preferred alternative for the DEIS. However, as we shall point out, this perceived neutrality has resulted in a skewed representation of the facts and how they would influence the selection of a preferred management option.

The Tribe submits the following comments on the DEIS and its implications for the Squaxin Island Tribe.

T-2-1

T-2

COMMENT

RESPONSE

	Water Quality	COMMENT	RESPONSE
T-2-2	<p>The water quality report does not present an objective analysis that is useful in comparing the proposed options. The report downplays the extensive work done by the Department of Ecology over many years that was vetted by multiple technical teams and went through an exhaustive public peer-review process. The report also does not incorporate an appropriate study area to truly gauge the impact of management actions on Budd Inlet water quality. Additionally, the report makes inappropriate comparisons to other bodies of water to show that Capitol Lake has "good" water quality.</p>	T-2-2	<p>Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report; the ability of the alternatives to meet water quality standards; and the description of water quality in Capitol Lake as "good."</p>
T-2-3	<ul style="list-style-type: none"> The document characterizes the existing body of water and the managed option as a lake. However, due to flow and residency time, this body of water has been designated as a river associated with the Deschutes. This is a regulatory description; it is not open for interpretation. All analysis and comparisons should proceed as having to meet river water quality standards. 	T-2-3	<p>he Water Quality Discipline Report (Attachment 7) describes that the detention time for water in the Capitol Lake Basin range from 0.6-7.9 days. A waterbody with a mean detention time greater than 15 days is treated as a lake for use designation. By definition, Capitol Lake is classified as a river and held to the applicable water quality criteria.</p>
T-2-4	<ul style="list-style-type: none"> The comparison of Capitol Lake to other lakes in Thurston County makes no sense. The body of water has to meet river water quality standards, not those of a lake. No other lake in Thurston County has a large river flowing into and through it. This makes any comparison inappropriate. 		<p>One of the complexities of the existing condition is that Capitol Lake has many lake-like attributes and those attributes (e.g., increased productivity) are the cause of concern, but it has been defined as a river based on flow dynamics. Regardless of regulatory definitions, Capitol Lake is viewed as a lake by local residents, and the EIS includes multiple alternatives that would retain the system in a "lake-like" condition.</p>
T-2-5	<ul style="list-style-type: none"> The DEIS compares lower Budd Inlet water quality to that of other unnamed inlets in South Sound. This is an inappropriate comparison as Budd is unique in that it is the only South Sound inlet to have a river system flowing into it; all of the rest are associated with small streams. The influence from a river likely has measurable effects on circulation and dissolved oxygen, along with other water quality parameters, that are not present in inlets with streams. 		<p>Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7) have been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards and TMDL allocations.</p>
T-2-6	<ul style="list-style-type: none"> The DEIS appears to favor the analysis performed by the consultant over the TMDL administered by the Washington Department of Ecology. The TMDL represents an almost decade-long effort that underwent review by Ecology, local technical teams, and a rigorous and public peer-review process by outside nationally recognized experts. If there is a perceived discrepancy between Ecology and the consultant, deference should be given to the Ecology process. 	T-2-4	<p>Please see the Global Response for Water Quality for clarification around the comparison of Capitol Lake to other area lakes.</p>
T-2-7	<ul style="list-style-type: none"> The Tribe appreciates the field data collection that was done as part of the EIS. This provided valuable environmental information. However, this effort only represents one year of monitoring, and this occurred during an extensive cleanup effort due to the transformer oil spill from the Olympia Brewery. Information gathered during this period should be evaluated in this context. 	T-2-5	<p>Please see response to Comment O-13-5.</p>
T-2-8	<ul style="list-style-type: none"> The DEIS, for the most part, only considers water quality impacts to West Bay. The document does mention some other water quality stations outside of West Bay; however, the write-up is inconsistent and confusing. As was done in the Aquatic Invasive 	T-2-6	<p>See the Global Response for Water Quality for more information on use of the 2015 Ecology Water Quality Improvement Report, and regarding updates in the Final EIS related to compliance with water quality standards and TMDL allocations.</p>
		T-2-7	<p>With regard to the influence of the transformer and sewer spills on 2019 data, with the exception of phosphorus, all of the parameters were within the same range in 2019 as in the earlier period and were considered to be acceptable to use in the analysis. Further, the spills would be expected to increase the concentration of these parameters; therefore, if the concentrations in 2019</p>

T-2

COMMENT

RESPONSE

had been biased by the spill, they would have been biased toward indicating poorer conditions in the lake. To support the EIS analysis, additional data was collected in 2021 and the Water Quality Discipline Report has been updated with these data. The lake data collected in 2021 were similar to the 2019 data for those parameters that were not qualified, which further confirms that the concentrations measured in 2019 (for all but phosphorus) are acceptable.

T-2-8

Please see the Global Response for Water Quality for clarification on the study area for the water quality analysis.

T-2

		COMMENT	RESPONSE
T-2-8	<p>Species Report, the study area should be expanded to encompass areas most impacted by existing conditions or changes proposed under different management options. We suggest including all of Budd Inlet to Dofflemeyer Point. Alternatively, at a minimum, the analysis area should include the lower Inlet to the line where the regulatory water quality standards change for dissolved oxygen.</p>	T-2-9	Please see response to Comment S-4-9.
T-2-9	<ul style="list-style-type: none"> The water quality report gives little consideration to Budd Inlet water quality impacts from the existing lake or the managed lake option. Characterizing the existing or managed lake as resulting in "no changes to water quality" is disingenuous. The existing condition is currently causing water quality violations that must be remedied. Any management action chosen should not continue or contribute to future water quality violations. 	T-2-10	<p>Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7) have been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards and TMDL allocations.</p> <p>The water quality analysis describes that Ecology has not modeled the Hybrid Alternative, and has not determined if this alternative would result in continued dissolved oxygen depletion in West Bay. Determining compliance with water quality standards would require mechanistic modeling. The Hybrid Alternative has unknown consistency with the recent TMDL allocations and water quality standards in the Project Area.</p>
T-2-10	<ul style="list-style-type: none"> There is not enough information on the water quality impacts from the dual basin option to make any kind of an informed opinion. The presence of a large impoundment with limited circulation will likely have profound effects on Budd Inlet water quality. 	T-2-11	This response acknowledges the commenter’s position.
T-2-11	<p>Fish and Wildlife</p> <p>The DEIS generally does a good job analyzing impacts on fish and wildlife species. However, the document does not acknowledge that the managed lake alternative essentially maintains the status quo in regards to species abundance and health by only improving a few categories and only by minor amounts. This is not acceptable. We need to be aggressively pursuing the recovery and restoration of fish and wildlife to achieve Tribal, Federal, and State recovery goals. As clearly outlined in the document, the estuary restoration is the only alternative that allows for substantial beneficial improvements to fish and wildlife populations.</p>	T-2-12	See response to Comment T-2-36.
T-2-12	<ul style="list-style-type: none"> The current lake configuration promotes concentrations of harbor seals at the fish ladder on the fifth avenue dam. These seals are a significant source of predation on returning adult salmonids and a nuisance to Tribal fishermen in lower Budd Inlet. The Tribe is concerned that this predation choke point will continue for the managed lake option or be transferred to the tide gates of the dual basin option. The document includes a detailed definition of Nuisance Species. Harbor seals fit this definition. They should be added to the list, and salmonid predation and harassment analyzed for each of the options. 	T-2-13	<p>A clarifying sentence was added in Section 3.5 of Final EIS Supporting Chapter 3.0 and in Section 5.5.1.2 of the Fish and Wildlife Discipline Report (Attachment 9) that under existing conditions, juvenile passage may be impeded by the fish ladder. The analysis also considered (qualitatively) fish passage for the Hybrid Alternative.</p>
T-2-13	<ul style="list-style-type: none"> The DEIS states that the existing fish ladder is considered passable by the State of Washington and is not a barrier. While this may be true for adult salmonids, it is not for juveniles. The fish ladder represents a barrier to migration for multiple fish species. Impacts should be analyzed for the various scenarios, including the proposed tide gates of the dual basin option. 		

T-2

COMMENT

RESPONSE

T-2-14

- The DEIS includes no analysis of the fish entrapment problems presented by the dual basin option. Juvenile and adult fish will likely enter the reflecting basin when the tide gates are open. These fish will face unknown water quality issues and be a target for predation. This is akin to the existing West Bay trestle basin, where fish become entrapped and are subject to concentrated bird and mammal predation and harassment.

T-2-15

- There is no discussion of the likelihood of the constructability of the proposed tide gates for the dual basin option. What is the likelihood that permitting agencies will allow for new structures that impede fish passage?

Sediment Management

The presentation of information regarding sediment management is confusing. In part, this is due to the fact that it is divided up into different sections rather than be presented as a coherent whole. There is one section concerning the condition and quality of sediments in the existing lake basin and how they would be managed under different schemes. There is an entirely different section that addresses the sediments, present and future, that occur in the marine environment of Budd Inlet. While these are indeed two separate pieces of the puzzle, the information is not woven together in a coherent fashion that supports decision making. One is left with questions about what true options exist. Is sediment eligible for open water disposal or not? It depends according to this analysis.

T-2-16

The DEIS generally does a good job of characterizing the erosional and depositional patterns of sediment movement within the basin. It makes clear that the best mitigation for these effects of returning the system to an estuary environment is a regular maintenance dredging program in West Bay to sustain the boating and shipping activities that are currently supported. Even though the current lake basin acts as a sediment trap, it too shall eventually fill and transfer sediment to the marine environment necessitating a dredging program. It only delays the inevitable of a dredging program, which is commonplace where marine infrastructure is located at the mouths of rivers.

We would like to see a better analysis of the beneficial use of dredge materials. While there is contemplation of moving sediment material within the existing basin footprint, it may also be possible to use material north of the dam location along the shorelines that have been deprived of a sediment source for many decades. Specific work has been performed to evaluate shoreline restoration activities along the western shore of West Bay.

Much remains to be learned about the quality of dredge spoils to be removed from the lake basin. There is reason to believe there may be both biological and chemical contamination in some of those sediments. The implications of invasive plants and animals are likely to have an effect on beneficial uses and disposal options.

T-2-14

In the Final EIS, the Hybrid Alternative has been revised to include a groundwater-fed freshwater pool. As a result, the barrier wall would no longer include tide gates.

T-2-15

Based on comments received on the Draft EIS, the Hybrid Alternative has been modified to include a freshwater reflecting pool that would not require tide gates. Please see Hybrid Alternative Global Response for additional detail.

T-2-16

All action alternatives assume complete or majority beneficial reuse of the sediment that is dredged during construction. The sediment would be reused to construct the proposed habitat areas. Beneficially reusing this material onsite results in a significant cost savings for the project. It is also considered acceptable because the sediment would remain within the same system that it currently exists, and the known aquatic invasive species in those sediment would not be spread to new aquatic sites.

In response to this comment, additional text has been added to Section 2.3.1.2 of Final EIS Supporting Chapter 2.0 to note that the project should evaluate whether sediment could be beneficially reused, especially in areas that have been deprived of sediment, like the western shore of West Bay.

Additional content has also been added throughout the Final EIS to increase clarity on the assumption that sediment in Capitol Lake does not require cleanup relative to applicable standards, based on sampling conducted for the project. Text has also been added to note that dredging and remediation of known contaminated sediment is expected to occur in West Bay before removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives.

T-2

COMMENT

RESPONSE

T-2-17

Treaty Rights

The Squaxin Island Tribe was signatory to the Treaty of Medicine Creek with the United States government in 1854 before Washington was a state. This treaty reserved rights by the Tribe, some of which have been litigated in U.S. v Washington and known as the Boldt decision. Federal agencies and arguably the state government are bound by a trust responsibility to uphold and protect these reserved rights. The Squaxin Island Tribe holds exclusive rights to Usual and Accustomed fishing stations in Budd Inlet. The DEIS should be revised to reflect this fact, which is inaccurately stated in the section on Fish and Wildlife.

Permitting authorities, like the Army Corps of Engineers administering Section 404 of the Clean Water Act are required to incorporate paramount protection of Tribal treaty rights when they evaluate actions for permitting. Accordingly, no action can be undertaken that impacts or undermines these protected rights. It is apparent that some of the contemplated actions are inconsistent with the protection of these reserved rights.

The DEIS does not effectively convey the magnitude of treaty rights protection. It should do a better job of considering the consequences of the various alternatives when weighing the likelihood of successful implementation. Treaty rights will be a major influence on a preferred alternative and on pursuing the necessary funding for long-term implementation.

Tribal staff have reviewed the document and will submit additional specific comments. The Squaxin Island Tribe looks forward to the completion of the EIS and the subsequent restoration of the Deschutes River estuary.

Sincerely,

Kristopher K. Peters
Kristopher K. Peters (Pug/06/2021) (4042151)

Kris Peters
Chairman
Squaxin Island Tribe

Natural Resources Department • 200 S.E. Billy Frank Jr. Way. • Shelton, WA 98584
Phone (360) 426-9781 • Fax (360) 426-3971

T-2-17

The EIS Project Team coordinated with the USACE to determine the tribes that they would notify (and/or consult with) for actions in the Project Area. During design and permitting of the project, Enterprise Services would engage the USACE and determine again the tribes that have Usual and Accustomed Fishing Rights in the Project Area. The USACE would initiate tribal consultation as appropriate and to support federal permitting processes.

EIS Supporting Chapter 7.0 describes that consultation with and concurrence from local area tribes is an important part of the process to obtain a Department of the Army Permit from the USACE necessary for in-water work, including construction and dredging. It goes on to state that the Managed Lake Alternative would have a continued impact on Usual and Accustomed Fishing Grounds and Stations, and on the Deschutes Estuary, which has religious and cultural significance. The Managed Lake Alternative would perpetuate historic inequities, particularly for tribal populations that have experienced ongoing adverse effects from changes to the ecosystem since non-Indigenous settlement of the region and continued loss of connection to the natural environment. Tribal populations would disproportionately experience adverse impacts from the Managed Lake Alternative, raising environmental justice concerns. The local area tribes have suggested that the Managed Lake Alternative would have a continued significant and unavoidable impact. This section has been updated to note that the Squaxin Island Tribe has stated that the Estuary Alternative is the only alternative that they support and that the Managed Lake Alternative would conflict with tribal treaty rights.

T-2

COMMENT






RESPONSE


DEIS comments Squaxin Island Tribe

Final Audit Report 2021-08-26

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COMMENT

RESPONSE

- T-2-18 Additional discussion of deep burial and preservation of archaeological sites has been included in Section 3.9 of Final EIS Supporting Chapter 3.0 and in Section 4.1.3 of the Cultural Resources Discipline Report (Attachment 13). Also, Table 4.3 of the discipline report has been updated to reflect archaeological sites discovered by others working on unassociated projects during and after the time the EIS Project Team prepared the Draft EIS.
- T-2-19 Field inventory refers broadly to assessing the presence or absence, and extent, of archaeological sites by various methods including, but not necessarily limited to: surface survey, shovel probing, auger probing, monitoring of geotechnical borings and test pits, and mechanical trenching.
- T-2-20 Section 5.9.6.1 of EIS Supporting Chapter 5.0 acknowledges that an Archaeological Site Alteration and Excavation Permit may be required. In response to this and other comments, Sections 3.9, 4.9 and 5.9 of Final EIS Supporting Chapters 3.0, 4.0 and 5.0, and the Cultural Resources Discipline Report, include revisions to clarify that the project could be subject to regulatory authorities under Section 106 and possibly EO 21-02.
- T-2-21 See Global Response on Cultural Resources regarding determinations of eligibility received from SHPO and DAHP.
- T-2-22 Regarding the request for an archaeological survey, see response to Comment I-779-9.
- T-2-23 Section 5.9.6.1 of Final EIS Supporting Chapter 5.0 and Section 5.7.1 of the Cultural Resources Discipline Report (Attachment 13) have been updated to acknowledge that any efforts to avoid, minimize, document and/or interpret impacts on cultural sites are predicated on an inventory/survey as a precursor.
- T-2-24 Understood. Note that the regulatory context for Cultural Resources has been revised in the Final EIS to clarify Section 106 and EO 21-02 authorities.
- T-2-25 As described in Sections 8.2 and 8.3 of EIS Supporting Chapter 8.0, representatives from the Squaxin Island Tribe have participated in Work Groups. In addition to having representatives on the three project Work Groups, the EIS Project Team did meet early on with the Squaxin Island Tribe to discuss the project and EIS effort, to get early feedback on the EIS analysis, and to request any information relevant to archaeological resources that may be present within the study area. During Draft EIS preparation, the EIS Project Team coordinated with Squaxin Island Tribe’s Cultural Resources Department’s Tribal Historic Preservation Officer (THPO) to understand if there are any Traditional Cultural Properties or areas of cultural significance in

DEIS-Capitol Lake-Attachment 13 Discipline Report Cultural Resources				
Comment Number	Page	Paragraph (Full)	Sentence	Comment
T-2-18	1	ES-2	3	General There is no discussion of ethno-historic and early historic subsurface cultural resources. From the work that has been conducted just north in the City of Olympia, we generally find cultural resources that are late pre-contact, ethno-historic, or early historic. In particular, the west bank of the Middle and Southern Basins study areas are highly likely to encounter ethno-historic and early historic cultural resources.
	2	ES-2	2	General What is meant by a field inventory? This is not clearly defined in the report.
T-2-19	3	ES-2	2	General While additional survey work is never a bad option, please understand that the Area of Potential Impact of this project could be different than the USACE Jurisdictional APE. This means that if you are relying on the USACE’s 106 process, parts of the project with ground disturbance may not be under the Section 106 Appendix C umbrella and would still be under State SEPA and EO 05-05 (EO 21-02). Meaning that the state will need obtain an excavation permit.
T-2-20	4	ES-2	3	General More information and evidence is needed before a historic district can designated. While we do think the earthen dam under 5th avenue could be a historic property under Criteria A and B, more information is needed to for a historic district. Additionally, the designation of a 1950s historic district could minimize the known precontact sites and the two nearby historic districts (City of Olympia and the City of Tumwater)
T-2-21	5 6	ES-3 to ES-6	Table	General From this department’s history working and reviewing projects in Olympia, we are generally opposed to monitoring until some level of inventory has been done. Generally, when sites are identified during monitoring, it usually leads to project delays. Additionally, monitoring only really works in Olympia when an inventory has been conducted and an understanding of the where the fill layer vs the natural sediments are in the project area. The current report does not identify the fill vs. natural sediments.
T-2-22	6 6	ES-3 to ES-6	Table	General There is a large assumption that all potential mitigation will be covered by the USACE’s Section 106 process. Please note that the USACE Area of Potential Effect is Jurisdictional in nature. Thus meaning, there is a possibility that some of the project may not be covered by the Section 106 process.
T-2-23	8	1-1	5	1 The Cultural Resource Department of the Squaxin Island Tribe (CRD) has had only one meeting with the DES that took place on 10/25/2019. Since then, the CRD has not been invited to any meetings regarding this EIS process or has had the DES reach out to us in regards to addresses sing our original concerns.
T-2-24	9	3-4	1	General There is almost no discussion regarding the pre-contact period or the Ste-Chass
T-2-25	10	3-4	1	General Due to the very high likelihood that cultural resources (Archaeological Resources) are within the project area, why was an archaeological inventory never conducted?

T-2

COMMENT

RESPONSE

the Project Area. The EIS Project Team also coordinated with the tribe’s fisheries group to obtain information in support of the EIS analysis. Further consultation with the tribe will take place during the design and permitting phase of the project.

T-2-24 See the Global Response for Cultural Resources.

T-2-25 See response to Comment I-779-9.

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T-2-26	11	4-5	2	General	While the report mentions the 1970s and 80s dredging, it briefly mentions the extensive dredging and filling activities that occurred in the 1890s. This dredging and filling covered up pre-contact, ethnohistoric, early historic sites under 3 to 9 feet of sediment in the Middle Basin, North Basin, and west bay areas. The development of the City of Olympia coincides with the burial of these cultural resources. It is critical that the report covers the historical development of the Cities of Olympia and Tumwater in detail in regards to the dredging and filling activities.
T-2-27	12	4-5	2	General	While that statement is generally accurate about the northern portion of the North Basin, also realize where the 1870s shore line connects to the modern shoreline or upper dry land area, the chances of encountering subsurface cultural resources are very high. This includes a little bit of heritage park, the western/south western half of Marathon Park, both shores of the middle and southern basins, and the western shore of the North Basin. Also due note, historically Bud Inlet and the Deschutes Estuary had extensive mudflats and the potential for buried intertidal cultural resources is high (fishing weirs etc.). Generally, the report should discuss this.
T-2-28	14	4-20	1	General	The document does not provide sufficient documentation/evidence to support creation of a Deschutes Basin Project Historic District. Nor does the site form. The creation of a historic district does require extensive evidence and consultation with consulting parties. The Cultural Resource Department of the Squaxin Island Tribe was never consulted on this.
T-2-29	15	4-27	General	General	Why is there no discussion about the known pre-contact sites located within study area?
T-2-30	16	5-9	General	General	The Full restoration of the Deschutes Estuary alternative does not take into consideration the possible benefits it would have on the two existing historic districts (restoration of setting to the historic districts).
T-2-31	17	5.3	General	General	Generally, this area can almost be identified as a cultural landscape due to the complex pre-contact and historic period activities that occurred. However, the report does not look at the study area cumulatively in regards to all known cultural resources. The report instead focuses on the post 1940s development of Capitol Lake and some of the nearby historic structures.
T-2-32	18	5.7.1.1	Bullet point 1	Bullet point 1	While shovel probing, auger probing, etc. are valid methods for shallow cultural resource investigations, based off of the history of dredging and filling in Olympia, the best way to identify these sites is to conduct deep trenching investigations. From our experience working in the sediment regime in the City of Olympia, archaeological monitoring does not work that well and normally causes larger project delays without some prior level of cultural resource investigation.
T-2-33	19	5.7.1.1	Bullet point 1	Bullet point 1	The first part of this bullet point implies that the DAHP has the final say of recommendations in regards to cultural resources. This completely leaves out the Tribes.

- T-2-26 Section 3.9.1 of Final EIS Supporting Chapter 3.0 and Section 4.1.3. of the Cultural Resources Discipline Report (Attachment 13) have been updated to describe the presence of fill, and its burial of archaeological sites.
- T-2-27 Section 4.1.3 of the Cultural Resources Discipline Report has been updated to provide additional discussion.
- T-2-28 See the Global Response for Cultural Resources.
- T-2-29 Table 4.3 of the Cultural Resources Discipline Report (Attachment 13) lists all recorded archaeological sites within the study area, including precontact sites, with brief descriptions. Section 3.9.1 of Final EIS Supporting Chapter 3.0 and Section 4.1.3 of the Cultural Resources Discipline Report have been updated to provide additional narrative.
- T-2-30 See the Global Response for Cultural Resources.
- T-2-31 See the Global Response for Cultural Resources.
- T-2-32 Section 3.9.1 of Final EIS Supporting Chapter 3.0 and Section 4.1.3. of the Cultural Resources Discipline Report (Attachment 13) have been updated to explicitly acknowledge the presence of deep fill in portions of the Project Area, and Section 5.9.6 of Final EIS Supporting Chapter 5.0 and Section 5.7.1.1. of the Discipline Report have been updated to acknowledge the potential need for deep mechanical trenching during archaeological survey. Precise methods and locations for archaeological survey would be determined through consultation with affected tribes, DAHP, and the lead agency.
- T-2-33 Sections 5.7.1 and 5.7.1.1 of the Cultural Resources Discipline Report (Attachment 13) discuss the role of affected tribes and consultation in regards to cultural resources. In response to this comment, the first bullet in Section 5.7.1.1 has been revised to clarify the role of affected tribes.

T-2

COMMENT

RESPONSE

T-2-34

	5.7.1.20	Bullet Points	General	<p>Why is this discussion of cultural resource methods under mitigation measures for construction? Under NHPA and EO 05-05, the mitigation is either through an agreement document (MOA or Excavation permits) that list stipulations after a cultural resource site has been found. These mitigation methods become agreed upon via consultation and are usually more in the realm of either data recovery or lab analysis. The cultural resource methods of investigation should be located in a methods discussion area and not directly tied with mitigation. This bullet point does imply that these methods will only be used after a cultural resource is identified after ground disturbance has occurred.</p>
T-2-35	5.7.1.21	Bullet point 5	Bullet point 5	<p>We are generally opposed to the development of MIDP (Monitoring and Inadvertent Discovery Plan) until after a cultural resource investigation is conducted. Generally, these sites are deeply buried (4 to 9 feet below the ground surface). This discussion should focus more on a discussion on cultural resource deep trench excavations with a flat bucket excavator conducting controlled excavation than mitigation and monitoring.</p>

T-2-34 In Section 5.7.1 of the Cultural Resources Discipline Report (Attachment 13), mitigation measures are defined as efforts to "avoid, minimize, document, and/or interpret" impacted resources. This use of "mitigation" is broader than that commonly used in cultural resources management under NHPA, in which mitigation is the process of resolving adverse effects. This section has been updated to explicitly acknowledge that cultural resources investigations occur as a precursor.

T-2-35 Section 5.9.6.1 of Final EIS Supporting Chapter 5.0 and Section 5.7.1.1 of the Cultural Resources Discipline Report (Attachment 13) discuss archaeological survey, and have been revised in response to comments to describe the potential for **mechanical trenching**, and archaeological site avoidance. If conducted following consultation under Section 106 and EO 21-02, it is anticipated that this investigation would be complete during project design and would inform project development of an MIDP, and that the MIDP would be implemented for project construction.

T-2

COMMENT

RESPONSE

T-2-36 The Washington Department of Fish and Wildlife is the state agency with authority to provide classification of species within Washington State. The harbor seal has been classified by WDFW as a priority species, specifically - a vulnerable aggregation, which includes species or groups of animals susceptible to significant population declines, within a specific area or statewide, by virtue of their inclination to aggregate.

For this reason, the EIS does not characterize or further analyze potential effects of or to harbor seals as a result of the project.

Information on the potential for predation on salmonids by marine mammals and other predators under existing conditions, as well as the changes that would occur under the alternatives was added to Section 4.5 of Final EIS Supporting Chapter 4.0 and Section 5.5.1.2 of the Fish & Wildlife Discipline Report.

T-2-37 In response to comments received on the Draft EIS, a survey was conducted along 21 sites around Budd Inlet, the mouth of streams, and other nearshore areas to evaluate whether New Zealand mudsnails have colonized Budd Inlet, given their discharge through the dam and tolerance to salt water. No New Zealand mudsnails were found during that survey (Johannes 2022).

There are several species of freshwater plant AIS and some freshwater animal AIS that have not been found in Capitol Lake that could colonize in the lake under the Managed Lake Alternative or the freshwater reflecting pool under the Hybrid Alternative. Brazilian elodea (*Egeria densa*) and the African clawed frog (*Xenopus laevis*) are examples of highly invasive aquatic species that have been found locally but are not yet confirmed in Capitol Lake. There are several invasive marine plant and animal species that have not been found in Budd Inlet but could expand into the Project Area in the future under the Estuary and Hybrid Alternatives.

All action alternatives would include decontamination stations to prevent the introduction of new aquatic invasive species, and to prevent the spread of known invasive species.

T-2-38 The 50 percent threshold for defining a substantial change in AIS abundance or distribution was selected as an approximate amount that would be measurable change given the naturally high seasonal and annual variance in populations. A value of 25 percent was considered too low to be statistically significant and a value of 100 percent, or doubling of the population, was considered too high of a threshold for defining substantial change.

DEIS-Capitol Lake-Attachment 13 Discipline Report Cultural Resources			
Comment Number	Page	Section	Comment
1	2-1		The document defines nuisance species as that "may be native or nonnative and may cause ecological and economic harm". Harbor seals, congregate at the bottom of the 5th avenue dam fish ladder. These seals harass, kill, and eat adult salmon returning to the Deschutes River. Harbor seals have been seen chasing salmon up through the fish ladder into Capitol Lake. This has a significant effect on salmonid survival. Harbor seals should be classified as a nuisance species and the proposed actions analyzed for effects on seals and subsequently salmon survival.

T-2-36

T-2-37

T-2-38

T-2-39

T-2

COMMENT

RESPONSE

Importantly, these significance criteria are developed as a tool to inform decision-makers and support the decision-making process.

T-2-39 Launching motorized boats directly into the lake basin would not be supported because of the type of hand-carried boat launch that is assumed. Motorized boat access from marine waters into the former lake basin may not be prevented for the Estuary and Hybrid Alternatives, but the low trestle bridge design for the new 5th Avenue Bridge would preclude this movement at most tidal elevations.

There is a low risk for marine motorboats contacting freshwater inputs where New Zealand mudsnails may persist under the Estuary and Hybrid Alternatives because of shallow depths at the nearshore inputs. In addition, it is unlikely that a New Zealand mudsnail attached to a marine motorboat would survive the transport from a freshwater input through estuary, into Budd Inlet and into another freshwater lake or river. Educational signs and decontamination stations would be installed at strategic locations to inform citizens of the New Zealand mudsnail threat and to prevent their spread.

T-2

COMMENT

RESPONSE

T-2-40 Please see the Global Responses for Water Quality regarding the comparison of Capitol Lake to other lakes in Thurston County.

The Water Quality Discipline Report (Attachment 7) describes that the detention time for water in the Capitol Lake Basin range from 0.6-7.9 days. A waterbody with a mean detention time greater than 15 days is treated as a lake for use designation. Therefore, by definition, Capitol Lake is classified as a river and held to the applicable water quality criteria.

Please see Section 3.1 of Final EIS Supporting Chapter 3.0 for additional discussion of the backflow that occurs into Capitol Lake under existing conditions.

T-2-41 Thank you for your comment. This information has been clarified in Section 3.5.1.2 of Final EIS Supporting Chapter 3.0.

T-2-42 Potential fish use was primarily based on Hayes et al. 2008. This report indicated that freshwater western brook lamprey were identified during the 1996-1997 drawdown surveys for fish in Capitol Lake (Entranco 1997), but no Pacific lamprey were noted.

T-2-43 Thank for the comment. This has been corrected in the Final EIS.

T-2-44 This was the lowest flow reported in the 74 years of stream flow data reviewed.

T-2-45 Please see the Hydrodynamics and Sediment Transport Discipline Report (see Section 2.10 in Attachment 5) for more information on channel migration.

T-2-46 As described in Section 3.3.3.1 of EIS Supporting Chapter 3.0, comparing water quality data from 2010 through 2014 with state surface water quality standards (WAC 173-201A) indicates that the lake occasionally does not meet standards for temperature. A detailed description of water quality is provided in the Water Quality Discipline Report (Attachment 7).

Additional text on estuary function, including use of estuaries by non-natal juvenile salmonids, was added to Section 5.5.1.2 of the Fish and Wildlife Discipline Report (Attachment 9).

T-2-47 The preferred prey items for both resident and transient killer whales were corrected in Section 4.2.1.4 of the Fish and Wildlife Discipline Report (Attachment 9).

DEIS-Capitol Lake-Attachment 13 Discipline Report Cultural Resources				
Comment Number	Page	Section		Comment
1			Global	The existing impoundment does not really meet the definition of a freshwater lake. Due to flows from the river and short water retention times, the Department of Ecology classifies it as a river and requires that the area meet river water quality standards. Additionally, at high tides, saltwater enters what is called Capitol Lake through the dam.
2	4-7	4.1.1		The hatchery release information is incorrect. Limited releases of coho into the upper watershed are continuing.
3	4-9	4.1.1		The hatchery release information is incorrect. Limited releases of coho into the upper watershed are continuing.
4	Table 4-4			Should the lamprey be Pacific and not Western Brook?
5	4-12	4.1.3.1		Did you mean WRIA 13 and not 14?
6	4-15	4.1.3.1		Is 1 cfs measured the Tumwater gauge correct? This seems far too low. Can you elaborate how channel migration cause sediment deposition in just the South Basin?
7	4-16	4.1.3.2		Does the "Lake" meet required river standards for temperature?
8	4-17	4.1.3.2		Juvenile salmon have been found in South Sound and Budd Inlet from further north than the Green River. Salmon from as far north as the Wallace River have been recorded. Personal communication, Scott Steltzner, Squaxin Island Tribe, Natural Resources Department.
9	4-21	4.1.3.3		As noted, the orcas typically seen in Budd Inlet are transient. Transients primarily eat mammals, not Chinook salmon, as stated.
10	4-26	4.2.1.4		It is noted that high productivity "likely enhances Capitol Lake as a producer of flying insects." What percent of this productivity comes from open water, and how much from the edge habitat? If there is a difference, how will this change for each scenario?
11	4-29	4.2.3.1		The Medicine Creek Treaty acknowledged certain rights held by the tribes. It did not establish them.
12	4-31	4.3		The U&A areas referenced from the Attorney General document on page 4-31 are inconsistent with the assigned U&A found on page 4-32. It should read "Squaxin Island Tribe ...appears to coincide with the project boundaries". By Treaty, the Squaxin Island Tribe holds exclusive rights to Usual and Accustomed fishing stations in Budd Inlet.
13	4-32	4.3		It is incorrect to say that current migration is not precluded. The existing dam may be considered passable for adults; however, it is a severe impediment for juveniles.
14	5-26	5.5.1.2		If you are going to call out ESA-listed Chinook as benefiting, you should also add ESA-listed steelhead.
15	5-28	5.5.1.2		The estuary alternative would likely reduce seal predation on returning adults by removing a choke point. There may also be a benefit for juvenile salmonids as a wider opening would allow for a greater chance at dispersal from predators during out-migration.
16	5-28	5.5.1.2		If you are going to call out ESA-listed Chinook as benefiting, you should also add ESA-listed steelhead.
17	5-39	5.6.1.2		

T-2

COMMENT

RESPONSE

- T-2-48 The cited study for this statement included in Section 4.2.3.1 of the Fish and Wildlife Discipline Report (Attachment 9) does not provide a percentage breakdown requested in this comment.
- T-2-49 Thank you for the comment. This has been clarified in the Final EIS.
- T-2-50 Thank you for the comment. This has been clarified in the Final EIS.
- T-2-51 A clarifying sentence was added in Section 3.5 of Final EIS Supporting Chapter 3.0 and Section 5.5.1.1 of the Fish and Wildlife Discipline Report (Attachment 9) that under existing conditions, juvenile passage may be impeded.
- T-2-52 Benefits to both ESA-listed Chinook and steelhead are correctly identified in Table ES.2 of the Draft EIS and Section 4.5 of EIS Supporting Chapter 4.0.
- T-2-53 See response to Comment T-2-52.
See also Global Response for Fish & Wildlife.

T-2

COMMENT

RESPONSE

- T-2-54 In the Final EIS, the Hybrid Alternative has been revised to include a groundwater-fed freshwater pool. As a result, the barrier wall would no longer include tide gates.

T-2-54

Effects on Fish Movement from the Reflecting Pool Wall (5-39). The reflecting pool wall and associated tide gates will impede juvenile and adult movement and will likely increase predation. Incoming tides are likely to flush in juvenile and adult salmon that would then be trapped in the reflecting pool. These fish would be subject to predation from birds, fish, and mammals. Fish attempting to leave through the tide gates and into the estuary would be funneled into discrete areas and would be subject to further predation.
It is not clear from the document if the installation of fish-blocking tide gates would even be allowed by permitting agencies.

18 5-39 5.6.1.2



CAPITOL LAKE – DESCHUTES ESTUARY

Long-Term Management Project Environmental Impact Statement

Responses to Comments from Organizations



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<u>O-3</u>	Bats About our Town, Judy Olmstead	<u>ORG-3</u>
<u>O-4</u>	Pattison Lake Assoc., Paula Lowe	<u>ORG-3</u>
<u>O-5</u>	Burbank/Elliott Neighborhood Assoc., L. Riener	<u>ORG-4</u>
<u>O-6</u>	N Capitol Campus Heritage Park Development Assoc., Bill Robinson	<u>ORG-5</u>
<u>O-7</u>	S Sound Fly Fishers, Donald Freeman	<u>ORG-7</u>
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<u>O-10</u>	Westbay Marina, Neil Falkenburg	<u>ORG-13</u>
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<u>O-24</u>	Olympia Downtown Alliance, Todd Cutts	<u>ORG-221</u>
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Responses to Comments from Organizations

O-1

COMMENT

RESPONSE

O-1-1
Puget Sound is dying and we must take immediate action to save our salmon, other fish, oysters, clams, seaweed, etc. Restoring the Deschutes Estuary as a salmon and other species recovery area is the best way to do this. Restoring the Deschutes Estuary also stores blue carbon which helps reverse fossil fuel global warming. The Nisqually Estuary was restored back to health, now we must do that for the Deschutes Estuary. If we let nature restore the estuary we will start reversing the death of Puget Sound, increasing tourism, recreation and enjoying the increased beauty of Olympia. We must restore the Deschutes Estuary now!

O-1-1
Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

O-2

COMMENT

RESPONSE

O-2-1 Looking at the draft EIS of the options for Capital Lake, it seems to me that making it an estuary or a hybrid are the best choices. If there is a hybrid with a reflective lake then it should be saltwater. It actually sounds like such a lake could still be great habitat but dredging is required more often.

Reading it I wonder some about whether much thought was put into really deeply enhancing the habitats. Like winding the river flow through the lake areas. Seems like if you're going to fairly well destroy the freshwater aquatic system (not that it was particularly healthy) you might as well go all out and create many more bends in the river flow, islets, islands, large woody debris, habitat snags, small bays and large ones, and much more. This would create more shoreline, like we could create much more shoreline, which is better habitat (generally the shoreline is best for habitat) and help possibly push sediment to the edges while keeping some natural depth and some variation in speed to the flows along the winding turns.

Let's imagine more and do it right the first time if we are going to do it. Focus on really enhancing habitat. I feel pretty strongly that our restoration of areas, especially like this one that are totally altered already by humans, can be absolutely incredible if we want them to be. They can be highly functional habitat, exceptionally beautiful and enjoyable. It'll cost more but what place is better for a truly epic display of human ecological restoration?

O-2-1 Comment noted. Please see EIS Supporting Chapter 2.0, Section 2.2.2, for a description of the preliminary design of the Estuary Alternative, which includes initial dredging in the main and secondary channels in the North and Middle Basins and habitat improvements as described in the comment. This conceptual dredge design considered the historic channel of the Deschutes River, before construction of the 5th Avenue Dam, to understand the natural alignment. The dredge design for the Deschutes River would be finalized during design and permitting of the Preferred Alternative. This process will likely include close detail on additional habitat elements that would further enhance ecological functions, such as large woody material, specific native plantings, and side channels.

O-3

COMMENT

RESPONSE

O-3-1 | I am the founder of the group Bats About Our Town, which maintains a website under that name. I appreciate that the report does include bats and the various impacts different lake configurations could have on them, some of them dire. Please keep on your radar that the bats using the lake are are pregnant, then nursing, female bats who feed over the lake and many make the astonishing long trip back and forth to Woodard Bay. I ask that the window of working on the lake take these bats into account--it would be exceptionally cruel to pull the rug out from under them in the midst of their cycle there, instead of doing the work when they are not around. Their cycle unfolds over the summer, and I do wonder when the report says that to prioritize salmon needs there are only about 5 months to do any work, whether this means colliding with the bats. If so, my heart breaks for species who may live for 30 years, small and unremarked as they may be to many humans. Please do everything you can do to cherish them and mitigate impact.

O-3-1 | See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

O-4

COMMENT

RESPONSE

O-4-1 | Whatever you do, be sure it is something that general citizens can do around a lake. Years ago you built an extensively long cement bulkhead around the lake when no other lake resident in the state would be able to do that. Hard surfaces are discouraged around waterbodies, and permits are expensive and hard to get. Because it was dammed, it has created other problems. Address those, along with the invasive species problems. No boating or swimming in that lake.

O-4-1 | This response acknowledges the commenter's position.

O-5

COMMENT

RESPONSE

O-5-1 | The dam needs to be taken out.
| The salt water of Budd Inlet needs to come to its
| former home, and kill the New Zealand snail.
| The New Zealand snail is an invasive species in Capitol Lake,
| and will destroy our freshwater lakes in WA. State.

| The WA State funding should cover this process.
| I do not support the hybrid proposal.
| I do not support the "reflecting pond/lake" idea.
| It is too expensive. It will not last.

O-5-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

O-6

COMMENT

RESPONSE

O-6-1 See the Global Response for Cultural Resources.

CAPITOL LAKE DESCHUTES ESTUARY DRAFT EIS COMMENTS REGARDING HISTORIC AND CULTURAL RESOURCES BY THE NORTH CAPITOL CAMPUS HERITAGE PARK DEVELOPMENT ASSOCIATION

The North Capitol Campus Heritage Park Development Association (NCCHPDA) was created in 1987 to advocate for the completion of the Wilder and White and Olmsted Brothers Plan for the State Capitol Campus with a park and promenade from the Temple of Justice north along Capitol Lake to the Puget Sound.

Under the State of Environmental Policy Act (SEPA) WAC 197-11-440(6) (iv) Urban quality, historic and cultural resources, and the design of the built environment, the EIS needs to consider the impacts to the Washington State Capitol Campus National Historic District. This is because the Capitol Lake-Deschutes Estuary is a significant part of the Capitol Campus historic district designed by Wilder and White in 1911 and the Olmsted Brothers in 1928. Currently, the Draft Environmental Impact Statement does not analyze the historically significant design principles of the State Capitol Campus, which is on the National Historic Register.

Significant progress has been made toward the completion of the Wilder and White plan since 1911. Since 1991, Heritage Park has begun to take shape. The Legislature and the City of Olympia have spent twenty-five million dollars to complete land acquisition, the Arc of Statehood, the Western Washington Inlet, the Eastern Washington Butte, the North Campus Trail, the Lawn Amphitheater, the City Fountain, the City seasonal ice rink in the Isthmus Park, and the Washington State Law Enforcement Memorial. Two million dollars in private funds have also been contributed for these City Beautiful elements of the North Capitol Campus.

The Draft EIS must consider impacts to Capitol Campus National Historic District, including the design elements which define the district, the current redesign of enhancements to the Eastern Washington Butte, and the other improvements included in the plan, such as the City's Fountain Park and Isthmus Park.

16 U.S.C. 470f – Section 106 of the National Historic Preservation Act provides,

The head of any federal agency having direct and indirect jurisdiction over proposed Federal or federally assisted undertaking in any State and the head of any Federal department or an independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking shall, prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal Agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.

RCW 79.24.720 – Department of enterprise services' responsibilities.

The department of enterprise services is responsible for the stewardship, preservation, operation, and maintenance of the public and historic facilities of the state capitol, subject to the policy direction of the state capitol committee and

O-6-1

O-6

COMMENT

RESPONSE

O-6-1

the guidance of the capitol campus design advisory committee. In administering this responsibility, the department shall:

(1) Apply the United States secretary of the interior's standards for the treatment of historic properties.

The Draft EIS fails to analyze the projected impacts of each of the four long-term management alternatives to the North Capitol Campus Heritage Park, as required. We ask that the statutes and regulations that protect the historic design of the State Capitol Campus be analyzed as part of the Environmental Impact Statement.

O-6

COMMENT

RESPONSE

8/10/2021

Roundcube Webmail :: NCCHPDA comments on DEIS

Subject: **NCCHPDA comments on DEIS**
 From: <b6robinson@aol.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-07 11:12



- Capitol Lake Deschutes DEIS Comments Final.DOCX (~15 KB)

The North Capitol Campus Heritage Park Development Association would like to submit the attached comments to the Draft Capitol Lake Deschutes Estuary EIS.

Thank you for the opportunity to submit comments for the consideration of the impacts to the Washington State Capitol Campus National Historic District.

Bill Robinson
 President
 North Capitol Campus Heritage Park Development Association

O-7

	COMMENT	RESPONSE
O-7-1	<p>South Sound Fly Fishers Capitol Lake Alternative Opinion Department of Enterprise Services Capitol Lake – Deschutes Estuary EIS</p> <p>For your consideration the members, board and particularly the Conservation Committee of South Sound Fly Fishers has thoroughly studied the published alternatives, consulted with WDFW biologists, entomologists and most importantly resident and community members who will be affected by the future of this proposal. We have considered the impacts of the decision on the costs of the alternatives, the recreational and community values provided, environmental health of the area and the wildlife impacts the several options would incur.</p> <p>As citizens and taxpayers, we are concerned with the costs of any construction and maintenance. Ignoring these obligations has precluded the dredging and disposal of spill for decades which has brought us to the current status. We have an unhealthy body of water contaminated by invasive species which prevent the activities the lake was supposed to provide, including swimming, boating and fishing. Our study has led us to prefer an alternative which re-establishes the recreational use of the area, provides a healthy environment for residents, both human and wildlife, at a cost that is most likely to be supported by community resources.</p>	<p>O-7-1 Enterprise Services appreciates South Sound Fly Fishers' detailed review of the Draft EIS.</p>
O-7-2	<p>South Sound Fly Fishers is a local organization that has promoted conservation projects in our area for more than 50 years. Our primary interest is, of course, fishing but this activity is dependent on a healthy environment that nurtures waterways, riparian zones and saltwater ecologies. It is also a recreational activity which means that we are committed to providing healthy outdoor opportunities for ourselves and also for our families and the non-angling community that we are no less a part of. We include this insight to illustrate that our preferred alternative is certainly the best option for fish and wildlife, but is tempered by our support for the community we share and for which we are creating a legacy that will affect our community for decades to come. We choose not to kick the can of worms our predecessors left us down the road for our children and grandchildren to correct and pay for.</p> <p>*Our preference is for the re-establishment of the Deschutes estuary. We can explain this decision by addressing each of the four stated objectives of the project: Improving Water Quality, Managing Sediment Accumulation and Future Deposits, Improving Ecological Functions and Enhancing Community Resources in turn. We will also address the likelihood of success of each alternative both of being chosen and long-term results.</p>	<p>O-7-2 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.</p>
O-7-3	<p>1. Improving Water Quality</p> <p>A. Estuary. Initial estimated cost \$179 million to \$336 million. Maintenance costs are minimized. The alternatives document states “water quality will be self-managing as a brackish estuary”. This means that the constant flow of the river meeting with tidal influx of saltwater will create a semi-saltwater mix that continuously replenishes itself preventing stagnation and eliminating the New Zealand Mud</p>	<p>O-7-3 Comment noted. Please also refer to Attachment 21, which describes how the impacts and benefits, and other important factors like cost, were considered in the decision-making process. As outlined in the Final EIS, and in Attachment 21, Enterprise Services has identified the</p>

O-7

COMMENT

RESPONSE

O-7-3	<p>snails and Purple Loosestrife plants. These are the invasive freshwater species whose presence has closed the lake to swimming and boating.</p> <p>B. Managed Lake. Estimated initial cost \$337 million to \$607million. “Water quality plans to be developed”. This vague statement underlies the root of the current problems. Regular dredging will be required to maintain a depth and quantity that would allow healthier conditions. Aquatic vegetation may have to be controlled by using herbicides and/or mechanical removal. Most importantly, maintaining a freshwater habitat allows the survival of the most troublesome invasive species. Managing acceptable water quality would be expensive and uncertain.</p> <p>C. Hybrid Alternative. Estimated initial cost \$249 million to \$463 million. This option reduces the size of the freshwater lake but furthers the need to control weeds and water quality and to manage the chemical content of the water since the lake would be groundwater fed. Groundwater contains high levels of phosphorus which promotes algal growth and higher density of aquatic plants. Mud snails and loosestrife could persist.</p>	Estuary Alternative as the Preferred Alternative for long-term management.
O-7-4	<p>2. Manage Sediment Accumulation and Future Deposits</p> <p>A. Estuary. Sediment from dredging the large basin would be deposited upriver in the middle and upper basins creating tideland habitat for plants and animals. Subsequent accumulation will be minimal as deposits terminate in West Bay as would have occurred naturally. Dredging in these areas such as Olympia Yacht Club will be required on a six-to-twelve-year schedule. Less accumulation will occur in federal navigation channel to be the responsibility of Army Corps of Engineers and possibly Port of Olympia.</p> <p>B. Managed Lake. Construction sediment will be dumped in the middle basin and will establish a freshwater wetland community. Subsequent dredging will be required on what is assumed to be a 20-year schedule. The amount removed will be greater each instance and the interval will likely decrease. This passes the expense and responsibility to future generations in perpetuity.</p> <p>C. Hybrid. Construction sediment will be deposited upstream to create tidelands, subsequent dredging will be required at assumed 15-year intervals. A saltwater marsh will develop in middle basin.</p>	<p>O-7-4 Comment noted.</p> <p>The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.</p>
O-7-5	<p>3. Improve Ecological Function</p> <p>A. Estuary. This alternative will restore the original estuary ecology to the area. Tidelands support populations of crustaceans, shellfish, aquatic plants and birds and provide a nursery for outgoing smolt of anadromous fish such as salmon and sea run cutthroat trout. The current sad condition of the lake is detrimental to the smolt released by the Tumwater salmon hatchery reducing the success of these fish in escaping to Puget Sound and eventually the Pacific where they grow and feed aquatic species such as Orca whales.</p>	O-7-5 Comment noted.

O-7

COMMENT

RESPONSE

O-7-5

B. Managed Lake. A freshwater lake does not provide substantial ecological function to our region. The benefits of the freshwater habitat includes providing a generous chironomid larvae population in the shallow muddy waters. These larvae hatch in clouds of midges that are a primary food source for the Mexican Brown Bats that roost in Woodard Bay. The freshwater lake itself attracts a rich diversity of water birds including ducks, brandts, geese and swans that provide excellent bird watching for local enthusiasts.

C. Hybrid. This mixed environment provides the same benefits as both the freshwater lake and estuary, though each to a lesser extent due to the reduced scale of each.

4. Enhance Community Resource

All three alternatives provide enhanced community recreational facilities and opportunities. A pedestrian bridge will allow access along fifth avenue regardless of the width of the opening to be established. Boardwalks would meander through the tidelands or wetlands to allow up close experience of the habitats and wild life. Boat ramps and docks are projected to provide access to the waters freed of invasive species.

O-7-6

A. Estuary. One has only to experience the popularity of the estuary boardwalks at the Nisqually Wildlife Sanctuary to appreciate the value and appeal of our natural tidal ecology, unique to Puget Sound. Opening the basin to boating would benefit local anglers who could access the glut of unharvested hatchery salmon that congregate beneath the falls of the Deschutes. This fishery is produced at great cost but are not optimally harvested since access is restricted.

B. Managed Lake. Swimming and boating will be part of the mix available only so long as water quality is maintained and invasive species are controlled. Visitors will continue to enjoy the reflective pool that graces our capitol landscape and observe the myriad waterfowl species that stop over on their migrations.

C. Hybrid Alternative. The community will enjoy the benefits of both the other alternatives, though with a lesser impact due to the smaller reflective pool and estuary tide flats.

O-7-6

Thank you for your comments.

O-7-7

- A concluding statement. The opinions and observations expressed here are based primarily on the information included in the published materials presented in the submission for public input. We point out two glaring omissions which could substantially affect the success of each project and therefor the support for each. To wit:
- Sea level rise. No mention or projection was made concerning the very real prospect of sea level rise. One might assume that for instance under the estuary option the tide flats would be covered for a longer period than illustrated in the study, but what effect does this have on the need for armoring the perimeters? Under the managed lake or hybrid alternative, are the projected dams and barriers adequate? There remain a number of unanswered possibilities.

O-7-7

All alternatives were evaluated relative to water elevations with and without relative sea level rise. Please see the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5) for additional detail. Information on sea level rise is also included throughout the EIS, especially in EIS Supporting Chapters 3.0 and 4.0 where it is most relevant for a given resource.

Regarding the need for shoreline armoring relative to flooding caused by extreme tides and sea level rise, see the

O-7

COMMENT

RESPONSE

Global Response for Hydrodynamics and Sediment Transport.

Regarding the Managed Lake Alternative and the dam's ability to manage water levels in the basin relative to sea level rise, see the Global Response for Hydrodynamics and Sediment Transport.

Regarding the Hybrid Alternative, the barrier wall would be designed to prevent estuary waters (during extreme tides and sea level rise) from overtopping the wall.

O-7-8

- Flood water management. Very little attention has been given to the function of the lake and the dam in controlling unusually high flows in the Deschutes due to storm conditions. No references are found regarding historical downtown flooding prior to or following the construction of the 4th Street dam. Neither are there projections as to the future effects of the three alternatives regarding this issue. For this reason, it is germane to note that the preference of the estuary alternative is predicated on the information provided but we do wish to identify these caveats.

O-7-8 Refer to response to Comment I-518-8.

The Board and 67 Members of South Sound Fly Fishers

PO Box 2792

Olympia, WA 98507

O-8

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Sierra Club Supports the Estuary Alternative

Subject: **Sierra Club Supports the Estuary Alternative**
From: South Sound <sosound.sierraclub@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-09 14:56



O-8-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.



August 9, 2021

Dear Department Officials:

The Sierra Club South Sound Regional Group representing over 7,500 members and supporters welcomes this opportunity to submit comments regarding the Draft Environmental Impact Statement (Draft EIS) for the Capitol Lake – Deschutes Estuary Long-Term Management Project.

The Sierra Club strongly supports the Estuary Alternative because it is the only one that supports a healthy environment for all and encourages preservation and responsible growth for future generations for the following reasons:

- The current Capitol Lake is toxic to the local ecosystem, our people and our community.
- A restored estuary will bring economic, recreational and environmental benefits into the heart of Olympia.
- Restoring the estuary in full is the least costly option to improving water quality and will restore healthy marine wildlife habitats to the Deschutes River, the Budd Inlet, and West Bay areas of the Puget Sound.

Sincerely,



George Watland, Chair
South Sound Group
Sierra Club Washington State Chapter

O-8-1

O-9

COMMENT

RESPONSE

My name is Sam Kaviar and I am an ecotourism sea kayak operator who utilizes Budd Inlet for my tours as well as a generally concerned citizen.

O-9-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I am strongly supportive of a full estuary restoration for the habitat benefits it would have for salt marsh and eelgrass habitat, and the benefits those would provide to wildlife on both a local and regional level. At present the Nisqually delta area, attracts juvenile endangered salmon from quite a wide distance due to the low availability of salt marsh habitat throughout Puget Sound. Budd inlet supports comparatively low amounts of wildlife, restoring the estuary is one of the most important things we could do locally for our marine environment, and which would ultimately benefit Southern Resident Killer Whales.

O-9-1

By benefiting the local ecosystem, and increasing wildlife diversity in Budd Inlet the measure would also benefit my business by improving the quality of my tours. It would increase opportunities for other eco-tourism businesses in our area.

It seems to me there is also a social justice element, of restoring the ecosystem along the lines of the wishes of the Squaxin island tribe.

Warm regards as you make this complex decision!

O-10

COMMENT

RESPONSE

O-10-1 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

To Whom it concerns,

August 9, 2021

West Bay Marina has been in business mooring vessels for over 60 years on the shores of Budd Inlet. We recognize the amount of work and the amount of money spent maintaining the waters we Lease from the State of Washington, so our customers have a spot for their boat. Through boating, private marinas provide a special sort of access to waters of our State.

The State of Washington DES is currently exploring the best alternative dealing with the basin that is the northern terminus of the Deschutes River, Capitol lake. The lake was designed to create reflecting pond in front of the state capital and allow sediments to settle before silting in lower Budd Inlet. This catchment basin acted as designed, providing a fantastic element to the State Capitol Campus and did its job keeping most of the sediments flowing down river from reaching the marine waters of lower Budd Inlet.

Removing the Dam and allowing the river along with its accompanying estuary to free flow will cause certain damage to the lower inlet in the form of unwanted sediment load. I strongly believe the impact will be catastrophic to the downtown Olympia waterfront, the local marinas. The EIS contemplates dredging every 5-6 years. It doesn't yet focus on who pays and what really happens when whomever does pay faces budgetary constraints and decides to remove maintenance dredging from the budget. At that point the basin fills in, the marinas become useless and the gem that is our downtown boardwalk overlooks a tidal mudflat. Cities work intensely to develop walkable waterfront. Waterfront acts as the catalyst for downtown development and tourism. I'm sorry but a tidal mudflat is neither workable nor walkable.

Don't wreck Olympia by removing the dam. Keep the dam, manage the lake as promised and move along. The other alternatives have too much cost and too much risk.

Neil Falkenburg
West Bay Marina Associates

O-10-1

O-11

COMMENT

RESPONSE

8/26/2021 Roundcube Webmail :: Comments on Capitol Lake

Subject: **Comments on Capitol Lake**
 From: Peter Schrappen <peter@nmta.net>
 To: <info@CapitolLakewatershedEIS.org>
 Date: 2021-08-25 09:00



Dear Department of Enterprise Services:

The Northwest Marine Trade Association (NMTA) has over 700 members in the boating industry in Washington State. We speak on behalf of our membership on matters of public policy that impact the state's \$7 billion recreational boating and fishing economy.

O-11-1

With regards to the proposal for a Capitol Lake-Deschutes Estuary, we caution and urge that consideration be given to likely negative impacts on Budd Bay marinas and to the boating public at large.

These waters are centered in an urban area showing rapid growth over the last 20 years. The likelihood of continuing rapid growth over the next 20 years cannot be dismissed. We know that chemical contamination of waters results from human activity including lawn chemical and other non-point polluters. The data is clear there. We question whether the benefits envisioned from changes made at Capitol Lake can actually be achieved unless growing chemical contamination can be abated. We do not see this problem as adequately addressed in the draft EIS currently before us.

O-11-2

We should emphasize that our membership is supportive of smart policies to enhance the beauty and cleanliness of Puget Sound and its tributary waters. Without a vibrant Puget Sound, many of our family-run business members would be out of business. However, policies that expend public resources in pursuit of benefits which may not be achievable in small local arenas where negative impacts will hurt long-standing business members should not be undertaken. We need to direct public expenditures to solving the critical issues affecting the larger body of water before trying to address the smaller, local issues.

In closing, we acknowledge that there are a plethora of other issues brought forth by the proposed changes to Capitol Lake. In the interests of brevity, we will by pass direct comment on these issues at this time. In general, we support the commentary made by others in the industry. Specifically, we are supportive of the letters received in this regard by the Olympia Yacht Club and by the Recreational Boating Association of Washington. We thank you for your attention to our comments and wish you success in finding a solution which supports our concerns.

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=28_nbox=INBOX%2FEIS_Processed_12&_action=print&_extln=1

1/2

O-11-1

Thank you for your comment. As part of the EIS, several analyses evaluated potential impacts and benefits to private marinas and boating in West Bay as a result of the project, including the Navigation analysis (please see Section 4.2 of EIS Supporting Chapter 4.0 and Attachment 6 for the associated discipline report); the Land Use, Shorelines and Recreational analysis (please see Section 4.8 of EIS Supporting Chapter 4.0 and Attachment 12 for the associated discipline report); and the Economic analysis (please see Section 4.14 of EIS Supporting Chapter 4.0 and Attachment 18 for the associated discipline report).

The Estuary and Hybrid Alternatives include maintenance dredging to avoid significant impacts to the private marinas and Port of Olympia as the result of increased sediment deposition in West Bay (compared to existing conditions). An annual sediment monitoring program would be implemented to increase certainty that maintenance dredging was responsive to actual environmental conditions and impacts could stay below significant levels. Significant impact levels are defined in the Navigation analysis as:

- Large vessels accessing the Federal Navigation Channel and Port of Olympia having to wait more than 4 hours for channel access due to water depth and low tide conditions caused by sediment deposition on more than one consecutive occasion; and
- More than 10% of small craft vessels at any single marina unable to access leased moorage due to shallowed water depth caused by sediment deposition.

Additionally, dredging would occur in Capitol Lake before removal of the 5th Avenue Dam and this could reduce impacts from sediment deposition by an estimated 48% to some resources in West Bay.

Please see Final EIS Supporting Chapter 7.0 for a description of an MOU among members of the Funding and Governance Work Group for shared funding to dredge the increased sediment above existing conditions under the Estuary and Hybrid Alternatives. The term of this agreement is anticipated through 2050, with opportunity for extension.

Please see Attachment 21 for a description of the process used to identify a Preferred Alternative, which included a comprehensive evaluation of the potential impacts and benefits of each alternative.

O-11

COMMENT

RESPONSE

8/26/2021

Roundcube Webmail :: Comments on Capitol Lake

We stand by to be partners in this and all issues impacting our waters.

Sincerely,
Peter Schrappen, CAE

Vice President
Northwest Marine Trade Association

O-11-2

As described in the Draft and Final EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes River and Budd Inlet TMDLs and other efforts are expected to improve water quality in the Project Area. Ecology is the state agency with jurisdiction over water quality and has developed water quality improvement plans to improve the health of the Deschutes River Watershed.

Please also refer to the responses provided to the comment letter submitted by Olympia Yacht Club and Recreational Boating Association of Washington.

O-12

COMMENT

RESPONSE



wecprotects.org

1402 Third Ave, Suite 1400
Seattle, WA 98101

(206) 631-2600

August 26, 2021

Via email to: comment@CapitolLakeDeschutesEstuaryEIS.org

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-1476

Re: Capitol Lake - Deschutes Estuary Draft EIS comments

To Whom It May Concern:

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) for Capitol Lake and the Deschutes Estuary. Washington Environmental Council (WEC) is a nonprofit, statewide advocacy organization that has been driving positive change to solve Washington's most critical environmental challenges since 1967. Our mission is to develop, advocate, and defend policies that ensure environmental progress and justice by centering and amplifying the voices of the most impacted communities. The Puget Sound program works toward clean water and healthy habitat throughout the region.

Capitol Lake was created by damming the Deschutes Estuary to create a reflecting pool for the Washington State Capitol Campus. Since that time, the impounded lake has suffered profuse and repeated algae blooms due to abundant nutrients and stagnant water conditions. Sediment from the Deschutes River continues to fill the impounded lake, reducing the volume and increasing the intensity of algae blooms.



Source: Deschutes Estuary Restoration Team

Overall we find the DEIS contains significant flaws in the water quality analyses, which are lacking in context and surprisingly biased. For example, in several places, the report refers to "only occasional" violations of the Clean Water Act water quality standards. Violations do or do not occur, and "only occasional" is one example of a biased statement leading the reader to conclude that violating the federal Clean Water Act is not problematic. The report surprisingly lacks objectivity in numerous places, which undermines the technical basis of the DEIS.

Overall, and even with the flawed analyses in the DEIS described below, the Estuary Alternative provides the greatest benefits to the region and at costs below those of the managed lake or

O-12-1 Thank you for your comment. Where possible, subjective statements (including the statement referred to in this comment) have been removed from the Final EIS. In some disciplines, subjectivity cannot be removed (see response to Comment O-26-3 for more information on that.)

Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report; and responses to specific questions that follow in this comment letter.

O-12-2 Please see the Global Response for the Preferred Alternative Identification Process.

O-12-1

O-12-2

O-12

COMMENT

RESPONSE



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1402 Third Ave, Suite 1400
Seattle, WA 98101
(206) 631-2600

O-12-2

hybrid options. In addition, at this point in history, the State of Washington and the Department of Enterprise Services need to take a hard look at who benefits and who is harmed by the proposed alternatives. We do not believe that the other alternatives reflect the values of people in the region today. Finally, from a pragmatic perspective, how the next steps would be funded is a critical question. We know of no federal funding sources that would help pay for anything other than full estuary restoration. The costs estimated for the lake and hybrid options are many times more than the entire biennial budget for salmon recovery throughout the entire State of Washington. Spending state dollars to provide a reflecting pool for the Capitol Campus would not likely be popular with residents of Washington State, particularly those outside Olympia.

O-12-3 Thank you for your comment. If the Washington State Legislature provides funding for the next project phase, Enterprise Services could begin to pursue grant funding opportunities for project implementation. Construction funding is likely to include funds from a variety of sources, including federal, state, and potentially philanthropic. There are a range of federal funding opportunities that could support estuary restoration in the Project Area.

O-12-3

We offer the following specific comments.

O-12-4 Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report.

O-12-4

Ecology's TMDL represents best available science

The technical analyses provided in the DEIS are presented as on par with the multi-year analyses of Capitol Lake and Budd Inlet by the Department of Ecology as part of the Total Maximum Daily Load studies. Ecology's work has been highly reviewed and subject to paid, independent peer reviews, and reflects the current best available science. In contrast, the DEIS appears to dismiss this record of publication and opt for sub-par analyses representing poor data collection from a single year. The report needs to better reflect that Ecology's analyses are the best available science.

O-12-5 Please see the Global Responses for Water Quality regarding the study area.

O-12-5

Focusing on West Bay entirely misses the area of Budd Inlet most impacted by Capitol Lake

The Budd Inlet model, developed by the Department of Ecology from an earlier effort funded by the Lacey, Olympia, Tumwater, and Thurston County (LOTT) Alliance, indicates that the largest impact from Capitol Lake on dissolved oxygen in Budd Inlet occurs in East Bay, well beyond West Bay. The limited analysis in the DEIS appears to refer to information compiled for West Bay water quality, yet characterizes that as representative of Budd Inlet as a whole. Because the DEIS sets the study area as West Bay only, the entire analysis of Budd Inlet water quality impacts from the impounded lake is fatally flawed. The conclusions of limited impacts of the impounded lake to West Bay, spuriously referred to as Budd Inlet, is incorrect and inconsistent with the best available science. Therefore, the DEIS is flawed because it neglects where the worst-case impacts are in Budd Inlet. Stating that no changes to Budd Inlet water quality would occur as a result of Capitol Lake is without technical basis.

Capitol Lake causes the largest negative impact to dissolved oxygen of any single source in the entire Salish Sea, which the DEIS neglects to mention. The Puget Sound region is currently considering extensive investments in water quality protections to address current dissolved oxygen violations that will only worsen in the face of population growth and climate change.

O-12

COMMENT

RESPONSE



wecprotects.org

1402 Third Ave, Suite 1400
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(206) 631-2600

Data from a single year do not establish any lake water quality trend

Interannual variability in water quality data means no single year should be used to establish a trend. Relying on a limited glimpse of 2019 lake conditions precludes the ability to draw a conclusion that lake water quality is improving. Further, ascribing 2019 Capitol Lake water quality conditions to Deschutes River watershed improvements is unjustified, particularly without any substantial analysis of Deschutes watershed conditions. In fact, nutrients take extensive time to address in watersheds, and the DEIS is completely lacking in any justification that watershed actions are occurring and are responsible for a perceived trend. While we hope that nutrients will decline in the Deschutes River watershed, the DEIS utterly lacks any substantiation and over represents the quality of Capitol Lake.

O-12-6

Hybrid option will worsen water quality

The analysis of water quality around the hybrid option is entirely lacking. Analyses conducted by Ecology found that simply reducing the volume of an impounded basin, whether freshwater or saltwater, would only worsen water quality within that basin. Because of relative density, the salt water on the bottom would become anoxic with a freshwater lens on the surface. We do not see justification that this would provide salmonid refugia, particularly as water temperatures would likely rise well above safe levels for salmonids.

O-12-7

Interpretations of BOD and TOC are factually incorrect

Page 3-32 includes an interpretation that because biochemical oxygen demand (BOD) is low, that this means more recalcitrant total organic carbon (TOC) would be released and would have less of an impact on Budd Inlet dissolved oxygen. In general, BOD5 laboratory analyses of natural waters generally result in non-detects, unless those waters contain high amounts of sewage or other sources of high nutrients. This is why 30-day BOD tests can quantify both carbonaceous and nitrogenous BOD. However, the relative lability of total organic carbon has been addressed by Ecology's model, which includes carbon in multiple classes, ranging from labile to recalcitrant. Ecology's approach addresses impacts from more labile as well as more recalcitrant forms of organic carbon. Mixing BOD and TOC in this interpretation is incorrect, yet it appears to be the heart of some of the claims of the DEIS.

O-12-8

Capitol Lake monitoring program highly flawed

Page 3-34 includes a statement that because the monitoring program found low phosphorus concentrations near the bottom, Capitol Lake sediments provide negligible phosphorus loading. This contradicts general principles of lake science and is unsubstantiated by a limited monitoring program. Sediment releases of phosphorus could produce higher concentrations near the bottom of the water column. However, there is no evidence that the monitoring program was even designed to be able to measure phosphorus concentrations within the boundary layer. Moreover, the horizontal distribution of monitoring sites does not adequately capture the enormous range of

O-12-9

O-12-6 A single year of data was not used to indicate trends; 10 years of data was used in the Final EIS to evaluate trends (the Draft EIS included 11 years of data, but 2004 data was eliminated in the Final EIS due to concerns around that dataset from commenters). In response to comments, Final EIS Supporting Chapter 3.0, Section 3.3.3.1, has been revised to remove any reference to what might be driving those trends as this was considered speculative.

Please also see the Global Responses for Water Quality.

O-12-7 Please see the Global Response for comments on the Hybrid Alternative, which describe that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool. As such, the analysis summarized in this comment has been removed from the Final EIS.

O-12-8 See the Global Responses for Water Quality.

O-12-9 In regard to the limited monitoring performed to support the EIS and by default the limited extent of monitoring for the entire period of record, the EIS authors concur that there is a lack of data and that this lack of data contributes to uncertainty for evaluating the model predictions and the independent EIS analysis. This is acknowledged in Section 4.3.1 and 4.3.4.2 of EIS Supporting Chapter 4.0.

In regard to the sediment phosphorus load assumptions, the phosphorus budget has been modified to reflect Ecology's benthic flux results (see Section 3.3.3 of Final EIS Supporting Chapter 3.0 and Section 4.1.3 of the Water Quality Discipline Report, Attachment 7).

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O-12-9

conditions present as a result of macrophyte growth and mixing beyond the thalweg. The limited number of monitoring sites and depths in the data collection program render the results unusable to draw the conclusions presented in the DEIS. Finally, benthic flux chambers directly measured sediment phosphorus loading in previous studies by Ecology.

Impacts to LOTT are not adequately addressed

Currently Budd Inlet and other parts of South Puget Sound do not meet the Clean Water Act water quality standards for dissolved oxygen. In places like southern Budd Inlet, where levels can naturally fall below certain values, the combined effect of all human activities cannot worsen oxygen levels by more than 0.2 mg/L. That would include point sources like the LOTT wastewater treatment plant discharges, nonpoint nutrient sources in the areas around Budd Inlet, and the effect of the Capitol Lake impoundment. To administer the Clean Water Act, Ecology and EPA need reasonable assurances that water quality conditions will be met. Point sources discharges like LOTT are regulated through an individual NPDES permit to discharge, and would need to invest significant capital resources if the allowable human impact is taken up because the Capitol Lake dam remains in place. Therefore, the cost estimates for the lake option and the hybrid option would need to include the capital as well as 20-year operations and maintenance costs to full reflect the costs of that option. We encourage you to work with LOTT on those costs.

O-12-10

Narcissus and his reflecting pool

In Greek mythology, Narcissus falls in love with his own image, reflected in a pool of water. Public monuments, such as Capitol Lake, represent a region's cultural choices at the time the monument was installed, appropriate in the context of history. However, culture evolves. Today we are witnessing a realization that these monuments may no longer serve the purposes for which they were envisioned at the time.

O-12-11

Damming an estuary to create a reflecting pool for the Capitol would certainly not happen today because our understanding and our values, as well as our laws, have evolved. We would be burdening residents with a high cost of this freshwater symbol, while we dishonor the natural and cultural history of this place. DES is now at a crossroads to decide what path to follow. At this time in US history, maintaining an artificial lake even as a hybrid option, is not in step with the times.

We believe the original vision of a reflection pool for the Capitol would be met by the Estuary alternative. Technical analyses have quantified that this pool would be available for reflection 80% of the time, including daytime and night time conditions.

State needs to support Tribal Treaty Rights

O-12-12

Tribal Treaty Rights refer to sovereign rights reserved under treaties signed by Tribes with the US Government. Tribal Treaty Rights existed prior to the treaties and pre-date state law. In

O-12-10 Enterprise Services coordinated with LOTT during development of the Final EIS to better understand the projected impacts to LOTT as a result of the Draft Budd Inlet TMDL, which would vary based on the long-term management alternatives for the Capitol Lake - Deschutes Estuary.

Under the No Action and Managed Lake Alternatives, there is a high likelihood that new TMDL allocations could shift additional responsibilities for nutrient reduction to wastewater and stormwater discharges. LOTT would almost certainly need to invest in treatment capacity, with increased costs for ratepayers. Updates have been made throughout the Final EIS as needed.

O-12-11 Comment noted.

O-12-12 Comment noted. Potential impacts (and benefits) on tribal resources are addressed in EIS Supporting Chapter 4.0, Section 4.5.7. See also Global Response for Cultural Resources for information on how tribal values and input was considered in the development of the EIS.

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Washington, these rights include but are not limited to the right to fish, hunt, and gather at all usual and accustomed places.

O-12-12

As parties to the Medicine Creek Treaty, the Squaxin Island Tribe and U.S. government signed contractual obligations that include the area currently covered by Capitol Lake, which is part of the Tribe's Usual and Accustomed Area. The State of Washington must honor and respect that contract. Please refer to the comment letter submitted by the Squaxin Island Tribe.

The lake option is not the best use of public funds

O-12-13

The DEIS, as well as previous iterations of this analysis, confirms that trying to maintain an artificial lake by damming an estuary would be the most costly at \$337 to \$607 million. This is roughly twice the cost of returning the area to an estuary. Further, the likelihood of federal funding is negligible, which means the bill would be paid by the taxpayers of Washington State. As stated above, the cost of the lake option is far greater than the entire biennial budget for salmon recovery throughout the State of Washington. Spending state dollars to provide a reflecting pool for the Capitol Campus would not likely be popular with residents of Washington State, and particularly those outside of Olympia.

The hybrid option meets no one's needs and would be more costly than an estuary

O-12-14

The hybrid option rests on creating a limited pool for reflection while returning much of Capitol Lake to an estuary. While this may be seen as a compromise solution, the hybrid option meets no one's needs. First, the construction costs needed to drive sheet piles through sediments the consistency of pudding are likely underestimated. Such an uncertain capital project would most likely incur unanticipated conditions and added costs. However, like the lake option, federal funding to create this pool is highly unlikely. At \$267 to \$481 million, that investment would also be well above the biennial capital budget for salmon recovery in the entire State of Washington.

Further, as described above, impounding waters in a basin with sediments at the bottom would simply exacerbate the profuse algae blooms that occur today in Capitol Lake. Even Budd Inlet is subject to algae blooms in certain conditions because of limited flushing. The end result of spending \$267 to \$481 million will be even denser algae blooms that lack the aesthetic ideal envisioned in the last millennium.

O-12-15

In closing, we request that technical analyses better reflect the best available science. Moreover, we encourage DES to think ahead to how this decision will be reflected in generations to come.

Sincerely,

Mindy Roberts, Ph.D., P.E.
Puget Sound Program Director, Washington Environmental Council

- O-12-13 Thank you for this comment. Please also see Attachment 21 of the Final EIS for more information on the decision-making process for identifying the Preferred Alternative, which considered a range of criteria including the ability of each alternative to achieve project goals, to result in other environmental impacts or benefits, relative economic and environmental sustainability, construction impacts, and durability of the decision with stakeholders.
- O-12-14 Please see response to Comment O-12-13.
- O-12-15 Thank you for your comments. Please see response to Comment O-12-4 regarding consideration of best available science in the water quality and other EIS analyses.

O-12

COMMENT

RESPONSE

8/27/2021 Roundcube Webmail :: Comments on DEIS - Capitol Lake and Deschutes Estuary

Subject **Comments on DEIS - Capital Lake and Deschutes Estuary**
From Mindy Roberts <mindy@wecprotects.org>
To comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date 2021-08-26 13:24



-
- WEC comments on DeschutesCapitolDEIS-Aug2021.pdf(~692 KB)
-

Please see attached comment letter, and let me know if you have any difficulties with the file.

Mindy

Mindy Roberts • Puget Sound Director
cell 206.485.0103 • mindy@wecprotects.org
Pronouns: she/her ([why pronouns matter](#))

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O-13

COMMENT

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August 26, 2021

Comments on the Capitol Lake - Deschutes Estuary DEIS from the Deschutes Estuary Restoration Team

To Whom It May Concern:

The Deschutes Estuary Restoration Team (DERT) submits the following comments on the Draft Environmental Impact Statement for eventual selection of an alternative to existing conditions at the mouth of the Deschutes River in Washington State.

The Draft Environmental Impact Statement or DEIS does not identify a "preferred" alternative, but instead analyzes three options: (a) The "Estuary" alternative, with restoration of the Deschutes River and Estuary by removing the dam; (b) the "Managed Lake" alternative, keeping the dam and Capitol Lake with ongoing dredging and other maintenance costs like have been incurred since the dam was built in 1951; and (c) a "Hybrid" alternative, which would eliminate the existing dam, allow the Deschutes River to flow freely, but add a smaller saltwater "basin" with a half-mile long wall (another dam of sorts) in the general vicinity of the current Capitol Lake.

This study and analysis follow the prior Capitol Lake Adaptive Management Plan (CLAMP) process that, in 2009 recommended restoring the Deschutes River and Estuary, based on an extensive analysis of the environmental conditions and needs of the estuary, whether an estuary was a "feasible" management option and examined the significant costs of maintaining Capitol Lake. The State of Washington's General Administration Department (now Department of Enterprise Services) basically ignored the recommendation to restore the estuary. The Deschutes Estuary Restoration Team or DERT was created to ensure further work was done on the estuary option and has advocated ever since for restoration of the Deschutes River and Estuary.

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O-13-1

O-13-2

DERT supports removal of the dam, and restoration of the free-flowing Deschutes River, and the Deschutes Estuary. DERT agrees with some of the major conclusions in the DEIS. Most notably:

- The Estuary option clearly is the best option for restoring the ecology of the area, which has been significantly degraded since the dam was built in 1951. Multiple species of birds, fish and animals, as well as plant life, would benefit.
- The Estuary option is the least expensive of the options, and the perpetuation of Capitol Lake is the most expensive. The DEIS estimates that, over 30 years, the Estuary alternative would cost \$336 M, while the Managed Lake alternative would cost \$607M if the planning horizon was expanded to 50-70 years, there would be an even bigger gap between the Estuary alternative and the much costlier Managed Lake option.
- The Estuary option would also significantly improve water quality conditions in Budd Inlet, which will not only benefit fish and wildlife, but will also reduce LOTT's future costs regarding regional wastewater discharges into Budd Inlet. If LOTT's costs are reduced, ratepayers would not suffer the consequences of increased rates.
- The Estuary option would almost certainly eliminate—or at least significantly reduce—the invasive species that caused Capitol Lake to be closed to all recreational use decades ago. The Managed Lake alternative would almost certainly have to continue the costly battle with these species, which has in the past included applying chemicals to Capitol Lake. Relying on the use of toxic chemicals to maintain public waters is a very poor choice compared to the sustainable alternative of an estuary.
- DERT strongly supports the formation of a Deschutes Watershed Council. While the details of purpose, membership and funding for such a group remain to be worked out, we believe the goal of a healthy watershed meeting multiple needs cannot be achieved without a watershed-based approach that incorporates multiple interests including government, tribal, community, business and environmental.

Here are the specific overall concerns DERT has with the DEIS, and actions taken to complete this first analysis:

PROCESS DEFICIENCIES

DES and the consultant team responsible for authoring the DEIS apparently did not speak with many state and local agencies with extensive knowledge of conditions in the Lake and Estuary and/or include their views. It apparently does not include:

- the water quality modeling done by the Department of Ecology for Budd Inlet;
- WDFW information and conclusions on fish and wildlife species; or
- a discussion and findings on archeological issues with the relevant state agency.

Instead, the apparent approach by DES is to develop its own data, or use other data, and then expect the relevant agencies to respond to the DEIS. This is a highly inefficient and unprofessional approach to the study.

O-13-1 This response acknowledges the commenter’s position and the Draft EIS comments were considered in the decision-making process. Please also see the Global Response for the Preferred Alternative Identification Process.

Partnerships, such as one with a Deschutes Watershed Council, could be further evaluated if the Deschutes Watershed Council is formed.

O-13-2 As described in EIS Supporting Chapter 8.0, Enterprise Services has maintained a commitment to a process that has robust stakeholder engagement, including from state resources agencies. Through Technical Work Group (TWG) meetings, of which both Ecology and WDFW have representatives, the EIS project team collected input on the scope of the EIS and on technical methodologies.

See the Global Response for Water Quality regarding updates in the Final EIS related to this comment and additional analysis added to the Final EIS about the ability of the alternatives to achieve water quality standards.

Regarding WDFW input during development of the Draft EIS, the EIS Project Team reviewed the proposed technical methodology with the TWG, including WDFW’s TWG representative, utilized WDFW reports, studies and data relevant to the analysis, and consulted with WDFW fisheries biologists. For the Final EIS, the EIS Project Team had focused workshops with WDFW biologists to obtain additional input on studies reviewed for the EIS related to salmon and bats. The Final EIS was also revised as needed in response to comments received from WDFW on the Draft EIS, particularly on the Aquatic Invasive Species Discipline Report (Attachment 8).

Regarding input from the Washington State Department of Archaeology and Historic Preservation (DAHP), the EIS project team reviewed the proposed technical methodology with the TWG, including DAHP’s TWG representative, utilized DAHP’s records data (WISAARD) and DAHP’s predictive model. The EIS project team also met with DAHP staff during the development of the Draft EIS to receive specific input. See also the Global Response for Cultural Resources regarding input provided by DAHP following publication of the Draft EIS that was incorporated into the Final EIS.

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O-13-3	<p>DES and the consultant team apparently did not speak with any staff at the Squaxin Tribe, despite its extensive Natural Resource professional staff, and its historic use of the Deschutes River and Estuary. In particular, the DEIS Executive Summary does not make mention of the traditional Steh-Chass, the indigenous name for the lower Deschutes River and Estuary. Nor does it mention the Steh-Chass cultural and historic significance. Instead, it refers to the 70-year-old dam as if it has cultural and historic significance. This seems to be either a gross oversight or misleading discussion.</p>	<p>O-13-3 See the Global Response for Cultural Resources for information on how Enterprise Services coordinated with tribes during the preparation of the Draft EIS, and for information on the eligibility determination received from the Department of Archaeology and Historic Preservation, and related updates in the Final EIS.</p>
O-13-4	<p>SELECTIVE DATA USE AND APPARENT BIASES</p> <p>There seems to be a significant picking and choosing of data to support an apparent outcome. For instance, in the water quality analysis, the DEIS notes that Thurston County had ongoing water quality data from 2004-2014, but for purposes of the DEIS, only water quality data from 2010 to 2014 was used because there was a "trend" in that five-year period. This does not seem to be a proper way to use this data and undermines any conclusions the DEIS draws from it. The DEIS should explicitly state what factors have been considered in determining that a shorter period of data is appropriate for this analysis</p>	<p>O-13-4 Please see the Global Responses for Water Quality regarding use of the 2004-2014 data set.</p> <p>O-13-5 Please see the Global Responses for Water Quality regarding the comparison of Capitol Lake to other lakes in Thurston County.</p>
O-13-5	<p>There are questionable comparisons between the existing Capitol Lake and other bodies of water. For instance, the DEIS notes (almost parenthetically) that, because of the amount of sediment in the "Lake," and its short retention time, it is no longer actually a lake from a regulatory perspective, and is subject to water quality standards for rivers, which formed the basis of the water quality analysis. Yet the DEIS then compares the water quality in Capitol "Lake" with water quality in naturally occurring lakes in the area--without acknowledging that the comparison is legally not valid, nor that the water quality in Capitol "Lake" benefits from having a freshwater river flowing into and out of it constantly, which most other "real" lakes do not have. Similarly, the water quality is compared with other "inlets" in the South Sound, even though none of them have a freshwater river flowing into them (which would improve the other inlets' water quality).</p>	<p>The information on other inlets in the area is included to provide perspective and local context for reviewers. Section 3.3.5 in Final EIS Supporting Chapter 3.0, starts with a description that the hydrodynamics of Budd Inlet are dominated by tidal exchange but are also influenced by inflow from the Deschutes River and Capitol Lake.</p>
O-13-6	<p>The Executive Summary also states that water quality standards might be met in a reflecting pool--why even say this, if there is an even possibility that those same standards would not be met?</p>	<p>O-13-6 The Final EIS Summary has been revised (from the Draft EIS Executive Summary) to state that within the freshwater reflecting pool of the Hybrid Alternative, an adaptive management plan would be implemented to meet specific lake management objectives. This section also clearly describes that Ecology has stated that the Estuary Alternative is the only alternative that could meet water quality standards because it would constitute a 'natural estuary' condition.</p>
O-13-7	<p>The DEIS highlights items for no apparent purpose. For instance, it calls out the potential impact on the local bat population if the Deschutes River Estuary were restored but does not point out the benefits to the populations of other species with restoration. This is inappropriate.</p>	<p>O-13-7 The Draft EIS highlights any impacts described as "significant" and any beneficial effects described as "substantial" in bold to bring focus to these major findings.</p>
O-13-8	<p>The Executive Summary also highlights aquatic plant life as an impact from the existing dam to the ecology of the estuary and does not discuss undesirable changes in other ecosystem functions that have been generated by the dam/lake (e.g., sediment transport, marshes, estuarine species) and should be highlighted in the analysis.</p>	<p>O-13-8 The Final EIS Summary, under "What factors are affecting ecological function in the Project Area?" mentions the many ways that ecological functions have been impacted in Capitol Lake, including related to sediment transport and water quality. See also the section "How do the alternatives support project goals of improving ecological functions" which describe that estuarine wetland and tideflat habitat - that provide water quality, hydrologic, and habitat functions - have been greatly diminished and degraded and would be restored by the Estuary and Hybrid Alternatives.</p>

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OPINIONS RATHER THAN DATA ANALYSIS

O-13-9 The characterization of some of the DEIS's conclusions are not objective. For example, it states that water quality in the Lake is not as bad as some people think it is. That is not a scientific statement. Instead, it seems intended to promote the Managed Lake alternative. The DEIS could just as accurately have said "despite the constant inflow of a freshwater river, Capitol Lake has for a long period of time failed to meet water quality standards and is unlikely to do so under current conditions." Why one and not the other?

OMISSIONS FROM THE ANALYSIS

O-13-10 The DEIS does not seem to fully address potential climate change effects. For instance, in analyzing impacts from different tidal events, it does not consider what would happen at extreme high tides, which will become more likely under nearly all scenarios. And it simply relies on the City of Olympia's analysis of climate change and impacts, without noting that the City's analysis is a very conservative one--i.e., does not have strategies if assumptions prove to underestimate the impacts.

O-13-11 The native coho salmon run in Percival Creek has been well documented and should be noted. In addition, prior to the construction of the 5th Ave. dam, fly fishing in the estuary for salmon and trout was very common, and was cause for opposition to the dam by recreational fishing interests.

O-13-12 More weight needs to be given to the economic, educational, and aesthetic benefits of estuary restoration including recreation of all kinds: birding, boating, paddling, fishing, education, nature walks. And of the course the intrinsic value of the estuarine environment - habitat, fish, ecosystem benefits, tidal flow and more.

Increased tourism is a significant impact. Please review the visitor numbers for Nisqually before and after the restoration began. Evaluate the benefits to local economies.

O-13-13 Estuarine habitat restoration will provide volunteer and public engagement/involvement opportunities for the region and the state. Restoration can provide seasonal and long-term jobs as well as with the youth job corps, Vista, and Earth Corps, for example.

Job opportunities will also be created during the construction phase of estuary restoration. New jobs would be created downtown as businesses benefit from increased tourism and local access to the flowing river from Budd Inlet.

RELIANCE ON SPECULATIVE ACTS

O-13-14 The DEIS repeatedly refers to a "Des Chutes Basin Project Historic District," and feature it heavily in discussions of cultural resource impacts analysis for each option. There is a lack of attention in the DEIS given to Tribal cultural resources such as the Steh-Chass, the indigenous name for the lower Deschutes River and estuary, the effect being to privilege recent white

O-13-9 Please see the Global Response for Water Quality regarding the description of water quality in Capitol Lake as "good".

O-13-10 The tidal flooding event evaluated in the Draft EIS and in the Hydrodynamics & Sediment Transport Discipline Report (Attachment 5) is an extreme 100-year tidal event. This is a rare extreme event that has a 1% likelihood of occurrence on an annual basis. See the sidebar boxes on page 4-3 of the Draft EIS for more information about the extreme tide event that was used to evaluate the alternatives.

The Olympia Sea Level Rise Response Plan used the most up-to-date localized sea-level rise projections from the Washington Coastal Hazards Resilience Network at the time of the Plan's release. See the Global Response for Hydrodynamics and Sediment Transport for more details on recent publications with updated sea-level rise science. The Plan analyzes near and mid-term vulnerability and adaptive responses up to 24" of sea-level rise, while still acknowledging that sea-level rise will exceed 24" and that adaptation measures will continue beyond 24" of sea-level rise. The Plan also acknowledges that there is uncertainty in the timing of when 24" of sea-level rise is expected to occur. Additional long-term adaptation strategies are outlined; however, the Plan indicates that by the time 24" of sea-level rise has occurred, significant shoreline and stormwater changes will be implemented throughout the City, which makes it difficult to predict the future vulnerability of specific assets beyond 24" of rise.

The EIS adopts a similar logic. 24" of rise is likely to occur within the project's lifespan. While the timing and exact amount of sea-level rise is uncertain, the general trends in flood response among the evaluated alternatives are not expected to vary significantly relative to each other with modest changes to sea level rise (i.e., the relative differences between the alternatives would remain approximately the same with additional amounts of rise).

O-13-11 There is very limited data on the current abundance of coho salmon in Percival Creek. However, in response to this comment some additional information on abundance and distribution was added to Section 3.5 of Final EIS Supporting Chapter 3.0 and Section 4.1 of the Fish and Wildlife Discipline Report.

Thank you for your comment on historic use of the estuary for fishing. This has been noted in Section 3.8.3 of Final EIS Supporting Chapter 3.0 in Section 4.1 of the Fish & Wildlife Discipline Report. Please also note that in assessing impacts to recreation (including recreational fishing), SEPA requires analysis of

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- project changes relative to conditions that would occur under the No Action Alternative. Therefore, the No Action Alternative represents the appropriate baseline for analysis.
- O-13-12 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.
- O-13-13 The Economics Discipline Report (Section 5.5.2.4) discusses the educational benefits to individuals, communities, and the economy from the Estuary Alternative. Section 5.5.2.1 of the Economics Discipline Report describes the changes to employment as a result of the Estuary Alternative.
- Volunteer opportunities could be evaluated as applicable during future operation of the project and in coordination with the projected governance responsibilities for long-term management of the Estuary Alternative, as described in the Memorandum of Understanding that is provided as Attachment 23 to the Final EIS.
- O-13-14 The Cultural Resources sections of the Final EIS have been updated to reflect determinations of eligibility received from the Washington Department of Archaeology and Historic Preservation (DAHP) that relate directly to this comment. See Sections 3.9, 4.9, and 5.9 of Final EIS Supporting Chapters 3.0, 4.0 and 5.0.
- See also the Global Response for Cultural Resources.

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- O-13-15 Comment noted. Revisions have been made in the Final EIS Summary, where appropriate, in response to specific comments received on the Draft EIS.
- O-13-16 See the Global Response for Water Quality regarding the study area used for the water quality analysis, and regarding updates included in the Final EIS related to TMDL allocations.

O-13-14

people landscape architecture and infrastructure over millennia of Indigenous cultural landscapes.

Archaeologists and local history scholars are unfamiliar with any area called the “Des Chutes Basin” either as a district or as a cohesive “basin project”. There are no references to it in state or local records and/or historic registers. According to the Deputy Director at the Washington Department of Archaeology and Historic Preservation, there is no such thing. In his words:

“We are unaware of any proposed historic district and haven’t had any conversations with DES or any project proponents about such a designation (to my knowledge). At this point, I would say that a potential historic district designation has not been vetted by us, so I’m not sure what it includes or could include.”

In addition, the DEIS discusses the potential for designating the Fifth Avenue Dam as an historic structure and identifies that as a consideration for maintaining Capitol Lake. To the best of our knowledge, no entity has applied for, or suggested such a designation, simply because the dam has been there for 70 years and has little architectural significance. To suggest that this be a factor in the analysis is particularly bizarre when compared with the absence of any analysis of the historical value of the submerged lands to the Squaxin Island Tribe. The purpose of the DEIS should not be to conjure speculative arguments in favor of maintaining the lake. The DEIS must include a review of the degradation of the historic sites, and the damage to the cultural and spiritual significance to the Squaxin Island Tribe.

EXECUTIVE SUMMARY

There is a frequent disconnect between statements made in the Executive Summary and the actual content of the substantive chapters in the DEIS. These are errors of both omission and emphasis. We will point out some examples below. The final DEIS Executive Summary should be more accurate and unbiased in its statements.

O-13-15

Comments on substantive elements/chapters in the DEIS that are referred to in the Executive Summary should also be considered as comments on those more detailed portions of the relevant chapters/sections of the full DEIS.

Project Area and Planning Horizon

O-13-16

DERT would like a more thorough explanation of the project area being considered. Why does the area include West Bay, but not East Bay and the entire Budd Inlet? Clearly the entire area of Budd Inlet would be affected by the various alternatives. For instance, modeling by the WA Dept. of Ecology shows that 50% of the problem associated with low dissolved oxygen in Budd Inlet is contributed by the dam at the mouth of the Deschutes River to contain the lake. If the dam was removed and tidal flow re-established, it would benefit water quality throughout the inlet as well as reducing LOTT’s future wastewater discharge issues and potentially save ratepayers significant money.

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O-13-17 Planning Horizon: Why 30 years? The DEIS alternatives analysis is based on a 30-year planning horizon. DERT questions why 30 years and why not a longer – or even infinite – horizon. The dam has been in place for 70 years. The current lease between DNR and DES is for 30 years, expiring in 2028. It should be noted that the cost differential between alternatives would be even more pronounced with a longer planning horizon.

Dredging

O-13-18 Table ES-1 (p. 8): The summary of the alternatives should make clear that the amount of maintenance dredging under the Managed Lake alternative is significantly higher than under the other alternatives. In fact, the table should use the term "spot dredging" for the Estuary and Hybrid alternatives, as the main body of the DEIS says. As currently written, it appears that the amount of dredging is the same in all three alternatives, but occurs with more frequency in the latter two, which is not correct.

O-13-19 Table ES-1 (p. 8): Make it clear that the Habitat Enhancement Plan would not require the intensive invasive species management that the Managed Lake alternative would.

What happens to the New Zealand Mud Snail eradication process if dredged material is used to build habitat islands? Are we just moving them from one place to another? Please explain using science or note if the statement is based on best professional judgement.

O-13-20 In the figure ES6 (p. 27), the term "maintenance dredging" should be replaced with the term "spot dredging," which is used in the full text. Otherwise, readers might assume that the scope and extent of the "maintenance dredging" under the Estuary Alternative would be similar to that under the Managed Lake alternative, or even more, since the DEIS states that the "maintenance dredging" under the Estuary Alternative (and Hybrid Alternative) would occur every 5-6 years, as opposed to the predicted every twenty-year interval for the Managed Lake.

Water Quality Conditions

O-13-21 Stratification (p. 12): The DEIS must provide information as to the rate at which the Deschutes River "flows through" Capitol Lake, and how that rate has changed over time.

O-13-22 There is also a question as to whether, because of sedimentation and reduced retention time, Capitol Lake meets the definition of a "lake" under Clean Water Act standards and criteria. If it does not and cannot meet CWA standards – why even bother with this process? Just remove the dam and let the estuary heal.

O-13-23 In the generalizations regarding stratification of lakes, the DEIS must provide comparisons with other lakes that have freshwater rivers (by definition) flowing into them for an accurate comparison of conditions.

O-13-24 Please delete the phrase "Despite what has been perceived to be worsening conditions in Capitol Lake..." (Executive Summary p. 12). This is someone's opinion, and not relevant to an objective statement of water quality condition, which the DEIS states that it is supposed to be.

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O-13-17 The 30-year time horizon was identified to provide a consistent evaluation period for all alternatives. This horizon allows enough time for each of the potential alternatives to be constructed, established, and have a period of long-term management that can be evaluated. This project time horizon does not forecast too far into the future, to avoid speculation.

O-13-18 Please see EIS Supporting Chapter 2.0 for a detailed explanation of dredging quantities. Tables 2.3.1 and 2.3.4 show that there is significantly less dredging under the Managed Lake Alternative.

O-13-19 Table -1 in the Final EIS Summary has been updated to note that a lower level of invasive and nuisance species would be required to meet management goals.

Many NZMS will survive habitat island construction, but most of those present at the island sites will die from burial by several feet of dredged sediments. Science has shown that NZMS are resilient to habitat perturbations, while best professional judgment indicates they would not be able to crawl to the surface and survive burial by several feet of sediment. Thus, island construction is expected to reduce the NZMS population for all built alternatives based on science and best professional judgment.

Surviving NZMS would be managed following island construction to reduce the population and potential spread outside the lake basin. It is expected that NZMS management would be required for all built alternatives. A lesser degree of management may be needed for the Estuary and Hybrid Alternatives due to the expected loss of NZMS from exposure to marine waters, but some management is anticipated to reduce the risk of establishing NZMS populations at freshwater inputs to Budd Inlet from those that survive transport through marine waters from the project site. Thus, NZMS survival and management are expected under any alternative. There are no known approaches to eradicating the species and science has shown they can recolonize from a single snail.

Decontamination stations would be installed to reduce the spread of AIS outside the Project Area. This has been an effective management approach in other parts of the state. An AIS Management Plan would also be developed in coordination with state agencies to identify the chemical or non-chemical treatments to be implemented to continue to reduce the population.

O-13-20 The text in this figure describes that maintenance dredging would only occur in "impacted areas" in West Bay. This is an appropriate description given that

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- some maintenance dredging events will occur over much of the eastern shoreline (numerical modeling forecasts this at year 12 after project construction) when the criterion for significant impact is reached at the private marinas and in the Federal Navigation Channel. No change has been made.
- O-13-21 Section 4.4 of Final EIS Supporting Chapter 4.0 notes that Capitol Lake calculated detention times range from 0.6 to 7.9 days, and that this is well below the mean detention time of greater than 15 days that is used by USEPA to designate a lake. By definition Capitol Lake is classified as a river and held to the applicable water quality criteria.
- O-13-22 See the Global Response for Water Quality regarding updates in the Final EIS related to the analysis of the ability of the alternatives to meet water quality standards and TMDL allocations, and regarding the comparison of Capitol Lake to other lakes in Thurston County.
- O-13-23 The EIS acknowledges that Capitol Lake is dissimilar to other area lakes because it is so strongly influenced by inflow from the river; by providing the comparison to other lakes, this point is emphasized. The EIS states “differences [from other lakes in the region] are likely due to the atypical hydrodynamics of Capitol Lake: the large inflow from the river and low residence time.” See also the Global Response for Water Quality.
- O-13-24 This section has been revised in the Final EIS Summary and the content in question in this comment has been removed.
- Please see Section 4.0 of the Water Quality Discipline Report (Attachment 7) for a detailed description of the changes in Capitol Lake, as indicated by the trend analysis.

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<p>O-13-24</p>	<p>Please delete the last paragraph on the Executive Summary p. 12 (see quotes). It seems to be simply a paid advertisement for the Managed Lake alternative. If in fact the water quality conditions in the lake are improving, an appropriate statement in the DEIS would be some reference to cause and effect, rather than promotion of one of the alternatives over the others. This paragraph is very unprofessional.</p> <p><i>"The interrelationship among all of the factors affecting the Capitol Lake aquatic ecosystem is important to consider in evaluating the water resources throughout the ecosystem. Perceptions of poor water quality and worsening conditions in Capitol Lake are likely based on historical impairments, the continued impacted aesthetics from aquatic plant growth, and the ongoing restrictions on recreational use, rather than on the water chemistry. These improving water quality trends reduce the level of management that would be needed under a Managed Lake Alternative to meet lake management objectives."</i></p> <p>If in fact water quality trends are improving, the data for that statement should be shown and the causes identified. What has changed in the last several years to bring about any changes in water quality?</p>	<p>O-13-25 Please see response to Comment O-13-5.</p> <p>O-13-26 The water quality analysis for the EIS concludes that under the Estuary Alternative, there would be no change to minor-to-moderate improvements in water quality in Budd Inlet due to removal of the 5th Avenue Dam. This figure reflects the EIS findings.</p> <p>Please note that the Final EIS describes that Ecology has stated that the Estuary Alternative is the only alternative that could meet water quality standards because it would constitute a 'natural estuary' condition.</p>
<p>O-13-25</p>	<p>Please delete the following sentence: " These low dissolved oxygen concentrations are typical of the long narrow inlets that comprise much of South Puget Sound." (p. 13) If you were just describing Budd Inlet, the statement might be relevant. However, Capitol Lake is a dammed river at its mouth and despite being constantly delivered a flow of freshwater, it has water quality characteristics of water bodies without the same significant freshwater inflow.</p>	<p>O-13-27 Please see the Global Responses for Water Quality regarding the use of 2004-2014 data set.</p>
<p>O-13-26</p>	<p>Figure ES.6 (p 27) should say that removal of the dam "would" improve water quality, instead of "may."</p>	<p>O-13-28 Please see the Global Responses for Water Quality regarding use of the 2004 to 2014 dataset.</p>
<p>O-13-27</p>	<p>Please explain why, in examining long term water quality trends in Capitol Lake, the DEIS ultimately only used data collected between 2010 and 2014--i.e., ignored a lengthy historic record, and excluding more recent data. See Section 3.3.3.1.</p>	
<p>O-13-28</p>	<p>Please explain the significance of the cessation of discharges from the Olympia brewery, and how water quality has changed up until the current date.</p> <p>In our research with the WA Dept. of Ecology and LOTT we have discovered the following information about discharges from the Olympia brewery and other sources:</p> <ul style="list-style-type: none"> • The Olympia brewery discharged industrial wastewater directly to the estuary and later to the lake dating from the brewery's original construction in 1896 until 1954, when the brewery began discharging through the City of Olympia sewer lines to the City's new municipal wastewater treatment plant (constructed in the early 1950s). • Although the industrial wastewater from the brewing process was thereafter treated by the city and discharged to Budd Inlet, the brewery continued to discharge non-contact 	

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<p>O-13-28</p>	<p>heated cooling water to the lake. Both discharges of course came to an end when the brewery permanently closed in July 2003.</p> <ul style="list-style-type: none"> The lengthy history of the brewery discharges together with direct discharges to the estuary of municipal sewage, industrial discharges from historic lumber mills and other businesses, stormwater from the city streets and buildings and direct sewage discharges from houses and other buildings constructed over the water in "Little Hollywood" prior to the construction of the 5th avenue dam and prior to the city municipal sewage treatment plant and stormwater collection systems all contributed to the poor quality of the estuarine waters and tide flats before construction of the 5th avenue dam created the lake. But they are all gone now except for an ever-decreasing number of stormwater outfalls. 	<p>O-13-29 Please refer to the Air Quality and Odor analysis in EIS Supporting Chapter 4.0, Section 4.7, and in the associated Air Quality and Odor Discipline Report (Attachment 11), which do describe that historical conditions do not provide a reliable analog to conditions that would occur under the Estuary and Hybrid Alternatives with respect to air quality and odor because of changed sewage treatment, development conditions and other practices.</p>
<p>O-13-29</p>	<p>The oft stated claim by some that returning the lake to an estuary will be a return to the conditions of the first half of the 1900's (with smelly mudflats) is an absolutely untrue and misleading statement and should be called out as such. Closure of the brewery and advances in environmental laws and programs coupled with advances in collecting and treating water pollution sources ensures that conditions in the future in a restored estuary will be vastly improved compared to earlier pre-dam conditions with unregulated and uncontrolled pollution sources. The mudflats at low tide in a restored Deschutes Estuary will in most respects be similar or the same as found in other local inlets such as Totten and Eld inlets – relatively clean and healthy.</p>	<p>O-13-30 From a management perspective, Capitol Lake displays many lake-like characteristics including higher nutrient concentrations, algae blooms, and extensive aquatic plant habitat. Additionally, it is treated as a lake by the public and resource managers. Note that the Managed Lake Alternative includes development of an action threshold for the summer mean concentration of total phosphorous, and an aquatic plant management plan; both of these would support improved management of a lake system.</p>
<p>O-13-30</p>	<p>The DEIS notes (Section 3.3.3.1) that the applicable water quality standards for Capitol Lake, at the present time, are those for rivers, because the Lake no longer retains water for at least 15 days, which would be required to meet the definition of a "lake." It goes on to state that if Capitol Lake were in fact a "lake," it would fail to meet other water quality standards, including those for phosphorus. Please explain whether, under the "Managed Lake" alternative, the lake would have to meet these additional standards, and whether that would add to the costs of this alternative. (p. 13)</p>	<p>The detention time of the Managed Lake Alternative was not calculated in the Final EIS; during development of the Final EIS, Ecology issued a TMDL that concluded that water quality standards in the Project Area would not be met with the current design of the Managed Lake Alternative. Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7) have been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards and TMDL allocations.</p>
<p>O-13-31</p>	<p>Please explain why the "modest improvements" to dissolved oxygen in Budd Inlet (p. 13) are likely to be significantly higher under Ecology models. Please ensure that the additional costs to LOTT to address the dissolved oxygen issues in Budd Inlet caused under the Managed Lake alternative are included in the economic analyses. The DEIS appears to limit its evaluation of water quality conditions to the nearby West Bay area while excluding impacts to East Bay, which is the area most affected by the dam.</p>	<p>O-13-31 The Water Quality Discipline Report (Attachment 7) and EIS have both been revised to remove the term "modest" and replace it with "minor to moderate" to use terminology consistent with the significance criteria defined for the water quality analysis. Text has been added to provide more explanation of why the range of expected changes in DO is considered minor to moderate within the context of SEPA, as defined in Section 3.3 of the Water Quality Discipline Report (Attachment 7); this is based on the area and magnitude of predicted change as suggested by the mechanistic model. Additional language has been added for each alternative to clarify water quality standards compliance; refer to Sections 5.4.3, 5.5.3, and 5.6.3 of the Water Quality Discipline Report (Attachment 7) for a discussion of regulatory consistency.</p>
<p>O-13-32</p>	<p>Support for Ecological functions (p 16 ff)</p> <ul style="list-style-type: none"> Please explain how the proposed placement of "construction" sediment along the shorelines would comply with current (2013) Ecology standards for sediment management. During the Key Findings presentation/briefing, the DES team simply stated that the same thing had been allowed when the lake was last dredged in 1986; Washington State's standards have been revised at least twice since 1986 and sediment and shoreline management programs have also been updated. In recent decades the 	<p>Since release of the Draft EIS, Enterprise Services has remained in coordination with LOTT regarding potential impacts of the project alternatives, and other project topics. LOTT has continued to evaluate potential impacts of the alternatives and has adjusted its cost estimates for potential additional treatment requirements. LOTT has also found that</p>

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treatment may be needed under any of the project alternatives; though, treatment under the No Action and Managed Lake Alternatives would be required much sooner and could not be incrementally installed. Additional information has been provided in Sections 4.13 and 4.14 of Final EIS Supporting Chapter 4.0 to reflect this new and updated information.

Please see the Global Responses for Water Quality regarding the water quality study area, which does include East Bay.

O-13-32 The beneficial reuse of dredged sediment to create habitat areas would support the project goal of improving ecological functions. This type of fill is often permitted in habitat improvement projects. Project impacts and benefits would be provided to the regulatory agencies during permitting to determine whether the project is "self-mitigating" or if additional mitigation would be required as a result of proposed project actions.

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filling of wetlands and marine water areas to create uplands has been largely prohibited and at the very least subject to very stringent conditions if allowed.

O-13-33

- Explain how the Managed Lake alternative would "best support" (p.17) the "foraging base" for bats. Please quantify (vis a vis the Managed Lake option) the "severe" impacts to the bat population that the other alternatives would create. Also consider, over the life of the project, the impacts to the bat population from other factors (e.g., the deteriorating/disintegrating roosting habitat for the bat colony currently residing at Woodard Bay). Please explain why the bat colony merits specific mention here, whereas the major beneficial effects on other species from the Estuary Alternative (e.g., shoreline birds) are not mentioned with the same specificity. Is there some particular significance to the bats?

O-13-34

- Bats are well-known to forage above, along and near estuarine and riverine areas including other estuaries and inlets in our county. Is there something specific about this bat colony that precludes them from such foraging? Or is their current foraging at the lake merely a preference versus a condition for survival? The benefits to the ecology from restoration of tidal estuaries are well written (p. 17) and needs to be emphasized. The benefits to spawning salmon are acknowledged (p. 17). The statement regarding no native species in the Deschutes River because of the Falls should be modified to reflect Tribal legend that there were salmon in the river until an earthquake created the Falls and made passage possible. There are working fish ladders leading up to the reconstructed hatchery above the lower Falls. However, the dam creates a block for salmon returning to the hatchery and hungry seals feast on returning salmon by the dozen. The seals even follow the salmon through the fish ladder and up the river.

O-13-35

- Studies of tagged juvenile salmon by the WDFW and Squaxin Island Tribe have shown that juvenile salmon produced in rivers to the north frequently turn south when they enter Puget Sound. However, the lack of estuarine habitat in the South Sound compared to historic occurrence is a major factor in their poor rate of success.

O-13-36

- Estuaries can sequester carbon in the deep mud and in salt marsh vegetation. They can help mitigate flooding as they expand across river mouths. Please go to Restore America's Estuaries (estuaries.org) to learn more about Blue Carbon and the benefits of restored estuaries to mitigate climate change.

O-13-37

- There also seems to be no mention in the Executive Summary of the benefit to orcas from the healthier salmon populations, which is of course a high priority for this Governor and for the entire Puget Sound (it is mentioned in Chapter 5 of the DEIS).

O-13-38

Recreation (p 17 ff)

O-13-39

The Executive Summary should include a complete summary of the dates of closures on the Lake (e.g., swimming and boating), and not just the last one in 2009. The Lake has been "closed" for a long time. Swimming will never be a viable recreational asset under most alternatives.

O-13-33 See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS. It is acknowledged in the Final EIS that because of limited literature and studies directly relevant to Capitol Lake, a conservative assessment of impacts was required. While it is not well understood how existing ecological conditions supporting bats would compare to those replaced by the Estuary Alternative, and whether this shift will support bats as they currently occur in the region, it is possible the Woodard Bay trestle populations would be negatively impacted.

Regarding the consideration of future viability of roosting habitat, SEPA requires analysis of project changes relative to conditions that would occur under the No Action Alternative. Therefore, the No Action Alternative represents the appropriate baseline for analysis.

Regarding the level of emphasis placed on bat impacts in the EIS relative to birds, the primary focus of a SEPA analysis is the identification of adverse (significant) impacts. For this EIS, the analysis and potential magnitude of beneficial effects was also described.

O-13-34 See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

O-13-35 Comment noted. See also the Global Response for Fish and Wildlife.

O-13-36 In response to this comment, additional text on estuary function, including use of estuaries by non-natal juvenile salmonids was added to Sections 3.5 and 4.5 of Final EIS Supporting Chapters 3.0 and 4.0 and Section 5.5.1.2 of the Fish and Wildlife Discipline Report.

O-13-37 No specific deficiencies in the EIS were noted in this comment. Carbon sequestration is described in Sections 3.7 and 4.7 of EIS Supporting Chapters 3.0 and 4.0.

O-13-38 Please see "What Problem is this Project Seeking to Resolve?". This section of the Final EIS Summary describes that swimming was closed in 1985, following years of intermittent closures due to water quality conditions. It goes on to describe that the waterbody was closed to all public uses in 2009.

O-13-39 Please see response to Comment O-13-38.

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<p>O-13-40</p>	<p>The boating "alternatives" (p. 18) needs to mention that under the Managed Lake alternative, there would be no boating access from Budd Inlet into the Lake because of the continued existence of the Fifth Avenue Dam. A more accurate statement would be that boating in the Managed Lake Alternative would be limited to whatever boats could be launched south of the Dam, but under the Estuary Alternative there would be passage for boats (including sailboats) from Budd Inlet up to the bottom of the canyon depending on tidal cycles. The DEIS says that there would only be sailing under the Lake and Hybrid alternatives; that seems clearly not to be true, since there is sailing right now on tidal waters north of the Dam. In fact, removal of the dam and restoration of the river would likely increase sailing, which would be an economic benefit to the area generally, and possibly to the Port of Olympia and other marina facilities.</p>	<p>O-13-40 See the Global Response for Land Use, Shorelines, and Recreation regarding differences in opportunities for water-based recreation amongst the alternatives. Descriptions of boating use under the Estuary and Hybrid Alternatives have been clarified in the Final EIS to indicate that small sailboats may enter the estuary from Budd Inlet. The Final EIS also provides some additional description of the difference in boating opportunities, but does not include a detailed analysis of the types of non-motorized boating that would be expected to occur under the alternatives. All action alternatives would restore water-based recreation in the basin, which is a substantial improvement over existing conditions.</p>
<p>O-13-41</p>	<p>Discuss more thoroughly the additional recreational benefits of a restored estuary, i.e., bird watching, boardwalks, the remaining trail around the estuarine shoreline, etc.</p> <p>Planning and Cost Estimates (p. 20ff)</p>	<p>O-13-41 As described in Final EIS Supporting Chapter 7.0, Section 7.2.3, the Funding and Governance Work Group provided initial recommendations for long-term funding and governance of the action alternatives in 2021, for inclusion in the Draft EIS.</p>
<p>O-13-41</p>	<p>There should be an explanation of why the State of Washington is assumed to bear 100% of the ongoing costs under the Managed Lake alternative, whereas under the other two alternatives the assumption is that there would be some local portion of the necessary funding.</p>	<ul style="list-style-type: none"> • Managed Lake Alternative: long-term funding and governance should be the responsibility of the State of Washington given the similarity to status quo.
<p>O-13-42</p>	<p>The DEIS should also discuss that under the existing lease between DES and DNR, which expires in 2028, DES is responsible for paying the costs of any remediation necessary in Capitol Lake. This would include any contamination deposited in or on the tidelines, and any other remediation or mitigation because of failure to meet applicable laws, standards, or regulations, including water quality standards. This obligation of DES would apply to all three alternatives.</p>	<ul style="list-style-type: none"> • Estuary Alternative: shared funding and governance would be provided by members of the Funding and Governance Work Group for maintenance of the Estuary Alternative given the shared benefit of estuary restoration and its dredging program.
<p>O-13-43</p>	<p>The DEIS, in its discussion of economic impacts, does not recognize the potential flooding of downtown under the Managed Lake alternative, due to climate change and sea level rise. The City of Olympia has already recognized that it would also need to increase Heritage Park elevations to prevent flooding even with the dam in place.</p> <p>Ecology/EPA work on Deschutes River/Budd Inlet TMDL (p 22)</p>	<ul style="list-style-type: none"> • Hybrid Alternative: no recommendation was provided for long-term funding and governance of the Hybrid Alternative.
<p>O-13-44</p>	<p>A more accurate description of the TMDL process for the Deschutes River, be that EPA approved in part, and disapproved in part, the TMDL issued by Ecology. After litigation was filed, EPA promulgated a TMDL in 2020 for the disapproved portions and took comments until October 2020 on its revisions. After considering those comments, EPA promulgated a final TMDL in August 2021.</p> <p>Ecology published its technical report on water quality findings for the entire watershed, including Budd Inlet, in 2012. Ecology separated Budd Inlet from the scope of the Deschutes TMDL in deference to the DEIS process being led by DES. Its website does not show any date as a target for completing the Budd Inlet TMDL.</p>	<p>O-13-42 A primary recommendation of the Funding and Governance Work Group is for construction funding to be provided by the State of Washington. This reflects a key guiding principle of the Funding and Governance Work Group, which states that those who contribute to the problem should participate in funding or paying for the solution. The State of Washington constructed the 5th Avenue Dam and has had the responsibility to maintain Capitol Lake over its lifetime. The 5th Avenue Dam and deferred maintenance have resulted in or contributed to the existing environmental impairments that must be resolved through project construction.</p> <p>Please also see response to Comment O-13-41.</p> <p>O-13-43 The economic analysis summarized in EIS Supporting Chapter 4.0, Section 4.14, and provided in more detail in the Economics Discipline Report (Attachment 18) describe that under a Managed Lake Alternative, there is an</p>

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increased risk and cost associated with reduced capacity to regulate floods for Deschutes River flows. Final EIS Supporting Chapter 7.0 describes that there would continue to be overland flooding events and associated costs to the City of Olympia, Port of Olympia, and other entities, and that those costs would be most significant under the No Action and Managed Lake Alternatives.

O-13-44 Thank you for this comment. The existing text has been retained in the Executive Summary, but for the update that in 2022, Ecology released the Draft TMDL for Budd Inlet.

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O-13-45	<p>Climate Change and Olympia’s Sea Level Rise Response Plan (p. 23)</p> <p>The Intergovernmental Panel on Climate Change (IPCC) recently released its latest update and forecasts on climate change and its impacts worldwide. As is usually the case, the latest iteration documents how climate change is occurring more rapidly than had been forecast, with its impacts accelerating. Please discuss how the conclusions of the latest IPCC report relate to the DEIS’ assumptions about tidal conditions and floodwaters in the Project Area. Do the effects (e.g., additional risk of downtown flooding) weigh in favor of one alternative or the other?</p>	O-13-45 See the Global Response for Hydrodynamics & Sediment Transport regarding sea level rise projections used in the EIS analysis.
O-13-46	<p>Air Quality</p> <p>The summary (p. 32) states that the impacts and benefits for both the Estuary and Hybrid Alternatives are the same. In fact, the Estuary Alternative provides higher levels of sequestration of greenhouse gases, and the Hybrid Alternative would produce more greenhouse gas emissions during construction (as outlined in Chapter 5).</p>	O-13-46 Comment noted; carbon sequestration potential has been clarified in Table 2 in the Final EIS Summary to better align with the greenhouse gas discussions in Sections 4.7.5.3 and 4.7.6.3 of EIS Supporting Chapter 4.0. Table 3 notes that the Hybrid Alternative would produce more equipment-based greenhouse gas emissions.
O-13-47	<p>Construction Impacts</p> <p>The DEIS states in the summary that the Fifth Avenue Bridge would be fully closed for four to five years under the Estuary Alternative. Please provide the basis for this estimate, a comparison with the construction/schedule closure for the recent replacement of the Fourth Avenue Bridge, and options for use of a temporary bridge.</p>	O-13-47 The construction approach for the new 5th Avenue Bridge has been revised following comments received on the Draft EIS and no longer requires long-term closure. Please see the Global Response for the Estuary and Hybrid Alternatives.
O-13-48	<p>The Value of Estuaries (Ecosystem Services)</p> <p>What is the economic value of a restored estuary? There needs to be a more thorough analysis done to show how estuaries boost local economies. Hundreds of thousands of visitors to estuaries around the nation create substantial revenue to local businesses and organizations. One nearby example is Vancouver B.C. Another is the large increase in visitors to the Nisqually Estuary during and after its restoration.</p> <p>Estuaries provide much needed habitat for species of all kinds. When the Deschutes Estuary is restored, it will give both juvenile and adult salmon a much better chance of survival. Southern Resident Orca Whales depend on Chinook salmon to survive – and the SROs are dwindling in numbers along with Chinook. Sea birds depend on estuaries for food and reproduction. Pinnipeds venture into estuaries for food. And the “mudflats” visible at low tide are teeming with life.</p> <p>Connecting people with a restored Deschutes Estuary, a state treasure, will provide citizens with the opportunity to experience the estuarine environment and associated health benefits of experiencing nature. It is proven to be true: spending time in nature has a significant impact on human health and well-being. It lifts our spirits!</p>	O-13-48 The effects of the Estuary Alternative on the demand for and value of recreation is described in Section 5.5.2.3, and on the demand for and value of ecosystem services in 5.5.2.4, of the Economics Discipline Report. See also Section 4.14.5 of EIS Supporting Chapter 4.0. The change to an estuary would produce both beneficial and adverse effects to individual well-being, depending on individual preferences. It is explained that for many people, a change to an estuary would reduce their enjoyment of the parks surrounding the Basin, for the reasons outlined for the Managed Lake Alternative, related to status-quo bias. It is unclear how many locals and visitors would go elsewhere to recreate, potentially at higher travel cost and lower level of enjoyment compared to the Managed Lake Alternative or No Action Alternative. For other people, restoring estuarine conditions would increase the value of their recreation experience, by creating more diverse ecological experiences, and preferential cultural and symbolic associations with a more natural setting. More people may travel to the newly formed estuary, or would have to travel less distance than they currently do to other estuarine environments, reducing their travel cost and increasing their individual well-being. To the extent that the Estuary Alternative would create a more natural recreational setting than is currently present, the EIS found that it would produce both beneficial and adverse impacts for future recreational users, depending on individual preference. Although the aggregate effect—whether more people would enjoy conditions under an estuary compared to the value people collectively obtain from a managed lake—is unknown, the EIS clearly details the potential tradeoffs for decision-makers.
O-13-49	<p>TABLE ES.2: Please note that all the above comments, and requested changes, apply to the summary of benefits, and impacts of the various alternatives in Table ES.2</p>	O-13-49 Comment noted; please see responses to individual comments.

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CHAPTER ONE

1-5: The draft EIS states that the current lease between DES and DNR for the aquatic lands under Capitol Lake expires in 2028 but may be renewed for an additional 20 years. It also states that the management of the Estuary could be transferred from DES to a different authority. As noted above, DES is not entitled to renew the lease in 2028, because it has allowed the deposition of contaminants, and is and has been in violation of water quality standards. In addition, if the lease is not renewed, DES is responsible for removing any "improvements" made to the underlying lands, including the Fifth Avenue Dam. And DES is responsible for paying for all of this. It appears from the lease that the authority for what to do with the aquatic lands resides with DNR, not with DES. Please also describe what the scope of management would be for a restored estuary on lands managed by DNR. Please describe the relationship of any new organization as well with the Deschutes Watershed Council, which the recently completed Deschutes Watershed Restoration and Enhancement Committee unanimously recommended be established and DERT wholeheartedly supports.

1-20: Evidently the criteria for selecting the preferred alternative were developed and chosen by DES, with "input" from members of the various committees established by DES to provide assistance in developing the DEIS. DES should make a concerted effort to involve those committees in the next step of the process, particularly after DES and its consultants have completed revisions to the DEIS. As DES knows, DERT has been involved as an organization since 2009 in efforts to remove the Fifth Avenue Dam and restore the flowing Deschutes River and Estuary. At this point our only participation in the EIS process has been as a member of the Community Sounding Board. We believe DES must pay particular attention to the input from that group.

CHAPTER TWO

Table 2.1.1: As noted above, please explain why a 30-year planning horizon was chosen, since clearly some facilities in the alternatives would have a longer life. And as we have pointed out, if the Managed Lake were truly to be dredged on a 20-year interval, adding a second cycle of dredging (i.e., a 40-year planning horizon) would substantially add to the costs of the Managed Lake alternative.

Tidal conditions (p. 2-9): Does the simulation of tidal conditions, and inundation patterns, reflect existing forecasts of sea level rise? Or the most recent IPCC report?

As noted above, the DEIS does not appear to consider the regulatory feasibility of sediment deposition, given the current state approach to sediment management. The DEIS states (p. 2-19) that the relevant agencies have said that existing sediments with their invasive species could be deposited along the banks of the Deschutes River. Have they said that in writing?

Table 2.3.2: The table describes the anticipated dredging schedule for the Olympia Yacht Club and other private marinas, the Port of Olympia, and the navigation channel. Please provide a comparison with their existing dredging schedule so that we may know how much of an

- O-13-50 Regarding concerns with unauthorized camping, see the Global Response for Land Management.
- O-13-51 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process and Appendix 21: Preferred Alternative Identification which describes how input from the Community Sounding Board was considered in the decision-making process.
- O-13-52 The 30-year time horizon was identified to provide a consistent evaluation period for all alternatives. This horizon allows enough time for each of the potential alternatives to be constructed, established, and have a period of long-term management that can be evaluated. This project time horizon does not forecast too far into the future, to avoid speculation.
- O-13-53 As described in Section 3.1 of EIS Supporting Chapter 3.0, the numerical model used projections consistent with those used in the Olympia Sea Level Rise Response Plan developed by the City of Olympia, Port of Olympia, and LOTT Clean Water Alliance (LOTT). The Sea Level Rise Response Plan outlines how downtown Olympia can adapt to rising seas, using projections based on data from the Washington Coastal Resilience Project. The EIS Project Team also considered the latest projections developed for the State of Washington to define the "future condition" to include 2 feet (0.61 meter) of relative sea level rise.
- O-13-54 Page 2-19 of the Draft EIS states that "dredged material from Capitol Lake can be beneficially reused within Capitol Lake because such reuse would not increase populations or extent of the purple loosestrife, New Zealand mudsnail, or other aquatic invasive species." This coordination with the DMMP has been relative to placement with the Capitol Lake Basin, where these species already exist, not upstream and into the Deschutes River, as suggested in this comment.
- O-13-55 Please refer to Table 4.2.2 of the Draft EIS for a description of the anticipated dredging schedule in West Bay under the No Action Alternative.

Please see Final EIS Supporting Chapter 7.0 for additional context regarding historical dredging practices, funding for dredging under existing conditions, and recommendations for funding of dredging under the project alternatives.

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O-13-55

increase in dredging frequency would occur. For current dredging at those sites, please also state how the dredging is paid for, particularly the common navigation channel. Please also state how any maintenance dredging in the Managed Lake alternative would be paid for. The DEIS should note that there is no other comparable situation in our state where a state funded, constructed, and maintained dam and resulting lake is relied on to reduce and subsidize the dredging costs for private marinas and public ports.

O-13-56

Please explain the statement on p. 2-28 that the existence of dense aquatic vegetation in Capitol Lake does not indicate that water quality in Capitol Lake is "bad." What does it indicate? Does it indicate that water quality standards are not being met? Please explain the costs of mechanical harvesting under the adaptive management plan proposed under the Managed Lake alternative. Please also state whether that alternative assumes a periodic or frequent application of chemicals to the water to control the vegetative growth. If so, what effect would those chemicals have on other forms of life (e.g., birds and fish).

O-13-57

Please acknowledge that the statement (on 2-29) that there would only be "minor to moderate" improvements in water quality in Budd Inlet under the Estuary Alternative is inconsistent with Ecology's determination that the existing dam causes 50% of the pollution in Budd Inlet, and that there would be significant improvements to water quality in Budd Inlet if the dam were removed.

O-13-58

Please describe the rationale for removing the existing Fifth Avenue Bridge under the Estuary Alternative, and the size of the proposed replacement bridge (p. 2-48). In particular, are the additional features (e.g., pedestrian bridge) fairly allocated to restoration of the estuary, or simply an upgrade to the existing Fifth Avenue Bridge?

O-13-59

CHAPTER THREE

Section 3.0 – Hydrodynamics

O-13-60

Figure 3.1.1 (p. 3-3) does not apparently reflect the extreme tidal events under a king tide. The narrative refers to the 5- Avenue dam controlling the water levels in the lake. While this is what one would expect – it is not true in winter, during a King tide event when inlet waters pour over the dam into what would be the mouth of the river. The heightened tides and marine water flow back into the river, an event due to climate change and sea level rise. If the dam were to stay in place – wouldn't it have to be higher? How could a complete restructuring of the dam be permitted?

O-13-61

3.1 – This section speaks for climate change as if it is something that will happen in the future. It is happening now. Study on the impacts of climate change under current conditions – a real assessment in present time – is needed.

O-13-62

3.2 – Please describe the benefit of estuary restoration to navigation. When the dam is removed, recreational vessels will be able to enter the river from the estuary – an opportunity that doesn't exist with the dam in place.

O-13-56 This statement is not included in the revised section of the Final EIS.

O-13-57 Please see the Global Responses for Water Quality regarding the multiple methods that could be used to control algae and aquatic plant growth.

O-13-58 The following sentence has been added to this section in the Final EIS:

Because the Estuary Alternative would restore the Project Area to natural estuary conditions, Ecology has concluded that it is the only alternative capable of complying with the allocations provided in the Draft TMDL allocation for Budd Inlet, and it would meet applicable water quality standards.

O-13-59 The 5th Avenue Dam cannot be removed without also removing the existing 5th Avenue Bridge. Removing the entirety of the 5th Avenue Dam, concrete and earthen portions, is a key element to estuary restoration.

Final EIS Supporting Chapter 2.0, Section 2.4, has been updated to include additional detail on the new 5th Avenue Bridge that would be constructed as part of the Estuary Alternative. The new 5th Avenue Bridge, which would be located to the south of the existing 5th Avenue corridor, would be approximately 990-feet long and would provide two lanes of traffic with separated bicycle and pedestrian lanes on either side.

O-13-60 To address this comment, a new figure showing the cross-sectional view of the 5th Avenue Dam as well as tides and water levels on the upstream and downstream side of the dam has been added to Section 3.1 of Final EIS Supporting Chapter 3.0 and the Hydrodynamics and Sediment Transport Discipline Report. The top of the east and west radial gates when fully closed is at elevation (EL) +0.5 feet, City of Olympia Datum. The extreme (100-year return period) water level downstream of the 5th Avenue Dam is approximately at EL 0.0 feet, City of Olympia Datum (or +18.0 feet MLLW) and therefore is lower than the top of the radial gates when fully closed with 0.5 feet between the waterline and top of the gate. It was confirmed through observations by Enterprise Services' dam operations personnel that even during extreme high tide events experienced, water does not currently overtop the radial gates.

The east and west radial gates prevent saltwater from traveling upstream during extreme (100-year return period) water levels and with sea level rise values up to 0.5 feet. If an extreme (100-year return period) water level occurs in the future when sea level has risen more than 0.5 feet and less than 2 feet, saltwater would travel upstream into the North Basin for up to 3 hours during

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peak tides, before water begins to recede during that tidal cycle. This flow would be driven by a small hydraulic gradient (slope of water table) and as a result at a slow velocity.

The fish ladder has an adjustable weir at the upstream end that can be raised/lowered. Top EL of the fish ladder at the upstream end (North Basin) can be adjusted from EL -5.0 feet to +0.0 feet, City of Olympia Datum. Therefore, the weir can be raised to prevent flow of saltwater into the basin during a 100-year return period water level event. There have been observations of backflow through the fish ladder during extreme water levels, with water traveling into the North Basin for periods of time. However, given the small width of the fish ladder (9.5 feet) relative to the width of the North Basin (~2,660 feet) and small hydraulic gradient, the volume of water traveling upstream during the period of time that the downstream water level is higher than the top of the fish ladder would not affect water levels in the North Basin.

In the future, if the Managed Lake Alternative were selected for implementation, Enterprise Services could evaluate other potential improvements that could be made to the 5th Avenue Dam to increase its resilience against increasing RSLR, such as increasing the top elevation of the radial gates and the fish ladder to prevent backflow. The modifications were not included in the 2016 engineering report that serves as the basis for the dam overhaul actions included as part of the Managed Lake Alternative, and increasing climate resiliency is not an express goal of the project. These concepts were not included in the conceptual design of the alternative, just as the berm in Heritage Park is not included in the alternative but is a planned action of the City of Olympia. Pursuing such actions in the future would not be precluded.

O-13-61 It is acknowledged that climate change is occurring now and will continue to change going into the future. Recently observed trends in sea level rise and other climate effects are described in the Olympia Sea Level Rise Response Plan and the Thurston Climate Adaptation Plan. Projections for future conditions within the Capitol Lake Basin are informed by analysis of these recent trends, which reflect how our climate has already been changing over the latter half of the 20th century and early 21st century. These trends, in combination with climate models, help predict how the climate will continue to change with respect to current conditions.

The Draft EIS and Final EIS consider climate change conditions to be included in the baseline conditions for all alternatives, including the No Action

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Alternative. While all the effects of climate change may not be actually realized until many years after construction, assuming the "with climate change" condition as the baseline for the EIS provides a more comprehensive and conservative description of impacts.

O-13-62 The section cited is discussing the existing conditions for boating. Please see the discussion of access for boaters under the Estuary Alternative in Final EIS Supporting Chapter 4.0, Section 4.8.5.2.

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O-13-63	3.2 – The Olympia Yacht Club is not a public moorage facility – it is a private, member only club.	O-13-63 Section 3.2 of the Draft EIS correctly describes Olympia Yacht Club as one of the private marinas along the eastern shoreline of West Bay. The sentence has been modified for additional clarity.
O-13-64	Figure 3.2.3 (p. 3-12) does not include any sediment data before 1998. Does that data exist? How about sediment deposition before the dam was constructed in 1951?	O-13-64 In coordination with the US Army Corps of Engineers for the Draft EIS, Enterprise Services was able to obtain bathymetric data dating back to 1998. This was reviewed to support the hydrodynamic and sediment transport numerical modeling, and the navigation analysis. The USACE described that they had surveys logged back to 1987 but did not have that additional decade of data available.
O-13-65	Thank you for the dredging frequency information on pp 3-14 to 3-15. Is there information on frequency of dredging since the construction of the dam in 1951? Before construction? The Olympia Yacht Club has been in its current location since roughly 1906.	
O-13-66	Exhibit 3.27 does not appear to include either West Bay or East Bay. Cultural Resources (Section 3.9) The DEIS repeatedly refers to a "Des Chutes Basin Project Historic District," and features it heavily in discussions of cultural resource impacts analysis for each alternative. There is minimal attention given to Tribal cultural resources such as the Steh-Chass, the indigenous name for the lower Deschutes River and estuary, the effect being to privilege recent white people landscape architecture and infrastructure over millennia of Indigenous cultural landscapes. In fact, there are not references to the Steh-Chass in the Executive Summary.	The EIS Project Team has found additional information regarding historical dredging in the Project Area, dating back to the late 1800s, and this has been added to Final EIS Supporting Chapter 7.0.
O-13-67	Archaeologists and local history scholars are unfamiliar with any area called the "Des Chutes Basin" either as a district or as a cohesive "basin project". There are no references to it in state or local records and/or historic registers. According to the Deputy Director at the Washington Department of Archaeology and Historic Preservation, there is no such thing. In his words: "We are unaware of any proposed historic district and haven't had any conversations with DES or any project proponents about such a designation (to my knowledge). At this point, I would say that a potential historic district designation has not been vetted by us, so I'm not sure what it includes or could include." The DEIS must evaluate the degradation of the historic sites, and the damage to the cultural and spiritual significance to the Squaxin Island Tribe.	O-13-65 Please refer to Final EIS Supporting Chapter 7.0 for additional detail regarding dredging in the Project Area, dating back to the late 1800s. This supplemental discussion also describes that Olympia Yacht Club and the Port of Olympia were present in their existing location prior to construction of the 5th Avenue Dam.
O-13-68	In addition, the discussion of cultural resources does not reflect any more recent pre-Lake historical and cultural resources adversely affected (and probably intentionally so) by the construction of the Fifth Avenue Dam and creation of Capitol Lake. These include Little Hollywood, the Chinese Community, and other water-related and -dependent commercial and industrial enterprises that existed before 1951. All of these have significance to the history of the area. One need only look at the historic photos of this area to see the complexity and abundance of these activities, which have little to no recognition at the present, and apparently would not in the future under the alternatives described--particularly under the Managed Lake alternative. As we see increased new construction in downtown Olympia, these historic and cultural sites continue to be obliterated, but should be recognized and preserved to the extent possible.	O-13-66 Thank you for your comment. This exhibit has been updated in the Final EIS. O-13-67 See response to Comment O-13-14, as well as the Global Response for Cultural Resources. O-13-68 The SEPA review process requires project proponents to: (a) identify and describe any places or objects listed on, or proposed for, national, state, or local preservation registers known to be within or adjacent to the Project Area; (b) describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be within or adjacent to the Project Area; and (c) offer proposed measures to reduce or control project impacts. The Cumulative Effects analysis (EIS Supporting Chapter 6.0) acknowledges the effect of past and ongoing developments and natural elements on historic and prehistoric elements in the study area, but the project was found to not make a considerable contribution to these cumulative effects. Much of this comment is outside the scope of the SEPA analysis.
		See the Global Response for Cultural Resources for information on how tribal values were considered in the EIS. Please also refer to Attachment 21, which shows that tribal values and resources were incorporated into the process to select a Preferred Alternative in three ways:

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1. Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
2. Each alternative was also evaluated relative to Cultural Resources, which considered whether precontact landscapes would or would not be restored or preserved.
3. The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.

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CHAPTER FOUR–WATER QUALITY

O-13-69

On p. 4-94, the DEIS states that the Estuary Alternative is less consistent than other alternatives with long-term reductions in greenhouse gas emissions. This seems inaccurate and inconsistent with other statements that the Estuary Alternative has the least greenhouse gas emissions associated with construction and operation.

O-13-69 Page 4-94 of the Draft EIS correctly states that the Estuary Alternative is less consistent than the Managed Lake or No Action Alternative in terms of reducing long-term GHG emissions specifically associated with construction and operational activities (i.e., outside of the consideration of sequestration). This has been clarified in the Final EIS to make clear that this claim is specific to emissions associated with construction equipment/vehicles and transportation associated with construction and maintenance dredging.

O-13-70

On p. 4-101, the statement that all alternatives are consistent with the City’s Shorelines Management Program is inconsistent with other statements (e.g., on p. 4-104) that the Managed Lake alternative would be inconsistent with restoration of the estuary, and that the Estuary and Hybrid Alternatives would be most consistent with the SMP.

O-13-70 See the Global Response for Land Use, Shorelines, and Recreation regarding consistency with the Olympia SMP and related clarifications in the Final EIS.

O-13-71

On p. 4-174, the DEIS acknowledges the significant costs likely to be incurred by LOTT under the Managed Lake alternative to meet more stringent discharge standards for stormwater and wastewater. Please request from LOTT and include any planning level costs that they have developed under this scenario and impacts to LOTT ratepayers in Thurston County.

O-13-71 Clarifications on utility impacts related to TMDL allocations are included in Sections 4.13 and 4.14 of Final EIS Supporting Chapter 4.0 reflect ongoing coordination with LOTT regarding potential impacts of the project alternatives. New information has been provided by LOTT through this coordination and following release of the Draft EIS and subsequent issuance of the Budd Inlet TMDL by Ecology.

O-13-72

Although the DEIS states that recent data show an improving trend in some water quality conditions, there is no statement as to why this might be. We fully supported the effort to develop TMDLs for the Deschutes River and Capitol Lake, but we are not aware of any significant effort by the State or by local governments or other entities to implement the approved TMDLs to such an extent that any actual change in water quality would be expected to occur. Most of the impacts to water quality in this basin (in addition to the dam) are the result of upstream nonpoint source pollution activities which are primarily subject only to voluntary improvement programs, with some exception for forestry in the upper reaches of the basin. Other than some improvements in stormwater controls by the cities and county, we are not aware of any regulatory changes to point source pollution sources that would have caused an improvement in water quality in recent years.

O-13-72 Please refer to the trend analysis provided in Section 4.1.2.1 of the Water Quality Discipline Report (Attachment 7) for a detailed description of improving trends in water quality in Capitol Lake, since 2004.

O-13-73 Please refer to Section 3.3.3.1 of Final EIS Supporting Chapter 3.0 and Section 4.1.5 of the Water Quality Discipline Report for a summary of the findings from the EIS water quality analysis related to the change in nitrogen levels between the river, lake and Budd Inlet.

O-13-73

The reduction in DIN within the lake compared to the Deschutes River does not indicate that removal of the dam will increase nitrogen loading to Budd Inlet. Plant and algae within the lake uptake nitrogen within the lake as they grow and increase in number, and later decompose and release that same nitrogen to the inlet. The statement in the DEIS appears to assume that that nitrogen is somehow lost or removed with the dam in place, which of course is not the case, although the timing of the release to marine waters may vary. In addition, carbon uptake and release also play a large role in depletion of Budd Inlet dissolved oxygen. Please refer to the WA Dept. of Ecology TMDL and technical reports for a discussion of these.

Please also see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report.

O-13-74

The DEIS states that water quality in the lake in spring and fall months is improved compared to the rest of the year. Although not stated, this is likely due to increased inflow from the Deschutes River during high flow events during those time periods. In recent years rainfall during our summer months has been decreasing while air temperatures have increased. The DEIS should review and summarize rainfall, streamflow and air and water temperature records.

O-13-74 Section 4.1.2.1 of the Water Quality Discipline Report describes the assessment of long-term water quality trends. The evaluation of trends included looking at data over the years by season, but did not evaluate trends in water quality between seasons (e.g., spring and fall water quality vs. summer water quality). The trends assessment focused on evaluating the most recent 10 years of monitoring data (i.e., 2005 through 2014), identified statistically significant improving trends in several water quality characteristics, and concluded that the most recent 5 years of data were most representative of existing water quality conditions. The EIS acknowledges that there is inter-annual variability reflected in the water quality data, in part influenced by weather and streamflow, and that is why multiple years were used to characterize existing conditions. In regard to assessing impacts from

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decreased summer rainfall and streamflows and warmer water temperatures, the intent of the analysis was to support the comparison of alternatives; it was not to perform a scientific study of the lake or river system. However, the recent changes in weather patterns noted in the comment are changes that should have contributed to worsening conditions in the river and lake rather than the improving conditions that were noted.

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O-13-75	<p>Please see our comments above on previous sources of point source pollution under “water quality conditions”. It is very clear that the historical sources of human and industrial pollution to the estuary and to the lake were very large and were largely untreated until the 1950s. Water quality in the estuary from about 1896 until 1954 was undoubtedly very poor due primarily to those untreated point source discharges along with unrestrained logging and other activities within the basin. Subsequently point sources to the lake were greatly diminished with the passage and implementation of the federal Clean Water Act and State Water Pollution Control Act but have not been totally eliminated – there are still some relatively smaller point sources in the basin, these are primarily construction and stormwater related, although the City of Olympia has made efforts to remove and redirect some stormwater outfalls from the lake to Budd Inlet. Old stormwater outfalls to the lake still exist and are difficult to treat to reduce pollution without extensive reconstruction and installation of treatment modules at a high expense.</p>
O-13-76	<p>“Good water quality” consists of more than just a lack of chemicals in the water and appropriate levels of oxygen, pH and temperature that will sustain aquatic life. Under our state’s water quality laws and standards any addition of deleterious materials in the natural waters of the state can constitute a water quality violation. We urge DES not to discount the terrible effects of excessive algae and aquatic plant growth within the lake to both wildlife and humans.</p>
O-13-77	<p>With increasing temperatures due to climate change and increasing nutrients due to population growth entering both our fresh waters and marine waters, the occurrence of algae blooms and excessive plant growth is ever increasing. This leads to increases in both adverse physical and chemical effects. While many people are concerned with the purported loss of an aesthetic view of the Capitol if the estuary is restored, few seem to regard the current awful conditions of algae and plant growth and decay within the lake with the same level of concern. Modeling by the WA Dept. of Ecology has shown that no amount of dredging to deeper depths within the current lake will overcome the sources of nutrient pollutants causing these cycles of growth and decay. However, restoring the estuary will greatly diminish those cycles within the estuary and lead to improved water quality in Budd Inlet.</p> <p>Many lake management districts exist in our state mainly to remove excessive plant growth in the lakes caused by over enrichment of nutrients. While such removal can result in a temporary depletion of the plants, these efforts are in fact never ending and do not treat the root cause. Removal of the plants is not a solution to the problem – reducing the sources of the pollution and the causes of the plant growth will result in a more sustainable, long-term solution. Restoring the estuary is the largest part of that sustainable, long-term solution in this case, coupled with implementation of the Deschutes River TMDLs.</p>

O-13-75	<p>The TMDL for Budd Inlet, released by Ecology in 2022, has stormwater allocations (for four parameters (TN, DIN, TOC and BOD5)) for municipal stormwater permittees, including the cities of Lacey, Olympia and Tumwater, Thurston County, Washington Department of Transportation, and Enterprise Services. As described in the Draft and Final EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes River and Budd Inlet TMDLs are expected to improve water quality in the Project Area over the long term.</p>
O-13-76	<p>Please see the Global Responses for Water Quality regarding the addition of regulatory compliance sections that describe the ability of the alternatives to meet water quality standards and TMDL allocations. Please see Final EIS Supporting Chapter 4.0 (Section 4.3) and the Water Quality Discipline Report (Attachment 7) for more detail.</p>
O-13-77	<p>Thank you for this comment. The EIS Project Team acknowledges that under the Managed Lake Alternative, ongoing aquatic plant management would be needed to avoid impacts to recreation, aesthetics and aquatic life uses.</p>

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O-13-78	<p>CHAPTER FIVE--SHORT-TERM IMPACTS AND MITIGATION</p> <p>In general, many statements in this section need to be reviewed by relevant state agencies for their respective jurisdictional issues, particularly the Washington Department of Fish and Wildlife and the Department of Ecology.</p>	O-13-78	Enterprise Services solicited input from state resource agencies during development of the Draft and Final EIS. See Final EIS Supporting Chapter 8.0 for information on engagement with the work groups, which included representatives from WDFW and Ecology.
O-13-79	<p>Section 5.9.2.1--Archeological Resources</p> <p>While the statements may be true regarding recorded archeological sites, the DEIS should at least recognize the need to consult with the Squaxin Tribe, and the State Department of Archeology and Historic Preservation, throughout the entire project process.</p>	O-13-79	Section 5.9.6.1 of EIS Supporting Chapter 5.0 discusses consultation that would occur with the tribes and DAHP.
O-13-80	<p>CHAPTER SIX--CUMULATIVE EFFECTS</p> <p>Table 6.5.1 should note that the Deschutes River TMDL has been completed by USEPA.</p> <p>Table 6.5.1 should include implementation of the Deschutes Watershed Restoration and Enhancement plan, completed in April 2021, with a list of projects in Thurston County to offset future exempt wells, and to restore degraded habitat in the Deschutes Watershed. Part of the implementation will include creation of the Deschutes Watershed Council. The hope is that the Council will be authorized and funded in 2022.</p> <p>On p. 6-16, why is the bat colony singled out for potential adverse impacts, and yet there is no discussion of beneficial effects on other bird species.</p>	O-13-80	Regarding the Deschutes River TMDL, the status of this TMDL has been updated in Table 6.5.1 of the Final EIS. Table 6.5.1 has also been updated to include the Deschutes Watershed Restoration and Enhancement Plan and associated projects.
O-13-81	<p>CHAPTER SEVEN--PLANNING LEVEL COSTS</p> <p>DERT's sole comment on this chapter, not having been a member of the Funding and Governance Committee, is that the costs for moving forward should be calculated from the <i>status quo ante</i>--more specifically, the state of the river and the estuary before the 1951 construction of the dam that interfered with the natural conditions and processes. That interference has now been compounded into problems that have reached a point that they must be addressed. However, those who benefit from a restoration to natural conditions now should not be required to pay for the future costs of those who have benefited from the unnatural conditions for the past 70 years.</p> <p>There should also be significant evaluation of the role of the federal government in helping with restoration costs.</p> <p>Thank you for the opportunity to comment. DERT will continue to watch and participate in this process throughout work on the Final Environmental Impact Statement.</p> <p>David Monthie Dave Peeler Sue Patnude olydert@gmail.com</p>	O-13-81	Regarding the evaluation of impacts to the Woodard Bay trestle bat colony, please see response to Comment O-13-33.
			Regarding bird species, Section 4.5.5 and 4.5.6 of Final EIS Supporting Chapter 4.0 has been updated to reflect benefits to certain bird species groups identified under the Estuary and Hybrid Alternatives.
			Please see updates throughout Final EIS Supporting Chapter 7.0, which describe the project funding approach based on ongoing negotiations with the Funding and Governance Work Group. Chapter 7.0 also describes that if funding is provided for the next project phase, a funding strategy will be developed for construction. Construction funding will likely include a combination of federal and state grants and appropriations of taxpayer dollars.

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8/30/2021 Roundcube Webmail :: CLIPA Comments for the Capitol Lake/Deschutes Estuary Draft EIS

Subject: **CLIPA Comments for the Capitol Lake/Deschutes Estuary Draft EIS**
From: Marcia & Bob <justisholman@gmail.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-27 10:38



- CLIPA Draft EIS Comments--Final August 25,2021.pdf(~4.1 MB)

Attached please find the PDF version of CLIPA's comments for the Capitol Lake/Deschutes Estuary Draft EIS. Please acknowledge receipt of this PDF by return Email.

Thank you,

CLIPA Co-Chairs:
Bob Wubbena
Bob Holman
Jack Havens

O14-1

COMMENT

RESPONSE



CLIPA
Capitol Lake Improvement and Protection
Association

"Save the Lake – Preserve the Past, Improve the Future."

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
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**COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR
CAPITOL LAKE / DESCHUTES ESTUARY**

The Capital Lake Improvement and Protection Association (CLIPA) appreciates the opportunity to provide public input on the Draft Environmental Impact Statement (DEIS) issued June 30, 2021. After reviewing the DEIS, the Executive Summary, the background Discipline Reports and the additional Planning -Level Cost Estimates (issued August 9, 2021), CLIPA is now submitting our comments for your response and consideration.

CLIPA is a 501(c)(4) organization of community stakeholders, including a multi-discipline team of experienced professionals, that began its review of the status of the Capitol Lake Basin beginning in 2009 with the CLAMP Study, and extending to the current Capitol Lake-Deschutes Estuary EIS. Our members have participated in public forums and advisory groups with Ecology, Thurston County, DES and are currently part of the Community Sounding Board (CSB) for this EIS. We have met regularly for twelve years to develop an understanding of the issues impacting Capitol Lake, with an emphasis on using defensible scientific information to inform our decisions. We have also commissioned and funded several independent expert studies to help understand the conclusions of questionable studies by state agencies. This work has been submitted to DES previously.

For this document, we have arranged our input with a GENERAL COMMENT first for your consideration, followed by a brief synopsis of the KEY FINDINGS IMPORTANT TO THE STATE DECISION PROCESS beginning on Page 4. Beginning on Page 11, we have arranged our SPECIFIC COMMENTS FOR EACH SECTION OF THE DRAFT EIS INCLUDING DETAILS FOR KEY FINDINGS for each section of the Draft EIS in the general order they appear in your presentation. Our submission ends with an APPENDICIES section for your reference.

GENERAL COMMENT

1

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O14-1-1 The commenter is correct that the alternatives presented in the EIS represent different approaches to achieving the project goals articulated in the earlier planning phase, and can be seen as different "programs" to achieve project goals. In large part, the "project" and "programmatic" elements of the EIS that the commenter brings up are a result of the direction provided to the Enterprise Services by the Washington State Legislature through Engrossed Substitute Senate Bill's (ESSB) 6095 and 6248 (see Section 1.10 of EIS Supporting Chapter 1.0). Enterprise Services was directed to develop an EIS with the three different alternatives (Managed Lake, Estuary, and Hybrid), with mitigation plans identified, with an economic analysis for an expanded area around Capitol Lake and Budd Inlet including the Port of Olympia, with a funding approach, and with a Preferred Alternative identified in the Final EIS. There are only two general approaches for management of the Capitol Lake – Deschutes Estuary though: keep the 5th Avenue Dam in place and maintain a freshwater lake, or remove the 5th Avenue Dam and restore tidal estuarine conditions, and there must be a review of both options to inform decision-making. Within these options, specific project elements can be defined, like the construction dredging, habitat islands, boardwalks and other features that would be constructed under any alternative.

The commenter does not provide enough information around the claim that the Estuary and Hybrid alternatives have been poorly defined in order to provide a response. Background on the development of the alternatives and the descriptions of the alternatives are included in EIS Supporting Chapter 2.0.

Refer to Section 1.12 of EIS Supporting Chapter 1.0 for a description of how the Preferred Alternative was selected. After the EIS process is complete, and a Preferred Alternative is selected for implementation, Enterprise Services could evaluate whether short-term actions could begin. However, many short-term actions (like dredging) do require design and permitting, which is the next phase of the project and does require a funding appropriation from the legislature.

PROJECT VS PROGRAMMATIC EIS

For years the community has been divided on the long-term future of the Capitol Lake Basin. One issue on which the community largely agrees, however, is the need to actually begin action in the basin and bring the studies to a close. After spending an estimated \$10M on various studies over the past twenty years or so, both the community and the State Legislature are ready for action. This current EIS process is the most promising effort to make that happen. However, this EIS is somewhat unusual in that it combines elements of both a "project EIS" and a "programmatic EIS". The program elements of the project, and the desired outcomes, have been clearly outlined following a robust stakeholder and community discussion. But, unlike most projects that can then move forward to evaluate the environmental impacts of a single option, this project has three widely different approaches to reach the desired outcomes. Therefore, we have an EIS that must not only evaluate the environmental impacts of all three alternatives, it must additionally provide enough information to evaluate the merits and costs of each alternative so that a preferred alternative can be selected. It is this last requirement of the EIS that the current Draft EIS fails to provide. The Estuary and Hybrid Alternatives, in particular, have been poorly defined leading up to this current effort. This, in part, has led to some of the major deficits in the Draft EIS; namely, significant gaps in understanding the alternatives, incomplete critical data, lack of the use of local experience and expertise and the absence of defined funding sources. Compounding this problem with the Draft EIS is the position of DES as stated in the June 30, 2021 opening letter from William Frare, the SEPA Responsible Official:

Neither short-term actions nor a long-term management alternative can be implemented until an EIS is completed and a Preferred Alternative is selected.

How can the community's and Legislature's desire for action be met if even short-term actions must wait until a preferred alternative is selected and the final EIS approved? The Draft EIS doesn't call for work to begin until 2028, and that assumes that there are no delays in moving from the draft to final EIS. CLIPA's evaluation of the Draft EIS is that it is inadequate as it stands to provide the necessary information to select a preferred alternative. If this proves to be the case, any action will be further delayed, and further frustrate the community and the Legislature.

PHASED IMPLEMENTATION AND RATIONALE

For each of the active alternatives considered in this EIS, all require a dredge of the North Basin as an initial step and a precursor of any work specific to all of the alternatives. Some of the details of this dredging operation vary with the three alternatives, but the basic features include dredging the accumulated sediment from the past 30 plus years, and placing it within the basin to form habitat islands. This is essentially a "maintenance dredge", similar to the last one done in the 1980's and consistent with the historical requirement for DES to maintain this portion of the Capitol Campus. All alternatives will continue to remain viable while this dredging is underway. **Why is it necessary to commit to a preferred alternative at this stage?**

CLIPA suggests that DES modify their process, within the SEPA guidelines, to create a phased implementation that will allow this "maintenance dredge" to begin promptly. This would be done

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concurrently with the work necessary to resolve the issues with the Draft EIS so it can move forward to a final EIS with a selected alternative. We suggest that the consultant could advise DES and create a brief Project EIS for the minimal environmental impacts of the "maintenance dredge", similar to the one used during the 1987 dredging operation. DES could then move forward to request funding from the Legislature for this limited work.

The concurrent work during this initial phase would essentially be the Supplementary Environmental Review (SEIS), called for in the Draft EIS if substantial issues are raised in the Public Comments for the Draft EIS. This SEIS would include the key findings that CLIPA outlines in the following sections below (including the establishment of funding sources), plus additional items raised by other commenters on the Draft EIS that are also determined to be substantial. Additional, thorough analysis for the SEIS may be required for any of these additional comments that are in conflict with those of CLIPA or others, so that all community members feel that they have been heard.

Following public review of this SEIS, the recommendation for a preferred alternative would then move forward and DES could request funding from the Legislature for the specific alternative selected. By the time this funding is approved, the "maintenance dredge" would be well underway. With this proposal to create a phased approach, the project would be better able to "hit the ground running", minimizing the overall project timeline. **Is DES willing to work, within the SEPA Guidelines and with the Legislature, to make a phased implantation such as this to move the project forward?**

O14-1-2 Design of the proposed dredging that would occur during construction varies for each alternative.

Under the Managed Lake Alternative, the entire North Basin would be dredged to reestablish depths that would best support recreational use. The sediment would be moved to the Middle Basin to create habitat areas. Under the Estuary Alternative, dredging would occur where the main channel of the Deschutes River would reestablish. Dredging in this location would minimize the amount of sediment that is transported by the Deschutes River after removal of the 5th Avenue Dam. Dredging would also create side channels, similar to the historic Deschutes Estuary. Sediment would be placed in the Middle and North Basins to create habitat areas. Dredging under the Hybrid Alternative is similar to the Estuary Alternative but would not occur in the eastern portion of the North Basin.

A long-term management alternative must be identified to support dredge design.

Also note that the proposed dredging and establishment of habitat areas require a suite of state and federal permits. The regulatory agencies that are responsible for issuing these permits have stated that Enterprise Services must identify a long-term management alternative before project permitting.

Some phasing could be considered during construction as needed to compress the construction schedule or to respond to phased funding; but phasing would not occur as suggested in this comment.

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KEY FINDINGS IMPORTANT TO THE STATE DECISION PROCESS

CAPITOL LAKE WATER QUALITY IMPROVEMENTS

To quote from the Executive Summary of the Draft EIS, Page 12:

“As part of the water quality analysis for the Draft EIS, the EIS Project Team evaluated monitoring data from 2004 to 2014 and also collected water quality samples in 2019 to compare current conditions against the historical dataset. Despite what has been perceived to be worsening conditions in Capitol Lake, monitoring data indicate that water quality conditions have actually been improving in the lake and are relatively good in terms of physical and chemical characteristics important to aquatic life. There are only occasional seasonal violations of water quality standards, primarily associated with slight changes in temperature and dissolved oxygen.”

And:

“These improving water quality trends reduce the level of management that would be needed under a Managed Lake Alternative to meet lake management objectives.”

This improvement in water quality is evidence that adaptive management can work. The City of Olympia and DES have worked to remove many of the sources of contamination, along with others who continue to improve upstream conditions to make Capitol Lake the cleanest in Thurston County. This adaptive management concept must be remembered as we now look to the future of Capitol Lake with respect to control of invasive plants and animal species.

PASSIVE NITROGEN REMOVAL IN CAPITOL LAKE

Ecology’s primary water initiative in the South Sound and the overall Salish Sea is their study, the Puget Sound Nutrient Reduction Project, which is focused on meeting the dissolved Oxygen (DO) water quality standards by reducing both the human point and non-point sources of excess nutrients. The primary nutrient impacting water quality in Budd Inlet is Nitrogen.

The Draft EIS failed to consider the natural effect of aquatic plants in removing a substantial portion of the Nitrogen entering Capitol Lake from the Deschutes River flow. On a daily basis in the summertime, this downstream environmental improvement rivals the summer season Nitrogen removal capacity of the LOTT Wastewater Treatment Plant, installed in about 1990 at a cost of more than \$50M. The lake’s cost-free Nitrogen removal will be lost with the elimination of Capitol Lake and creation of an estuary. Focusing on LOTT, the primary Nitrogen point source discharge to Budd Inlet, Ecology’s upcoming TMDL is likely to require LOTT to make up the difference in Nitrogen removal if the Capitol Lake contribution is lost. However, even with total removal of Nitrogen from their discharge, LOTT will still not be able to compensate for the large amount removed in Capitol Lake. Therefore, the result of dam removal is likely to be a degradation of water quality in Budd Inlet. **Doesn’t this directly conflict with the project goal of “Improving Water Quality”? Why isn’t the Nitrogen removal aspect of the Managed Lake Alternative recognized as a significant benefit?**

O14-1-3 Thank you for your comment.

As described in the Draft EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes TMDL and other efforts are expected to improve water quality in the Deschutes River over the long term, which result in improvements to water quality in the Project Area.

As described in Section 4.3.4.1 of Final EIS Supporting Chapter 4.0, under the Managed Lake Alternative, an adaptive lake management plan would be developed to achieve water quality objectives and enhance beneficial uses; the plan would include measures that are relatively modest (e.g., mechanical harvesting of aquatic plants) because existing water quality conditions in Capitol Lake are relatively good.

However, based on Ecology’s existing TMDL allocation for the lake, and their requirement to use a mechanistic model with the same assumptions as used in the TMDL to predict potential improvements due to lake management activities, it would be very difficult to maintain any lake under any management scenario and achieve compliance with the TMDL and state water quality standards throughout the Project Area.

O14-1-4 An increase in nitrogen is predicted if the dam is removed as described in Ecology’s modeling results and in Final EIS Supporting Chapter 3.0, Section 3.3.4.3. Section 3.3.3.1 has been modified to emphasize the increased nitrogen input that would occur without the dam in place, in light of the pending nitrogen reduction program for Puget Sound.

The comparison between nitrogen inputs in the Deschutes River and Capitol Lake has been expanded in Section 3.3.3.1 to include a comparison of nitrogen loading. These results further support the findings of Ecology’s modeling and the EIS team’s analysis that nitrogen inputs to Budd Inlet would increase with dam removal.

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Ironically, a confirmation of the ability of aquatic plants to remove nitrogen has been documented by LOTT at their reclaimed water wetland site in Lacey. They found the following when characterizing the incoming and outgoing reclaimed water at the site :

"It is also noted that total nitrogen and nitrate concentrations are decreased through the wetlands. For example, nitrate concentrations in the Class A reclaimed water average 6.6 mg/L over the four events, compared with concentrations in water discharging from the wetland ponds averaging 2.8 mg/L". (Page 44, Wastewater and Reclaimed Water Quality Characterization, (Task 1.3) LOTT Clean Water Alliance Reclaimed Water Infiltration Study Technical Memorandum February 7, 2017.)

The DEIS alleges that an estuary would relieve Budd Inlet of DO depletion caused by Capitol Lake. The opposite is true; Lake vegetation, like the LOTT wetland's vegetation, removes nitrogen. An estuary with no comparable nitrogen removal ability would increase the Inlet's DO depletion and could force increased remedial nitrogen removal actions by LOTT at increased costs to ratepayers."

Please review this result with LOTT Technical Staff, and ask them to confirm our conclusions regarding Nitrogen removal in Capitol Lake, and the implication for LOTT if this removal capacity is lost.

SWIMMING IN CAPITOL LAKE NOT CONSIDERED

Many in the community have memories of swimming in Capitol Lake (open from 1964 to 1985), and this is often cited as a desirable recreational and socializing opportunity. The Draft EIS recognizes that Capitol Lake now has better water quality than several local swimming areas, such as Black Lake and Long Lake. Obviously, only with the Managed Lake Alternative is this recreational option possible. Intertidal mudflats, or even a marine reflective pond, do not offer the same recreational benefit.

DES has rejected consideration of this recreational opportunity, stating:

"Operating formal swimming facilities is not in alignment with the mission of Enterprise Services, and there are no known plans to introduce such services into the agency mission or scope of services."

Because of DES's position, the Draft EIS appears to place no value on the potential for swimming as a component of the Managed Lake Alternative. DES also did not have the mission of providing swimming during the 1960's, 70's and 80's, yet the City of Olympia saw the value to the community, and operated this swimming beach for many years. Ignoring this possibility diminishes one of the key recreational opportunities for the Managed Lake Alternative. **In fairness, shouldn't the potential for swimming in Capitol Lake be reconsidered as a significant benefit? And, in general, shouldn't the community's desires be considered as an important element in any issue bearing on the selection of the preferred alternative?**

NEW ZEALAND MUD SNAIL (NZMS) EVALUATION

The future persistence of the NZMS is a question of key importance in the evaluation of the cost of long-term dredging, both in the freshwater of a Managed Capitol Lake and in the marine waters of an Estuary or Hybrid. Based on the Planning-Level Cost Estimates recently provided by DES for the Draft EIS, we find some startling information based on the impact of this one question. For the Managed Lake Alternative, the difference in total cost using upland disposal (due to NZMS) versus in-water disposal

O14-1-5 Please see response to Comment I-775-3. This comment incorrectly states that the Draft EIS concludes that an estuary would relieve Budd Inlet of DO depletion caused by Capitol Lake. Rather, the Draft EIS concluded that the Estuary Alternative would have seasonally low dissolved oxygen and there may be modest changes to dissolved oxygen in Budd Inlet.

The Final EIS has been updated to reflect the conclusion from Ecology that the Estuary Alternative is the only alternative that can meet water quality standards, based on their modeling. The Final EIS also describes the potential impact to LOTT under the Managed Lake Alternative, based on the TMDL issued by Ecology in 2022. Ecology (rather than LOTT) is the agency with jurisdiction over water quality in the Project Area and regulatory compliance of the alternatives have been included based on Ecology interpretations.

O14-1-6 The characterization of swimming opportunities provided by the Draft EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, and their ability to meet the proposed project objectives. The evaluation acknowledges that the alternatives vary in their ability to provide recreational activities, including swimming and additional content has been added in Section 4.14 of Final EIS Supporting Chapter 4.0 to describe that the Managed Lake and Hybrid Alternatives would preserve option value associated with the potential to develop swimming opportunities in the future.

Please see Attachment 21: Preferred Alternative Identification for discussion of how alternatives were evaluated against the selection criteria and also the Global Response for the Preferred Alternative Identification Process.

O14-1-7 Section 5.7.1.1 of the Aquatic Invasive Species (AIS) Discipline Report outlines the many elements of the AIS Adaptive Management Plan and includes the following first element: "Conduct monitoring of New Zealand mudsnails to identify their abundance within Capitol Lake and adjacent waters and of purple loosestrife seeds to identify their abundance and viability in lake sediments." This monitoring is important to assess the abundance and distribution of these most important AIS to inform management of them during construction and prior to operation. This monitoring would also be used to evaluate if and how New Zealand mudsnails have impacted native species in the lake for assessing potential impacts by them under the Managed Lake Alternative and in other freshwater systems.

In response to comments submitted on the Draft EIS and to support analysis in the Final EIS, a study was commissioned to investigate whether New Zealand

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mudsnails are currently present in Budd Inlet (Johannes 2022). The study occurred in April 2022 and investigated 21 sites, 16 of which were previously surveyed in 2011 and including several sites adjacent to various freshwater inputs. Most sites collected in Budd Inlet had marine fauna present, indicating conditions would allow for colonization if New Zealand mudsnails were tolerant to salinities. No New Zealand mudsnails were found during this survey and the study concluded it is likely that year-round salinity levels are too high anywhere in Budd Inlet for New Zealand mudsnails to survive.

See the Global Responses for Cost, which describe that cost estimates were prepared for in-water disposal of dredged sediment under the Managed Lake Alternative, although that is currently prohibited given the known presence of the New Zealand mudsnail.

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(without NZMS) is projected to be \$243M. For the Estuary Alternative, this same comparison results in a total cost difference of \$401M. And for the Hybrid Alternative, \$564M.

It's apparent that we must bring all possible information to bear on this question if we are going to have any chance of making a valid preferred alternative selection. For this reason, CLIPA has examined the literature, commissioned an independent study, searched all current samples and suggested a variety of options and adaptive management approaches. The most pertinent of this information is presented in the discussion in the section on **AQUATIC INVASIVE SPECIES (AND IMPERILED AND NUISANCE SPECIES)**.

The bottom line is, the NZMS is unlikely to persist as a problem, in either freshwater or marine water by the time dredging is anticipated to occur. We have asked that DES resume the exploration of the Capitol Lake Basin immediately for NZMS to provide current data which has been missing for the last five years. We have also asked a number of questions designed to narrow the uncertainty around the NZMS persistence. **Again, these critical issues must be thoroughly explored so that an informed decision on the preferred alternative can then be made.**

NEXUS WITH FEDERAL CORPS OF ENGINEERS (COE) NOT DEVELOPED

COE permitting is not discussed in the Draft EIS. However, the Draft EIS concluded that the Port and COE would need to complete a Turning Basin and Navigation Channel dredge before the Estuary and Hybrid Alternatives could proceed. Therefore, we assume that the Capital Lake and Deschutes Estuary Project/Program has a "State/Federal Nexus" and as such the COE is a critical part of the decision process. The Draft EIS does not confirm that the COE has officially been engaged in the review, and their requirements have not been integrated into the EIS process. If the pre-dredge is a prerequisite for the Estuary and Hybrid option, COE involvement and agreement is an essential first step for any dredging work. **Shouldn't this discussion be included in the Draft EIS?**

The COE also plays an integral part in determining disposal location and the sediment properties that are appropriate for deep-water disposal. This is again an instance of a "State/Federal Nexus", and there is no discussion of this in the Draft EIS. The deep-water disposal criteria may prove to be critical in determining the disposition of up to 500,000 cubic yards of sediment over the next thirty years. **Shouldn't this discussion also be included in the Draft EIS?**

THE HYBRID ALTERNATIVE HAS A CRITICAL FLAW

The development of the Hybrid Alternative was intended to be a compromise that would incorporate many of the most positive elements of the Managed Lake and Estuary Alternatives. In reality, however, the removal of the dam makes the Hybrid just a subset of the Estuary, with the only significant "Lake" feature being the addition of a barrier wall in the North Basin to create a reflecting pool. The irony of this proposal is that the imposition of the one-half mile long concrete and sheet pile barrier wall will block the view of the reflecting pool from most of the significant viewpoints along the Deschutes Parkway. Instead of the scenic view across the water to the East shore and Capitol, this industrial-scale barrier will predominate the view. **The Draft EIS needs to include simulated views at both high and low tide from the Deschutes Parkway across the North Basin to fully inform the public.**

FUNDING SOURCES FOR LONG-TERM DREDGING ARE NOT IDENTIFIED

In a heading in one section of Chapter 7, the Draft EIS asks the question:

O14-1-8 Through coordination with the Port of Olympia and USACE, Enterprise Services understands that the Port of Olympia is responsible for dredging in the federal navigation channel and that this dredging is likely to occur within the next 10 years, which is sooner than the 5th Avenue Dam could be removed under the Estuary and Hybrid Alternatives.

Remediation of known contaminated sediment in Budd Inlet, by the Port of Olympia, is a separate project from the Capitol Lake - Deschutes Estuary, which seeks to improve water quality, enhance ecological functions, restore active community use and manage sediment. There is not a nexus between these two projects, although they both support overall improvement of the Deschutes River Watershed. For many reasons that are described in Final EIS Supporting Chapter 7.0, there are benefits to completing the contaminated sediment remediation in Budd Inlet before removal of the 5th Avenue Dam.

Regarding coordination with the USACE, Enterprise Services engaged with the USACE as part of the Technical Work Group during development of the Draft EIS, specific to evaluating feasibility of the action alternatives. After the Draft EIS, Enterprise Services also engaged with the USACE to confirm assumptions included in the Final EIS regarding sediment accumulation and maintenance dredging. Formal engagement with the USACE will continue during design and permitting. The need for a federal permit to construct the project is the federal nexus; if federal funds are acquired for project construction, that would provide another federal nexus.

As described in EIS Supporting Chapter 9.0, USACE authorization would be required for all action alternatives, and relative to the Estuary and Hybrid Alternatives, this would include specific review of the project under Section 408, which protects federal projects like the federal navigation channel.

O14-1-9 Please see Final EIS Supporting Chapter 2.0, Section 2.2.5, which describes required coordination with the Dredged Material Management Program (DMMP) and leadership of the DMMP by the USACE. Please also see Final EIS Supporting Chapter 7.0, Section 7.1.3, for additional discussion of sediment management and potential approach for disposal of the dredged material.

O14-1-10 Comment noted. See the Global Response for Visual Resources regarding requests for additional visual simulations.

O14-1-11 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative. Please also see updates throughout Final EIS Supporting Chapter 7.0, which describe the

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project funding approach based on ongoing negotiations with the Funding and Governance Work Group, and the proposed long-term governance for the Estuary Alternative.

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"What are the recommendations for funding construction & long-term management?"

In answer, they provide the following background:

"Under the Estuary and Hybrid Alternatives, the primary focus for long-term funding and governance would be sediment management in impacted areas of West Bay. Recurring maintenance dredging, at a 5- to 6-year frequency, is critical to avoiding and minimizing significant impacts to downstream resources from sediment deposition. A governing body would oversee annual monitoring and ensure that dredging was coordinated across potentially impacted areas of West Bay." ... " Without shared long-term funding and governance, these management actions may not be implemented. In past planning processes, the lack of committed funds in the State of Washington budget was frequently cited as a potential significant obstacle to adequate long-term management of the Capitol Lake – Deschutes Estuary."

Despite the above, the Draft EIS fails to identify how this "Governing Body" would function, who the beneficiaries would be (i.e., who would be expected to provide the funding) and the basics of the funding plan. Instead of providing this information to help inform the selection of the preferred alternative, the expectation is to select the alternative first, then determine the beneficiaries and develop the plan. Therefore, the Draft EIS is not heeding its own admonition concerning the lack of committed funds as an obstacle to adequate long-term management. And in the case of the Estuary and Hybrid Alternatives there is no option to adaptively manage the situation: once the dam is removed, the sediment will keep coming, and coming, and coming...

COST COMPARISON WITH THE FOURTH AVENUE BRIDGE IGNORED

A review of the planning-level cost estimates for the new Fifth Avenue Bridge and Deschutes Parkway realignment reveals that both the Estuary and Hybrid Alternatives assign a cost of just under \$40M, escalated to a start date of 2028. Because this is a planning level cost estimate, we don't have a good way to evaluate whether this is a reasonable number or not. However, we do have the costs for a similar "bridge" right next door, completed in 2004. Granted, the Fourth Avenue Bridge is not an exact comparison, but both bridges span the same waterway, are about 500' in length, and one has the additional element of the elevated Deschutes Parkway approach to the bridge and round-about, while the other has the installation of the round-about itself. Overall, they are certainly similar. For comparison, the actual cost to The City of Olympia for the Fourth Avenue Bridge, with escalation to 2028, is about \$87M. A text search of the entire Draft EIS makes no mention of the Fourth Avenue Bridge as a comparative cost to the new bridge. **Why was this comparison ignored?** This makes the nearly \$50M discrepancy between the two bridges suspect, and also raises doubt about the validity of other cost estimates.

ADAPTIVE MANAGEMENT IGNORED FOR LONG-TERM DREDGING PROCEDURES AND COSTS

The only long-term dredging event for the Managed Lake Alternative is scheduled at the very end of the 30 year time horizon for the project. This is a major dredging operation, to be sure, but it is not scheduled to take place until about 2050. The Draft EIS states that:

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O14-1-12 Detailed information on the planning-level cost estimates was posted to the project website during the Draft EIS comment period, in response to comments received on the Draft EIS and to provide opportunity for closer review by engaged stakeholders.

Enterprise Services has also coordinated with the City of Olympia on the proposed new 5th Avenue Bridge and Deschutes Parkway reconfiguration under the Estuary and Hybrid Alternatives. This included direct coordination with the City's Project Manager for the 4th Avenue Bridge Replacement, including discussion of past project costs. Feedback from the City of Olympia has been incorporated into those conceptual designs, which include wide sidewalks, dedicated bike lanes, and connections to existing trails. The new 5th Avenue Bridge has also been included in the revised cost estimates for the Estuary and Hybrid Alternative, following this coordination with the City of Olympia.

O14-1-13 In response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the future maintenance dredging event for the Managed Lake Alternative. Refer to EIS Supporting Chapter 7.0 for additional detail. However, environmental regulations do not currently allow in-water disposal of sediment that contains New Zealand mudsnails; the cost estimate for in-water disposal of dredged sediment under the Managed Lake Alternative is only applicable if those regulations change.

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"Upland disposal is the only feasible disposal option for material dredged under the Managed Lake Alternative because invasive species are expected to persist in the freshwater environment, at high densities similar to existing conditions."

This is problematic for several reasons. First, the current situation with the NZMS is unknown, because sampling is outdated and current observations show little activity. Second, and described more fully in the Invasive Species section of our comments, is the probability that eradication efforts or natural attrition will eliminate this as a problem requiring upland disposal of sediment. Third, and described more fully in the Sediment Quality section of our comments, is the likelihood that adaptive management practices will result in procedures to allow deep-water disposal, or land disposal within the watershed that could even allow for beneficial reuse. And the community has 30 years to figure this out.

This issue is critically important because of the impact that upland disposal has on the Planning-Level Cost Estimate for the Managed Lake Alternative. Upland disposal, in this case, has been determined in the Draft EIS as requiring trucking to Eastern Washington, 250 miles one-way. The "penalty" assessed for this disposal option compared to deep-water disposal ranges from \$200M to \$350M, using costs from Table 7.1.1.

OLYMPIA YACHT CLUB DREDGING EXPERIENCE IGNORED

The Draft EIS has concluded that all long-term dredged sediment in West Bay for the Estuary and Hybrid Alternatives will likely be clean enough for deep-water disposal at Ketron Island. This has resulted in their determination that the disposal cost will be relatively minor, compared to the cost if the sediments are contaminated and must be sent to upland disposal. The cost difference between these two disposal options is estimated in the Planning-Level Cost Estimates to be \$400M for the Estuary Alternative and \$564M for the Hybrid Alternative. Therefore, this question of whether the West Bay sediments are contaminated is of critical importance for determining the relative overall costs for the various alternatives.

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The most recent dredge in West Bay, by the Olympia Yacht Club (OYC) in 2013, included 10,000 cubic yards of sediment that would have been characterized as "clean" by the stated Draft EIS standards. However, 40 percent of the sediment was determined to be contaminated, and was sent to upland disposal at a cost approximately five times that of the uncontaminated sediment. This real-life experience raises serious questions about the Draft EIS assumptions and resulting cost estimates. We find no information in the Draft EIS that this actual experience was considered in the analysis. **Can you explain why this was ignored?**

COST IMPLICATIONS BASED ON THE THREE IGNORED ITEMS ABOVE

Creating a new analysis for the estimated costs, based on the real-world, actual information that has been ignored in the Draft EIS, would have profound implications for the comparative costs for the three active alternatives. In round numbers, the overall cost for the Managed Lake Alternative would drop by about \$260M, while the Estuary Alternative would increase by about \$200M and the Hybrid Alternative would increase by about \$275M. This would make the Managed Lake the least costly at somewhat less than \$200M, while the Estuary would be next at about \$450M and the Hybrid the most expensive at about \$600M. **Can the DES consultants prepare a "most likely" cost estimate incorporating these ideas? Doesn't this provide a more realistic and defensible comparison of the alternatives?**

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O14-1-14 Enterprise Services has considered the content provided in this comment response. Please see the Navigation Discipline Report (Attachment 6 of the Draft EIS and Final EIS) which states: that The Olympia Yacht Club last completed maintenance dredging of about 11,250 cy of material within specific shallow portions of their marina in 2014; prior to this, maintenance dredging was completed in 1987. Most of the material was approved for open-water disposal (6,350 cy), with a small quantity (4,850 cy) requiring upland disposal.

Enterprise Services has continued to coordinate with Olympia Yacht Club through development of the Final EIS.

The Final EIS includes estimated costs for in-water and upland disposal for all alternatives to provide a range that future maintenance dredging costs could fall within. The EIS acknowledges inherent uncertainty in the quality of future dredged material; as such, planning-level cost estimates are provided for both in-water and upland disposal. Final EIS Supporting Chapter 7.0. Section 7.1.3, acknowledges that both of these disposal options may be used during future dredge events.

The Final EIS has been updated to reflect that West Bay cleanup is a precursor to project implementation as was assumed in the Draft EIS. Please also see the Global Response for Navigation which provides additional information regarding future maintenance dredging in West Bay.

O14-1-15 Civil, environmental, and coastal engineers developed the planning-level cost estimates following standards established by the Association for the Advancement of Cost Engineering. The planning-level cost estimates are based on conceptual design, but do reflect costs for similar work on recent projects. As described in Final EIS Supporting Chapter 7.0, the accuracy of planning-level cost estimates will increase as design is further developed.

The cost adjustments suggested in this comment are unclear; and, a comparison of planning-level costs is provided in Table 7.1.1 of Chapter 7.0.

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O14-1-16 See the Global Response for Visual Resources regarding requests for new or refined visual simulations.

The mean tide simulation for the Estuary Alternative in the Final EIS Summary and in Chapter 2.0 have been supplemented in the Final EIS to also include the low and high tide simulations. A visual simulation of the barrier wall (from the east) for the reflecting pool in the Hybrid Alternative is included in Chapter 4.0 and in the Visual Quality Discipline Report. It has not been added to the Final EIS Summary or Final EIS Supporting Chapter 2.0 because those sections are providing an overview introduction of the alternatives.

O14-1-17 Enterprise Services convened a Community Sounding Board for the EIS process, and during meetings with the Community Sounding Board, facilitated exercises to better understand past, existing, and potential future uses under each alternative. This exercise is documented in EIS Supporting Chapter 8, and in the Land Use, Shorelines, and Recreation Discipline Report (Attachment 12).

SIMULATED VIEWS OF THE ESTUARY AND HYBRID ARE INCOMPLETE

In addition to evaluating the environmental impacts of the alternatives for the Capitol Lake Basin, one of the key benefits of the Draft EIS presentation is informing the community about the nature of the three active alternatives. An important part of this public information aspect of the EIS are the visual simulations of each alternative from various locations and under varying tidal conditions. The Draft EIS does a good job of providing some of these views, but unfortunately, misses or misrepresents three key views that would provide the community with valuable information. These include:

- ***The Northwest end of the North Basin.*** The removal of the Fifth Avenue dam, construction of a new bridge and the changes to the Deschutes Parkway will dramatically alter the appearance of the North end of the North Basin. The only visual information presented for this area is a small plan view of the project area. Neither the Executive Summary, or the long and short-term sections of the Draft EIS, provide any simulations of this area. Reading the text description of the area is confusing and leaves many unanswered questions. A simulated view of the Northwest shoreline along the new elevated parkway and including the new bridge would provide the community a clearer picture of the changes. The simulated view would essentially be a “snapshot” from a couple hundred feet off shore towards the Northwest. ***This view should be presented as a part of the Executive Summary, as well as in the visual sections of the Draft EIS.***
- ***The extensive mudflats at low tide.*** Although there are depictions of the Estuary and Hybrid alternatives at low tide in the long-term visual section, the Executive Summary has only one view of each at mid-tide. Because the critical difference for these alternatives is the creation of an estuary, the depiction at low tide is the key change that the public will observe. ***This view should be placed prominently in the Executive Summary.***
- ***The Hybrid barrier wall from Deschutes Parkway.*** The Hybrid barrier wall is essentially the only physical change from the Estuary Alternative, and it has severe impacts on the appearance of the North Basin from any viewpoint. The most significant viewpoint is to the East from the Deschutes Parkway, due to the barrier wall’s obstruction of the reflective pool. ***This view should also be placed prominently in the Executive Summary.***

THE COMMUNITY’S QUALITY OF LIFE HAS BEEN IGNORED

Capitol Lake has been described as “the soul of our community”, especially when it was maintained. For decades, it has served as a community attraction for celebrations, outdoor educational displays, boating, swimming (previously), informal sporting events, running, walking and dog walking. Unquestionably, these activities benefit human health, both physical and mental. Social cohesion for individuals and families in and outside the community are facilitated. In contrast to the conditions created by the estuary/mudflat, Capitol Lake has been and will continue to be an enormous contributor to our quality of life with the Managed Lake Alternative.

O14-1-16

O14-1-17

O14-1

COMMENT

RESPONSE

O14-1-18

TOXIC CONTAMINANTS WILL INVADE THE ESTUARY

How does dam removal affect the nature of the Capitol Lake Basin? The Draft EIS is silent on one key issue. The emptying and filling of the basin twice each day with the marine waters from Budd Bay will expose the basin to the same toxic contaminants that are now present in the bay. And we know that contaminants tend to be higher at the terminal end of estuaries. This invasion will change the character of the basin from a freshwater lake with relatively good water quality to an intertidal mudflat with Thurston County warning signs to avoid contact due to toxic contaminants and entrapment hazards. In addition to the public health hazards, fish and wildlife could be impacted, and many in the community will find the aesthetics and recreation potential diminished. These issues are explored more fully in the Specific Comments sections for Fish and Wildlife, Recreation and Aesthetics.



Health warning signs at Budd Bay adjacent to Mission Creek

O14-1-18 The change in water quality in the lake basin as a result of lower Budd Inlet waters residing in the basin is described in Final EIS Supporting Chapter 4.0, Section 4.3.5.1. The EIS focuses on the water quality issues that have been identified by Ecology as critical to the lake/estuary system; primarily dissolved oxygen and the factors that contribute to its depletion in Budd Inlet. The concentration of toxic contaminants in the waters of Budd Inlet are not currently at levels of concern. Based on the 2018 statewide water quality assessment of impaired waters the only toxic chemicals causing water quality impairment in the Project Area were copper and nickel which were measured at relatively low concentrations near one of the known contaminated sites. The impact from these relatively low concentrations of metals in a portion of West Bay would be negligible as the water moves to the former lake basin during high tides. Therefore, toxins in water are not expected to be substantively impacted (increase or decrease) as a result of the alternatives. Please see later responses to more-specific comments regarding public health and other impacts.

O14-1

COMMENT

RESPONSE

SPECIFIC COMMENTS FOR EACH SECTION OF THE DRAFT EIS INCLUDING DETAILS FOR KEY FINDINGS

CONSTRUCTION AND TRANSPORTATION

Because the construction and transportation chapters are interrelated, our comments will span both of these areas. We have found several recurring deficiencies which we will bullet below, and then provide more specific details and examples in the following sections.

O14-1-19	<ul style="list-style-type: none"> • First, the evaluation of the alternatives in these sections suffers from the "best case/worst case" problems that we have addressed in other comments, particularly in the sediment related sections. In brief, we find that when considering the Managed Lake alternative, the "worst case" is assumed as most likely and opportunities for adaptive management are minimized. However, for the Estuary and Hybrid alternatives, the "best case" is assumed as most likely and potential problems are reduced to footnotes or ignored.
O14-1-20	<ul style="list-style-type: none"> • Second, for both the construction and transportation issues, the fundamental difference in magnitude between the Managed Lake alternative and the Estuary alternatives is not sufficiently recognized. We see this as "allowing the trivial to obscure the obvious" and will explain this deficiency later.
O14-1-21	<ul style="list-style-type: none"> • Third, costs for the major elements of each alternative are not addressed in the EIS draft or the relevant discipline reports. Repeated questioning has resulted in the statement by the consultants that these costs will be developed after the preferred alternative is selected and are not available at this stage in the project. However, prominent tables in the Draft EIS and the Executive Summary have identified a range of costs for each alternative for "Design, Permitting & Construction Costs" (Table 7.1.1) and "Construction Costs" (Table ES.4). Where did these cost ranges come from?
O14-1-22	<ul style="list-style-type: none"> • Fourth, we fear that the terms that characterize the various impacts and benefits, if not properly assigned, will be used as a rating tool that unfairly influences the selection of the preferred alternative. For this reason, we will highlight several questionable rating instances in our following comments.
O14-1-23	<ul style="list-style-type: none"> • And finally, we have several questions regarding the viability of the proposed construction elements and sequencing for the Estuary and Hybrid alternatives. <p>Details and Examples:</p> <p>The "best case/worst case" issue identified in the first bulleted comment is sometimes subtle, and sometimes blatant. The following is one of the more egregious examples in the construction and transportation categories.</p>
O14-1-24	<p>The proposed schedules for the alternatives (Figures 2.4.1, 2.4.2 and 2.4.3) appear to unnecessarily extend the Managed Lake schedule, while compressing the Estuary and Hybrid schedules. This results in making the alternatives appear to be similar in duration, rather than acknowledging that the Estuary and Hybrid alternatives are likely to take roughly twice as long to complete, due to the sequential nature of</p>

- O14-1-19 Please see responses to other specific comments provided in this comment letter. No specific deficiencies in the EIS were noted in this comment.
- O14-1-20 Please see responses to other specific comments provided in this comment letter. No specific deficiencies in the EIS were noted in this comment.
- O14-1-21 In response to comments received on the Draft EIS, additional detailed information regarding the planning-level cost estimates were posted to the project website and are available for the public to review. As described in EIS Supporting Chapter 7.0, planning-level cost estimates for construction were developed based on costs to construct the primary elements of each alternative, including dredging, habitat areas, work at the 5th Avenue Dam (as needed for each alternative), and installation of the boardwalks, etc. Planning-level estimates for sediment management were estimated over the 30-year project time horizon, beginning after construction. Planning level cost estimates are provided in Table 7.1.1. These class 4 estimates, as described in Chapter 7.0, reflect an accuracy variation of -25% to +35%, given the preliminary nature of the design elements.
- O14-1-22 Please see the following responses to specific comments. Please also see the Global Response for the Preferred Alternative Identification Process.
- O14-1-23 Please see responses to specific comments regarding construction elements and sequencing.
- O14-1-24 The schedule summaries provided in EIS Supporting Chapter 2.0 are intended to support a planning level analysis and to inform decision-making. At this high-level, the schedules simplify the general construction activities and potential constraints.

For all action alternatives, the critical path identified in the schedule exercise is: installation of coffercells to construct habitat islands, dredging and placement of sediment in coffercells, habitat creation, and coffercell removal. Based on the significant in-water work restrictions and anticipated production rates, the Managed Lake Alternative would take up to 8 years to construct, and the Estuary and Hybrid Alternatives would take up to 8 years to construct.

For the Estuary and Hybrid Alternatives, removal of the 5th Avenue Dam and construction of a new 5th Avenue Bridge is no longer on the critical path.

The figures referenced are intended to give a general representation of construction activities for a planning-level analysis and to inform decision-makers; they serve that purpose adequately.

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the work and the substantially increased duration for the construction of the new bridge, roadways and barrier wall.

Specifically, for the Managed Lake alternative, the dredging and material placement begins in the middle of the first year and extends for four and one-half years, to the end of year five. However, the habitat island construction is shown to be complete by the end of year four, and yet the dredging extends a full year after the habitat islands are in place. The pedestrian bridge is scheduled at the end of the project, but could easily be moved earlier. It appears that the overall project completion could be a year earlier than shown.

For the Estuary alternative, the same start time for the dredging is used, but completion extends further; several months into year six. This is to be expected due to the increased volume of material dredged, and the need to move a portion of it upland for disposal. However, unlike the Fifth Avenue dam overhaul, which can be done independent of the dredging, many of the major construction elements for the Estuary alternative must be done sequentially; only after the dredging is complete. These construction elements include the placement of the coffer dams, excavation of the isthmus, removal of the Fifth Avenue dam and construction of the new bridge and approaches; most of which must be done during the in-water work window. Despite this, these construction elements are shown to begin slightly less than two years into the nearly five-year dredge period. Further, the schedule shows all construction work complete just fifteen months after the end of dredging. It appears highly unlikely that the completion date in the middle of year seven can be met, and will likely be one or two years longer.

Thus, for the Draft EIS estimates, which suffer from our "best case/worst case" concerns, the overall durations of the Managed Lake and Estuary alternatives are five and seven years, respectively. The more likely durations are closer to four years for the Managed Lake and eight to nine years for the Estuary. **Please reevaluate Figures 2.4.1, 2.4.2, and 2.4.3, and make adjustments consistent with our estimates or explain why our analysis is incorrect.**

We now examine (second bullet) the magnitude of the alternatives during the "construction" period, which encompasses roughly the first 6 to 8 years and includes the design, permitting, predredging and all construction activities. At first look, the three active alternatives appear to be somewhat similar in scope, as shown in Table 7.1.1. Using the average of the high and low estimates, the Managed Lake comes in at \$125M, with the Estuary at \$183M and the Hybrid at \$248M. We will consider the accuracy of these costs later, but for now, they all seem to be in the same "ballpark". But looking a little closer, we see that all three alternatives have several common elements, which would all be done regardless of the selection of the preferred alternative. Because we have no information available for the individual cost elements (more on this later), in order to compare the true differences, we can resort to a simple description of the unique elements for each alternative. Removing the common elements, we find:

Managed Lake	Dam Refurbishing Jet grouting and buttressing the earthen dam
Estuary	Permitting and Design for new bridge and roadways Property acquisition Permitting for dam removal and excavation Replacement of Capitol Lake culverts & sealing concrete

O14-1-25 In response to requests from this commenter, additional detailed information for the planning-level costs were made available and provided on the project website. This information shows equivalency in the estimating process across alternatives, as appropriate for common project elements.

EIS Supporting Chapter 2.0 provides a detailed description of the components of each action alternative.

As described in Chapter 2.0, the Managed Lake Alternative would include a major overhaul of the 5th Avenue Dam - not a small maintenance project as suggested in this comment. A suite of repairs are needed to maintain a serviceable structure and to avoid a major failure event, including: work within the control house and spillways, jet grouting to improve soil strength and installation of a buttress in West Bay to improve stability of the earthen dam.

Please also see response to Comment O14-1-2.

O14-1-24

O14-1-25

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Hybrid

Installation and later removal of two coffer dams
Dam and Fifth Avenue removal and excavation for 500' opening
Construction of new 500' Fifth Avenue bridge
Construction of roadway connections to/from the new bridge
Armoring at Fourth Ave bridge, RR Bridge, Interstate 5 Bridge
Slope stabilization along Deschutes Parkway (West side of new estuary)
All Estuary elements plus
Permitting and design for 2600-foot barrier wall
Installation of barrier wall

It is now apparent that we are looking at three substantially different projects when the common elements are removed. For the Managed Lake alternative, we have a relatively small maintenance project, involving a small crew and minimal equipment, and estimated to take about seven weeks to complete. For the Estuary alternative, we have a major Civil Engineering Bridge and Roadway project, rivaling the largest projects seen in the Downtown Olympia Area since the replacement of the Fourth Avenue Bridge 20 years ago or the original dam installation in 1951. The project is estimated to take 5.5 years to complete. And the Hybrid adds yet another major component and additional time to the project.

This fundamental difference in scope among the three projects is not apparent when reading the Executive Summary or even digging deeper into the draft document. **Please make additions throughout the Draft EIS so that it is crystal clear to the public what each alternative entails. Do not let this 'false equivalency' persist.** The addition of the common elements to the tables obscures the fact that they could all be completed as a preliminary stand-alone project that would still retain the ability to pursue any of the three alternatives. Also of importance here is that most all the common elements must be done before the bulk of the construction begins. **Perhaps a little "outside the box" thinking could be of value here?**

Our last comment for this section relates to our issue of "allowing the trivial to obscure the obvious". We are told that it is premature to provide even basic cost information for the various key elements for each alternative; information that would help the reader understand the true nature of the project differences. At the same time, in both the construction and transportation sections, we find page after page of details regarding street networks, parking issues, transit issues, construction worker trips, street capacity and so forth. If we are truly at the conception stage, then the 12 pages in section 4 and the 23 pages in section 5, meet the criteria of obscuring what otherwise could and should be obvious.

The third bulleted comment follows up on some of the issues previously raised. Looking at table 7.1.1, someone had to determine these cost numbers and place them in the table. **How was this done?** Even if they were educated estimates, or even guesses, someone provided them and this should be disclosed. And to do this, the estimator would need to at least be able to provide a breakdown of the major elements that add up to the totals. For example, the Managed Lake alternative consists of several disparate elements, including dredging, constructing pedestrian walkways, building a boat launch facility and refurbishing the dam and Fifth Avenue bridge. The only one of these elements that is unique to the Managed Lake alternative is refurbishing the dam and Fifth Avenue bridge. The other elements are common to all the alternatives. Each of these discrete elements must have also been estimated to be able to develop the total cost of \$89M to \$160M. Therefore, the cost for refurbishing the dam and Fifth Avenue bridge should be available. Likewise for the other alternatives, the cost elements unique to

O14-1-26 Comment noted. Please see responses to each unique comment, including the response to O14-1-25.

O14-1-27 In response to comments received on the Draft EIS, additional detailed information regarding the planning-level cost estimates were posted to the project website and are available for the public to review. This information provides costs for each construction element, as suggested in this comment. The assumptions made in this comment do not align with the detailed information provided on the planning-level cost estimates; it is understood that these questions were developed before the additional cost information was provided.

O14-1-25

O14-1-26

O14-1-27

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O14-1-28 As described in the Final EIS, the Estuary and Hybrid alternatives would replace the 5th Avenue Bridge before closing the existing 5th Avenue corridor for dam demolition, eliminating the long-term closure and traffic impact.

When compared to existing conditions, the replacement of the 5th Avenue Bridge would provide a substantial transportation benefit by extending the design life of a major element of the City of Olympia's transportation network and reducing overall maintenance needs related to the bridge. The new bridge would provide a new multi-modal facility with in-street protected bike lanes that do not exist today. Finally, the proposed roundabout at the west end of the bridge would provide vehicular connectivity between Olympic Way and Deschutes Parkway SW that does not exist today. As a result, the finding of "substantial benefit" was retained for the Estuary and Hybrid alternatives.

each alternative should be available, even if only in the aggregate. Comparison of these unique costs for each alternative is a critical way to evaluate the alternatives, and is actually much more instructive than the overall estimated construction costs in the tables. For these reasons, **we request that the Draft EIS Tables ES.4 and 7.1.1 be amended to include a column that provides these unique costs for each alternative. References to these tables in the text of the Draft EIS will also need to be amended. If you are unable or unwilling to do this, then we recommend that the Estimated Construction Cost column be eliminated.** For different reasons, in previous comments for the long-term dredging chapter, we have recommended elimination of the two other cost columns in these tables. **Thus, if you are not able to add the requested unique cost information, we are essentially requesting the elimination these tables in their entirety, throughout the entire Draft EIS.** In short, what we are advocating for is that no cost information is better than incomplete, unsupported, potentially inaccurate and misleading cost information.

Now, we have complained about this inability to obtain the cost estimates for the major elements, in particular to allow us to evaluate the relative costs of the unique parts of each alternative. But by making a few assumptions based on the comments above, we may have a way to help our understanding. We will use the average costs mentioned previously and look at the Managed Lake alternative first. Looking at the scope of the dam refurbishing and Fifth Avenue repairs, it seems reasonable to assume that these costs will be a very small part of the total \$125M construction cost, perhaps one to three percent. Therefore, the balance, somewhere near \$120M, is the cost of the common elements. If we now look at the average Estuary cost of \$183M and subtract the common element costs that we just estimated, we are left with the remaining unique construction costs for the Estuary alternative at about \$63M. Moving to the unique Hybrid alternative cost, in this case relative to the Estuary alternative, they are easier to calculate. Because every element is the same except for the barrier wall, we simply subtract the two construction cost amounts, and find the barrier wall costs to be \$65M, which coincidentally, is about the same as all the Estuary alternative unique costs.

If the above assumptions and calculations are anywhere near correct, the questions that now must be answered is: **do the Draft EIS tables of construction costs meet the sanity test? Can the volume of work necessary to complete the Estuary alternative be done for \$63M?** (seems low relative to the costs for replacement of the Fourth Avenue bridge about 20 years ago) **Will the Hybrid barrier wall require an additional \$65M to complete? Is it time to reconsider the inclusion of any cost data in the Draft EIS at this stage of the project?**

For the fourth bulleted comment, we have several examples of questionable ratings of impacts and benefits.

In Section 4.12.5 and in subsequent tables, a **Substantial Transportation Benefit** is claimed for the Estuary and Hybrid alternatives based on the addition of a new bridge and associated roadways. This may very well be a benefit for the City of Olympia's infrastructure; however, this should not be considered a benefit for this project. Rather, it is a burden for the Estuary and Hybrid alternatives, required in order to facilitate the opening of the waterway to allow tidal flows. The bridge/roadway does not advance any of the four stated project goals. **Therefore, we request that this benefit be deleted from any tabulation of impacts and benefits used to rate the relative merits of the alternatives.**

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O14-1-29 In Section 5.12 Transportation Construction Impacts, all active alternatives are rated the same; as having **significant unavoidable impacts**. These impacts come from the closure of Fifth Avenue and the bridge. Although the logic for the specific impact may be reasonable for each alternative; from an overall perspective, equating a 7-week potential interruption as having the same impact as a 5.5-year complete road removal, has little credibility. This could also be described as a "false equivalence". For the rating system to have any validity, it must be able to discriminate between these two widely different time periods. **Please correct these transportation construction impacts to reflect the widely different impacts.**

Now, we could make this same type of comment regarding many other impacts, such as transit impacts, development of CTMP and Traffic Control Plans, the impact on Downstream Economic Activity and Downtown Development, and so forth. You get the idea. One of the major requirements of this Draft EIS is to compare and contrast the alternatives. Again, and particularly for the construction and transportation impacts for these two widely different alternatives, the methodologies must be able to discriminate effectively.

We recommend that this system of characterizing the benefits and impacts throughout the document be reviewed and modified to more effectively reflect the true nature of the alternatives. Lacking this, we strongly request that you not use any of these characterizations to create numerical ratings or otherwise influence the selection of a preferred alternative.

O14-1-30 As stated in the **fifth bulleted comment**, we have several construction related questions and comments from Chapter 2, section 2.4. Refer to Figure 2.4.4 and related text.

An area of shoreline restoration is shown under the new bridge and within the 500-foot opening. **Please correct.**

O14-1-31 The roadway connection from the roundabout to the Deschutes Parkway is described as being built using an MSE retaining wall structure, rather than an elevated structure. Because the bridge is an elevated structure and ties into this roadway near the elevation of the roundabout, **where is the transition from the elevated structure to the MSE retaining wall structure?** This West end of the project is difficult to visualize. **Please provide an elevation drawing to aid in understanding how this fits together. Better yet, could you also provide a visual simulation of the bridge and roadway connection looking Northwest from a couple hundred feet offshore, similar to those provided across the North Basin from the Law Enforcement Memorial?** In the visualizations across the North Basin for the various alternatives, the bridge and roadways are so far away that they can not be distinguished, one from another.

O14-1-32 On the sides of the 500-foot opening, no transition from the bottom of the waterway to "street" elevation is shown. **Are the sides of the opening vertical walls or do they slope, and if they slope, at what angle? Is it possible that the bridge will need to be longer than 500 feet to accommodate the slope?**

O14-1-33 **What waterway depth is assumed to accommodate the current and projected tidal range? Will the bottom of the waterway ever be completely exposed?**

O14-1-34 The intersection of the Fifth Avenue bridge and the roadway from the roundabout to the Deschutes Parkway is essentially a "tee". **How will traffic be controlled at this intersection?**

O14-1-29 Based on comments received on the Draft EIS to avoid long-term closure of the 5th Avenue corridor during construction, Enterprise Services has modified the Estuary and Hybrid Alternatives with a new 5th Avenue Bridge concept. The new 5th Avenue Bridge would be constructed before closing the existing 5th Avenue corridor for dam demolition. As noted in response to Comment O14-1-29, this not only improves the function of the transportation system in the long-term, but would shorten the overall construction schedule.

Regarding the general approach to identifying thresholds of significance in the EIS, each discipline lead considered the location / site context and magnitude of impact, among other factors, in developing these thresholds. They were not developed to restrict two alternatives from falling within the same threshold. Rather, they were developed in consideration of the actual impact relative to baseline conditions.

The process for identifying the Preferred Alternative allowed for differentiation through the deliberation of the EIS Project Team and Enterprise Services in evaluating the alternatives against the decision-making criteria, even in cases where two or more alternatives were found to have "significant impacts" in the Draft EIS. The numerical ranking for each criterion allowed for applying different scores to the alternatives according to the magnitude of impact (or benefit) relative to the other alternatives, consistent with the recommendation in this comment for differentiation. See Final EIS Supporting Chapter 1.0 (Section 1.12) and Attachment 21 for additional information regarding decision-making.

O14-1-30 This figure has been replaced with the revised concept for 5th Avenue and depicts the updated area of shoreline restoration.

O14-1-31 The 5th Avenue Bridge replacement has been changed from the Draft EIS configuration. It would be at the same grade and elevation as Deschutes Parkway and 5th Avenue in downtown. A reconfigured Olympic Way would connect from Deschutes Parkway to the roundabout at 4th Avenue, but there is no longer an intersection along that Olympic Way slope reducing the size of retaining walls needed. Please see the Global Response for the Estuary and Hybrid Alternatives.

O14-1-32 It is anticipated that the restored opening will be sloped at an angle. A geotechnical study would be completed during the design phase. The 500-foot dimension is approximated for this planning-level study and given the extent of the existing 5th Avenue Dam to be removed under the Estuary and Hybrid Alternatives. Given an update to the new 5th Avenue Bridge design under the

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Estuary and Hybrid Alternatives, the total bridge length will exceed 500 feet, and may be up to approximately 950 feet.

O14-1-33 Under the Estuary and Hybrid Alternatives, the main channel would be dredged to a bottom elevation of -6 feet (-1.8 meters) NAVD 88. This dredge elevation is expected to keep the channel submerged.

O14-1-34 See response to Comment O14-1-31.

O14-1

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O14-1-35 Parcel boundaries should also be shown on the East side of the waterway, as it appears that some will be impacted by the project. Please add these parcels to Figure 2.4.4, the related text and your analysis.

O14-1-36 Is the overall design and specific detail for the new Fifth Avenue bridge consistent with the existing Fourth Avenue bridge? Are the relative elevations similar? Has this been reviewed with the City of Olympia?

O14-1-37 For the Hybrid Alternative, The Draft EIS assumes the reflective basin will be filled using marine water from the estuary at high tide, but also discusses as an alternate, using freshwater. What is the source of this freshwater? If it is groundwater, have existing water rights been considered? What infrastructure is assumed for providing and treating this freshwater? Have these costs been included in the analysis?

O14-1-38 **UPDATED COMMENTS BASED ON ADDITIONAL COST DATA PROVIDED ON AUGUST 9, 2021**
Now that we have the planning level cost estimates for each of the alternatives, some of our questions have been addressed, but the new information has also raised additional concerns. Because our original Draft EIS comments were nearly complete prior to receiving the new information, we are continuing to provide these original comments so that you can see the progression of our concerns.

Our comments will focus on two types of costs as detailed in your new documents. The first are the direct costs for each item; and the second are the "fully loaded costs", or total costs, when all the indirect costs, escalation to 2028, contingency, soft costs and engineering and permitting are included. The ratio of total costs to direct costs varies slightly with each alternative (from 2.65 to 2.81) but for simplicity, we will assume that the total cost contribution from each individual direct cost can be obtained by multiplying the direct cost by 2.75.

Looking first at the Managed Lake Alternative, we have several concerns and questions.

- How is it possible to spend nearly \$5.7M in total cost for the dam overhaul (including mob/demob) in an estimated seven weeks?
- This is the first time we have seen a revetment called out for the project. Apparently, this is the rip rap required along about 400' of the West Bay side of the earthen dam. The total cost of this is shown as more than \$6.5M and includes 37,500 tons of rock. That seems like a lot of rock in a small space. It is not clear what is at risk that is being protected by this revetment. We are also spending more than \$4.5M for jet grouting of the earthen dam for additional earthquake protection. Is this necessary? To provide context, we can look specifically at the damage caused by the Nisqually Earthquake in 2001. The Fourth Avenue Bridge and the Deschutes Parkway were heavily damaged and required repair/replacement. No significant damage occurred to the Fifth Avenue roadway, the dam or the earthen dam that is adjacent. Of note is the fact that repairs to the Deschutes Parkway, totaling \$5M, excluded earthquake protection due to the estimated additional cost of \$9-11M. Apparently, the decision makers at that time determined that the risk of future damage was not significant enough to justify the additional expenditure. Yet, for this Managed Lake project, an additional \$11M is being allocated for protection of the 400' earthen dam, which has been unaffected for the past 70 years of tidal action, and several earthquakes. Are either or both of these really necessary? Please justify

O14-1-35 The new 5th Avenue Bridge that would be constructed under the Estuary and Hybrid Alternatives would transition into the existing 5th Avenue on the east side of the waterway. Permanent impacts outside of the public right of way or publicly-owned parcels on the eastside are not anticipated.

O14-1-36 Following comments received on the Draft EIS, Enterprise Services engaged with the City of Olympia on a conceptual bridge design that would avoid long-term closure of 5th Avenue during construction of the Estuary and Hybrid Alternatives. Please see EIS Supporting Chapter 2.0 for more detail on the new 5th Avenue Bridge that would be constructed under these alternatives. The conceptual bridge design reflects initial feedback from the City of Olympia. The City of Olympia would be meaningfully engaged in the future design process for this project component to ensure that it complies with their applicable design standards, and reflects public input.

See also Global Response for Alternatives Design.

O14-1-37 Please see the Global Response for the Hybrid Alternative. Please also see the water quality analysis provided in the Water Quality Discipline Report (Attachment 7), which provides additional detail on adaptive management for a groundwater-fed freshwater reflecting pool. Specific requirements regarding adaptive management are not included in planning-level cost estimates, as described in EIS Supporting Chapter 7.0, because those requirements are better understood during design and permitting and can be estimated at that time.

O14-1-38 Comment noted; please see responses to the more specific comments.

O14-1-39 In 2016 (before and separate from the EIS process), the structural, geotechnical, and electrical components of the 5th Avenue Dam were evaluated by a team of professional engineers. Following the evaluation, a suite of repairs were recommended to maintain a serviceable structure and to reduce the risk of a major failure event. These recommendations were included in the Managed Lake Alternative to ensure that the 5th Avenue Dam could function into the future under this long-term management alternative. Please note that these recommendations were made 15 years after the Nisqually earthquake, based on an objective evaluation of the 5th Avenue Dam. Costs were developed based on the quantities and extent of materials described in the 2016 report (e.g., extent and thickness of recommended buttressing of the earthen portion of the dam).

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Please note for the Deschutes Parkway stabilization costs in the Estuary and Hybrid Alternatives assume reuse of material generated during earthen dam removal and are, therefore, not directly comparable to the import material anticipated in the Managed Lake Alternative.

The line item for Arc of Statehood epoxy coating does appear to be included in the Draft EIS planning-level costs for the Managed Lake Alternative erroneously. Epoxy coating is not anticipated for the Managed Lake Alternative.

O14-1

COMMENT

RESPONSE

O14-1-40 Please see response to Comment O14-1-12.

O14-1-39

why we can spend more than \$11M to protect this 400' barrier. Although we are not suggesting it, would it be less expensive to install a sheet pile and concrete barrier wall similar to the Hybrid alternative barrier? (Note: on a per foot unit basis, the Hybrid wall total costs are about \$6M for 400'.)

- There is also another inconsistency here, when comparing this earthen dam slope protection with the scour protection needed for Interstate 5, the RR Bridge, the Deschutes Parkway Bridge, the Fourth Avenue Bridge and the new Fifth Avenue Bridge. For the Estuary and Hybrid alternatives, the scour protection called out is for 2000 tons of rock, at a total cost of \$300K. Not much compared to the \$6.5M for the revetment. Also for reference, the entire Deschutes Parkway slope stabilization, over about 1.6 miles in the North and Mid basins, is estimated to cost slightly more than \$1M. **Please explain these cost inconsistencies that appear to favor the Estuary and Hybrid alternatives.**
- **Although not a significant cost item at \$60K, why does an epoxy coating need to be applied to the Arc of Statehood for this freshwater alternative?** It is not called out for the case that the Hybrid reflective pond is freshwater; only if it is marine water.

Moving to the Estuary Alternative, the cost of the new Fifth Avenue bridge and Deschutes Parkway reconfiguration are of most concern.

O14-1-40

- The bridge direct cost is a single line item at more than \$11M. No further detail is provided. Combining this cost with the parkway and bridge mob/demob and the parkway reconfiguration, the total costs for "the bridge" are just under \$40M. Because this is a planning level cost estimate, we don't have a good way to evaluate whether this is a reasonable number or not. However, we do have the costs for a similar "bridge" right next door. Granted, it's not an exact comparison, but both bridges span the same waterway, are about 500' in length, and one has the additional element of the Deschutes Parkway elevated approach to the bridge and round-about, while the other has the installation of the round-about itself. Overall, they are certainly similar. The design of the Fourth Avenue bridge underwent significant public comment, before the current design was accepted. It is logical to assume that the public would desire a similar design for the new Fifth Avenue bridge. **Has this been taken into consideration in the basic design of the new bridge? Has the City of Olympia been consulted on this design? Are they in agreement that the design meets their expectations?**
- **Now, have you compared the final cost of the Fourth Avenue bridge with the estimated cost of the new Fifth Avenue bridge?** We have found no information about this in the Draft EIS or the additional information on planning level cost estimates. **Wouldn't this be an appropriate check on the accuracy of the consultant's estimate; what we sometimes call a sanity check?** Lacking this information, we checked with the City of Olympia and found that the final cost of the Fourth Ave Bridge project in 2004 was about \$38M. Using your consultant's annual escalation of 3.5 percent, the comparative cost in 2028 would be about \$87M, or more than twice the Fifth Avenue Bridge estimate. **How do you account for this discrepancy?** We're looking at a nearly \$50M difference with the actual current construction cost of the Fourth Avenue Bridge.

For the Hybrid Alternative, the same comments apply as for the Estuary.

O14-1

COMMENT

RESPONSE

O14-1-41

- There is one additional discrepancy, however. On item 4, for the Fifth Avenue Dam demolition, the line-item cost for the Hybrid is \$881,110, while the similar line-item for the Estuary is \$2,232,836. All other line-items in item 4 are the same. **Why are these amounts different? Does this difference translate to the final analysis for the Grand Total?** If so, the total cost for the Hybrid is undercounted by about \$3.7M.

O14-1-42

We now come back to one final, rhetorical, question. Why does it appear that the Managed Lake costs are inflated (revetment, jet grouting, dam overhaul, epoxy coating), while the Estuary and Hybrid costs are low-balled (bridge, parkway stabilization, scour protection)? Considering our comments, a case can be made that the total costs for the Managed Lake Alternative could be from \$8-15M less (using your +35%/-25% range), while the Estuary and Hybrid Alternatives could be from \$40-70M more.

We have also noted this bias in other areas of the Draft EIS and have characterized it as “best case/worst case” or “false equivalence”. This consistent pattern needs to be addressed and corrected if the Draft EIS is to be considered as an impartial document.

SEDIMENT QUALITY

Our primary comment for this section is to provide an example of how inconsistency or bias in an underlying document such as this discipline report, intentional or non-intentional, can lead to a major misrepresentation as the information passes forward to the main report and on to the Executive Summary.

O14-1-43

In this Sediment Quality Discipline Report, the conclusions presented regarding the quality of sediments are said to be the most likely outcome for each alternative, but this approach does not provide a full analysis of other possible outcomes. For example, for the Managed Lake Alternative, this discipline report assumes that the long-term maintenance dredge material from Capitol Lake will require upland disposal by truck due to the presence of NZMS. This “worst-case” conclusion does not allow for the possibility that NZMS populations may decrease over time, that their impact will be deemed insignificant or that adaptive management techniques or BMPs may mitigate the problem. **Also, what recent research indicates that NMZS, dumped in deep salt water with dredge spoils, poses a risk of infestation of adjacent shores? If there is no such research, this should be acknowledged. If NZMS are not a problem, could dredge spoils from the North Basin be pumped under Fifth Avenue or through the dam structure to a waiting barge in West Bay for deep water disposal? Also, this single-minded approach that trucking will always be required, does not allow for the possibility that efficiencies and economy of scale will reduce costs over the next 20 to 30 years. Some questions come to mind. With regard to hauling dredged sediment away from the Lake, why is the impact on traffic said to be “significant” if it only occurs for a few months, once every 20 years? With regard to hauling dredged sediment away from the Lake, why is the impact on traffic said to be “unavoidable” if it can be done using railroad cars? (The Deschutes Parkway railroad crossing could be left open while cars on the railroad bridge are loaded) These questions are particularly relevant for this long-term dredging operation, as it is not scheduled to occur for nearly 30 years, until about 2050, which coincidentally is the project time horizon (per comment on page 7-3 of the main EIS document). Incidentally, this 2050 time horizon was selected because to predict events beyond that time would be too speculative. Isn't it**

O14-1-44

O14-1-45

O14-1-41 This discrepancy has been resolved in the planning-level cost estimates that were updated to include the new 5th Avenue Bridge approach. These line-item costs are now aligned across the Estuary and Hybrid Alternatives.

O14-1-42 In 2016 (before and separate to the EIS process), the structural, mechanical, and electrical components of the 5th Avenue Dam were evaluated by a team of professional engineers. Following the evaluation, a suite of repairs were recommended to maintain a serviceable structure and to avoid a major failure event. These recommendations were included in the Managed Lake Alternative to ensure that the 5th Avenue Dam could function into the future under this long-term management alternative.

As appropriate, updates have been made to the EIS in response to specific comments on the Draft EIS to provide additional information, update and expand analyses and findings, refine measures to mitigate potentially significant impacts, and correct inadvertent errors.

O14-1-43 In response to comments received on the Draft EIS, cost estimates have been updated in the Final EIS to include in-water disposal of dredged sediment for the Managed Lake Alternative, in addition to the assumed upland disposal. Although environmental regulations do not allow for in-water disposal of sediment from Capitol Lake (or other areas with known New Zealand mudsnails), as suggested in this comment, environmental regulations could change before the first maintenance dredging event under the Managed Lake Alternative, which would occur no sooner than 2050. By that time, there may also be treatments available to eradicate the New Zealand mudsnail, although there are no such treatments known or available at this time. Although SEPA analysis should not speculate on regulatory or environmental changes that cannot reasonably be forecasted, such as these, cost estimates for upland disposal under the Managed Lake Alternative were developed for the Final EIS given the inherent uncertainty related to dredging and the length of time between now and the future maintenance dredging, and to provide similar information for all project alternatives. In-water disposal under the Managed Lake Alternative assumes dewatering on or near Capitol Lake, transport to the Port of Olympia via trucks, and transloading to a barge.

As described throughout the Draft EIS and Final EIS analyses, if in-water disposal is precluded, the dredged material could also be transported via rail if this was determined feasible prior to dredging.

The method for AIS sampling has yet to be developed, and a specific concentration of viable mudsnails is not provided in the existing regulations

O14-1

COMMENT

RESPONSE

relative to suitability for open water disposal; however, sediment is not considered suitable for open water disposal if there is a known presence of the New Zealand mudsnail, per current guidance from the Dredged Material Management Program, which has the authority to regulate in-water dredged material disposal.

O14-1-44 As described in Section 5.4.2.1 of the Transportation Discipline Report (Attachment 16) truck volumes would be substantial, estimated to average about 20 trips per hour for each hour of the workday over an 18-month period. If all dredged spoils were hauled by truck, it is likely that some intersections along the haul routes could degrade to LOS F during some times of the day. In this case, the impact on traffic operations is expected to be significant. As described in Section 5.3.1.6 of the Transportation Discipline Report (Attachment 16), one train load of dredged material is estimated to remove 72 truck trips from the street system. However, to haul dredged material entirely by rail would require an average 4 to 5 train trips per weekday over the entire 18-month period, which may be more than could be supported with the available rail infrastructure. Additionally, this level of train volume would also degrade vehicle traffic operations at the at-grade rail crossings. Therefore, it is expected that the effect of maintenance dredging on traffic operations would still be significant with use of rail, or a combination of truck and rail.

Please also see the Global Response for Transportation which discusses the potential for dredge sediment transport by rail.

O14-1-45 Please see response to Comment O14-1-50.

Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events. It is certain, however, that dredging would be needed to manage sediment in accordance with project goals.

O14-1

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RESPONSE

O14-1-46 In response to comments received on the Draft EIS, additional detailed information regarding the planning-level cost estimates were posted to the project website and are available for the public to review.

Maintenance dredging would be required after construction for all alternatives to achieve the project goal of sediment management. For this reason and to support financial planning for long-term management, planning-level costs for maintenance dredging have been provided.

Planning-level costs were developed to evaluate economic sustainability and feasibility of the long-term management alternatives, which are key components of the Project purpose and a consideration in the process to identify a Preferred Alternative. The information will remain in the EIS.

also reasonable to consider that this long-term dredging event might also fall into the speculative category?

On the other hand, for the Estuary and Hybrid Alternatives, this discipline report assumes that the long-term maintenance dredge material, occurring on a 5–6-year cycle from West Bay, does not require upland disposal. This “best-case” conclusion assumes that NZMS will not be present in marine waters and sediment mixing from over dredging or upward migration of contaminants will not require any upland disposal.

To be fair, this discipline report and Chapter 7 do provide some narrative regarding other options. The problem comes when the conclusions are used to create cost estimates for the project alternatives. In Table 7.1.1 of the main EIS document, some other options are noted as footnotes (which by the way, are mis-numbered and confusing – please correct). And by the time the information passes to the Executive Summary in Table ES.4, the footnotes are gone.

So, with this background, **what would table ES4 or Table 7.1.1 look like if, by 2050, the long term dredged material for the Managed Lake Alternative qualified for deep-water disposal, similar to the Estuary alternative?** Because the total amount dredged for all alternatives is based on the amount deposited by the Deschutes River over this 30-year period, the Managed Lake costs would be essentially the same as those for the Estuary Alternative, i.e., between \$48M and \$101M. In this case, if the conclusions regarding the quality of the sediments are reversed, the swing in overall project costs is between \$200M and \$345M.

Conversely, **what would the table look like if the long term dredged material from the Estuary Alternative did not qualify for deep-water disposal?** Per the footnote for Table 7.1.1, the Estuary Alternative would increase to between \$367M and \$660M. In this case, if the conclusions regarding the quality of the sediments are reversed, the swing in overall project costs is between \$319M and \$558M.

Considering the magnitude of the potential cost swings (up to one-half billion dollars) based on speculative and questionable assumptions, **why aren’t the Planning-Level Cost Estimates expanded to include at least the “best case” for all alternatives and the “worst case” for all alternatives?**

Due to our concerns with this apparent bias and the lack of any nuance in the tabled long term cost presentation, we attempted to examine the Draft EIS to help us understand and better evaluate the relative sediment disposal costs used to establish the tabled ranges. Because we have been given the relative amounts for dredging each alternative, having the unit costs for the alternative disposal options would provide a check on the tabled ranges. Additionally, we have current unit cost information from actual current dredging operations by the Olympia Yacht Club to verify the Draft EIS numbers. Unfortunately, we were unable to find any information on the unit costs for the various dredging scenarios. Repeated questioning at the review meetings and open house options with the consultant likewise resulted in no unit cost information. Without this, we were unable to verify the cost figures in Tables ES4 and 7.1.1, or compare them with actual current disposal costs. Further, we do not understand how the costs presented in the tables could be developed without assuming unit costs, and are left with a lack of confidence in the basis for these numbers. **Please correct this deficiency or explain how the cost tables were created.**

Considering all the preceding issues, we have reached the following conclusions and recommendations:

O14-1-45

O14-1-46

O14-1

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O14-1-46

The extremely large magnitude of these potential cost swings, the range of possible alternate disposal techniques developed through adaptive management, the fact that these costs are dependent on projections 30 years in the future, the lack of demonstrated support for the costs and the potential impact of unknown outside influences in the future, makes the long-term costs estimates for tables ES4 or Table 7.1.1 virtually meaningless, and certainly indefensible.

We recommend that the Table 7.1.1 be modified to eliminate the third column for 30-year maintenance costs and the fourth column for construction +30-year maintenance dredging totals. This would leave the second column, which includes design, permitting and construction costs. We will also have comments regarding these second-column costs, but because of their short-term nature, they are more defensible and provide the public with a clearer picture of the cost impact for the various alternatives.

We also recommend similar changes to Table ES-4 in the Executive Summary.

O14-1-47

We recommend revisions to the qualitative discussions in the Sediment Quality Discipline Report, Chapter 7 and the Executive Summary for consistency regarding our “worst case/best case” comments, and with emphasis on the high probability that the dredge for the Managed Lake alternative in 2050 will not incur the high costs associated with upland disposal by truck.

The next comment for this section concerns the characterization of West Bay sediments as having **Substantial Beneficial Effects**, as described in Table E-2 of the Sediment Quality Discipline Report. This table states that “Minor to Substantial Beneficial Effects on natural recovery of contaminated sediments in West Bay that varies with level of existing contamination and deposition rate” for the Estuary Alternative. This is a mis-characterization that gives the Estuary and Hybrid alternatives an undeserved advantage.

First, there will be no “natural recovery of contaminated sediments” as all dredging for this long-term maintenance dredge is planned to be in sediment levels above the legacy contaminated sediments. All existing contaminated sediments will remain; there will be no recovery. Otherwise, this maintenance dredging would not qualify for deep water disposal, as concluded elsewhere in this section.

O14-1-48

Second, the case for **Substantial Beneficial Effects** is also advanced for the Estuary and Hybrid alternatives because the contaminated sediments will be covered by the relatively clean sediments from future deposition, particularly in the southeast, east, and northwest portions of West Bay where contamination is highest. **How can this be a “Substantial Beneficial Effect” if the contamination is not removed, but simply buried under the new sediments?** Perhaps it could be characterized as a minor beneficial effect, but stating it to be substantial is a mischaracterization. Further, if we were looking at sediment deposition, similar to that in Capitol Lake, it might be reasonable to assume a minor beneficial effect due to layering of sediments. The layering of lake sediments might be more effective in the lake due to the one-way flowrate South to North and the relatively slow-moving currents in the wide basin. However, in West Bay, with the estuary, we have twice daily tidal flow in both directions, at times with relatively high velocity creating turbulence. And the nature of the largest sediment transporting events, which occur a couple times each winter during extreme Deschutes River flooding, would create additional turbulence. Therefore, the potential for sediment mixing is much greater here, and combined with the potential for upward migration of contaminants, raises questions of even the characterization

O14-1-47 Please see the Global Responses for Cost, which describe that cost estimates have been developed for in-water and upland disposal of dredged sediment for all action alternatives. Updates have been made throughout the Final EIS accordingly.

O14-1-48 Please refer to the Global Responses for Sediment Quality.

The EIS Project Team did consult with the Olympia Yacht Club during development of the Draft EIS and did have an understanding that some of the material dredged during their 2014 dredge event required upland disposal. Given the inherent uncertainty in the quality of dredged sediment for all dredge events, cost estimates were provided in the Draft EIS for in-water and upland disposal of dredged sediment for the Estuary and Hybrid Alternatives. The Draft EIS describes that the ultimate disposal approach would be determined by the sediment quality, following sediment sampling and in coordination with the Dredged Material Management Program.

O14-1

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of a minor beneficial effect. **Considering this potential mixing of contaminated and clean sediments, how can a ‘substantial beneficial effect’ be determined?**

Also, in the Port area, the theory that the relatively clean new sediments will overlay the contaminated sediments and future dredging will only encounter clean material, is even more tenuous. We were reminded, in reviewing with the Port, that they service many extremely large vessels in the turning basin and along the Port docks. They describe the prop wash from these vessels and the tugs that position them as creating “a big mixing bowl” which disrupts the stratification that might otherwise occur. **Have you considered this Port experience in the analysis?**

O14-1-48

Further supporting these comments is the experience of the most recent dredging operation, in the West Bay area, by the Olympia Yacht Club (OYC). Their dredge took place above the z-layer, with sediments that would be characterized as “clean” by your sediment quality conclusions. Yet, 40 percent of this 10,000 cubic yard dredge did not meet deep water disposal requirements due to contamination and were disposed upland at a cost approximately five times more than deep water disposal (\$145 per cu yd versus \$30 per cu yd). This dredging experience also lends credence to our issues regarding the presentation of cost projections discussed in the earlier comment for this section. **Why wasn’t this OYC dredging experience taken into account in the analysis?**

For these reasons, we ask that the sections of Table E-2 for the Estuary and Hybrid Alternatives be changed to “No adverse impacts” or “Minor Beneficial Effects on natural recovery of contaminated sediments in West Bay that varies with level of existing contamination and deposition rate”.

O14-1-49

Our third comment for this section relates to an apparent inconsistency in the Sediment Quality Discipline Report between the text on Page 2 (paragraph 3) and Tables E-1 and E-2. The text identifies a “minor beneficial effect” based on the reduction of high sulfides in the sediments in Capitol Lake. However, for all alternatives in Table E-1 and the Managed Lake alternative in Table E-2, the impact finding was “No adverse impacts”. **Please explain or correct this inconsistency.**

UPDATED COMMENTS BASED ON ADDITIONAL COST DATA PROVIDED ON AUGUST 9, 2021

Now that we have the planning level cost estimates for maintenance dredging for each of the alternatives, the new information has raised additional concerns. Because our original Draft EIS comments were nearly complete prior to receiving the new information, we are continuing to provide these original comments so that you can see the progression of our concerns.

First, it should be noted that the headings on the Page 1 table ‘High Level Summary’ are mislabeled. **Please correct.**

O14-1-50

We were surprised to see that the consultant had developed detailed maintenance dredging cost estimates for the Estuary and Hybrid alternatives for Upland Disposal. **Our basic question is, why wasn’t this information provided or at least summarized in the Draft EIS and Executive Summary? (Other than in an obscure, mis-labeled footnote)**

We also noted that in-water disposal for the Managed Lake Alternative was not even a consideration, and labeled Not Applicable in the table. This is not surprising based on the Draft EIS statement in Chapter 7, on Page 7.4:

O14-1-49 As described in Section 5.3.1 of the Sediment Quality Discipline Report, lake sediments exposed by dredging would have low sulfide concentrations that overall would result in minor beneficial effects on sediment quality in Capitol Lake for all alternatives. This finding is not specific to the Managed Lake Alternative. The finding was correctly shown in Table E.3 of the Draft EIS Executive Summary. Table E.1 of the Sediment Quality Discipline Report has been updated to include this finding.

O14-1-50 Footnotes have been added to the table in the Final EIS Summary to describe increase in potential costs if sediment dredged under the Estuary and Hybrid Alternatives must be taken upland rather than disposed of in-water. This was also included as a footnote to Table 7.1.1 in the Draft EIS, and these footnotes have been retained (with updates as needed) in Table 7.1.1 of the Final EIS.

Existing environmental conditions and environmental regulations prohibit sediment from the Managed Lake from being disposed of in-water disposal due to the presence of the New Zealand mudsnail. However, in response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative. Environmental conditions and/or environmental regulations would have to change for the sediment to be considered suitable for in-water disposal. Dredging would not occur sooner than the 2050s under the Managed Lake Alternative, and conditions could change in that time, although there is no current indication of changes in that direction.

O14-1

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O14-1-50

"Upland disposal is the only feasible disposal option for material dredged under the Managed Lake Alternative because invasive species are expected to persist in the freshwater environment, at high densities similar to existing conditions."

Are NZMS expected to persist for 30 years? Are existing densities high? What evidence supports these conclusions? We have explained in detail in our earlier comments why it is unlikely that the NZMS will be present, or a significant factor when the time for the long-term dredge is required; or if it is still present, how adaptive management could be used to greatly reduce the cost. Apparently, these ideas were not even considered in the Draft EIS analysis. In fact, instead of considering disposal within the watershed, or dewatering on site and NZMS desiccation, followed by disposal locally or marketing as a soil amendment, the Draft EIS projected that the entire 472,000 cu yd would be transported 250 miles one-way to the Roosevelt Regional Landfill in Eastern Washington. **Do none of these ideas rise to the level of being a "feasible disposal option"? Should the author of the Not Applicable designation for in-water disposal of sediment 30 years from now have their crystal ball license revoked?**

O14-1-51

Why did the Draft EIS fail to consider any options other than this \$250 to \$450M disposal option? Do the authors of this Draft EIS have so little confidence in DES, their consultants, other State Agencies, local Universities, community organizations (such as CLIPA), and the community at large to research, adaptively manage and creatively analyze this issue, over the next 30 years?

If, after reviewing all the comments submitted for this Draft EIS, none are found to be substantial enough to require a Supplementary Environmental Review, then isn't this issue alone sufficient to require such a review? We would find it incomprehensible that this Draft EIS could move to a final EIS without additional analysis. At a minimum, this analysis is necessary to recognize the high probability that the dredge for the Managed Lake alternative in 2050 will be substantially less in cost. Upland disposal in Eastern Washington by truck is a "worst case" scenario that unrealistically burdens the Managed Lake Alternative by as much as \$350M.

HYDRODYNAMICS AND SEDIMENT TRANSPORT

Our first comment is one you have heard before, regarding flooding events for the various alternatives. After review of Chapter 4, we have concluded that there is not sufficient recognition of the value of current dam operating procedures in limiting high water (i.e., flooding) in areas adjacent to Capitol Lake. To briefly review our past comments, this flooding protection is accomplished by lowering the lake level and utilizing its storage capacity in anticipation of high river flows that would otherwise overflow the Arc of Statehood wall and any other low points around the lake. Please note that in Chapter 2, page 2-17, in the section describing sediment management, the following is stated:

O14-1-52

Within the 30-year project time horizon, the Capitol Lake Basin would still provide flood storage capacity, given project rates of sediment deposition and because flood storage capacity is largely controlled by early release of lake water through the 5th Avenue Dam.

After searching in the Chapter 4 Hydrodynamics and Sediment Transport Discipline report, we were able to find only one reference to this procedure after reading through 44 pages in the Existing Conditions section and a second comment at page 90 in the Modeling Assumptions and Limitations. However, in

O14-1-51 As described in Final EIS Supporting Chapter 7.0, before future dredge events, sampling for chemical quality and invasive species would occur to confirm suitability of the dredged material. Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events.

In response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative.

As described in Final EIS Supporting Chapter 2.0, before future dredge events, the potential to beneficially reuse sediment would be evaluated; this could result in significant cost savings.

O14-1-52 Numerical modeling of hydrodynamics and sediment transport for the No Action and Managed Lake Alternatives included simulation of dam operations (opening/closure) based on real events and 3-year-record of actual measurements of dam opening/closure provided by Enterprise Services staff.

The primary function of the 5th Avenue Dam when designed was to provide a reflecting pool for the Capitol Building and, available historical documentation suggests the dam/Capitol Lake Basin was not designed to be part of a flood management system. However, as the commenter noted, Enterprise Services does now use the storage capacity of the Capitol Lake Basin as a means to manage (avoid and minimize) upland flooding in areas adjacent to Capitol Lake by early release of lake water through the 5th Avenue Dam prior to extreme river flow events. It should be noted that the early release of water through the 5th Avenue Dam is constrained by the timing of low tides (Capitol Lake water can only be released if the lake water level is higher than the tide level in Budd Inlet).

To understand dam operations in general and during storm events in particular, the EIS Project Team met with Enterprise Services' dam operations personnel. Additionally, dam operations personnel provided more than 3 years of dam opening/closure records to the EIS Project Team.

Based on conversations with dam operations personnel, opening/closing the dam as a method of flood management is not feasible during back-to-back rain events when early release of water between the two events is not possible due to the tidal cycle. Dam operations staff cited one such event

O14-1

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(back-to-back rain event) that occurred in the winter of 2016 to 2017 and resulted in flooding at Heritage Park and the Arc of Statehood.

Dam opening/closure is not fully automated and relies on an operator, which means that this flood management approach requires training, institutional knowledge of and familiarity with the system, and operating procedures. It also means that flood management remains partially reliant on and at risk of failure due to human error. In addition, this operation, similar to any other mechanical operation, is subject to mechanical failure. It is correct to assume that under the Managed Lake Alternative, retrofit of the dam would be designed to minimize the risk of a mechanical failure/human error as much as possible. However, the constraints associated with early release of basin water during a back-to-back rain event will remain and be amplified due to future sea level rise and change in intensity/frequency of rain events.

Section 4.3.3 of the Hydrodynamics and Sediment Transport Discipline Report describes the 5th Avenue Dam operation and flood management, which includes lowering the lake level and utilizing its storage capacity in anticipation of high river flows. According to the dam operations personnel, the greatest risk of flooding upstream of the 5th Avenue Dam would be due to back-to-back flood events when draining the North Basin between flood events is not possible during high tides.

The EIS modeling team simulated dam operation and developed model calibration/validation based on records provided by dam operations personnel during an actual storm, see Section 4.1.2.1 of the Hydrodynamics and Sediment Transport Discipline Report, which describes the 5th Avenue Dam operations during storm events.

O14-1

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RESPONSE

O14-1-53 The comment is valid about smaller maximum flow velocities at the opening to Budd Inlet reported in this study compared to that produced by an earlier study (USGS 2006).

The reason for this difference is that the observation point (see Figure 4-46 of the Hydrodynamics and Sediment Transport Discipline Report) used for extracting maximum velocities did not represent the location with maximum flow velocities and had to be adjusted. To correct this issue, Observation Point NB06 has been relocated slightly in the southeast direction. With this adjustment, the updated maximum velocities are approximately equal to 4.9 m/s (Estuary Alternative) and 5.0 m/s (Hybrid Alternative) and agree with model results of the earlier study (USGS 2006).

Chapter 4, page 4.4, this flooding protection procedure is deemed to be insufficiently robust to remove the risk of flooding in every case, because the dam operations have the potential for failure. As a result, throughout Chapter 4, it is assumed that this procedure will not be used and therefore flooding will be more extreme in the Managed Lake alternative. Keeping in mind that a significant element of the Managed Lake alternative is refurbishing the Fifth Avenue Dam, we do not believe it is appropriate to reject this operating procedure, which has been effective in the past, and should be even more reliable in the future. The Lake Alternative should not be penalized 100 percent of the time due to the remote possibility of a mechanical failure. Although this Draft EIS does not provide sufficient detail regarding the dam refurbishment, it seems reasonable to conclude that spending nearly \$5.7M in total cost for the dam overhaul for this work would include any necessary improvements in reliability and redundancies to essentially eliminate or greatly reduce the risk of failure.

O14-1-52

And after all, the name of this alternative is the Managed Lake Alternative, and using the lake for flood storage capacity is the essence of adaptive management. **Why does the Draft EIS, and public statements by the EIS contractor (Daily Olympian August 1, 2021), continue to promote the idea that flooding due to the lake alternative is more severe than the other alternatives, and fail to recognize the obvious benefit of this long-standing procedure? How will removal of the dam (with its ability to mitigate downtown flooding by coincident high tides and heavy rainfall) be replaced by equivalent flood control capacity in the Estuary and Hybrid Alternatives?**

To correct this deficiency in the Chapter 4 analysis; Key Findings on Page 4-2, the text on the following pages and Figure 4.1.1 all require revision. Further, it would also be accurate and appropriate to state that under all high tide/high Deschutes flow conditions, the Managed Lake Alternative provides more protection from flooding than either the Estuary or Hybrid Alternatives, and sea level rise will make high tide flooding more severe and frequent. Appropriate corrections are also required for the Chapter 4 Executive Summary and in section 4.8 Land Use, Shorelines, & Recreation (Key Findings and 4.8.4.1).

O14-1-53

Our second comment for this section is to ask for more information to allow the public to better understand the maximum velocity of the water through the new 500-foot opening for the Estuary and Hybrid Alternatives. This is important to help evaluate boating and other recreation opportunities throughout the tidal cycle. The consultant has provided substantial information on maximum depth-averaged velocity, but it is not clear how this relates to the surface velocity, which is probably most important to the public. Tables 4-22 and 4-23 show the maximum velocity through the 500-foot opening (observation point NB06) under two extreme scenarios as 1.36 and 0.79 meters per second. Conflicting with these numbers is Table 4-26, which shows 2.2 and 0.5 meters per second for the same scenarios.

Here is where we have a problem. In the Fall of 2006, the consultants for the CLAMP study used an earlier version of the Delft3D computer model to perform a similar "Hydrodynamics and sediment Transport Modeling Report". General Administration, now DES, provided Fact Sheets for the public to help understand the findings from this feasibility study. In CLAMP Fact Sheet #4, they stated:

"...the restriction points of 5th Avenue, Burlington Northern Santa Fe railroad trestle, and interstate 5 would need to be reinforced to resist scour during flood or extreme tidal events. At those times, velocities up to 16 feet per second are predicted."

O14-1

COMMENT

RESPONSE

O14-1-54 The EIS project team has reviewed Dr. Milnes report and considered his findings in development of the EIS and it is reflected in the analysis. As noted, the analysis concludes that there are many uncertainties related to Ecology’s findings, and as a consequence, the EIS has taken a conservative approach in applying those findings. See also Global Responses to Water Quality comments.

O14-1-53

Converting this velocity from feet per second to meters per second, we find the CLAMP study prediction is 4.9 meters per second, or about four times greater than the current EIS consultants’ estimated velocity in Tables 4-22 and 4-23. **Which of these projections are correct? What is the practical impact of this velocity on safe operations at these constriction points?**

This discrepancy between the CLAMP study and the Draft EIS needs to be resolved. More important, however, is to put this velocity in perspective with respect to kayaking, canoeing or waterboarding through these constriction points. **What percentage of the time will these activities be curtailed, both during high flow and also low water conditions? Will warning signs or restrictions be needed to ensure safe operations? How will restrictions be enforced?** These are all questions that need to be addressed, and compared/contrasted with the benign boating situation in the Managed Lake alternative.

WATER QUALITY

CLIPA would like to acknowledge the willingness of the consultants for the water quality discipline report (Herrera Environmental Consultants, Inc.) to look beyond the historical conditions in the Capitol Lake Basin and Ecology’s questionable conclusions regarding the impact of the discharge from Capitol Lake on the water quality of Budd Inlet. The consultant’s use of current sample results and the questioning of Ecology’s analysis and conclusions has shed a new light on the improving water quality in Capitol Lake. CLIPA and our water quality consultants have been in the forefront of this analysis for several years, and it is rewarding to see that much of our work is now being accepted.

Again, to quote from the Executive Summary of the Draft EIS, Page 12:

“As part of the water quality analysis for the Draft EIS, the EIS Project Team evaluated monitoring data from 2004 to 2014 and also collected water quality samples in 2019 to compare current conditions against the historical dataset. Despite what has been perceived to be worsening conditions in Capitol Lake, monitoring data indicate that water quality conditions have actually been improving in the lake and are relatively good in terms of physical and chemical characteristics important to aquatic life. There are only occasional seasonal violations of water quality standards, primarily associated with slight changes in temperature and dissolved oxygen.”

And:

“These improving water quality trends reduce the level of management that would be needed under a Managed Lake Alternative to meet lake management objectives.”

And further, with regard to Ecology’s conclusions for water quality (particularly dissolved Oxygen [DO]) in Budd Inlet due to the lake discharge, we agree with the consultant’s summary statement in the water quality discipline report, Page 4-41:

“Overall, the differences between predicted TOC concentrations and measured concentrations, the atypical year that was used to calibrate the model, and the apparent lack of a relationship between the onset of DO problems and changes in TOC, contribute to uncertainty in interpretation of TOC results. This is exacerbated by the general lack of TOC data, i.e., data from

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COMMENT

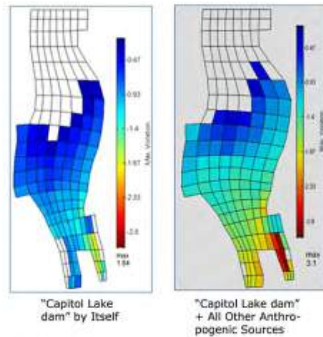
RESPONSE

just 2 years that were separated by a period of over 10 years and during a time when lake conditions appear to have been changing. Comprehensive monitoring of the lake was last completed over 15 years ago and there have been significant changes in water quality over the past decades. Ecology (2012) (based on data from 1988 to 2008) indicated there were measurable trends in water quality in the river. The analysis of more recent data (based on 2004 to 2014 data reported in this study) indicates there have been improving trends in both the lake and river during that time. This implies that the water quality conditions may have changed since the modeling effort.”

The consultant calls for a closer examination due to this uncertainty. We agree with this, and encourage the consultant to review the detailed report “Assessment of Water Discipline Section 4: Affected Environment [AE]”, prepared specifically for the Draft EIS comment request, by David H. Milne, PhD. (Faculty Emeritus, TESC, Environmental Studies). This report is provided in its entirety in the Appendices Section.

Key elements of Dr. Milne’s report include:

- Capitol Lake does not have the widespread negative effect on Budd Inlet shown in the water quality discipline report, Figure 4-13



SH viols lake and total Figures

Figure 4. “Model Predictions of DO Depletion (mg/L) From (a) the Cumulative Anthropogenic Effects and (b) Solely Due to the 5th Avenue Dam

- Capitol Lake does not contribute more TOC to Budd Inlet (in total, and in particular during the growing season) than would an estuary.
- Many of Ecology’s conclusions are in error, because the extent of WQ violations attributable to Capitol Lake and throughout Budd Inlet are based on an assumption of accuracy that the model doesn’t possess, on DO calculations that fail to portray critical shallow bottom water oxygen

O14-1-54

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production by benthic algae in East Bay, and do not show the extent of WQ violations in "natural" (pre-dam) Budd Inlet.

AQUATIC INVASIVE SPECIES (AND IMPERILED AND NUISANCE SPECIES)

General Questions

Why is removal of freshwater invasive species from the Lake not compared with arrival of marine invasive species in the Estuary alternative?

O14-1-55

Estuaries are veritable hotbeds of invasive species, brought there by shipping and other human activities. Heads of estuaries (as the Lake basin would become) are among the most species-impoverished of all familiar aquatic environments and are wide open to new invasions by every newly introduced species everywhere around the entire Salish Sea. (Several new marine invaders, including the purple varnish clam, are presently moving down-Sound in the direction of Budd Inlet.) The Lake is a species-rich environment isolated by intervening land from easy entry by new freshwater invasive species.

Species-rich ecosystems are inherently much more resistant to invasive species establishment than are species-poor ecosystems.

Destroying the Lake and its invasive species would bring an equal number of marine invasive species – or more – to the basin.

What, if any, advantages would be obtained by replacing the very high species diversity of the Capitol Lake ecosystem with the very low species diversity of a replacement estuary? What disadvantages?

In Chapter 4, Page 187, the Draft EIS maintains:

O14-1-56

"The action alternatives would create long-term changes in habitat quality and distribution, with a greater diversity of habitat types, including tide flats and estuarine wetlands under the Estuary and Hybrid Alternatives compared to the Managed Lake Alternative, which would have primarily freshwater wetlands and deep freshwater habitat types.

Does this diversity of habitat types translate to species diversity? Apparently not, as described in the following comments about the heads of estuaries, from Estuarine Ecology, by John Day, et al:

Heads of estuaries have the lowest species diversity of any familiar aquatic ecosystems; about 25% that of lakes and shallow ocean waters and about half that of mid-estuarine waters. (Day et al, 1989) Ecosystems with high biodiversity are much more resistant to establishment of invasive species than those with low biodiversity. (Day, John W., Charles A. S. Hall, W. Michael Kemp, and Alejandro Yáñez-Arancibia. 1989. Estuarine Ecology. John Wiley & Sons, New York. 558 pp)

New Zealand Mud Snail Specific Questions and Comments

O14-1-57

When was the last lake wide survey of the distribution and abundance of New Zealand Mudsnaills (NZMS's) made in Capitol Lake? What were the findings?

O14-1-55 Please see response to Comment O14-1-86.

O14-1-56 Common measures of ecosystem function, in terms of species use, include species abundance and species diversity, which in itself is a measure of biodiversity. While such measures can be useful in assessing the ecological function or "health" of a specific system, they are not as useful in directly comparing the functions and values of two separate and distinct ecosystems.

For example, estuaries have relatively low species diversity compared to freshwater systems and fully saline systems. However, even though estuaries usually have low species biodiversity, they maintain a highly productive environment; invertebrate fauna, in particular, provides rich feeding opportunities for a range of anadromous marine fish. In addition, estuaries provide unique salinity gradients and habitat types and have been impacted and lost at a high rate in Puget Sound.

O14-1-57 Please see response to Comment O14-1-84.

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O14-1-57 The last lake wide survey that determined snail population densities was (to our knowledge) in 2011 (Johannes 2011, data first examined in 2016). (Johannes, Edward J. 2011. Distribution Survey for Potamopyrgus antipodarum (New Zealand Mudsnaill) in the North and Middle Basins of Capitol Lake, Thurston County, Washington. Final Report Contract #FAC 10-026. Prepared [by Deixis Consultants] for General Administration Facilities Division, Olympia WA).

Do we have recent comparable data for assessing population changes?

O14-1-58 **Do populations of NZMS's live in any of the creeks, open waters, and wetlands crossed by or adjacent to the railroad tracks going from Capitol Lake to Chehalis?**

This question bears on the possibility of spreading the snails to new waters by transport of sediment by rail cars. If the snails are already present, there is no new environmental risk even if the snails are known to be harmful. If the snails are not really harmful, there is no environmental risk whether they are present or not.

What population densities of living NZMS's are found in bottom sediment from the areas that will need to be dredged to maintain a "Managed Lake?" Where can those data be obtained? (This bears on the next question.)

O14-1-59 Dredged sediments will contain large numbers of dead shells from many years past as well as a lesser number of live snails of the present generation. Knowing the numbers of living snails per m³ of sediment bears on the next question.

What threshold level of living NZMS's in dredged sediment would be considered hazardous enough to warrant isolating the dredged material on land (vs dumping it in deep marine water)? What is the population density threshold below which the risk can be deemed minimal?

What ecological or other problems (e.g., biofouling) have NZMS's caused in Western Washington? Where have those other problems manifested themselves?

A widespread early rumor that they caused massive biofouling in the Idaho Power System's cooling water intake proved false. ("In the summer most of the [fouling] material is aquatic plants that are being moved downstream by flow. We have no idea how he [Johannes] might have estimated that half of the weight is P. antipodarum." Pers. comm., Ralph Myers, Idaho Power Environmental Affairs, March 2017. [Johannes made this estimate but he himself couldn't remember where he'd heard it. Pers. comm. About 2017] Many such alarming statements proved false after that time.

O14-1-60 **Please engage an out-of-state consulting firm to review all published literature identifying problems caused by NZMS's in Washington State (if any), also review evidence from personal experience by field personnel where obtainable and reliable, and render a judgment on whether the snails are menacing enough to warrant strenuous expensive efforts to control their spread. Said consultant to begin work immediately and report to the EIS writers in time to inform their statements about management of the Lake Alternative in the final EIS.**

Independent expert opinions should be sought from authorities who are not employed by Washington State agencies (WDOE, WDFW, WDNR, DES, etc.) and who have not been affiliated with those agencies by consulting or in other ways in the past. The agencies themselves could find it difficult to abandon a narrative ("the snails are an eco-menace") that they have promoted for a decade and in-state consulting

O14-1-58 Treatment requirements for dredge material being transported off-site is described in Section 5.7.1.3 of the Aquatic Invasive Species (AIS) Discipline Report. All dredged materials transported in trucks or railcars must be treated to kill New Zealand mudsnails as specified in the AIS Adaptive Management Plan and in accordance with state law RCW 77.135 and the AIS prevention permit. In addition to treatment, all dredged materials will be covered to prevent loss of viable seeds or mudsnails during transport, and all dredged material placed at the upland beneficial reuse or disposal site will be covered with a soil layer and not disturbed for a specified period to ensure no viable New Zealand mudsnails or purple loosestrife plants would spread from the disposed material. These mitigation measures will be implemented as required by law regardless of their presence of AIS along the transportation route and the environmental risk they present. It is the responsibility of Enterprise Services and the contractor to ensure that there is no spread of AIS as a result of dredged material handling.

The USGS Nonindigenous Aquatic Species locator map (<https://nas.er.usgs.gov/viewer/omap.aspx?SpeciesID=1008>) is a helpful tool to locate areas of known New Zealand mudsnails in Washington State.

O14-1-59 Please see response to Comment O14-1-84.

O14-1-60 Extensive research on aquatic invasive species (AIS) impacts was conducted and feedback from experts was incorporated into the AIS Discipline Report. The summary of AIS ecology and economic impacts are addressed in Section 4.0.

WDFW has the regulatory authority to govern and control for AIS and they have characterized New Zealand mudsnails as a high priority species. WDFW is implementing standard management actions to control for the spread of New Zealand mudsnails and other animal AIS. Additional analyses are not needed in order to evaluate the change in presence and distribution of AIS (including New Zealand mudsnails) under the project alternatives, and to inform decision-makers. Additional research and agency consultation would be conducted for the preparation of the AIS adaptive management plan to determine appropriate management strategies and to determine whether the current AIS policies and requirements may change.

New Zealand mudsnails do not have natural predators in Washington and provide little or no nutrient benefit, often passing through predator's digestive systems alive, resulting in reduced body weight and health of native salmonids. New Zealand mudsnails consume large amounts of periphyton,

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out-competing native invertebrate species for food and space, and have an ability to withstand highly variable environmental conditions. In the Snake River, the New Zealand mudsnail is believed to be the major cause of five species of native mollusks recently becoming endangered. New Zealand mudsnails can establish very dense populations that may block water pipes, meters, or irrigation systems. In addition, they carry diseases that threaten fisheries and hatcheries.

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firms might be reluctant to disagree with agencies that might employ them in the future. A truly independent, unbiased judgment should be sought.

This is the KEY QUESTION. Are New Zealand Mud Snails, contrary to their reputation, actually so harmless that the EIS need not consider them?

This question is raised because it is CLJA's opinion that they are harmless. If so, many very costly actions taken for granted by the DEIS would be unnecessary. The following presents evidence that they are, in fact, harmless in western Washington State.

Because of the overriding cost implications of the likely status of NZMS for sediment disposal, we are providing the following detailed analysis supporting CLIPA's position that NZMS are harmless.

Summary of key points

- Native predators in Capitol Lake eat introduced NZMS's and keep their numbers low.
- NZMS's were present in Capitol Lake for several years before their "discovery" in October 2009; during those years waterfowl and boaters on the Lake did not spread them to any other nearby waters.
- NZMS's are present in at least 30 other locations in Washington State. No ecological or other problems caused by them have (to my knowledge) ever been reported.
- NZMS's have no genetic ability to evolve resistance to native predators, or to adapt to changing climate, or to adapt to any other adverse or favorable environmental factors.
- Where NZMS's have increased to huge abundances, their numbers have dropped back to low levels, a pattern seen in the population histories of many newly introduced species.

Introduction.

The initial reaction by state agencies when NZMS's were first "discovered" in Capitol Lake was one of hysteria. In the words of WDFW workers;

"In addition, NZMS are relatively recent invaders to the United States and their potential invasive harm continues to evolve with each new location in which they become established, developing relationships with other invasive species, and the effects of climate change." (Pleus and Schultz, 2015; emphasis added by me)

Many similar mistaken claims were made about how abundant they would become, how easily they would be transported to other lakes by waterfowl and boaters, how disruptive they would be in native ecosystems (e.g. fish would eat but couldn't digest them and so would lose weight), how native species couldn't cope with them, how fast they would multiply, and the like. The Lake was closed to the public,

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O14-1-61 New Zealand mudsnails and other AIS found in Capitol Lake may not be impactful on native populations locally; however, there are no published reports that New Zealand mudsnails do not impact native salmonids in Washington State. The study referenced above (Bersine et al. 2008) shows in Figure 2 that snail densities increased dramatically (over 1000 times) at the Astoria Yacht Club site in the Columbia River when NZMS were introduced in 1996 and continued to increase over 10 times in 2000 and then stabilized to about the initial 1996 densities after 10 years in 2006. It is assumed that NZMS are responsible for the increased snail density and a crash in the population was not observed within 10 years from its introduction. Diet analysis of juvenile Chinook salmon conducted each year from 2002 through 2005 showed that NZMS were only observed in 3 of 578 stomach samples with a 0.03% overall frequency of occurrence. These results clearly indicate that the abundant NZMS had not yet impacted Chinook salmon in the Columbia River, but the authors cautioned that these results may represent early stages of food web change and additional research is needed to determine the ultimate effects of NZMS on native benthic invertebrates and their predators.

The EIS does not make a determination of whether the presence of the New Zealand mudsnail is impactful, or not to the native benthic invertebrates and their predators in Capitol Lake. The evaluation focused on the change in the New Zealand mudsnail distribution, density, and spread outside existing invaded waters under each alternative. The EIS acknowledges the WDFW characterization of the NZMS as a high-priority species.

Decontamination stations and other mitigation measures were identified to minimize the risk of infesting outside waters and because they would be required according to current WDFW policy. The analysis concluded that the New Zealand mudsnails would need to be managed based on current regulatory practices that allow recreational use of the waters and the prohibition on their transport (RCW 77.15.253, 77.15.290, 77.135.070, and 77.135.080).

It is acknowledged that AIS laws and policies could change. For this reason, cost estimates have been prepared for in-water disposal of dredged sediment under the Managed Lake Alternative, which is currently prohibited because of the known presence of the NZMS.

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the dock in Marathon Park where they were first “discovered” was immediately dismantled, and signs warning of the “hazard” they pose were posted around the Lake. Today, 12 years later, the Lake is still closed to public use on account of the snails.

Since then we’ve learned the following – all of it supportive of the idea that the snails are actually harmless. “Losers,” in a real way.

Details

Introduced NZMS’s have no genetic ability to adapt to native predators, climate change, or any other hostile or beneficial environmental feature.

The NZMS’s in Capitol Lake are all descendants of a single female. They reproduce asexually and are all genetically identical. They have zero ability to evolve defenses (thicker shells, protective coloration, distasteful flavor, cryptic behavior, etc.) against native predators or to adapt to any other environmental factors, including effects of climate change. The claim quoted above (Pleus and Schultz) is grotesquely mistaken.

Many native species in Capitol Lake were able to eat and digest NZMS’s from the moment the snails were first introduced to the Lake.

One initial fear of wildlife biologists was that the snails, with their ability to close their shells and pass through predators undigested, would a) enable NZMS’s to spread as the predators – specifically ducks – moved to other water bodies, and b) starve the predators that mistook them for suitable prey, with consequent weight loss and malnourishment. But Capitol Lake is home to many predators that can eat and digest them. Our native signal crayfish crushes its prey and eats it, and actually prefers NZMS’s to native prey in experimental tests (Brenneis et al, 2011). Mallards, all other dabbling ducks, Canada geese, and four species of native fishes – reidside shiner, riffle sculpin, largescale sucker, and peamouth minnow, known from studies elsewhere to eat snails – can also digest them. The fishes and ducks have “pharyngeal teeth” and gizzards, respectively, that break up snail shells. Predation by these species and others is almost certainly the reason why folks looking at clear pale surfaces (stones, white plastic, etc.) in Capitol Lake almost never see a NZMS. (Brenneis, Valance E. F., Andrew Sih, and Catherine E. de Rivera. 2011. Integration of an invasive consumer into an estuarine food web: direct and indirect effects of the New Zealand mud snail. *Oecologia* 2011: Sep; 167(1): 169-179. Available on line at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3155678/>)

Some native predators really do lose weight when consuming introduced NZMS’s – but they can evolve ways of overcoming that handicap.

Rainbow trout (lacking pharyngeal teeth) are native predators that have been shown to lose weight when fed only NZMS’s (Vinson & Baker, 2008). But as sexually reproducing animals, they also have the potential for overcoming that constraint. In New Zealand, they actually did so. Introduced there (where NZMS’s are native) in ~ 1885, rainbow trout did not thrive at first. But they soon became much better adapted to their new habitat. In the 1990’s events occurred that resulted in a population explosion of NZMS’s in Lake Aniwhenua. The snails blanketed the bottom and crowded out nearly every other benthic species that trout could use as food (Wells & Clayton, 2001). The rainbow trout in the lake, with nothing else to eat but NZMS’s for about four years, grew huge and healthy and made the lake a magnet destination for trophy fishermen and -women for years. A classic picture shows one of the huge rainbows the anglers

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were catching. A similar picture shows a NZ fisherman with a gigantic brown trout – another introduced species that became adapted to eating NZMS's. After the Lake's NZMS population was obliterated, sizes of trout there returned to normal.

Rainbow trout in Capitol Lake have been exposed to NZMS's for about 20 years now. They may already be adapted to preying on these snails... as may other native predators that could not initially digest them. (Vinson, M., and M. A. Baker. 2008. Poor growth of rainbow trout fed New Zealand Mud Snails *Potamopyrgus antipodarum*. North Am. J. Fish. Manag. 28: 701-709. Wells, Rohan D. S., and John S. Clayton. 2001. Ecological impacts of water net (*Hydrodictyon reticulatum*) in Lake Aniwheua, New Zealand. New Zealand Journal of Ecology 25(2): 55-63.)

NZMS's are rare in Capitol Lake (and in Lake Washington).

In winter 2009-2010 an acquaintance dug up a few square feet of Capitol Lake sediment during a drawdown. After examining that sample, it was found to have only a few scattered NZMS's. Since then we have watched for them by looking from the walls, the bridge, and other vantage points – and, even knowing what we were looking for, have never seen one. A few years ago, a colleague obtained a permit from DES to find NZMS's in Capitol Lake and show them to a visitor from Argentina. The two had great difficulty even finding them (they were always rare and always on the undersides of stones) and asked "Why are these things considered a menace?" A colleague up at Lake Washington, where the NZMS's appeared a little before their "discovery" in Capitol Lake, had the same question.

In both lakes, NZMS's have not lived up to claims made about how abundant they would become.

NZMS's were present in Capitol Lake – and not noticed – long before their "discovery" in 2009. [This fact negates two alarmist claims made about the snails; see below.]

The first reported NZMS's were "found" at Capitol Lake's Marathon Park on October 22, 2009. A year and a half later (June, 2011) a mollusk expert (Ed Johannes, Deixis Consulting) surveyed the Lake for the DES to determine the presence or absence of NZMS's at 31 locations. Five years later (2016) the Lake protection association (CLIPA) hired Mr. Johannes to reexamine the samples and count the snails in each of them.

The snails probably entered the Lake at Heritage Park about 2001 and had already spread southward past the Marathon Park "discovery" site by October 2009.

NZMS's were in the Lake for eight years before the Lake was closed – and were never spread to other water bodies by waterfowl or public users of the Lake.

Surveys of the nearest 85 ponds, streams, and lakes within five miles of Capitol Lake by Johannes in 2010 showed that none of these other water bodies had NZMS's in them, despite fully eight years (2001 – 2010) of public boating and waterfowl overwintering in nearby Capitol Lake before the Lake was abruptly closed. **The hazard of transporting the snails to other waters is nonexistent. The closure of the Lake for fear of spreading the snails to other waters is unjustified.** (Johannes, Edward J. 2010b. Survey for *Potamopyrgus antipodarum* (New Zealand Mud Snail) within a five-mile radius of Capitol Lake, Thurston County, Washington. Final Report [by Deixis Consultants] Contract #10-1908. Prepared for: Washington Invasive Species Council, Washington State Recreation and Conservation Office, Olympia Washington.)

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Where NZMS's have been able to establish huge population densities, they have soon dwindled back to scarcity.

Early worries were voiced that the snails would become so numerous on the bottom that they would displace the prey organisms of native predators. A common (not universal) feature of populations of introduced species is a huge "spike" in numbers followed by a huge drop in numbers back to a low level that persists from that time, as exhibited by NZMS's in the Columbia River estuary. First noticed in 1990 near the Astoria Yacht Club and thereafter sampled near-yearly, they exploded in numbers to about 250,000/m² in 2000, then dropped back to 50,000 /m² the next year, then dropped to a few thousand per square meter during the years after that. That pattern is a common feature of introduced species presence in newly invaded habitats. Initial scarcity – then a population explosion – then a precipitous drop as native predators "notice" the intruders and start seeking and eating them. The intruder population is decimated and – especially for species like NZMS's that can't adapt to the native predators – the predators get better and better at finding and eating the new species.

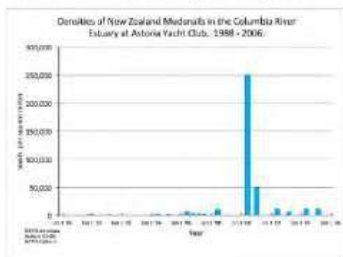


Figure 1. Outbreak, then collapse of NZMS population in Columbia River near Astoria. Bersine et al, 2008. (This graph has converted Bersine's log-scale graph to this one with an arithmetic scale for better visualization of the "spike" in population density.)

The snails existed at a population density of some 17,000+ per square meter at Heritage Park in 2011 (Figure 1). If they existed at that density today, there would be about 2 snails on every square centimeter of bottom at present. None can be seen on the bottom there today, (Source: Bersine, K., V.E.F. Brenneis, R.C. Draheim, A. Michelle Wargo Rub, J.E. Zamon, R.K. Litton, S.A. Hinton, M.D Sytsma, J.R. Cordell, and J.W. Chapman. 2008. Distribution of the invasive New Zealand Mudsnail (*Potamopyrgus antipodarum*) in the Columbia River Estuary and its first recorded occurrence in the diet of juvenile Chinook salmon (*Oncorhynchus tshawytscha*). Biological Invasions 10:1381-1388.)

NZMS's are present in at least 30 other locations in (mostly western) Washington. We know of no reports that they have ever caused problems in those places. Locations that come to mind are Lake Washington, a pond at Ocean Park, and Blue Slough on the Chehalis River. (<http://nas2.er.usgs.gov/viewer/omap.aspx?SpeciesID=1008>)

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COMMENT

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Purple loosestrife Specific Questions and Comments

Please prepare an alternative estimate of the costs of dredging and handling of Lake sediments if it were discovered that both New Zealand Mudsnaills *and* Purple Loosestrife were harmless and required no special precautions.

If purple loosestrife is not now or likely to pose a threat to nearby ecosystems, expensive precautions to prevent its spread would be unnecessary. The following questions examine whether purple loosestrife is unlikely to create problems elsewhere if seeds of these plants are present in Lake sediments.

- **What recent research on the abundance of purple loosestrife at Capitol Lake has been cited as a reason for restricting sediment disposal and transportation options to avoid spreading its seeds?**

As a result of a sustained eradication effort started in 1988, purple loosestrife is now almost entirely absent from the shores of Capitol Lake and the Deschutes River (citation available). It is likely that the last plants will be gone by the time dredging for any of the Alternatives begins, several years from now.

A survey of the Lake shores by the author and a colleague (August 8, 9, and 12, 2021) showed that these plants are even scarcer today than they were in 2018. (See the DEIS purple loosestrife distribution map for 2018 shown here, updated to 2021; DEIS Figure 3.4.1). All plants found in the survey are near the I-5 bridge or farther south, most of them are some 100 feet from the South Basin shore at Tumwater Historical Park and unable to easily seed Capitol Lake waters. (One plant, easily removable, is at water's edge on the east shore of the Deschutes River near the old brewery building.) All are present in small patches or as single individuals. These plants are flagged for removal, which will probably happen this year (2021). Their increasing scarcity and confinement to the south end of the Lake has probably diminished the presence of their seeds in the sediments.

O14-1-62

O14-1-62 Purple loosestrife is rated as a class B noxious weed, requiring landowner control in Thurston County. These control efforts have been successful around Capitol Lake and have resulted in their near eradication. Ongoing efforts will continue under all alternatives to be managed per Thurston County Noxious Weed Control Board, Washington Department of Agriculture, noxious weed regulations (WAC 16-750), and noxious weed law (RCW 17.10).

Locations of purple loosestrife in 2018 are shown in the AIS discipline report and were used to evaluate the likely presence of seeds in lake sediments. We have since received the 2021 survey report that shows a similar distribution that includes one plant in the North basin, six plants in the Middle basin, five plants in the Middle basin mitigation wetlands, and six plants in Percival Cove. The South basin was not surveyed in 2021 where approximately 30 plants were observed in 2018. The AIS discipline report was updated with the 2021 survey findings. As noted in the AIS discipline report, each plant may produce up to 2.7 million seeds annually and the seeds can be viable for several years. Therefore, it is expected that viable seeds are currently present in lake sediments, but lake sediments have not been monitored to determine the abundance and distribution of viable seeds.

Currently, the Dredge Material Management Office agencies do not allow open-water disposal of sediments containing viable purple loosestrife seeds, particularly at the nearest Anderson-Ketron Island disposal site due to its proximity to the Nisqually Refuge. Sediment monitoring requirements, seed viability test procedures, and minimum seed detection limits have not been established by the DMMO. It is acknowledged that disposal requirements may change, or viable seeds may not be present in lake sediments in the future.

In response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative. Environmental conditions and/or environmental regulations would have to change for the sediment to be considered suitable for in-water disposal. Dredging would not occur sooner than the 2050s under the Managed Lake Alternative, and conditions could change in that time, although there is no current indication of changes in that direction.

O14-1

COMMENT

RESPONSE

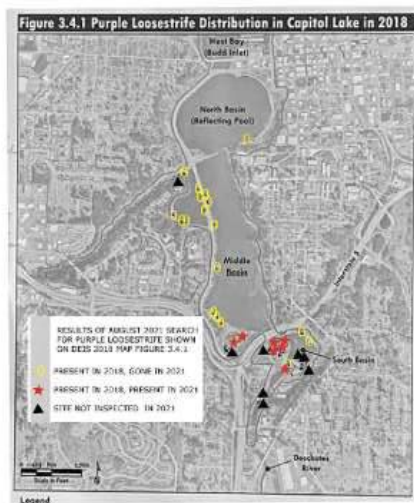


Figure 1. Diminished presence of purple loosestrife at Capitol Lake. 2021. Yellow: Present in 2018, absent in 2021. Red: present in 2018, still present in 2021. Black: present in 2018, probably absent at Percival Creek (upper).

- **Do purple loosestrife seeds sink? Accumulate in bottom sediments? If so, how long do purple loosestrife seeds remain viable in lake bottom sediments?**

With purple loosestrife near extermination at this time, a year remaining to finalize this EIS, and several years' lag time between the finalization and the beginning of any dredging, the last seeds now remaining in the sediments (if any) will probably be dead. The likelihood that the last viable purple loosestrife seeds will be gone by the time dredging for any of the alternatives begins has huge significance for the cost of any Lake Basin dredging.

- **Are purple loosestrife seeds present in Capitol Lake sediments? If so, what percent of them are viable?**

Please have an impartial expert (say, a palynologist) examine samples of Lake sediments for evidence of viable purple loosestrife seeds. (An expert would be needed; the seeds are the size of small sand grains.) Sediment samples might already be available from recent studies (oil spill, brewery source; sewage, Percival Creek source; bathymetry study, etc.)

O14-1-62

O14-1

COMMENT

RESPONSE

O14-1-62

- What would be the cost of sediment disposal in the Managed Lake alternative if purple loosestrife seeds were absent or could be regarded as harmless?
Please provide this information in the final EIS.

O14-1-63

Eurasian Milfoil Comments

As described in Chapter 3, Page 3-51:

"[Eurasian Milfoil] ...is likely not significantly impacting native wildlife or recreation in and around the Capitol Lake Basin based on its current abundance and the aquatic plant habitat diversity."

It was effectively treated in 2004 with Tridopyr, and since that time has been kept under control by hand pulling where it has reappeared. These minimal maintenance procedures should continue to be effective in the future.

O14-1-64

Imperiled And Nuisance Species Specific Questions and Comments

Northern Pikeminnows

What would be the statewide impact on native Northern Pikeminnows (*Novumbra hubbsi*) if Capitol Lake were replaced by an estuary?

This is the only species of fish that is endemic to Washington State. Its geographic distribution includes streams and shallow ponds on the west slope of the Olympics (but also includes Lake Ozette) with its southern boundary reaching Capitol Lake. Known occurrences over its former range have been decreasing during the past decades (Mongillo and Hallock, 1999).

Although this species lives in Capitol Lake (Entranco 1997, also Herrera 2004), it was dismissed by the CLAMP Report (Hayes et al, 2008) in a footnote claiming that the Lake "is not its typical habitat." (However, it actually lives there and "typical habitat" as described by Page & Burr (2011) and others reads like a description of Capitol Lake.)

Citations: Mongillo, P. E., and Hallock, M. 1999. Washington State Status Report for the Olympic Mudminnow. Washington Department of Fish and Wildlife; Fish Program. Olympia, WA. 43 pp.

Hayes, Marc P., Timothy Quinn and Tiffany L. Hicks. 2008. Implications of Capitol Lake Management for Fish and Wildlife. Report prepared for Capital (sic) Lake Adaptive Management Program Steering Committee by The Washington Department of Fish and Wildlife. 92 pp

Page, Lawrence M. and Brooks M. Burr. 2011. Peterson Field Guide to Freshwater Fishes.

Entranco, 1997. 1997 Capitol Lake Drawdown Monitoring Results. Report Prepared for the Capitol Lake Adaptive Management Plan [=CLAMP] Steering Committee. Bellevue, WA.

Herrera Environmental Consultants, Inc., 2004. Capitol Lake Vertebrate and Invertebrate Inventory. Prepared for the Washington Department of General Administration, Division of Capital Facilities. Seattle, WA. 76pp.

O14-1-63 Comment noted. Please also see the Aquatic Invasive Species Discipline Report for additional information regarding management of aquatic invasive species such as Eurasian watermilfoil.

O14-1-64 This response assumes this comment was intended to focus on Olympic mudminnow, and not northern pikeminnow.

Mudminnow occurrence as documented in existing studies is described in Section 4.1.1.2 of the Fish & Wildlife Discipline Report (Attachment 9). However, additional research indicated that two Olympic mudminnow were among the 320 fish collected in isolated pools in Percival Cove using electrofishing during the 1997 lake drawdown (Entranco 1997). Even though Hayes et al. (2008) found that Capitol Lake is not preferred habitat for Olympic mudminnow, this species was added to Table 4.1 - Fish Species Potentially Present in the Study Area in the Fish & Wildlife Discipline Report. While it is likely that construction of the Estuary or Hybrid Alternative would impact mudminnow populations in Capitol Lake through the loss of lacustrine habitat, existing populations show limited abundance (based on available information) and would not contribute in an appreciable way to the statewide population of this species.

O14-1

COMMENT

RESPONSE

O14-1-65	<p>Freshwater Mussel</p> <p>What would be the statewide impact on the native freshwater mussel <i>Anodonta oregonensis</i> if Capitol Lake were replaced by an estuary?</p> <p>This species, first discovered in Capitol Lake on October 22 2009, has been disappearing over its entire range in the West, including Washington waters (Nedeau et al, 2009).</p> <p>Nedeau, Ethan J., Allan K. Smith, Jen Stone, and Sarina Jepsen. 2009. Freshwater Mussels of the Pacific Northwest. Second edition. The Xerces Society, Portland, OR. 51 pp</p>
O14-1-66	<p>Vaux's Swift, Purple Martins</p> <p>What would be the statewide impact on Vaux's swift and purple martens, insectivorous birds said to be imperiled in the CLAMP 2008 report but not mentioned in the DEIS?</p>
O14-1-67	<p>Dragonflies</p> <p>What impact on dragonflies (and potentially on mosquito control) would replacement of Capitol Lake with an Estuary create?</p> <p>Dragonflies are not addressed in the DEIS. These easy-to-overlook but common consumers of mosquitoes live as immature forms for a year or more on lake bottoms with sufficient oxygen before emerging to become flying adults. With all other lakes in Thurston County experiencing zero dissolved oxygen at the bottom during the summers, Capitol Lake provides by far the best and most extensive open-water dragonfly habitat in our county.</p>
O14-1-68	<p>Western Pond Turtles</p> <p>Are there state-listed Western Pond Turtles in Capitol Lake? Could the Lake provide habitat for this scarce and imperiled species?</p> <p>If removing the Lake destroys potential suitable habitat for Western Pond Turtles, that would be a serious loss and negative impact.</p>
O14-1-69	<p>Saltmarsh Mosquitoes (Nuisance Species)</p> <p>What is the likelihood that the Estuary alternative will unleash saltmarsh mosquitoes on our communities?</p> <p>Washington's saltmarsh mosquitoes (<i>Ochlerotatus [Aedes] dorsalis</i>) are day-biting far-flying "vicious" mosquitoes that rise to (sometimes "extreme") nuisance proportions in Pacific and island counties. The Olympia area is fortunate that this species is not found here and other species are not common enough to be bothersome.</p> <p>With diminished populations of bats, swifts, and dragonflies, and in the presence of saltmarshes created by the Estuary alternative, what is the likelihood that these factors will introduce that species to our area? (citations available upon request)</p>

- O14-1-65 See the Global Response for Fish & Wildlife.
- O14-1-66 Vaux's swift and purple martin are listed in Table 4.6 Bird Species and Species Groups Present in the Study Area, in the Fish & Wildlife Discipline Report (Attachment 9). As described in Section 5.5.2.2 of the Fish & Wildlife Discipline Report, insectivorous birds would find fewer prey items under the Estuary and Hybrid Alternatives, as the existing freshwater environment supports a greater variety and density of emergent insects. However, they are expected to find suitable foraging sites in the vicinity.

Purple martin was removed from the State's Priority Habitats & Species List in 2018. Vaux's swift remains a State Candidate species. The availability of forested habitat, particularly old-growth forested habitat, is the main limiting factor in the swift's distribution and abundance. None of the alternatives would be expected to have a statewide impact on their population.
- O14-1-67 Dragonflies can be effective at mosquito control when a local hatch occurs at the same there is a large mosquito emergence, but populations are seldom large enough to control adults over a large area for the duration of a mosquito season. The primary purpose of an EIS is to provide impartial discussion of significant environmental impacts, and reasonable alternatives and mitigation measures. Accordingly, the EIS focuses on the most significant issues. While potential changes to dragonfly populations under the alternatives was not specifically addressed because it is not reasonably considered one of the most significant issues or significant impacts, the Draft EIS and Final EIS do describe potential changes to mosquito populations under the alternatives (see Section 4.11.9.1 of Final EIS Supporting Chapter 4.0).
- O14-1-68 The Western Pond Turtle are currently documented at six locations in the state; none in Thurston County.
- O14-1-69 See response to Comment I-491-2 regarding mosquito vector risks.

O14-1

COMMENT

RESPONSE

O14-1-70 Please see response to Comment O14-1-18.

FISH AND WILDLIFE

Background

The dam creating Capitol Lake protects its waters, habitat, fish and wildlife, and shorelines from the substantial contaminants currently and continuously pervasive in the waters of Budd Inlet.

If the dam is removed, the toxics from Budd inlet derived from shore, groundwater, bottom, run-off from the surrounding area, and southward flow of Puget Sound would infiltrate what is now a **virtually toxic free Capitol Lake**. The touted ecological function of “mixing of freshwater with marine water”, would likely become a significantly harmful characteristic to the entire basin of 264 acres.

Capitol Lake will become a Terminal Urban Estuary. According to several public health officials interviewed (state and county), Terminal Urban Estuaries are well known for unusually high contamination. The Capitol Lake Terminal Urban Estuary would be the southern-most estuary of Puget Sound and would be especially vulnerable to a variety of toxics currently and continuously affecting Budd Inlet.

As mentioned in Governor Inslee’s *Southern Resident Orca Task Force Report* of November 2018, **“Moreover, the survival of juvenile Chinook salmon from these urbanized estuaries was 45% lower than Chinook collected from uncontaminated estuaries.”** (p.31)

Consider the following from the same report :

1. Adult Chinook salmon are a major source of persistent toxic chemicals to Southern Resident Orcas. (p.30)
2. In particular, toxics can reduce juvenile Chinook salmon survival by reducing their growth and making them more susceptible to disease. (p.30).
3. High levels of persistent toxic contaminants including PCB’s, PBDE’s, and DDT’s are present in the blubber of Southern Resident Orcas potentially resulting in harmful health effects including alterations in hormone levels, reproductive disruption or miscarriages, reduced immunity to diseases, neurotoxicity, neurobehavioral disruptions and cancer. (p.31).
4. Isolation from these toxins should provide a lesser likelihood that these disease inducing toxins will find their way into the tissues of Southern Resident orcas via the food web (p. 30).

The following questions immediately come to mind:

Why are these findings, which are so important to our vulnerable Southern Resident orcas, not mentioned in the DEIS?

Why weren’t the negative aspects of a Terminal Urban Estuary mentioned in the DEIS?

Why would we choose to contaminate the virtually toxic free Capitol Lake basin?

These Chinook are also consumed by humans, especially tribal members. (According to Nate Tyler-council member Makah Indian Tribe, Amy Grondin- commercial fisherman and co-owner , Duna Fisheries, and Chris Wilke–executive director, Puget Soundkeeper Alliance “tribal communities consume fish at a higher than average rate.”)

O14-1-70

O14-1

COMMENT

RESPONSE

Without the Dam, a New Aquatic (Toxic) Environment for Capitol Lake Basin



Health warning signs at Budd Bay adjacent to Mission Creek

Dozens of these warning signs exist throughout Budd Bay and will likely need to be placed around the Capitol Lake Basin

At least five sources continuously supply contaminants to Budd Inlet:

- Urban stormwater runoff, (PAH's, PCB's, CEC's)
- Effluent from LOTT Cleanwater Alliance, (PBDE's, PCB's –low concentrations, CEC's)
- Southern Puget Sound marine flows flowing south,
- Turbulence induced mixing of sediment and legacy toxics by large port vessels in the turning basin.
- Legacy industrial pollutants from toxics clean-up sites. (Listed below from Washington Department of Ecology Website.)

O14-1-71 In regard to potential carcinogenic effects from toxics in West Bay impacting the lake basin, there are two separate issues; one is toxins in water and one is toxins in sediments. In terms of water, there are no toxins in the water at concentrations considered harmful to public or environmental health. Review of the 2018 Washington State Water Quality Assessment shows that the only toxic chemicals causing water quality impairment (i.e., Category 5 on 303[d] list) are for relatively low concentrations of copper (3.1 ug/L) and nickel (8.2 ug/L) in two or more samples collected in 2010 and 2012 from a portion of West Bay for the Solid Wood, Inc. RI/FS. These concentrations would not suggest significant impairment that warrants further analysis in the EIS.

In terms of sediment toxins, the sediment quality analysis in the EIS focused on sediment parameters that have been identified as potentially problematic in the area, principally carcinogenic PAH's and dioxins. There is known contamination in sediment throughout Budd Inlet and adjacent to the Port of Olympia. This is described in EIS Supporting Chapter 3.0, Section 3.11. Hydrodynamic and Sediment Transport Numerical Modeling completed for the EIS indicates that there would not be a net upstream movement of sediment under the Estuary and Hybrid Alternatives; the sediment that would mobilize and move upstream is expected to be the recently deposited sediment from the Deschutes River that meets sediment management standards and does not require clean-up. As described in the EIS, sediment in the lake basin would be primarily derived from the river and the river would dictate sediment contaminant levels in the lake basin.

In regard to future clean ups at known contaminated sites, implementation of the project alternatives generally does not directly or indirectly impact clean-up activities at these sites and therefore this issue is not evaluated in the impact analysis. One exception is planned activity by the Port of Olympia. Additional text has been added to Final EIS Supporting Chapters 1.0 and 7.0 to describe that the Port of Olympia is taking action to remediate these contaminated sediments and remediation is expected to occur before removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives.

In regard to the five other sources of contaminants to Budd Inlet, these sources exist under existing conditions and implementation of the project alternatives will not directly impact them.

See also response to Comment O14-1-18.

O14-1-71

O14-1

COMMENT

RESPONSE

O14-1-72 See responses to Comments O14-1-18 and O14-1-71. The EIS team has not identified significant impacts related to toxins in water entering the lake basin from West Bay; therefore, the requested changes in the Executive Summary were not made.

O14-1-71

- An additional four closed sites continue to leach contaminants into Budd Inlet:
- Reliable Steel site: (Westbay Drive)
 - Gasoline-diesel or oil range petroleum hydrocarbons in soil or Budd Inlet sediments
 - Toxic metals – arsenic, cadmium, copper, lead, mercury or zinc in soil groundwater, stormwater runoff or sediments.
 - PAHs or Carcinogenic PAHs – in soil, stormwater runoff or sediments.
 - PCBs – in soil.
 - Phthalates – in stormwater run-off and sediments.
 - Industrial Petroleum Distributors site: (Westbay Drive, formerly ARCO):
 - Petroleum hydrocarbons from petroleum leaks and spills.
 - Solid Wood, Inc. : (Westbay Drive just north of 4th Ave., owned by city of Olympia):
 - Total petroleum hydrocarbons.
 - PAHs.
 - Metals – exceeding standards for soil and groundwater.
 - Cascade Pole site: (north end of Port peninsula):
 - Creosote contaminants – soil and groundwater.

Please address the contamination problems posed by the estuary/mudflat. They appear to have been inadequately investigated. Please answer: **1) What will be the expected carcinogenic effects (to humans and other species) of introduced West Bay Toxics?** 2) The DEIS suggests that “future clean-ups are planned to address this contamination”. Considering that the State is over 25 years late in dredging and maintaining Capitol Lake, how can we be sure they will address this issue in a timely manner? 3) Ecology lists five sources of toxics in Budd Bay (mostly continuous). How will the continuous nature of these toxics be stopped?

Under an estuary (or hybrid option) introduction of these contaminants into the Capitol Lake basin will unquestionably create serious problems to all living organisms (please note picture above).

Because this contaminant problem will very likely do the following, please make the corrections in the Executive Summary listed in bold type.

1. Negate virtually all ecological advantages (such as “mixing” and habitat improvement”) to the estuary. **Page 30, Water Quality. Add “significant impact” to estuary .**
2. Discourage community use of this resource. This includes shellfish harvesting, fish harvesting and any form of recreation. **Page 32 Land use, Shorelines, and Recreation. Add “significant impact” to estuary.**
3. Pose a public health threat where none currently exists. **Same as 2 above.**
4. Negate any advantages of an estuary to shorebirds and wading birds in the Capitol Lake basin. **Page 31, Fish and Wildlife, estuary, regarding salmon, anadromous species, and marine fish, due to contamination, change from “substantial beneficial impacts” to “substantial impacts”**
5. Negate virtually all asserted water quality advantages to the estuary due to toxic contamination. **Water quality, estuary, page 30, add “significant impact due to introduction of toxics”. Please answer: How can good water quality be improved if it is becoming contaminated with multiple toxics?**

O14-1-72

O14-1

COMMENT

RESPONSE

O14-1-73 See response to Comment O14-1-96. Note that tideflat hazards were addressed in Section 4.11, Environmental Health, of EIS Supporting Chapter 4.0 and that with signs posted at recreation areas, the hazards were not found to be a significant impact.

O14-1-72

6. At least partially or totally make meaningless the value of tribal shellfish harvesting and fishing in "usual and accustomed places and stations". Thurston County Health regulations and proximity to LOTT will make the above activities meaningless.
7. Substantially reduce the value asserted in the DEIS of an estuary regarding Fish and Wildlife. **Why isn't this problem presented, addressed, and clarified in the DEIS. Same as #4 above.**
8. Negate the asserted aesthetic advantage to the estuary. (Dozens of warning signs for toxics and entrapment would be necessary negating the "unified and harmonious" attribute). **Page 33, Visual Resources, estuary, Change "less than significant" to "significant impact".**

Please explain in detail why any of the above eight statements are not true and reduce the current estuary overvaluing assessments (found in the tables of the Executive Summary) in the DEIS to what is recommended above. Not recognizing the serious nature of infiltration of toxics into the Capitol Lake basin is indefensible as it misleads the public and its decision-makers.

In the final or supplemental EIS report, please state the following at least in the Executive Summary, "The dam creating Capitol Lake protects its waters, habitat, fish and wildlife, and shorelines from the contaminants currently and continuously pervasive in the waters of Budd Inlet. Removing this barrier will be detrimental to water quality, fish and wildlife, habitat, and ecological processes in Capitol Lake basin. This is a 'significant impact'.

Mudflats are Deemed Dangerous by Thurston County Health Department

As the warning advisory on the right side of this photograph in Ellis Cove demonstrates, at low tide, mudflats are dangerous. The public will need to be advised to keep off the mudflats with multiple signs in Capitol Lake basin.

O14-1-73



Priest Point Park signage referencing Ellis Cove

Advisory reads: "Water and Soil Pollution. Shower after contact with sand or water from this area." Please note the "Caution At Low Tide, Mud Flats Are Dangerous PLEASE KEEP OFF".

O14-1

COMMENT

RESPONSE

O14-1-74 See the Global Response for Fish & Wildlife.

O14-1-75 See the Global Response for Fish & Wildlife.

O14-1-73

In addition to the omission in the DEIS that toxics threaten many living organisms in the Capitol Lake basin, another serious omission in the DEIS is the fact that mudflats are inherently dangerous to humans and other animals. According to *The Olympian*, in 2016 a man became entrapped in the mudflats of Ellis Cove requiring emergency life-saving assistance. Longtime residents interviewed on this issue confirm that these entrapments are not uncommon.

Here is another example of the DEIS neglecting to inform the public and its decision-makers of serious problems associated with an estuary/mudflat. **Please provide a statement in the Executive Summary, Land use, Shorelines, and Recreation, estuary, page 31, stating that an estuary creates a significant danger due to the potential for public and pet entrapment at low tides. Please state clearly that this represents a "significant impact" and remove the current characterization of "no substantial changes" and "less than significant impacts".**

Findings from Relevant Lake-Raised Chinook Juvenile Studies were Ignored

Page 17 of the Executive Summary makes the following statement: "...estuarine conditions would provide productive habitat for shellfish, salmon, other anadromous species, and marine fish in the area, potentially including Endangered Species Act-listed Chinook salmon (non-hatchery) and steelhead."

O14-1-74

Do we know with any degree of certainty that the advantage of an estuary will increase the numbers of non-hatchery Chinook? Or steelhead, for that matter? **Please read the quoted findings of Koehler, et. al., and Engstrom-Hegg studies listed below and try to provide answers within the context of those findings. For example, will the fourfold increase in "predator favorable" compression points created by the estuary produce fish losses in excess of any benefit Chinook juveniles or steelhead straying into the Capitol Lake estuary for sustenance? Do we have any idea of what the numbers could be? Aren't the numbers likely to be very small? This becomes important when we are discussing the expenditure of hundreds of millions of dollars which could be used in much more productive habitat rehabilitation.**

Michelle Koehler - According to the article *Diet and Bioenergetics of Lake-Rearing Juvenile Chinook Salmon in Lake Washington*, published in 2006 in Transactions of the American Fisheries Society, authors Michelle Koehler, D. Beauchamp, J. Cordell, C. Simenstad, and D. Seiler suggest that **predation of juvenile Chinook is at least as important as habitat type per se for Chinook juveniles. "Efforts to rebuild Chinook salmon populations in this basin [Lake Washington] should therefore focus on the influence of other lake related factors, such as predation, disease, and other life stages."**

O14-1-75

Dam removal would increase marine predator-friendly compression points by a factor of four (railroad bridge, Percival Creek mouth, I-5 Juncture, and Tumwater Falls. Currently only one marine pressure point exists at the base of the 5th Avenue Bridge.) Numbers of salmon and other anadromous fish (all stages) would likely suffer. **Will you please provide evidence to show that the Koehler et. al report mentioned above is not valid for Capitol Lake Chinook and other anadromous fish?** As reported in the governor's *Southern Resident Orca Task Force*, reduction in Chinook numbers would have negative effects on our endangered Southern Resident Orcas.

Note: the Koehler et. al. report mentioned above was submitted (as requested by DES) to the EIS consultant authors in 2018 yet is apparently is not listed as a reference in the EIS. **Considering the report's relevance to Capitol Lake Chinook, please explain why.**

O14-1

COMMENT

RESPONSE

O14-1-76 See the Global Response for Fish & Wildlife regarding salmon use in the study area and requests to review the studies and reports mentioned in this and other comments received on the Draft EIS.

O14-1-77 See the Global Response for Fish & Wildlife regarding salmon use in the study area and requests to review the studies and reports mentioned in this and other comments received on the Draft EIS.

O14-1-76

Additionally, the above 2006 article by Koehler, et. al. makes the following statements: “ Little is known about use of lacustrine habitats by juvenile ocean-type Chinook salmon....To better manage existing populations and aid in designing recovery strategies for ocean-type Chinook salmon using lacustrine environments, basic information on the ecology of juvenile Chinook salmon rearing in this habitat is needed.”

Regarding the above paragraph, has “basic information on the ecology of juvenile Chinook salmon rearing” been advanced since 2006 which might indicate the superiority of lacustrine, riverine, or estuarine rearing environments? If so, please elaborate. If not, shouldn’t the following statements from *Diet and Bioenergetics of Lake-Rearing Juvenile Chinook Salmon in Lake Washington* likely be considered to be the current and best available science? “Lake residence is a rare life history for ocean-type Chinook salmon (Burger et. al. 1985) but our results suggest that the juvenile salmon can feed and grow well in this habitat”. And, “Despite the heavily altered nature of Lake Washington and the relatively short time Chinook salmon have used the system, feeding and growth performance of juvenile in littoral habitats of Lake Washington were comparable to those for Chinook salmon rearing in estuarine or riverine environments. (e.g. Healey 1982; Simenstad et. al. 1982; Rondorf et. al. 1990; Miller and Simenstad et. al. 1997; Duffy 2003....Even if the EIS report does not state the exact quotation, shouldn’t the public be informed of the essence of those findings? Using broad statements such as “better habitat for salmon” easily misleads readers with a generality which may not be true for all species. The fall Chinook run in Capitol Lake dwarfs all other runs of salmonids in this watershed and is of significant economic importance. Executive Summary, page 31, Fish and Wildlife, estuary, change “substantial beneficial effects” for salmon, other anadromous species, and marine fish to “less than significant benefits”. How can “substantial beneficial effects” be valid here in light of Koehler’s and Engstrom Hegg’s (below) findings? Wouldn’t the most accurate, scientifically based assessment be, “We don’t really know.”

O14-1-77

Engstrom-Hegg. According to fisheries biologist Robert Engstrom-Hegg’s report in 1955, *Environmental Relationships of Young Chinook Salmon in Capitol Lake and the Deschutes River System*, Washington Department of Fisheries, “The data do not indicate that the conversion of Capitol Lake to freshwater had any great effect on survival, either for better or worse.” His report also states, “The data show growth of Chinook salmon in Capitol Lake to be extremely rapid, greatly exceeding that attained by fish of the same stock held in hatcheries.”

Note: Despite its extreme relevance to the Chinook run in Capitol Lake, the above report by Robert Engstrom-Hegg does not appear in the references for Fish and Wildlife issues. **Please explain why.**

Note: A local fishing enthusiast with an interest in the Capitol Lake issue submitted (as requested by DES in 2018), a well-documented report, reviewed by a highly-respected, retired WDFW fisheries biologist, Hal Beecher which highlighted important findings made by Koehler, et al and Engstrom-Hegg regarding Chinook juvenile rearing in lake environments. The report was primarily intended to provide EIS reviewers with two important studies relevant to Chinook and the Capitol Lake issue. The report’s title is *Capitol Lake or Estuary Habitat Strengths Appear to be Equal for our Hatchery Chinook Run*, October 6, 2018 by Jack Havens, DVM . A copy is being included as an attachment to this submission for your convenience. It does not appear to have been reviewed for the DEIS. **Please review. Again, (this time using Engstrom-Hegg’s research), Executive Summary, page 31, Fish and Wildlife, estuary, change**

O14-1

COMMENT

RESPONSE

O14-1-77

“substantial beneficial effects” for salmon, other anadromous species, and marine fish to either “minor benefits” or “no significant benefits”.

It bears repeating that the hatchery Chinook salmon from Capitol Lake make up, by far, the most important salmon and anadromous fish resource in this watershed. The EIS report mentions several times that salmon habitat will be improved if the dam is removed. Yet, analyses by Engstrom-Hegg, a qualified State researcher, show no advantage for Chinook juveniles of an estuary habitat over that of a Lake habitat in this basin. **How can we reconcile a theoretical habitat improvement mentioned in this DEIS with the actual findings of this state Fisheries scientist? Please explain. Most importantly, is there evidence that Engstrom Hegg is wrong? Shouldn't the DEIS clearly state that the conversion to an estuary or dual basin may well have no (or even a negative) effect on Chinook salmon survival or size? Shouldn't the EIS report state that, according to publicly funded studies, it appears likely that Chinook in Capitol Lake will likely grow to a “larger size than those raised in a hatchery” (which we believe to be the Tribal/Fish and Wildlife plan)?**

Furthermore, shouldn't the EIS report state clearly that no conclusive scientific evidence exists which would suggest that “an estuary would provide the potential for an increased salmon prey base” for Orcas as stated on page ES-6 in the Fish and Wildlife Discipline Report? Please explain. Considering the findings of the Governor’s Report on Southern Resident Orcas, isn't it likely that more harm is done to these mammals by our toxic-ridden Chinook? Isn't it also just as possible (according to Koehler and Engstrom-Hegg) that an estuary would provide the potential to decrease the salmon prey base for Orcas (For example, by increasing predator-friendly compression points)? Please explain. This is why these two studies are important. The conclusions of their research should inform the understanding by the public and decision-makers of credible information ignored by agencies we are used to relying on. **On this basis, please change in the Executive Summary, Fish and Wildlife, estuary, page 31, estuary habitat conditions, from “substantial beneficial effects” to “no significant impact”.** Doing so is more consistent with the two aforementioned studies (as well as the effect of the toxic water associated with dam removal).

O14-1-78

Additionally, please note and state to the effect that the above findings from Engstrom-Hegg appear to negate the saline gradient concern mentioned in the DEIS. (See Saline Gradient, below.)

Pertaining to the current plan of raising Chinook salmon to the smolt stage, again consider Engstrom Hegg’s statement, “The data...show growth of Chinook salmon in Capitol Lake to be extremely rapid, greatly exceeding that attained by fish of the same stock held in hatcheries.

This finding appears to negate any advantage to raising Chinook juveniles to the smolt stage in a hatchery setting before placing them in an estuary setting in the Capitol Lake basin. It appears that adopting such an option would likely produce smaller fish (which are presumably less likely to survive). **Please explain why this is not true.** It bears repeating, the lack of the Chinook salmon food source is a main cause of the demise of our Southern Resident Orca according to the Southern Resident Orca Task Force report of 2018.

Salinity Gradient should be no problem for out-migrating Salmon

O14-1-79

Page 17 of the Executive Summary states that Capitol Lake does not provide a salinity gradient for the Chinook juveniles transitioning from freshwater to marine water. In fact, a permanent area of salt water exists in Capitol Lake on the south side of the dam (Thurston County Water Resources Monitoring

O14-1-78 See the Global Response for Fish & Wildlife for a discussion of Chinook growth rates in Capitol Lake and the applicability of the cited papers. A wide body of literature shows the key role estuaries in the Pacific Northwest play in supporting the growth and survival of juvenile salmonids, including Chinook salmon. The Estuary and Hybrid Alternatives would restore, or partially restore, the estuary at Capitol Lake, providing favorable conditions for both juvenile Chinook originating from the hatchery, as well as juvenile Chinook from other watersheds in Puget Sound, and thus would have no negative effects on Southern resident orca. The Final EIS includes additional clarification that remedial actions that are planned for lower Budd Inlet, and are expected to be led by the Port of Olympia, are assumed to occur before removal of the 5th Avenue Dam, based on coordination with the Port of Olympia and Washington State Department of Ecology, and recent actions taken by the Port of Olympia toward this goal.

As discussed in Section 4.3 of EIS Supporting Chapter 4.0 and described in further detail in response to Water Quality comments on the Draft EIS, additional bioaccumulation of toxic materials is not expected to occur under the Estuary or Hybrid Alternatives.

O14-1-79 This comment incorrectly summarizes the information provided on page 17 of the Executive Summary in the Draft EIS, which states, "removal of the dam would provide a natural freshwater to saltwater salinity gradient that is physiologically favorable to salmon..."

During high tides (>15 feet) marine water can enter the lake through the fish ladder. When this occurs, the denser water sinks to the deepest portion of the lake causing temporary salinity-driven stratification until the marine water is flushed out (Thurston County 2014). However, this condition does not mimic a natural salinity gradient in an open estuary, where salinity gradients change diurnally and seasonally, based on the interplay of the tidal cycle and stream flows. Under existing conditions this type of salinity gradient, which allows a smoother physiological transition in osmoregulatory mechanisms during smoltification, is essentially lacking.

For a full response to the comment on the salinity gradient, as well as on Chinook survival in Capitol Lake from the Engstrom Hegg citation, see the Global Response for Fish and Wildlife.

O14-1

COMMENT

RESPONSE

O14-1-79

Report 2009-2010, 2010-2011). Perhaps this is another factor providing for success of the Lake's juvenile Chinook as described by Engstrom Hegg when he stated, "The data do not indicate that the conversion of Capitol Lake to freshwater had any great effect on survival, either for better or worse." Also, it must be recognized that with dam removal, juvenile Chinook released from the Pioneer Park hatchery will experience a similar saline gradient at the base of Tumwater Falls.

Please remove the above reference to the lack of saline gradient in Capitol Lake. It is not applicable.

Spawning of Salmonids Below Tumwater Falls Needs documentation

O14-1-80

The DEIS report states on page 17 of the Executive Summary, "Prior to construction of the 5th Avenue dam, salmon and other anadromous fish species spawned in the Deschutes River downstream of Tumwater Falls." Please give the source of that information and, if possible, specific evidence of where such spawning occurred below the falls. Fisheries biologists we are aware of understand that salmon spawning in marine water is exceedingly rare and highly unlikely.

The Bat Destruction Problem

O14-1-81

Please describe the mitigation plan for the likely partial or total destruction of our local bat populations, especially that of Woodard Bay?

Harvesting aquatic plants in Capitol Lake has been Ignored

O14-1-82

The report states that Capitol Lake is currently dominated by coontail, a native floating plant. Much of the carbon, nitrogen and phosphorus in those plants might be largely and inexpensively removed by annual selective harvesting if necessary. This would significantly reduce the amount of those nutrients finding their way into Budd Bay later on in the year. Harvested coontail could be dried within the Deschutes watershed virtually eliminating any significant threat of NZMS contamination spread. Aesthetics would be markedly improved which would negate the characterization of "substantial benefit" ascribed to estuary aesthetics on page 30 of the Executive summary. **Why hasn't this relatively inexpensive and beneficial harvesting concept been incorporated into the Managed Lake Plan? Over several years, the idea has been presented by many writers on this issue multiple times. Employing harvesting aquatic plants could reduce the frequency of dredging, reducing public costs.**

Upland Disposal of Lake Sediment: Enormous Public Cost, Little Justification

O14-1-83

The DEIS states that the presence of the NZMS in Capitol Lake requires upland disposal of its sediments. Upland disposal is significantly more expensive than deep water disposal (approximately 5 times as expensive). Deep water disposal which is allowed for the Budd Bay marine sediment (which likely will contain both NZMS and may contain toxics leached from shore, bottom, run-off, etc.). **Why is the EIS proposal to allow deep water disposal of Marine sediment but to deny it for Capitol Lake sediment? This choice seems questionable and is the principal reason for the colossal cost differential which favors dam removal.**

Note: It seems to reviewers of this document that extensive efforts were made to find the least costly disposal method for marine sediment disposal and did not do so for Lake sediment disposal. Please be advised that many public members have little confidence in the current justification for disposal cost

O14-1-80 If any spawning of native salmonids occurred below the falls, this would have been extremely minimal due to the small amount of suitable, freshwater spawning habitat that existed between the falls and the estuary. This has been clarified in the Final EIS Summary and in Section 3.5 of Final EIS Supporting Chapter 3.0.

O14-1-81 Please see the Global Response for Fish & Wildlife.

O14-1-82 Mechanized harvesting of aquatic plants was recommended in the water quality analysis in the Draft EIS and associated Water Quality Discipline Report, and it is a recommendation carried into the Final EIS. Under the Managed Lake Alternative, adaptive management could include mechanical plant harvesting to support a healthy aquatic plant community and minimize impacts to recreation, aesthetics, and aquatic life uses from dense plant communities. As described in the EIS, reducing aquatic plants through these control activities would provide a substantial aesthetic benefit as compared to the No Action Alternative.

O14-1-83 Following this request, additional detailed information on the planning-level cost estimates were uploaded to the project website. Also, in response to Draft EIS comments, planning-level cost estimates were developed for in-water disposal of sediment dredged under the Managed Lake Alternative. However, existing environmental conditions and environmental regulations prohibit sediment from the Managed Lake from being disposed of in-water disposal due to the presence of the New Zealand mudsnail. Environmental conditions would have to change for the sediment to be considered suitable for in-water disposal. Maintenance dredging under the Managed Lake Alternative would not occur sooner than the 2050s and conditions could change in that time, although there is no current indication of changes in that direction. Please see Final EIS Supporting Chapter 7.0 for more information regarding planning-level cost estimates. Please see Final EIS Supporting Chapter 2.0 for more information on the approach to in-water disposal of dredged sediment under the Managed Lake Alternative, if environmental conditions and regulations were to change.

O14-1

COMMENT

RESPONSE

O14-1-83

estimates. Currently, disposal cost estimation in the DEIS appears indefensible. A step-by-step, detailed analysis of cost estimation is critical for public understanding and support. Please do so.

O14-1-84

If this choice of disposal location is based on NZMS population density, what is the threshold necessary to allow deep water disposal? What source has been used to determine that density? What will be the difference in NZMS densities in 30 years (first operational dredging/disposal) between West Bay and Capitol Lake? Between Capitol Lake now and then? When was the density of the NZMS last assessed in Capitol Lake? In West Bay? What do the trend lines tell us? Will this mollusk be listed as an invasive species in 2045? The EIS report should make clear in the Executive Summary and attachments the massive effect this choice has on public cost estimates and the potential risks inherent in our current lack of knowledge and use of assumptions. The public and its decision-makers should be thoroughly informed of the risks of the assumptions and guesses regarding this pivotal and contentious issue which appears to have been inadequately investigated or investigated with bias.

For example, it appears that no investigator has looked into disposing Lake sediment onto a properly bermed (contained) area within the Deschutes/Percival Creek watersheds which would markedly reduce the cost of a Managed Capitol Lake, making this alternative the least expensive management option. Rail transportation might have been investigated. This would likely be a critically important option, a cost game changer, if you will. Please explain why sediment from Capitol Lake could not be deposited in an environmentally safe manner within the Deschutes River/Percival Creek watershed thirty years from now. Perhaps adjacent to a rail line. NZMS would desiccate within days, perhaps allowing recuperation of some costs from sale of this nutrient –rich soil. Isn't this the essence of adaptive management which was supposed to provide the foundational information for this issue years ago? Why has adaptive management failed so totally? Please respond to this question.

O14-1-85

Another example: Apparently, plans are to cautiously and judiciously use an herbicide to eradicate aquatic plants in Capitol Lake. Doesn't it stand to reason to allow the cautious and judicious use of a pesticide to eradicate the NZMS? Please explain why this is not a feasible and potentially significant cost-saving tactic. By doing so, Lake sediment could be disposed of (preferably) within the watershed in a safe manner while avoiding the enormously high disposal costs of an upland depository. The public would benefit in many ways such as:

- 1) Substantial cost reduction (including possible sale of dried nutritious sediment),
- 2) Avoiding the 5-7 year-long traffic disruption at the 5th Avenue bridge,
- 3) Maintenance of well-documented cherished aesthetic qualities of Capitol Lake.
- 4) Avoiding the myriad problems caused by the toxic contamination of the Capitol Lake basin with toxics from West Bay.

Marine invasive species problem under an estuary not made clear

O14-1-86

The DEIS report states on page one of the Executive Summary that 15 plant and animal invasive species exist currently in Capitol Lake. However, we know that Budd Inlet also contains many invasive species, possibly more than Capitol Lake. Why wasn't this latter statement made clear in the DEIS Executive Summary? The report's inference is that by taking out the dam, the invasive species problem will be eliminated. It will not be. More specifically, page 30 of the Executive Summary characterizes the estuary

O14-1-84 Current regulatory guidance requires continued management efforts on infested sites until the target prohibited species (e.g., New Zealand mudsnails) has been eradicated, contained or controlled without further management actions, or the waterbody is reclassified (RCW 77.135.070). However, the method for AIS sampling has yet to be developed and currently the threshold for being an infested water body is one organism since only one organism is needed to start a new colony. A specific concentration of viable mudsnails is not provided in the existing regulations relative to suitability for open water disposal; however, sediment is not considered suitable for open water disposal if there is a known presence of the New Zealand mudsnail.

Appropriate criteria for determining how the infestation should be managed will be determined in coordination with WDFW as an AIS adaptive management plan is developed for the project during design and permitting. The current and projected populations of New Zealand mudsnails in Capitol Lake are not known, but presence is documented and as described above, colonies can establish from a single organism.

Reduction in both New Zealand mudsnail distribution and density is anticipated under both the Estuary and Hybrid Alternatives by treatment prior to dam removal and then populations are expected to be maintained at low levels with the inundation with saltwater into the former lake basin. Any individuals that remain would likely not thrive in the new brackish environment and would be limited to freshwater sources at stream and river mouths and stormwater outfalls.

In response to comments received on the Draft EIS, Enterprise Services conducted a shoreline survey along 21 sites in Budd Inlet to determine whether NZMS were present. Given the existing transport of water and debris through the 5th Avenue Dam, there is currently a pathway for NZMS to move from Capitol Lake into West Bay and Budd Inlet. This shoreline survey allowed the EIS Project Team to better evaluate whether NZMS would persist in West Bay after removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives. No NZMS were found during this survey (Johannes 2022).

Please see the Global Responses for Cost, which describe that cost estimates have been developed for in-water disposal of dredged material under the Managed Lake Alternative in response to public comments. Although current environmental conditions and regulations would prohibit the in-water disposal, environmental conditions and regulations could change before the future maintenance dredge event.

O14-1

COMMENT

RESPONSE

- O14-1-85 Please see the Global Responses for Dredge Sediment Management and Dredge Sediment Disposal (under main topic of Alternatives), Aquatic Invasive Species, and Transportation (rail). Also, note that assumptions could not be made about potential availability of suitable land for purchase to stockpile sediment that would be dredged no sooner than 2050; without reasonable assumptions, costs cannot be estimated. If upland disposal was needed for dredged sediment, opportunities to avoid and minimize costs would be evaluated as reasonable and feasible, and as available at that time.
- O14-1-86 The analysis for the EIS includes high priority invasive species, as defined by the Washington Invasive Species Council, WDFW, and the Washington State Noxious Weed Control Board. There is currently no known marine aquatic invasive species (AIS) in West Bay or in southern Puget Sound. There is a potential threat from the European green crab; however, European green crab were not present in any part of south Puget Sound when the report was drafted and there have been no detections south of Admiralty Inlet as of early 2022. Other AIS of concern, but not present, in Budd Inlet include the Asian marine clam, Chinese mitten crabs, tunicates, Atlantic salmon, *Spartina cordgrass*, and *Caulerpa*. It is possible that purple loosestrife may be present on or near the shores of Budd Inlet, but a source of those locations has not been identified. As with other areas of Puget Sound, under the Estuary Alternative, the former lake basin would continue to be monitored and any spread of invasive species would be addressed as required by law.

O14-1

COMMENT

RESPONSE

<p>O14-1-86</p>	<p>alternative as having “a substantial beneficial impact” regarding aquatic invasive species. This appears to be misleading as it mischaracterizes the asserted advantage of dam removal by avoiding recognition that marine invasive species will invade Capitol Lake basin under an estuary management plan. Please explain this apparent oversight. Please correct the current mischaracterization regarding invasive species in the Executive Summary, estuary, page 30, from “substantial beneficial impact” to “less than significant impacts”.</p> <p>Chapter 4 mentions that the estuary will, in fact, have invasive species but infers that the problem will be of less importance than that of the Lake. How was that determination made? How are marine invasive species of less concern than those of freshwater? Please explain in detail.</p> <p>Additionally, what mitigation plans exist for controlling marine invasive species in the Capitol Lake basin?</p>
<p>O14-1-87</p>	<p>This Project’s Decision Structure is Illogical, financially risky, and indefensible</p> <p>Note: In light of the above unknowns, assumptions, guesses and the overriding importance of public costs, why are we choosing the preferred alternative in 2022? Assuming that all parameters will be the same in 25-30 years is a mistake which should be obvious to the most novice of analysts. The current rigid decision structure seems illogical and indefensible. Consider the following: Choosing the estuary/mudflat or hybrid is irreversible, final, thus non-adaptive. Choosing the Managed Lake Alternative is “adaptive” as it leaves many future options open and could save the public hundreds of millions of dollars.</p>
<p>O14-1-88</p>	<p>LAND USE, SHORELINES AND RECREATION</p> <p>What is the impact of water quality on Recreation?</p> <p>In the Executive Summary under Land Use, Shorelines, and Recreation, page 32, estuary alternative, we see the following statement: “Improved water quality, sediment management, improved ecological functions, and increased opportunities for community use would have a substantial beneficial effect on recreation.” For the Estuary and Hybrid Alternatives, each of these assertions seem highly unlikely, and the reasons for this are described below.</p>
<p>O14-1-89</p>	<p>Will Water Quality be Improved?</p> <p>Clearly, it will not.</p> <p>The Executive Summary states that there may be “minor to moderate benefits” to dissolved oxygen (DO) in Budd Inlet with an estuary/mudflat. However, total and permanent removal of aquatic plants in the north basin with an estuary will significantly increase nitrogen in Budd Inlet, which ultimately reduces DO. Additionally, marine waters typically have DO levels about one-half of the levels in freshwater such as Capitol Lake. Samples from Budd Inlet and Capitol Lake confirm this to be the case in these waters. The marine waters of Budd Inlet will flow twice daily into the lake basin giving these waters the same characteristics as found in Budd Inlet. See our Water Quality comments for details. Please modify the Executive Summary statement to reflect that with an estuary or hybrid, DO is likely to decrease to less than one-half the level currently in the freshwater of Capitol Lake.</p>

- O14-1-87 As described in EIS Supporting Chapters 1.0 and 8.0, Enterprise Services developed a decision-making process that considered a wide range of information, including performance against project goals, other environmental impacts and benefits, environmental and economic sustainability, construction impacts, and feedback from engaged stakeholders (referred to as Decision Durability). The decision-making process was reviewed with the Executive and Technical Work Group, and the Community Sounding Board and refinements were made following this coordination.
- Please refer to Attachment 21 which provides more detail on the decision-making process and the findings from this evaluation.
- O14-1-88 Comment noted. See responses to comments below.
- O14-1-89 Sections 4.3.5 and 4.3.6 of EIS Supporting Chapter 4.0 address the increase in nitrogen to Budd Inlet and the substantive decrease in DO in the lake basin under the Estuary and Hybrid Alternatives. The DO impact to the lake basin under the Estuary and Hybrid Alternatives is described in Table 2 of the Final EIS Summary.

O14-1

COMMENT

RESPONSE

O14-1-90

Toxic contaminants are another water quality issue that must be addressed for the Estuary and Hybrid Alternatives. The influx of toxics from West Bay into the currently toxic free Capitol Lake will impact recreational opportunities in the basin. Please review the information on West Bay toxics and also the danger of mudflat entrapment potential. This information is covered in our documents pertaining to "Fish and Wildlife" and "Aesthetics". Questions that relate to this issue include:

- How will recreation in the basin be impacted by the presence of these toxic conditions?
- What are the expected short and long term effects from carcinogens, heavy metals, and other toxics (to humans and other species) of introduced West Bay water?
- Ecology lists five sources of toxics in Budd Bay (mostly continuous). How will the continuous nature of these toxics be stopped?
- These toxins have existed in West Bay for many decades. The DEIS suggests that "future clean-ups are planned to address this contamination". Considering that the State is over 25 years late in dredging and maintaining Capitol Lake, how can we be sure they will address this issue in a timely manner?
- How can we say that the water quality is truly improved?

Will Sediment Management be Improved?

No. Under an estuary-hybrid, sediment management is less efficient.

By far, the most efficient means of sediment control for a managed lake is the use of the north basin as a "catch basin" to contain the spread of sediment. Unfortunately, this obligation has been neglected for decades by the state at great aesthetic cost to the community. For the managed lake, dredging in the north basin will be necessary every 20 years. With dam removal, dredging will be necessary, involving several entities, every 5-6 years. This dredging will take place in and around the marinas, Percival Landing, the Port Plaza and the port itself. This more frequent and complicated dredging in the marine waters of West Bay will, by its nature be less efficient.

Will Ecological Functions be Improved?

Considering the contamination from West Bay, and the reduced Do levels, ecological function improvement is questionable at best.

Mixing marine water with fresh water is considered by some as the strongest ecological improvement to be made by the conversion to an estuary/mudflat. **Regarding the Capitol Lake issue, how can we say that ecological functions (in this case, the mixing of clean river water with toxic marine water) will be improved? Please explain.**

Will Increased opportunities for community use be Improved?

No. Certainly not.

Increased inclinations to recreate in the Capitol Lake basin under an estuary-hybrid alternative is unlikely. In fact, recreation in the basin may be advised against by the Thurston County Health Department. Please note that under the estuary-hybrid, the signs referred to in our other documents

O14-1-91

O14-1-90 Regarding concerns with toxins entering the lake basin from West Bay, see the responses to Comments O14-1-18 and O14-1-71.

Regarding the progress or success of future cleanup efforts, the concerns raised are beyond the scope of the EIS; Ecology is the agency responsible for implementing cleanup efforts in the Project Area.

Regarding the question of whether water quality in the lake basin will improve under the Estuary and Hybrid Alternatives, the EIS indicates that the lake basin will have less DO under these Alternatives. However, from a regulatory compliance perspective, Ecology has determined that the Estuary Alternative will meet the standard for DO. Regulatory compliance and reduction in aquatic plants under the Estuary Alternative are considered project benefits for water quality. Ecology has not made a determination on DO compliance for the Hybrid Alternative, but aquatic plants would be reduced which is a water quality benefit.

O14-1-91 No specific deficiencies in the EIS were noted in this comment.

Potential changes to water quality are described in Section 4.3 of Final EIS Supporting Chapter 4.0. The concentration of toxic contaminants in the waters of Budd Inlet are not currently at levels of concern. Based on the 2018 statewide water quality assessment of impaired waters the only toxic chemicals causing water quality impairment were copper and nickel which were measured at relatively low concentrations near one of the known contaminated sites. The impact from these relatively low concentrations of metals in a portion of West Bay would be negligible as the water moves to the former lake basin during high tides. Therefore, toxins in water are not expected to be substantively impacted (increase or decrease) as a result of the alternatives.

O14-1

COMMENT

RESPONSE

O14-1-91

warn specifically that swimming, clamming, mussel harvesting, and fishing are not advised. Other signs warn of the danger of human entrapment at low tides.

The usage time of water-based recreation under the estuary/mudflat would be reduced by at least 50% due to reduced tide levels. The daytime tides tend to be lower during the summer months when recreation activity peaks. Additionally, strong tidal currents below the railway bridge and at other constriction points will pose a safety hazard. **Please include this information in the Executive Summary and elsewhere where appropriate throughout the Draft EIS.**

O14-1-92

The lone exception might be within the reflecting pool under the "hybrid alternative with freshwater management"; but this alternative has other serious problems and is not likely to be adopted in our opinion.

Why would a rational health-minded person find advantages in recreating in toxic marine water over clean freshwater? Please change the impact statement for the Estuary and Hybrid Alternatives in the Executive Summary from "substantial beneficial effect" to "significant negative impact" on recreation.

Capitol Lake as a Community Attraction

For decades, Capitol Lake has served as a community attraction for celebrations, outdoor educational displays, non-motorized boating and swimming (pre-1985), informal sporting events, running, walking, and dog walking. Unquestionably, these activities benefit human health, both physical and mental. Social cohesion for individuals and families in and outside the community are facilitated by the Lake. Freshwater swimming and non-motorized boating recreation in the clean, non-toxic water of Capitol Lake could easily be sanctioned by local governments.

O14-1-93

Even forgetting the toxic nature of contaminated estuary water, expecting the social cohesion value to persist with an estuary seems unlikely. Why? Consider the historical and current use of Mud Bay, East Bay, Woodard Bay, and other intertidal mudflats. The uses of those areas are a small fraction of Capitol Lake's activities.

Recreational Boating

This recreational activity is generally considered outside the scope of the Draft EIS. However, it comes into play because of its economic impact when its availability is affected. Uncertainties for funding of the dredging operations required to keep the Budd Bay marinas viable are a significant concern. The importance of funding issues for long-term dredging for the Estuary and Hybrid Alternatives are discussed elsewhere in this document. And, for more complete information on recreational boating and the questions of funding alternatives, see the responses to the DEIS prepared by the Budd Bay marinas.

O14-1-94

Swimming in Capitol Lake:

The DEIS's lack of emphasis regarding the community's long held desire for a public freshwater swimming area is disappointing. This recreation feature served to define summertime fun in the area. One of the most recognizable pictures of historic Olympia, is that of approximately two hundred or so persons (mostly children) swimming and socializing in Capitol Lake. The Arc of Statehood (funded by the State) designed and dedicated a rather large section on the Lake's eastern shore specifically for this

O14-1-95

O14-1-92 In response to this and other comments, additional clarification around tide levels and currents has been added to Section 4.8.5.2 of Final EIS Supporting Chapter 4.0. See also the Global Response for Land Use, Shorelines and Recreation.

Regarding the commenter's question about toxins in marine waters, as discussed in Section 4.3 of EIS Supporting Chapter 4.0, and described in further detail in response to Water Quality comments on the Draft EIS, the concentration of toxic contaminants in the waters of Budd Inlet are not currently at levels of concern.

O14-1-93 The Draft EIS describes the differences in the recreational benefits from the action alternatives. It does not estimate the numbers of users that would benefit. It is acknowledged that there could be differences in both the number and types of users. Comparisons between different estuaries are speculative, as the context of Mud Bay and Woodard Bay are less urban, and East Bay is smaller, narrower, and heavily developed with the marina.

O14-1-94 See the Global Response for Economics.

O14-1-95 Comment noted. As described in the Draft EIS and Final EIS, hosting organized recreational activities, such as swimming facilities, is not within Enterprise Services' mission. Formal public swimming facilities are not included as part of the long-term management alternatives and were not discussed in detail in the EIS. The project does not preclude future swimming opportunities.

Please also see updates to the Economic analysis in Section 4.14 of EIS Supporting Chapter 4.0 that better describes that the Managed Lake and Hybrid Alternatives would preserve option value associated with the potential to develop swimming opportunities in the future.

O14-1

COMMENT

RESPONSE

O14-1-95 community benefit. When discussing the "Lake/Estuary issue with residents living here in the 60's, 70's and 80's, "loss of the family swimming area" was frequently their prime lament.
Of course, swimming is only likely to occur under a Lake Management Plan. Swimming was curtailed in 1985 after it became clear that excessive contaminants had entered from upstream and the Lake's shorelines. It is ironic to note that, through adaptive management, the Lake is now "swimmable" but will likely will not be once again under an Estuary management plan partially due to contaminants from Budd Bay.

Mudflat Entrapment and Other Safety Issues

In addition to the omission in the DEIS that toxics threaten many living organisms in the Capitol Lake basin, another serious omission in the DEIS is the fact that mudflats are inherently dangerous to humans and other animals. According to *The Olympian*, in 2016 a man became entrapped in the mudflats of Ellis Cove requiring emergency life-saving assistance. According to interviews with long-time residents, this type of event is not uncommon.

Here is another example of the DEIS neglecting to inform the public and its decision-makers of the serious problems associated with an estuary/mudflat. Please provide a section in the Executive Summary stating that an estuary creates a serious danger due to the potential for public and pet entrapment at low tides. Please state clearly that this represents a "serious negative impact".

The narrow gap at the railroad bridge and other constricting points would likely present an additional safety problem as the speed and turbulence of tidal flows could be excessive for many boaters, sail boaters, inner-tubers, canoeists, paddle borders, and kayakers.

Congregating harbor seals hunting salmon below the railroad bridge or at other predation points could pose a threat to these user groups named above. Recall the voracious harbor seals congregating at the outfall of the dam. All of the above constitute significant problems for recreation under an estuary/mudflat alternative.

Mudflat Odors

A lake with its aquatic plants properly dredged or harvested produces virtually no objectionable odor. Hydrogen sulfide is a naturally occurring and odiferous molecule in mudflats. Many have experienced this mudflat odor and found it to be objectionable and inappropriate for an urban area, especially that of a capitol city. Some of these people will undoubtedly avoid the shorelines and surrounding areas. Again, the DEIS fails to adequately address this common characteristic of an estuary/mudflat and specifically, that some people will avoid it. This cannot bode well for recreation and downtown economic activity. **Please address the odor issue with an unbiased, scientifically developed survey of those who have experienced the odor in this urban setting. Preference surveying between Lake and estuary/mudflat odors in a capitol city would be helpful. Please report the results of such a meaningful survey in the EIS.**

Terminal Urban Estuary

O14-1-95

O14-1-96

O14-1-97

O14-1-96 The Draft EIS and Final EIS acknowledge that tideflats can pose a hazard when people venture on them. To address this hazard, which is a hazard present along tideflats throughout Puget Sound, signs would be posted around the basin warning of the dangers of tideflats. This is consistent with how these hazards are addressed elsewhere in South Puget Sound. Notably, there are also hazards associated with recreation in deep water lakes.

Velocities at contraction points including under the I-5 Bridge and under the railroad trestle were simulated under the Estuary Alternative. Section 4.5.2.2 of the Hydrodynamics and Sediment Transport Discipline Report provides information on current speeds simulated at these locations. In response to this comment, additional text has been added to Section 4.8 of Final EIS Supporting Chapter 4.0 and Section 5.5.2.2 of the Land Use, Shorelines, and Recreation Discipline Report describing that tidal currents are a common consideration for boaters in Puget Sound. The Estuary Alternative would restore boating access to areas with increased tidal currents. Currents would be a factor that could preclude some vessels or inexperienced recreationalists.

The comment regarding harbor seals is noted; however, the commenter does not provide enough information on the nature of the hazard to provide a response. Additionally, harbor seals currently congregate near the fish ladder in West Bay, on the north side of the 5th Avenue Dam, where water-based recreation occurs under existing conditions. Under the Estuary and Hybrid Alternatives, the compression point created by the fish ladder (9.5 feet wide) will be expanded to a 500-foot opening.

O14-1-97 See The Global Response for Air Quality & Odor. Odor is subjective and the generation of odors varies by the composition of organics, the environmental dynamics, and numerous other factors such that a survey would not provide meaningful information. The EIS acknowledges that some people might avoid the area at low tide if they find the odor objectionable. It's worth noting that the Port peninsula in Olympia, where restaurants and the Farmers Market are located, and other urban areas such as San Francisco Bay, are flanked by mudflats and tide flats. In San Francisco, some of these habitats are being actively restored. The EIS Project Team has not been able to identify any information that suggests these areas have produced problematic odors in the urban areas.

O14-1

COMMENT

RESPONSE

O14-1-98 Please see responses to Comments O14-1-71 and O14-1-96.

O14-1-99 See the Global Response for Cultural Resources.

O14-1-98

The Capitol Lake Basin would become a Terminal Urban Estuary. How would this Impact Recreation?
If the dam is removed, the toxics from Budd Inlet derived from shore, groundwater, bottom, run-off from the surrounding area, and southward flow of Puget Sound would continuously infiltrate what is now a virtually toxic-free Capitol Lake. The touted ecological function of “mixing of freshwater with marine water”, would likely become a significantly harmful characteristic to the entire basin of 264 acres. According to several public health officials interviewed (state and county), Terminal Urban Estuaries are well known for unusually high contamination. The Capitol Lake Terminal Urban Estuary would be the southern-most estuary of Puget Sound and would be especially vulnerable to a variety of toxics currently and continuously affecting Budd Inlet. **Why would we choose to contaminate a basin having clean freshwater, toxic-free, and productive? Please explain.**

A Brief Review:

- Without the dam, toxics infiltrating the Capitol Lake basin from West Bay pose a threat to humans, wildlife and fish, habitat, and ecologic functions.
- According to Thurston County Health Department, mudflats are inherently dangerous to humans and pets due to entrapment potential.
- **Why would we create these two significant problems in a basin which is currently clean, safe, and productive?**
- Their negative impact on recreation will undoubtedly be severe.
- **Why are these threats not mentioned or adequately discussed in the DEIS?**
Please do so.

O14-1-99

HISTORIC AND CULTURAL RESOURCES

Pursuant to the State Environmental Policy Act (SEPA) WAC 197-11-440(6)(iv) Urban quality, historic and cultural resources, and the design of the built environment, the EIS needs to consider the impacts to the Washington State Capitol Campus National Historic District since Capitol Lake is a significant part of the Capitol Campus designed by Wilder and White in 1911 and the Olmsted Brothers in 1928. The Draft Environmental Impact Statement does not take into account the nationally significant City Beautiful Movement design principles of the State Capitol Campus which is on the National Historic Register.

In 1911, the architectural firm of Wilder and White created a master plan for the Washington State Capitol Campus as part of a nation-wide design competition. This plan captured the imagination of the competition judges with its unique approach, a group of symmetrically arranged buildings in a forest, atop a bluff overlooking a reflective lake, the City of Olympia, and Puget Sound. As stated by Wilder and White in their August 29, 1911 report to the State Capitol Commission, “a tide lock at [5th Avenue] would form a lake and the whole effect would be visible from most points of the City as well as the Sound.” *“Washington’s Audacious State Capitol and Its Builders,”* Norman Johnston, p. 33, (1988).

Wilder and White incorporated five design principles into their plan for the State Capitol Campus. These principles include: (1) the City Beautiful Movement, (2) the Capitol Group of buildings, an unprecedented design of separate legislative, executive, and judicial buildings to look like a singular

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Capitol building when viewed from Budd Inlet, downtown Olympia, and the Fourth Avenue Bridge, (3) the borrowed landscapes of the Olympic Mountains and Budd Inlet to frame the design, (4) the northern orientation of the Capitol Group and Campus to Budd Inlet and the Olympics and (5) a lake to reflect the beautiful buildings on the bluff.

“It was at Olympia, Washington, that the American Renaissance in state capitol building reached its climax... Such a collection of Classical buildings on a plateau surmounting a green hill 117 feet above sea level proved an irresistible vision. It would be a spectacular monument, with Mount Rainer in one direction, the Olympic Range in another... all mirrored in the blue waters below. The City Beautiful, a concept of perfection evolved for dense urban scenes, seemed destined to achieve its finest expression in the natural landscape of the Pacific Northwest. No architect or dreamer could have asked for a more splendid setting.”

Temples of Democracy, The State Capitols of the USA, Professor Henry-Russel Hitchcock (1976), pp. 257-259.

The Olmsted Brothers 1928 plan for the landscape also required Capitol Lake to reflect the buildings. Maintenance of Capitol Lake as a reflective lake is necessary in order to preserve and protect the historic design of the Washington State Capitol Campus which is the best example of City Beautiful movement architectural design and urban planning outside of Washington D.C. Capitol Lake stands in the design tradition of the Tidal Basin and the other reflective bodies of water along the National Mall from the U.S. Capitol of the Lincoln Memorial. Failure to protect Capitol Lake would replace its mirroring and sparkling presence with the dismal mud flats of the past.

“To the south of the boulevard skirts the edge of a proposed freshwater lake secured by tide locks across the head of the Sound and will be a great addition to the city park system.”

The American Architect, VOL CVIII, No. 2083, November 24, 1915, Wilder and White, p. 346.

“The late 1940’s was to include the beautification of the expanse at the base of the Capitol group site to its north and west. The [Wilder and White and Olmsted Brothers] plan saw this area as a grand water feature... [to replace the] plane of mudflats... The project also included the construction of a dam, the ensemble thereby creating a permanent body of water, Capitol Lake. Substantially completed in 1951, this new visual and recreational amenity became an appropriate setting for the acropolis of the Capitol group which is now so handsomely supported.”

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O14-1-100 See the Global Response for Cultural Resources.

O14-1-101 The commenter references RCW 79.24.720, which states "The department of enterprise services is responsible for the stewardship, preservation, operation, and maintenance of the public and historic facilities of the state capitol, subject to policy direction of the state capitol committee and the guidance of the capitol campus design advisory committee...." The RCW does state "the Deschutes River Basin commonly known as Capitol Lake" as one of the properties identified as "state capitol public and historic facilities." However, Capitol Lake is a public facility, but not a historic facility. RCW 79.24.710 identifies these public and historic facilities as "the east, west and north capitol campus grounds, Sylvester Park, Heritage Park, Marathon Park, Centennial Park, the Deschutes River basin commonly known as Capitol Lake, the Interpretive Center, Deschutes Parkway, and the landscape, memorials, artwork, fountains, streets, sidewalks, lighting, and infrastructure in each of these areas not including state-owned aquatic lands in these areas managed by the Department of Natural Resources under RCW 79.105.010." RCW 79.105.010 does not identify Capitol Lake as a historic facility, and the elements of Capitol Lake (Des Chutes Basin Project) are not within the boundary of the Washington State Capitol Historic District. This prompted the review of Capitol Lake for both individual and historic district (Des Chutes Basin Project) eligibility based on the original design, its intended role relative to the Capitol Campus, and its relationship to the City Beautiful Movement conveyed in the design principles employed by Wilder & White and the Olmsted Brothers for the Washington State Capitol Campus Historic District. See the Global Response for Cultural Resources for information on eligibility determinations received from DAHP and related revisions in the Final EIS.

Washington's Audacious State Capitol and Its Builders, Professor Emeritus, Norman J. Johnston (1988).

Significant progress has been made toward the completion of the Wilder and White plan since 1911. After the Capitol Group of buildings on the West Capitol Campus bluff was completed and the Olmsted landscaping plan was instituted in the 1920's and 1930's, Capitol Lake was created by the State Capitol Committee and the Legislature in 1949-1950 with the construction of a dam and a tide gate along 5th Avenue. Since 1991, further progress has been made toward the completion of the North Capitol Campus Heritage Park along the shore of Capitol Lake with the Legislature and City of Olympia spending twenty-five million dollars to complete the land acquisition, the Arc of Statehood, the Western Washington Inlet, the Eastern Washington Butte, the North Campus Trail, the Lawn Amphitheater, the City Fountain, the City seasonal ice and roller rinks in the Isthmus Park, and several phases of the construction of Heritage Park and the Washington State Law Enforcement Memorial. Two million dollars in private funds have also been raised for construction of these City Beautiful elements of the North Capitol Campus. The redesign of enhancements to the Eastern Washington Butte at the North end of the Arc of Statehood should also be addressed in the Draft EIS.

Maintaining the open water environment in the north and middle basins of Capitol Lake is the only action which is compatible with the historic 110- year plan for the State Capitol Campus. The Draft EIS does not consider the national significance of the historic design of the State Capitol Campus remaining intact by maintaining and improving Capitol Lake through regular dredging every 10 to 20 years which occurred up until 1986.

16 U.S.C. 470f – Section 106 of the National Historic Preservation Act provides,

The head of any federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal Agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.

The Nationally protected State Capitol Campus Historic District must be preserved under federal law.

Under RCW 79.24.720 Capitol Lake is designated as a historic facility of the State Capitol.

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<p>O14-1-101</p>	<p>RCW 79.24.720 – Department of enterprise services’ responsibilities.</p> <p>The department of enterprise services is responsible for the stewardship, preservation, operation, and maintenance of the public and historic facilities of the state capitol, subject to the policy direction of the state capitol committee and the guidance of the capitol campus design advisory committee. In administering this responsibility, the department shall:</p> <p>(1) Apply the United States secretary of the interior’s standards for the treatment of historic properties.</p> <p>Capitol Lake must be preserved under State law. The Draft EIS fails to analyze the necessary dredging and maintenance of Capitol Lake to the standard as applied by the Secretary of Interior to the National Mall in Washington D.C. Capitol Lake is the City Beautiful movement equivalent of the Tidal Basin and the reflective pools from the U.S. Capitol to the Lincoln Memorial.</p>
<p>O14-1-102</p>	<p>The cost of dredging and maintaining Capitol Lake are extremely inflated by only including the costs of disposing the dredge spoils upland instead of in-water disposal. The Draft EIS chart on page 7-5 should include the cost of maintaining the historic Capitol Lake with the cost of in water disposal for a fair comparison of the cost of the alternatives. Whether dredging in Capitol Lake or dredging in Budd Inlet the New Zealand mud snail will be present and those dredge spoils can be safely disposed of in-water. The dredge spoils from the Lake could also be used and sold as valuable soil and be a revenue stream to the State.</p> <p>The sediment disposal costs of maintaining Capitol Lake should also be shared by the State, Thurston County, the Port of Olympia, the City of Olympia, the City of Tumwater, and LOTT since all these public entities benefit from removal of sediment in Capitol Lake on a every 10-to-20-year basis just as Capitol Lake was designed. Removal of the dredge spoils in Capitol Lake will be less frequent and more economical than removing the dredge spoils from contaminated Budd Inlet. Not maintaining Capitol Lake is in violation of Federal and State Law and the Draft DEIS must analyze these issues.</p>
<p>O14-1-103</p>	<p>VISUAL RESOURCES, AESTHETICS</p> <p>We suggest that Aesthetics be added to the Draft EIS heading of Visual Resources to more clearly indicate the importance of this topic. The origin of Capitol Lake was almost entirely based on mainstream aesthetic preferences at that time, and aesthetics continue to play a critical role as we move forward to develop long-term plans for the Capitol Lake Basin. Alone, “Visual Resources” connotes an institutional concept, “Aesthetics” humanizes it.</p>

O14-1-102 Existing environmental conditions and environmental regulations prohibit sediment from the Managed Lake from being disposed of in-water disposal due to the presence of the New Zealand mudsnail. However, in response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative. Environmental conditions and/or environmental regulations would have to change for the sediment to be considered suitable for in-water disposal. Dredging would not occur sooner than the 2050s under the Managed Lake Alternative, and conditions could change in that time, although there is no current indication of changes in that direction.

Please see Table 7.1.1 in Final EIS Supporting Chapter 7.0 for updated planning-level cost estimates.

As described in the Draft EIS, the Funding and Governance Work Group provided initial recommendations for long-term funding and governance of the action alternatives, as follows.

- Managed Lake Alternative: long-term funding and governance should be the responsibility of the State of Washington given the similarity to status quo.
- Estuary Alternative: shared funding and governance would be provided by members of the Funding and Governance Work Group for maintenance of the Estuary Alternative given the shared benefit of estuary restoration and its dredging program.
- Hybrid Alternative: no recommendation was provided for long-term funding and governance of the Hybrid Alternative.

There is no known state or federal law that has been violated by lack of maintenance on the existing Capitol Lake; however, Ecology modeling has shown that Capitol Lake itself (with or without maintenance) would likely result in continued violations of state water quality standards.

O14-1-103 The Visual Resources section is named to describe the aspect of the physical environment it covers. Aesthetics refers to concerns about and appreciation of beauty, which extends beyond visual senses. The Visual Resources analysis addresses aesthetics through the discussion of visual preferences as expressed in adopted policy. Visual preferences change over time, and often are influenced by non-visual factors. For example, Renaissance landscape design was heavily influenced by strictly controlled geometry, such as Versailles, but later was influenced by "natural" scenery such as was developed in New

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York's Central Park. For this reason, the visual analysis relies on the current policy regarding visual preference rather than on historic reasons that may have led to the development of the lake.

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One of concerns we have with those who favor recreating an estuary/mudflat or hybrid option is that they have effectively removed mainstream aesthetic values from the discussion. They appear to be unaware of the aesthetic issues that led to the creation of the Capitol Campus in general and Capitol Lake in particular. They have accomplished this feat through an almost total deemphasis and devaluing of aesthetics, and replacing it with the ideal of environmental perfection, no matter what the cost. They have ignored the fact that Capitol Lake Aesthetics have contributed significantly to the community's quality of life for over 70 years.

DES sponsored survey shows "Aesthetics" as the most desired characteristic for the Capitol Lake Basin

The Community Input survey of 2016 sponsored by Capitol Lake /Lower Deschutes Watershed Long-Term Management Planning Department of Enterprise Services ranked in order of importance, the top fifteen criteria for this project's management goals using 421 responses. The #1 most important criterion in this survey was "Aesthetics". No mention of this finding exists in the DEIS.

It should be noted that this survey is one of only two (along with the Seven Wonders survey) known to seek the public's opinion on the Capitol Lake/ Estuary issue. Both surveys reveal the dominant importance of aesthetics regarding Capitol Lake. **Why aren't these findings recognized in the DEIS? A thorough and unbiased report (whose job it is to educate decision-makers) would have done so. Knowledge of the community's opinion should be of supreme importance. Please make this fact known in the report's Executive Summary or in the Introduction, Project Background, & History. Include the factual information from "A Brief Review" presented a few paragraphs below.**

The aesthetic value of Capitol Lake to the community and state of Washington is substantial, as evidenced by the survey results. It bears repeating, the subject has been ignored in the DEIS. For example, the Executive Summary "Visual Resources", estuary, visual resources, page 33, give an evaluation of "less than significant impacts" with an estuary/mudflat conversion. History of the Lake's origin and the surveys indicate the above characterization is not accurate. **Please review the many arguments below which suggest that the evaluation "significant impact" for the estuary-hybrid would be most appropriate by far.**

Please note that the realistic term "estuary/mudflat" for the estuary or hybrid options will be used here to emphasize an ignored but overridingly important characteristic to our urban area. The term is meant to be realistic, not derogatory.

Capitol Lake's urban location must be recognized as a paramount factor which amplifies the importance of aesthetics and differentiates it from a non-urban location such as Nisqually Reach and Mud Bay. The community has recognized this for basically a century, reasoning that a well-managed lake would be much more valuable to the community than an estuary/mudflat. Quality of life would be markedly improved.

However, it must be noted that some people say they find the aesthetics of the estuary/mudflat to be equally as pleasing as the Lake. This opinion likely represents a small minority of the general population as evidenced by the minute fraction of visits to Mud Bay, East Bay, Woodard Bay, etc. when compared to visits to Capitol Lake. For a realistic and revealing comparison, would Central Park in New York City enhance the aesthetic appeal of that city if it were converted to a mudflat? Similarly, consider Lake

O14-1-104 See the Global Responses for Visual Resources related to requests to consider public opinion and the historic aesthetic context.

The work conducted in 2016 supported Enterprise Services in understanding that Visual Resources should be included in this environmental analysis and in decision making.

O14-1-105 Regarding requests to consider public opinion in the evaluation of aesthetic choices, please see the Global Responses on Visual Resources. See also the response to Comment O14-1-103.

The design and permitting process for the selected alternative would include stakeholder coordination with efforts to consider aesthetics of the proposed project (e.g., habitat island location and plantings, boardwalks, etc.).

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O14-1-105

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O14-1-106 See the Global Responses for Visual Resources. Also see response to Comment O14-1-103.

Historic photos of the Project Area have been added to the Final EIS Summary for additional context.

Regarding whether the impacts described are adverse or significant, the EIS describes how impacts were assessed. Adopted laws and policies were used to guide determinations of the compatibility of visual elements. Those laws and policies do not indicate a preference for or against views of tideflats, but do characterize the Capitol Lake Basin as being "natural" in character, and the EIS does not interpret this as meaning that the character must be wild or undeveloped to be considered natural. The Olympia Shoreline Master Program indicates what uses are appropriate for the shoreline in the Urban Conservancy shoreline environment as those that "preserve the natural character of the area or promote preservation of open space or critical areas." Similar statements can be found in the Olympia Downtown Strategy and the Master Plan for the Capitol of the State of Washington, emphasizing how the natural character of the surroundings should be considered. It is acknowledged that the commenter finds tidelands to be aesthetically objectionable. However, the comment does not indicate an objection to using current adopted policy to determine the significance of impacts. The approach suggested is to rely on actions taken by legislators and others over 60 years ago as the sole guide to assessing how Capitol Lake should look at present. Current adopted plans and policies provide a more appropriate context for determining whether the project is objectively harmonious with other landscape elements and characteristics, as envisioned by the lead agency and the jurisdictions affected by the project. As noted in the EIS, those policies found that both the Estuary and the Managed Lake Alternatives would maintain that harmony from a visual standpoint.

Union, Green lake, or Lake Washington in Seattle. A small minority might shout "yes". The majority (mainstream) would likely say "no". How unfortunate it would be for those urban areas if the "yea-sayers" won the day!

The method mostly employed in the creation of these comments is to use as a standard the aesthetics of a managed Capitol Lake, then compare those to the other proposed alternatives. Obviously, a degree of subjectivity is employed in some areas. Without data and survey results, this cannot always be avoided. However, reasonable attempts should be made to determine the will of the public on this issue using subjective evidence if necessary. Again, the public's opinion is important and should not be ignored.

Looking at the design elements of each alternative:

The Managed Capitol Lake is a part of the Wilder-White-Olmstead Design of the Capitol Campus and the Arc of Statehood. The substantial historical investments of our city and state to create an aesthetically pleasing public amenity, Capitol Lake, are well documented elsewhere and do not require a review here.

The Estuary/Mudflat is an attempt to recreate a natural setting before European settlement, and as such is not designed with aesthetics in mind. There are significant problems with this in the current urban setting. First, there was no isthmus connecting Olympia with the West Side, and most of the Downtown area was intertidal mudflats in these earlier times. The mudflats were not surrounded by a dense urban core, or crisscrossed with major roadways and bridges, railroad tracks and bridges, and an Interstate Highway. Though returning to more idyllic times may be desirable, creating this estuary will not accomplish that. The aesthetics of these earlier times are gone forever.

And creating a Hybrid with the addition of a half-mile long industrial-looking sheet pile and concrete barrier structure through the middle of the Northern part of the estuary, further reduces any positive value to the aesthetics of the basin. From a design point of view, the reflective pool may offer some limited aesthetic appeal, but the barrier wall will obscure the pool from most vantage points.

Capitol Lake was Created Primarily for Aesthetic Purposes in an Urban Area

Public meetings hosted by DES in 2016 made clear via decades-old news clippings and meeting notes that Capitol Lake was created mostly to solve the unfortunate **aesthetic dilemma** posed by the estuary/mudflat. Most citizens and legislators apparently felt the estuary/mudflat had a strong negative effect on the quality of living in Olympia. **EIS authors should emphasize this important fact and remind the public that re-creating the estuary/mudflat will, by its expensive nature, preclude a future do-over, as it is not a plan utilizing adaptive management. Removing the dam makes this a "one and done" and "no turning back" plan.**

Jeffers Studio has archived several photos which show the marked extent of the mudflats prior to the dam. Although, as in other "quality" or subjective characteristics, the distasteful effect of the mudflats (mud and marine debris) cannot be quantified, the community was driven to replace the mudflat with an amenity which was **viewed as overwhelmingly positive by the mainstream until its maintenance was neglected by state caretakers**

For the estuary, on page 4-126, 'Key Findings: Long Term visual Resource Impacts', the statement is made that the estuary will allow the landscape to "remain unified and harmonious with the natural

O14-1-105

O14-1-106

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O14-1-107 Please see response to Comment O14-1-103 and the Global Response for Visual Resources.

O14-1-108 See the Global Response for Visual Resources. See also response to Comment O14-1-103.

O14-1-106

setting of the existing surroundings resulting in less than significant impacts". **This characterization regarding the estuary should be changed to "significant impact"**. Please remember that the Capitol Lake basin is now and has been for well over a century an urban area, not a wild or undeveloped or rural one. It is part of an urban state capitol campus and is surrounded by paved streets, buildings, public parks, residences, a parkway, and interstate highway. Thus, making the assertion in the Executive Summary that the estuary will "remain" unified and harmonious reflects a biased and inaccurate assessment. Stating that the change to an estuary/mudflat will qualify as "less than significant" avoids the reality which is obvious to virtually everyone with an honest and objective point of view. Also see the Executive summary, Visual Resources, page 33, estuary. Again, **this characterization regarding the estuary should be changed to "significant impact"**.

O14-1-107

For the Hybrid, like the Estuary, the Draft EIS fails to adequately address urban aesthetics. However, acknowledging that the wall's dominant and ominous appearance will likely be objectionable to a substantial number of people with mainstream tastes, is positive. Compliments to the DEIS for recognizing this problem which does not meet mainstream needs.

View of Capitol Lake is the "#1 Wonder in Thurston County"

A "Seven Wonders of Thurston County" county-wide survey of 2011 sponsored by the Thurston County Commission chose the view over Capitol Lake from the Law Enforcement view platform as the **#1 Wonder of Thurston County**. Former Chief Justice of the Washington State Supreme Court Gerry Alexander was interviewed by then county commissioner Cathy Wolfe at the law enforcement pavilion as he explained the unusually significant value of this amenity to the community and State. The conclusion: Capitol Lake can be considered the area's aesthetic crown jewel.

O14-1-108

However, like the aforementioned Capitol Lake/Lower Deschutes Watershed, Department of Enterprise Services Survey mentioned in the first paragraph, this important fact was not included in the DEIS, concealing the community's critically important evaluation of a Managed Lake. **The DEIS Report has failed the public and its decision-makers by not reporting on these two surveys. Their findings should be prominently revealed to the public in the EIS. Recognizing and validating the public's will and needs should be of paramount importance in a quality, truthful, and unbiased EIS.**

Note: The two surveys mentioned in this section reveal an important finding other than the strong preference of the community to keep and manage Capitol Lake. The surveys show that the mainstream members of the community, although far from being able to organize the loudest shouters, have quiet, powerful convictions.

The view across the Estuary/Mudflat and Dual Basin would possibly qualify for this same distinction, but only a percentage of the time due to perimeter mud exposure and odor, unpleasant to so many in an urban environment.

To summarize:

- Capitol Lake was created for Aesthetic Reasons
- County Survey in 2011 Rates Capitol Lake #1 "Wonder of County"
- DES Sponsored Survey 2016 Rated "Aesthetics" as #1 Criterion for Basin

O14-1

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O14-1-108

- **A reasonable conclusion would be: Clearly, the aesthetics of the Capitol Lake basin is the most important characteristic desired by the public.**
- **Why isn't this finding reflected and emphasized in the DEIS?**
- **Shouldn't considerable weighting be given to the public's declared need?**

Please explain

Land Values Bordering Lakes are Significantly Higher than for Estuary/Mudflats.

Our free enterprise system allows us to vote using monetary resources for items we choose. Perhaps the most objective method of evaluating the aesthetic value of a landmark amenity is to determine what property owners are willing to pay to view it. Data derived by assessor tax records, appraisers, and the opinions of multiple professional realtors in the area suggest with little question that lake-view property is almost always valued much higher than that bordering an estuary/mudflat or wetlands, all other factors being equal. Most objective observers find it disingenuous that the DEIS has failed to recognize this obvious fact that a Managed Lake provides significantly more value to the community than does an estuary/mudflat. This characteristic should be relatively easily quantified. Please do so using an unbiased methodology and fully describe that methodology. The process should be straightforward and described in detail in the EIS.

O14-1-109

Lack of Objectionable Odor

A lake with its aquatic plants properly dredged or harvested produces virtually no objectionable odor. Hydrogen sulfide is a naturally occurring and odiferous molecule in mudflats. Many persons (not all) have experienced this mudflat odor and found it to be objectionable and inappropriate for an urban area, especially that of a capital city. Again, the DEIS fails to adequately address (investigate) the effect of this common characteristic of an estuary/mudflat. The DEIS fails to understand that (despite its analysis of smelling) the human aversion to the mudflat odor will reduce the number of persons willing to be in the downtown area. **Please address the odor issue with an unbiased, scientifically developed survey of those who have experienced the odor in this urban setting.** Preference surveying between Lake and estuary/mudflat odors in a capital city would be helpful. Consider using the services of a respected pollster such as Elway Research Inc. **Please report the results of such a meaningful survey in the EIS.**

O14-1-110

Note: The DEIS analysis of human perception of types of odors is not a substitute for the opinions of those who have lived through and experienced the odors of the estuary mudflats. Attempting to ascribe the perception of objectionable odor in the mudflats solely to human causes (excrement) is not confirmable by those who lived here during that period.

Great Cities are Often Associated with lakes

Please print the following in the EIS. Positive images of urban areas have significant value for tourism, economic activity and quality of living. Consider the following cities whose images (like our state capitol) are enhanced by lakes:

O14-1-111

New York	Central Park
Seattle	Lake Union, Green Lake, Lake Washington
Boston	Charles River Basin

O14-1-109 Section 5.5.2.4 of the Economics Discipline Report described the relationship of visual aesthetics to property values. Changes in the character of the visual amenities could result in changes to property values and personal aesthetic values, but would likely adjust over time to the new aesthetic condition (which would be consistent with the surrounding view of Puget Sound).

Studies that have quantified the impact of a lake view on properties are—to our knowledge—conducted in areas where a lake is the only amenity feature so the study design can quantify the value of a lake view, a partial lake view, or no lake view; and changes value linked to changes in lake levels over time. Most view properties in Olympia surrounding Capitol Lake have the confounding fact that they also have views of Puget Sound, mountains, and other prominent natural features. This makes it unfeasible to isolate the contribution of value of the lake view alone. Furthermore, under the Estuary Alternative, the water level will change throughout the day with the tides making it a much more dynamic view that is not comparable to a perpetual mudflat or receded lake levels. For these reasons, both a hedonic analysis to quantify property value effects from changing views and a benefit-transfer methodology applying changes in property value from other studies were not used because analysts determined a quantitative analysis using either methodology would not produce valid or reliable conclusions of impact relevant to the Capitol Lake Basin.

O14-1-110 Odor is subjective and the generation of odors varies by the composition of organics, the environmental dynamics, and numerous other factors such that a survey would not provide meaningful information.

See also response to Comment O14-1-97 and the Global Response for Air Quality & Odor.

O14-1-111 The Economics Discipline Report (Section 4.4.6.2) identifies that the reflecting pool contributes aesthetic value to the Capitol Campus and was a key component of the original design. This design contributes value through symbolism, enhancing civic pride, and providing a central focus and gathering place, its iconic views being a key component of heritage value. The Economics Discipline Report identifies that under both the No Action and Managed Lake Alternatives, the heritage value and aesthetic value would be sustained (Sections 5.2.4.6 and 5.4.2.4).

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O14-1-112 This response acknowledges the commenter’s alternative preference. All long-term management options are expected to restore community use, which is one of the project’s primary goals. Regarding aesthetic concerns raised by the commenter, it is acknowledged that the aesthetic qualities of the alternatives vary; some viewers prefer the view of a lake’s open water while other viewers prefer that of an estuary that changes with the tides. This analysis does not attempt to determine which of these groups of viewers is larger. More aesthetic details will be developed during the design phase. See also the Global Response for Visual Resources and Sections 3.10 and 4.10 of EIS Supporting Chapters 3.0 and 4.0. Regarding the question of why the lake hasn’t been dredged for over 35 years, see Section 1.7 of EIS Supporting Chapter 1.0. As described in Section 1.7, various permitting agencies and consulting parties required that Enterprise Services identify a long-term management plan to address environmental conditions within Capitol Lake before any future dredging application could be processed. Neither short-term actions like dredging nor a long-term management alternative could be implemented without completion of the EIS. Regarding aquatic invasive plant management, Enterprise Services has used on-going measures to control aquatic invasive plants in and around Capitol Lake; however, large-scale plant harvesting has not been undertaken. See Section 3.4.2 of EIS Supporting Chapter 3.0 for more information on past aquatic invasive plant management. Regarding the commenter’s concerns about current, scientific information on water quality be presented in the EIS, the EIS team actively incorporated new information as it became available after the Draft EIS was released and collaborated with Department of Ecology to update sections of the EIS. This included incorporating requirements of the Total Maximum Daily Load (TMDL) process, a science-based approach to clean up polluted water so that it meets state water quality standards. See also the Global Response for Water Quality.

O14-1-111

Madison, WI	Lake Mendota (Also supporting the state capitol)
Washington DC	National Mall and Tidal Basin
Paris	Jardin du Luxembourg, Versailles Gardens
Oakland, CA	Lake Merritt

The value of these commonly understood associations was not recognized in the DEIS. **The value should be recognized in environmental disciplines such as “economics” and “aesthetics”. Please do so.**

Capitol Lake is Appropriate for an Urban Setting. A Mudflat has been Judged as Inappropriate

Again, the Capitol Lake basin is an urban area, not a wild or undeveloped or rural one. As with the above and dozens of other cities, Olympia’s urban area is enhanced by the aesthetically pleasing nature of an attractive landmark such as Capitol Lake. Again, quality of life for the mainstream is enhanced (see surveys above). If the Lake’s aesthetic needs were properly addressed with expected responsible maintenance, the **urban aesthetic needs** would be met and its **overwhelmingly popular aesthetic appeal** would be immediately restored.

Note: Although proponents of the estuary mudflat will object, the DEIS should raise the question publicly as to why the aesthetic needs of Capitol Lake have been intentionally neglected by GA and DES, and the State Legislature for decades. The issue should be investigated as it appears to be an abrogation of duty. A supportable answer should emerge and be revealed to the public. **They deserve to know why the Lake looks so bad, especially in summertime. The negligence, which makes the healthy lake look unhealthy, appears to be intentional (and is shamelessly used to convince the public that it is “sick”.) Only those desiring a different management plan would benefit from the negligence. How have they managed to prevent a normal dredging program? Aquatic weed harvesting? Why has the State Legislature, charged with maintaining Capitol Lake, abandoned its obligation without any reasonable explanation to the public (who actually own the Lake yet have no recourse but to endure its poor appearance)? The two most pertinent questions to be answered are:**

1. **Why the Lake has not been dredged for over 35 years? (The original intent was about a 10 year interval.)**
2. **Why has no selective harvesting of aquatic plants been undertaken?**

Again, the public deserves to know these answers which should reveal both why the Lake has been made to look like it does today and the motivation behind the maintenance prevention scheme.

Estuary/Mudflat: Found to be inappropriate prior the creation of Capitol Lake. Not aesthetically acceptable.

Dual Basin: Not aesthetically acceptable to the public in an urban setting due to the dominant, ominous appearing wall.

A Maintained Capitol Lake Promotes Enrichment of Community Life by Improving Physical and Mental Health. The Aesthetics of the Lake Contribute Significantly to our Quality of Life.

Capitol Lake has been described as “the soul of our community”, especially when it was maintained. For decades, it has served as a community attraction for celebrations, outdoor educational displays, boating, swimming (previously), informal sporting events, running, walking and dog walking.

O14-1-112

O14-1

COMMENT

RESPONSE

O14-1-113 See the responses to Comments O14-1-18 and O14-1-71.

O14-1-114 See the responses to Comments O14-1-18 and O14-1-71.

O14-1-112

Unquestionably, these activities benefit human health, both physical and mental. Social cohesion for individuals and families in and outside the community are facilitated. Expecting this value to persist with an estuary seems unlikely to be true. Why? Again, consider the historical and current use of Mud Bay, East Bay, Woodard Bay, etc. **The uses of those estuary/mudflats are a small fraction of Capitol Lake's.** Freshwater swimming and non-motorized boating recreation in clean, non-toxic water could easily be achieved in Capitol Lake.

Sadly, for well over a decade, persistent misuse of outdated water quality data, inappropriate conclusions, rumors, along with gross mismanagement have contributed to the public's misconception of the health of Capitol Lake. Of course, this is a commonly employed political strategy – hyperbolically create the appearance of major problems that don't really exist, then offer solutions that serve the desires of the accusers. **Thankfully most of these misconceptions, circulating among the public for so long have been almost totally disproven by independent third party reviewers used by this DEIS. The public should be thankful for these overdue corrections. As the EIS states on page 3-28, "Overall, Capitol Lake exhibits very good water quality."**

Yet, severe lasting damage has been done to Capitol Lake's reputation as the public remains misinformed. Surely, a DEIS responsible to the public's need for accurate, current scientific information would emphasize the unfortunate effect of past dissemination of false information which has tainted Capitol Lake. **A paragraph in the Executive Summary dedicated to this need would be of immense help to the public and its decision-makers. Please do so.** As if we need to be reminded, rumors and false information stated repeatedly as factual are the enemy of good decision-making.

Comment: The existence of such extensive misinformation circulating in our community render the value of a new public survey meaningless. Many responses would be based upon inaccurate and out of date information published in the media and spoken by public officials.

Invasive toxics from Budd Bay are a threat to public health

Additionally, with dam removal, the invasion of toxics from Budd Bay into the Capitol Lake basin will create the potential for a host of problems including human health (as evidenced by Thurston County Health Warning signs posted throughout Budd Bay – see below). The currently clean freshwater and sediment in Capitol Lake will be compromised. The dozens of signs necessary to warn the public will be aesthetically unpleasant. They will negatively affect tribal cultural resources.

O14-1-113

Dredging Budd Bay should help to some degree; **however, many contaminants are not stationary in the Bay sediment. They continuously arrive from outside the Bay (leaching from soil, run-off, or southerly directed marine flows or from upwelling)** (See caption below). Mixing from large vessel propellers in the Port's turning basin will be another source. Thus, with the dam removed, Capitol Lake basin will receive toxics from Budd Bay twice per day with the tide. Public knowledge that the water contained in the Capitol Lake basin will be contaminated with toxics (no shellfish or fish harvesting) is a severe detriment to the aesthetics of the estuary/mudflat.

O14-1-114

Please address these almost certain problems posed by the estuary/mudflat. They appear to have been inadequately investigated. Please answer:

- **What will be the expected short and long term effects of the carcinogens, heavy metals, and other toxics (to humans and other species) from the introduced West Bay marine water?**

O14-1

COMMENT

RESPONSE

O14-1-115 Please see response to Comment O14-1-18.

O14-1-116 Regarding concerns with toxins entering the lake basin from West Bay, see the responses to Comments O14-1-18 and O14-1-71.

In response to comments on the Draft EIS, subject matter experts from the EIS Project Team and Enterprise Services reviewed suggested changes to the analyses and findings. A description of substantive changes to the analyses are provided in a new table included in the Final EIS Summary, and where appropriate based on the EIS analysis and data, significance findings have been updated. No changes were identified based on review of this comment and available data.

O14-1-114

- The DEIS suggests that “future clean-ups are planned to address this contamination”. Considering that the State is over 25 years late in dredging and maintaining Capitol Lake, how can we be sure they will address this issue in a timely manner? They haven’t so far.
- Ecology lists five sources of toxics in West Bay (mostly continuous). How will the continuous nature of these toxics be stopped?

O14-1-115

Throughout the 1970’s and early 80’s runoff into Capitol Lake caused water quality to become a serious concern. (Swimming was curtailed in 1985.) Under a Managed Lake, water quality is now “very good” (and will support swimming). However, under an estuary alternative, with the toxic invasion, it is highly unlikely that swimming will be allowed. For a cost of a hundreds of millions of dollars, we will be repeating the same mistake of allowing contaminated water to infiltrate the basin. **How will we explain this blunder to the taxpayers? Do we really want to repeat the mistake?**

O14-1-116

Due to the likely introduction of toxic materials into the current lake basin, please change the Executive Summary under Water Quality, estuary and hybrid, page 30 from “less than significant impacts” to “significant impacts”. Change the Executive Summary under “Economics (including ecosystem services)” for the estuary, page 35, from a non-characterization to “significant impacts”. Change the Executive Summary, page 34, Environmental Health (primarily estuary sediment quality estuary degradation from “less than significant impacts” to “significant impacts”. Change the Executive Summary under Land use, Shorelines, and Recreation, page 32, estuary, from “substantial beneficial effect” regarding water quality, improved ecological functions, and increased opportunities for community use to “significant impacts”.

O14-1

COMMENT

RESPONSE

O14-1-117 Comment noted. Please refer to the Sediment Quality Discipline Report (Attachment 10) for a detailed discussion of known sediment contamination in the Project Area. Between the Draft EIS and Final EIS, information has also been included in Section 4 of the discipline report on two additional cleanup sites in Budd Inlet.

Without the dam, a new aquatic (toxic) environment for the Capitol Lake basin



Health warning signs at Budd Bay adjacent to Mission Creek

(Dozens of these and similar warning signs of toxics exist throughout Budd Inlet and will likely be required throughout the Capitol Lake basin if the dam is removed.)

At least five sources continuously supply contaminants to Budd Inlet:

- Urban stormwater runoff, (PAH's, PCB's, CEC's)
- Effluent from LOTT Cleanwater Alliance, (PBDE's, PCB's –low concentrations, CEC's)
- Southern Puget Sound marine flows flowing south,
- Turbulence induced mixing of sediment and legacy toxics by large port vessels in the turning basin.
- Legacy industrial pollutants from toxics clean-up sites. (Listed below from Washington Department of Ecology Website.)

An additional four closed sites continue to leach contaminants into Budd Inlet:

- Reliable Steel site: (Westbay Drive)

O14-1-117

O14-1

COMMENT

RESPONSE

O14-1-118 See response to Comment O14-1-96.

O14-1-117

- Gasoline-diesel or oil range petroleum hydrocarbons in soil or Budd Inlet sediments
Toxic metals – arsenic, cadmium, copper, lead, mercury or zinc in soil groundwater, stormwater runoff or sediments.
- PAHs or Carcinogenic PAHs – in soil, stormwater runoff or sediments.
- PCBs – in soil.
- Phthalates – in stormwater run-off and sediments.
- Industrial Petroleum Distributors site: (Westbay Drive, formerly ARCO):
 - Petroleum hydrocarbons from petroleum leaks and spills.
- Solid Wood, Inc. : (Westbay Drive just north of 4th Ave., owned by city of Olympia):
 - Total petroleum hydrocarbons.
 - PAHs.
 - Metals – exceeding standards for soil and groundwater.
- Cascade Pole site: (north end of Port peninsula):
 - Creosote contaminants – soil and groundwater.

Mudflats are deemed dangerous by Thurston County Health Department

As the warning advisory on the right side of this photograph in Ellis Cove demonstrates, at low tide mudflats are dangerous. The public will need to be advised to keep off the mudflats with signage to that effect.

O14-1-118

In addition to the omission in the DEIS that toxics may threaten many living organisms in the Capitol Lake basin, another serious omission in the DEIS is the fact that mudflats are inherently dangerous to humans and other animals. According to *The Olympian*, in 2016 a man became entrapped in the mudflats of Ellis Cove requiring emergency life-saving assistance.

Here is another example of the DEIS neglecting to inform the public and its decision-makers of the serious problems associated with an estuary/mudflat. Please provide a section in the Executive Summary stating that an estuary creates a serious danger due to the potential for public and pet entrapment at low tides. Please state clearly that this represents a "serious negative impact".

Don't these warning signs adversely affect aesthetics?

O14-1

COMMENT

RESPONSE

O14-1-119 Please see response to Comment O14-1-96.



Priest Point Park signage referencing Ellis Cove

Advisory reads: "Water and Soil Pollution. Shower after contact with sand or water from this area." Please note the "Caution At Low Tide, Mud Flats Are Dangerous PLEASE KEEP OFF".

To summarize:

- Without the dam, toxics infiltrating the Capitol Lake basin from Budd Inlet pose a threat to humans, wildlife and fish, especially Chinook- and by extension, endangered Southern Resident Orcas.
- According to Thurston County Health Department, mudflats are inherently dangerous to humans and pets due to entrapment potential.
- Why would we create these two significant problems in a currently clean, safe, and productive basin?
- Why aren't these critically important findings described in the DEIS?

Capitol Lake Serves as a Signature Visual Image for our State

Again, Capitol Lake has been voted the "#1 Wonder of Thurston County". It is iconic.

Promotional and educational photos of Olympia, Thurston County and the Capitol Campus commonly focus on Capitol Lake. News articles, magazines and books frequently include visuals of Capitol Lake. As an example, Craig Romano's hiking book *Urban Trails Olympia* features a full page photo of Capitol Lake in its introduction. The Lake tends to define Olympia's outdoor urban area.

This important economic information is missing from the DEIS. Please mention this Signature Visual Image for our state and local communities, and explain its economic significance. **Please characterize in the Executive Summary, Page 35, "Economics (including ecosystem services)" for the estuary/mudflat as "significant impacts".**

Reduction of Sprawl with a Managed Capitol Lake

As described in detail in the Economic Discipline Report (Attachment 18), all action alternatives (including the Estuary Alternative) would enhance trails, improve habitat areas, and restore water-based recreation, and this would increase the value of recreation in the basin. The improvement to habitat, visual aesthetics, and cultural, heritage, spiritual, and educational values would be most pronounced under the Estuary Alternative. The Economic Discipline Report does not define changes as "significant impact" or "substantial benefit" as suggested by this comment.

The Economic Discipline Report also describes that changes in the environmental setting across the action alternatives would represent trade-offs in how an impact or effect is perceived. For example, the aesthetic impacts would vary based on individual preferences. In such cases, the distribution of benefits and costs would differ across different populations and groups of people and could be considered either a beneficial effect or an adverse impact.

O14-1-119

O14-2

COMMENT

RESPONSE

O14-2-1

Enhancing the aesthetic appeal of downtown Olympia with improved Lake management will help to increase downtown residential and business density likely reducing residential and business sprawl into our valuable and diminishing rural areas. (See "Land Values Bordering Lakes are Significantly Higher"). This would undoubtedly be environmentally beneficial and yet it has not been mentioned in the DEIS.

Note: Olympia proper will continue to grow under all the alternatives. However, in the minds of realistic city planners (such as retired City of Olympia and Thurston County Planner Peter Swenson), under a Managed Capitol Lake, our area is likely to have a much higher percentage of city/rural growth, which is a purpose and goal of The Growth Management Act. It is important to attempt to answer the following: **Will the marginal habitat benefit under the estuary/mudflat alternative be less than or greater than the rural habitat saved by attracting more residents and businesses to the urban area? This question must be addressed in the EIS. Experts must be consulted.**

Regarding the Executive Summary, apply the characterization "significant impacts" to the Estuary under Economics (including ecosystem services) page 35. Additionally, in the Executive Summary, estuary, add "significant impact" to Fish and Wildlife, page 37. It is well established that sprawl significantly adversely affects rural ecosystem services due to development pressure (increased runoff, destruction of habitat, etc.). Recognition of this pressure should be stated clearly in the Executive Summary, Land Use, Shorelines, and Recreation, page 32 reflecting this established effect, labelling it "significant impact" for the estuary/mudflat. As mentioned above, please interview experienced city/county planners as to their opinion on this matter.

Lack of recognition of this long term environmental effect belies the third major goal of this project, "Improve Ecological Functions."

Singular Estuary/Mudflat Pictorial in Executive Summary is Misleading to the Public

The singular visual representation of the estuary at mean tide (page 10 of the Executive Summary) reveals an image which exists for a limited amount of time. **This needs to be clarified to the public and its decision-makers. What is the date of this mean tide depiction? Please show calculations as to how the water levels were depicted so that impartial engineers might confirm their accuracy. Will the island grasses be green year round? (aesthetically important). Is this pictorial consistent with the statement on page 1 of the Executive Summary that with the estuary alternative, "tide flats will be the predominant habitat type."** No, it is not. Shamelessly, no tide flats or marine debris are depicted.

O14-2-2

Note: How can the DEIS be considered impartial in the face of this evasion of reality which hides the mudflat area? The stark answer is, it can't.

These requests are especially meaningful because most readers of the EIS document will likely look at the Executive Summary and skip the vast majority of the "Discipline Section" which shows more realistically what will be visualized over the span of tide levels. Many of those who consistently view Mud Bay, West Bay Park area, East Bay, and Woodard Bay, or Nisqually Mudflats in the daytime understand that substantially more mud in Capitol Lake basin is likely to be revealed the vast majority of time compared to what is pictured in this singular Executive Summary pictorial. This is particularly true of daylight hours in the summer when more people are outside and tides are lower. A significant percentage of readers including public third party reviewers might find this one image in the Executive

O14-2-1 The commenter's assertion that the Managed Lake Alternative would reduce rural sprawl is unsupported by the analysis and conclusions of the assessment of impacts on downtown development: 'Overall, other market factors are likely to have more influence on the market conditions for development in downtown Olympia than changes in the Capitol Lake Basin' (see Economics Discipline Report Table E.3; See also Section 4.2). Other regulatory and market forces, including but not limited to relative price (influenced by trends in demand and supply), configuration of lots, and zoning and growth management regulations, have a much larger influence in shaping the spatial patterns of development in the region. See the response to Comment O-13-48 regarding the relationship of the project alternatives to rural development. The commenter does not raise any other issues regarding the adequacy, accuracy, or completeness of the Draft EIS that suggest the impact conclusions should be changed.

O14-2-2 See the Global Response for Visual Resources regarding visual simulations included in the Executive Summary. The mean tide simulations have been supplemented with low and high tide simulations, and historic photographs from the Project Area have also been included for context.

The visual simulations were developed using bathymetry and tide elevation data to depict areas of open water and tideflats, as well as schematic design information developed for project elements, such as the habitat areas. Tide datums used to illustrate low tide, mean tide, and high tide conditions were as follows (-4.0 feet, +4.3 feet, +10.5 feet NAVD 88). It would be anticipated that vegetation within the wetted perimeter of the habitat areas would remain green year-round, although depending on the type of vegetation, there will be some variation in color.

Clarifications have been made in the Final EIS Summary and in Visual Resources (Section 4.10.5 of Final EIS Supporting Chapter 4.0) to better describe that tideflats would be more visible during the summer months when lower tides are experienced during the daytime hours.

O14-2

COMMENT

RESPONSE

O14-2-2

Summary to be misrepresentative. Essentially it tells the viewer, "There is no mud! There is no marine debris."

For the sake of credibility, show at least 4 images of the estuary alternative and hybrid alternative in the Executive Summary with at least 2 at summer low tide, at least one of which is taken from the Deschutes Parkway facing northeast and one from Marathon Park facing north. Marine debris should be shown as it is part of the mudflat landscape. The public must be given the chance to visualize the massive "significant impact" brought about by the substantial areal amounts of mudflats. Hiding this feature reveals a significant bias toward the estuary/mudflat and needs to be corrected. After 70 years, most of our community's institutional public memory of the unpleasant nature of the estuary/mudflats has been lost. Furthermore, the Executive Summary Visual Resources aesthetic change assessment from Lake to estuary should read "significant impacts" as regards the estuary/mudflat (page 33). Essentially, that characterization was given 70 years ago. We are reminded that, "Those who ignore history are destined to repeat it".

O14-2-3

Recommendation: Although the estuary mudflat has significantly impactful limitations aesthetically, doubling or tripling the number of "coniferous islands" would soften the stark harshness of the mudflats of this inferior alternative.

Note: In the hybrid alternative, at low tide, the wall of the reflecting pool will be up to 20+ feet above the mudflat. From the Deschutes Parkway, the reflection of the Capitol dome will be obscured by the barrier wall, substantially defeating the purpose of the reflecting pool. The wall itself, when viewed from all directions will have a dominating effect (especially at lower tide levels) and will ultimately appear unseemly and dirty with mussel growth and black colored algae-like plant growth like that of the supports of the 4th Avenue Bridge. Perhaps this problem could be alleviated with riprap (placed on both sides of the wall) of a color similar to the Arc of Statehood and short green deciduous vegetation atop. However, this would add significant expense and maintenance requirements, and would likely increase the loss of reflection from the Deschutes Parkway even further.

O14-2-4

This severe deficit in the hybrid alternative should be noted in the Executive Summary on page 33. This alternative should be disqualified on that basis alone unless it is accompanied by the above mentioned riprap and landscaping. At the July CSB meeting with DES, one CSB board member described the wall as "hideous" .

Horizontal elevation views of the new 5th avenue bridge and the elevated access road from Deschutes Parkway from any viewpoint have been omitted. These horizontal views are important as they should depict:

O14-2-5

- The effect of the new 5th Avenue bridge if designed to "highway bridge" standards and its comparison to the more aesthetically pleasant urban design of the 4th Avenue Bridge.
- Landscape changes created by excavation and the access road to and from the Deschutes Parkway.

Please provide appropriate elevation views so these aesthetic characteristics can be evaluated.

O14-2-6

Selective Harvesting and Dredging Benefits
In the Executive summary, page 30 Aquatic Invasive species, for the Estuary alternative, the following statement is made, "Aquatic vegetation is reduced, resulting in a "substantial benefit" by improving

O14-2-3 See the Global Response for Visual Resources regarding visual simulations included in the Executive Summary and regarding the requested new visual simulations.

Regarding the depiction of marine debris, the commenter is correct that marine debris was not prominently depicted. There is a small amount of marine debris in the simulations, but it appears as just part of the visual texture. This is consistent with observations of low tide conditions at Mud Bay and the Nisqually Delta. The Draft EIS and Final EIS acknowledge that marine debris would accumulate on intertidal areas and then may or may not be removed by the next high tide. Adding depictions of more prominent marine debris into the visual simulations is not critical for understanding potential visual impacts of the alternative.

O14-2-4 Comment noted. The Draft EIS found the visual impacts of the barrier wall under the Hybrid Alternative to be a significant unavoidable impact. Available mitigation options to reduce the level of visual impact are limited. See Section 4.10.8 of EIS Supporting Chapter 4.0.

O14-2-5 We recognize that the commenter is requesting elevation drawings and/or visual simulations that depict the new 5th Avenue Bridge and realigned Deschutes Parkway. Please note that the design of the 5th Avenue Bridge has been modified in the Final EIS in response to comments received on the Draft EIS. While adding horizontal elevation views would provide greater detail about what these features would look like, such views typically do not include the landscape setting. The simulations in the EIS provide the landscape setting and allow a reader to see how views from key viewpoints would be affected. Horizontal elevation views would not provide new or additional information on potential adverse visual impacts under the Estuary and Hybrid Alternatives that would change the analysis or its findings. The design envisioned for the new 5th Avenue Bridge, as described in this Final EIS, is that it would be a low-profile bridge paralleling the water, and it would have rails and lighting similar to the 4th Avenue Bridge. It would have one vehicle lane in each direction, one bicycle lane in each direction, plus sidewalks on each side. As such it would not resemble a typical highway bridge built for higher speeds and having limited access for pedestrians and bicycles. The characterization of visual changes and visual impacts provided by the Draft EIS and Final EIS provides enough discernable information for decision makers to weigh the project alternatives, including the scale and compatibility of the components such as the 5th Avenue Bridge and other potential impacts, along with feasible

O14-2

COMMENT

RESPONSE

mitigation measures to reduce impacts, and the ability to meet the proposed project objectives. See also the Global Response for Visual Resources.

O14-2-6 In response to this comment, the Final EIS Summary and Section 4.10.4 of Final EIS Supporting Chapter 4.0 have been changed and now identify that there would be substantial beneficial effects related to reducing aquatic vegetation under the Managed Lake Alternative.

O14-2

COMMENT

RESPONSE

O14-2-6	<p>aesthetic characteristics of water quality” However, on page 33 of the Executive summary, Visual Resources, for the Managed Lake, the following statement says, “Improved water quality and aquatic plant removal would have minor beneficial effects related to aesthetics.” Please address this inconsistency regarding plant removal in the lake basin under the two different alternatives. Further, aquatic plant growth and peripheral bottom debris in the lake basin account for virtually all of the Lake’s negative aesthetic effect. This negative aesthetic effect will be totally eliminated under the Managed Lake Alternative (and also the Estuary Alternative) and therefore deserves a characterization of “significant beneficial effect”. Please correct this discrepancy, or explain why it is fair to rate this removal in an estuary as a “substantial benefit”, but if it occurs in the managed lake, it is rated as a “minor beneficial effect”? Please be fair and rate both alternatives the same. If these characterizations are to be converted to numerical scoring values, this discrepancy is of concern and must be corrected.</p>
O14-2-7	<p>It appears to have taken approximately 25 years (1986-2011) for the aquatic plant growth and the debris in the north basin of Capitol Lake to produce an aesthetically unpleasant appearance. Therefore, assuming an initial dredge of that basin starting in 2025, it would be 2050 or so before a similar negative aesthetic effect occurs (about the same time the first long-term dredge is scheduled to occur). If aquatic plant growth occurred sooner, a selective harvesting could markedly help the aesthetics. Therefore, under Executive Summary, Visual Resources, Capitol Lake Alternative, page 33, a characterization of “significant beneficial effects” would be most appropriate, rather than “minor beneficial effects”. Please change as previously requested.</p>
O14-2-8	<p>Comment: Reports are that the 5th Avenue bridge to be built is designed to the aesthetics of a highway bridge and is therefore less costly than if it were designed similar to the 4th Avenue bridge. If this is true, using the basic highway design would reduce the cost of an estuary/mudflat plan to reduce its cost disadvantage. Surely, design aesthetics in the state’s capitol demand a “4th avenue type design”. Please make that intent clear in the EIS.</p>
O14-2-9	<p>Comment: In the Executive summary, page 30 Aquatic Invasive species, Estuary alternative the following statement is made, “Aquatic vegetation is reduced, resulting in a “substantial benefit” by improving aesthetic characteristics of water quality” This statement is somewhat misleading. <i>Why?</i> Because under all three plans of managed lake and estuary/mudflat, the north basin will be rid of plants because of dredging. The north basin is, by far, viewed by the most people and benefits little from the description described above. Additionally, the middle and south basin will become a wetland. Please change the characteristic to a “minor beneficial effect”.</p>
O14-2-10	<p>Inconsistent Construction Impact Descriptions regarding visual Impact for the Three Alternatives</p> <p>All three alternatives regarding construction have received a “significant” designation for their visual impacts. This would be logical if all three had only the common construction activity of the initial dredge of Capitol Lake. However, the estuary and hybrid options create significantly more and longer (4-5 years for managed lake vs. 7-8 years for estuary/mudflat and hybrid) construction activity than the managed lake. For example, the estuary and hybrid options require the following additional construction activities as listed on pages 5-59 and 5-60.</p> <ul style="list-style-type: none"> • 5th Avenue Dam and Bridge Removal

O14-2-7 See response to Comment O14-2-6.

O14-2-8 Final EIS Supporting Chapter 2.0 describes that Enterprise Services has committed to meaningfully engage with the City of Olympia and other stakeholders as appropriate throughout the design process for the new 5th Avenue Bridge to ensure that the new 5th Avenue Bridge complies with city design standards.

O14-2-9 See response to Comment O14-2-6.

O14-2-10 Clarifications have been made in Section 5.10 of Final EIS Supporting Chapter 5.0 to note the construction duration when noting the significant impacts of the alternatives. Given the long duration of construction disturbance under all project alternatives, a finding of "significant impact" is appropriate. However, we recognize that for the Estuary and Hybrid Alternatives, this significant impact would occur over a longer duration and the duration and magnitude of construction impacts were considered as part of the Preferred Alternative identification process (refer to Attachment 21).

O14-2

COMMENT

RESPONSE

O14-2-10

- Construction of a new 5th Avenue Bridge for Bridge and vehicles and Deschutes Parkway alignment
- Slope stabilization along Deschutes Parkway
- Stormwater outfall replacement along Deschutes Parkway and the Arc of Statehood
- Culvert replacement at the Interpretive Center
- Barrier Wall construction in north basin (hybrid only)

All the above have additional negative visual impacts and over a greatly lengthened time-span.

Using the same descriptive term for visual impact for all three options as "significant" fails to convey the enormous differences as listed above. The common term does not tell the reader of the significant differences in impacts which the community will be required to endure. As such, it is misleading.

Please correct this by using descriptive terms which convey the actual differences of the visual impact of construction activities. Again, the public does not deserve to be misled. Perhaps using "significant impact" for the Estuary/mudflat option and "non-significant impact" for the Managed Lake option would convey the proper difference to the public.

If the characterizations used are to be converted to a numerical ranking value, please ensure that the ranking reflects the extra negative effects of the estuary/mudflat.

O14-2-11

SPECIFIC HYBRID ISSUES

We have more specific comments regarding the Hybrid Alternative in the relevant Chapters and Discipline Reports, however, in reviewing the Draft EIS, we have found two aspects of this alternative that are of over-riding concern, and have been identified as key findings important to the state decision process in the earlier section of this document. These issues must be made evident to all interested stakeholders in the Capitol Lake/Estuary project.

One of the most important reasons for developing this dual-basin alternative is to preserve the iconic reflective views of the Capitol, while still creating an estuary. The construction of a barrier wall is essentially the only difference between this alternative and the Estuary Alternative. To meet this objective of preserving the reflection of the Capitol, it should go without saying that the viewer needs to be able to see the water in the reflecting basin; and this is where we have a problem. It appears that the barrier wall, rising eight feet above the normal water level in the basin, will obstruct a significant portion of the views of the water from the Deschutes Parkway and around to the West end of the Arc of Statehood. Looking East from the Parkway across the Estuary, it appears unlikely that even the surface of the reflecting basin will be visible. Even around the North end of the basin, at the elevated feature of the Arc, called the Eastern Washington Butte, the reflection is impacted. To quote from Draft EIS Attachment 14, Page 5-42 which discusses Visual Resources:

The paths next to the Eastern Washington Butte would be modified to ramp up to the barrier wall, and a guardrail would be added on the water side. As a result, the open water visible from the top of the butte would be substantially reduced. The view of the Capitol Dome would not be

O14-2-11 The commenter is correct that the barrier wall would significantly affect views of the basin from the west including from Deschutes Parkway. The reference in this comment to page 5-42 appears to be to the Visual Resources Discipline Report. The quote discusses views from the north toward the Capitol Dome. Page 5-50 of that report discusses views from Deschutes Parkway. The barrier wall would not directly block views of the Capitol Dome, but would likely block its reflection on the water surface of the reflecting pool.

As with the Estuary Alternative, reflections of the Capitol Dome would only be visible from limited locations on Deschutes Parkway due to roadside vegetation, habitat islands, and tidal fluctuations.

O14-2

COMMENT

RESPONSE

O14-2-12 See the Global Response for Visual Resources regarding requests for new visual simulations.

O14-2-11

affected, but some of the reflection of the Capitol Dome in the water surface would be lost from this vantage point.

It may be true that a few of the lucky homeowners on the bluff above Capitol Lake may continue to have reflective views, and motorists descending the Fourth and (new) Fifth Avenue bridges may have fleeting reflective views, but for those walkers, runners, cyclists and motorists on the Deschutes Parkway, the reflection could be only a memory.

And this brings us to the second over-riding concern. The one-half mile long barrier wall, including wing-walls every twenty feet for support and guard rails for fall protection, rises eight feet above the normal water level in the reflective basin, on the East side. However, on the West side, facing the Deschutes Parkway, the height of the barrier wall above the Estuary varies depending on the tide. At best, at high tide, it will be similar to the East side. But as the tide level drops, the elevation will reach about twenty feet (over two stories) above the estuary. Again, to quote from the same paragraph in Attachment 14:

Its [barrier wall] scale and contrast as seen from this vantage point would be moderate to severe. It would introduce a major structural element that not only contrasts with the tree-lined shores, but also substantially reduces the scale of the basin that would remain visible.

Even this statement does not do justice to the impact that a half-mile, fifteen-to-twenty-foot-high sheet pile and concrete vertical wall will have on the overall appearance of the North Basin, particularly from the Deschutes Parkway level.

O14-2-12

As we said previously, these concerns must be made evident to all interested stakeholders. This is a case where a picture is worth a thousand words; and we don't have the right picture. In Chapter 4, Figures 4.10.12 and 4.10.13 show that the reflective basin water surface is not visible from the walkway bridge, but provides only a limited perspective of the issues we have raised. Figures 4.10.14 and 4.10.15 provide no view of the estuary, and appear essentially the same as many other views from the Capitol overlook with the other alternatives. No other views of the Hybrid Alternative are included.

At a minimum, the views from the Deschutes Parkway toward the Capitol need to be developed and placed in Chapter 4, and also included as a part of the Executive Summary.

We believe the issues raised here could be disqualifying for the Hybrid Alternative. Full disclosure, both in text and pictorially, should be provided so that all stakeholders can be fully informed when they comment.

You may receive significant comments from others that cause you to take a step back, make corrections or changes, and reissue a supplemental draft of the EIS for further review. If so, **please take that opportunity to also consider these comments. If not, we believe that our concerns rise to the level that they should require reissuance of a supplemental Draft EIS for stakeholder comments on their own merit.**

ECONOMICS

Current Economics, Chapter 3

O14-2

COMMENT

RESPONSE

The descriptions of the Existing Conditions in the Economics section of Chapter 3 provide a thorough review and accurately portray the current conditions. Thank you for providing this review. We noted one comment in particular on Page 3.137, as follows:

“For Capitol Lake specifically, interviewees most frequently cited the surrounding walking trails as one of its most compelling features for downtown residents, followed by the views it provides. These features would continue to contribute to attracting residential demand to downtown to the extent they are maintained in future management alternatives.”

We will have several comments supporting this important citation in the Economics sections of both the Long-term and Short-term Impacts in Chapter 4 and 5.

Long-term Economics, Chapter 4

We have four significant questions regarding the statements in the Key Findings box on Page 4.181:

- **Are the long-term impacts similar among all the action alternatives?**
- **Is the Managed Lake Alternative the most expensive? In the long or short term?**
- **Will LOTT have less stringent discharge requirements under the Estuary or Hybrid Alternatives?**
- Tribal cultural values are prominently featured in these Key Findings, but there is no mention of the historical cultural value of the Capitol Campus as the centerpiece of the Capitol City and State. Both of these cultural values were described in Chapter 3, Page 3.141. **Why was this second cultural value ignored?**

We will address each of these questions as we move through each section of Chapter 4, sub-section 14.

In 4.14.3.1, Downstream Economic Activity, the relative costs of each alternative are discussed, with the Managed Lake as the most expensive, and therefore generating the most economic activity. First, as we have outlined in comments elsewhere, these relative costs do not survive a close examination, and should not be further promoted here. Second, this section describes the costs as “occurring over 30 years”. Looking closer, however, we see that the costs fall into two categories: those that will be incurred during the first 8 to 10 years for initial dredging and construction activities; and long term dredging costs that for the Managed Lake Alternative will not occur for about 30 years. For the first set of costs, the Managed Lake Alternative is not the most expensive, it is the least, by far. **These are the costs that should be evaluated for their economic impact.** The long-term costs, occurring 30 years from now, are based on a highly improbable scenario, as we have discussed elsewhere, and are likely to never materialize. The ultimate economic impact from these future speculative costs cannot be measured. The one true statement in this section is:

“Spending for the action alternatives would likely be funded using a mix of public dollars from a variety of sources, but the ultimate funding mechanisms and cost distributions have not yet been determined.” and “...the question of who pays, and how that might affect the regional economy or individual entities, is unknown.”

We couldn't have said it better.

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O14-2-13 Please see Table 2 in the Final EIS Summary for a summary of key findings regarding long-term impacts and benefits of the project across all environmental disciplines evaluated in the EIS, and proposed mitigation.

Please refer to Table 7.1.1 in Final EIS Supporting Chapter 7.0 for planning-level costs that provide a comparison in design, permitting and construction costs; and maintenance dredging costs across the project alternatives. As described in Chapter 7.0, there is inherent uncertainty in the quality of future dredged material, so planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events. The 30-year time horizon provides enough time for each of the alternatives to be constructed, established, and have a period of long-term management that can be evaluated. Potential cost variation within this time has been noted in Chapter 7.0.

Ecology has stated in the Draft Budd Inlet TMDL (June 2022) that the Estuary Alternative is the only alternative that can meet the waste load allocation because it would constitute a 'natural estuary' condition. This means that under the existing TMDL, if all other discharges are meeting their waste load allocations, that Ecology should not need to increase discharge requirements for LOTT and other utility discharges. Whereas, under the Managed Lake Alternative, Ecology would likely need to enforce a reduction in pollutant loading from other point and nonpoint sources that discharge to Budd Inlet. LOTT would likely need to remove additional nutrients from its wastewater discharge by investing in additional water treatment capacity sooner and this would result in additional costs to LOTT under the Managed Lake Alternative.

Regarding the commenter's question about the differences in the discussion/presentation of tribal values and cultural values in the Draft EIS, tribal values can typically be described in terms of the shared values of the tribes, whereas cultural values associated with the community at-large often cannot be described in terms of shared values. For example, page 4-188 of the Draft EIS describes that the Estuary and Hybrid Alternatives would enhance cultural values for populations that prefer the restoration of naturally functioning ecosystems, whereas the No Action and Managed Lake Alternatives would preserve values for people who prefer maintaining historical conditions. Tribal values are also addressed differently in the EIS due to the importance of tribal treaty rights and consideration of past inequities associated with management of the Capitol Lake Basin (see Section 4.14 of the Final EIS Supporting Chapter 4.0). See also Sections 3.9, 4.9 and 5.9 of Final EIS Supporting Chapters 3.0, 4.0, and 5.0 for the analysis of impacts on historic

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resources, which includes updates related to Washington State Department of Archaeology and Historic Preservation's determination of eligibility for historic resources in the Project Area. DAHP has determined that both the Capitol Lake and the Des Chutes Basin Project are not eligible for listing on the National Register of Historic Places.

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O14-2-14 One other part of this section that needs to be addressed is the inclusion of Table 4.14.2. This presents the same, flawed costs that we have seen over and over again throughout the Draft EIS. We have maintained previously, that no cost information is better than incomplete, unsupported, potentially inaccurate and misleading cost information. Endlessly repeating these erroneous tables will not make them any more true. We can only reiterate that here, and ask, **will you please remove these tables from the Draft EIS?**

In 4.14.3.2, Development in Downtown Olympia, the Draft EIS summary concludes:

“... all action alternatives are likely to produce benefits for downtown development, assuming they are implemented in a way that is attractive and accessible.”

O14-2-15 The key here is assuming implementation in an attractive way. We all know that “attractive” is in the eye of the beholder, but it appears to be nearly universally accepted that the barrier wall running the length of the North Basin will not meet any definition that includes “attractive”. The comment on the Hybrid reflective pool as a familiar feature, is negated by the imposition of the barrier wall as obstructing the views. **Therefore, it should be stated that the Hybrid Alternative may have a negative impact on downtown development.**

O14-2-16 In 4.14.3.3, Demand for and Value of Recreation, all active alternatives are rated similarly, although there is a brief mention of the low-tide limits for the Estuary, and presumably the Hybrid Alternative. We have raised several questions previously that need to be addressed here. **What is the maximum velocity at tidal change at the various constriction points, and how does that impact kayaking, canoeing and waterboarding? What percentage of the time will these activities be curtailed, both during high flow and also low water conditions? Will warning signs or restrictions be needed to ensure safe operations? How will restrictions be enforced? Shouldn't there be a distinction made between these limitations and the benign conditions for the Managed Lake Alternative?**

O14-2-17 In 4.14.3.4, Value of Ecosystem Services, there is one glaring error. This is the assignment of an **Adverse Impact** to the Managed Lake Alternative. The Draft EIS has failed to understand and acknowledge the natural effect of aquatic plants in removing a substantial portion of the Nitrogen entering Capitol Lake from the Deschutes River flow. This benefit of the lake is detailed in our Key Issue comments titled PASSIVE NITROGEN REMOVAL IN CAPITOL LAKE, and further in the general comments section for WATER QUALITY. Please review these two sections to be sure you understand this important water quality benefit that Budd Inlet realizes under the Managed Lake Alternative. Considering this feature of Capitol Lake, it should be characterized as having a **Significant Beneficial Impact** for utilities and their ratepayers. Further in this section, the Estuary and Hybrid Alternatives should be characterized as having an **Adverse Impact** for utilities and their ratepayers, because this Nitrogen removal capability will be lost without the lake. **Please make these changes to the impact statements.**

Later in this same section, it is asserted that:

O14-2-14 Planning-level costs have developed to evaluate economic sustainability and feasibility of the long-term management alternatives, which are key components of the project purpose and a criterial upon which Enterprise Services evaluated the alternatives during the decision-making process. The planning-level cost estimates were developed by civil, environmental and coastal engineers on the EIS Project Team and are considered a Class 4 Estimate, by standards established by the Association for the Advancement of Cost Engineering based on the preliminary nature of the design elements in the EIS process. Final EIS Supporting Chapter 7.0 describes that construction costs would be refined as design progresses.

O14-2-15 The analysis describes that the wall would create a potential loss of aesthetic value, but impacts would primarily be experienced when viewing the wall from the estuary-side (west side) of the basin, particularly from the water or trails. The barrier wall is less likely to be a dominant feature of views from downtown residences and businesses, and so is unexpected to influence the value of these views directly. The presence of the reflecting pool from these vantage points is much more likely to contribute to views than the barrier wall. However, as mentioned elsewhere in the analysis, while Capitol Lake is seen as an amenity, other amenities such as views of Puget Sound and Percival Landing Park have a greater influence in marketing of downtown development. Therefore, this feature of the Hybrid Alternative is unlikely to have any meaningful influence on downtown development.

O14-2-16 See the Global Response for Land Use, Shorelines, and Recreation for discussion of the differences in opportunities for water-based recreation amongst the alternatives.

See response to Comment O14-1-53 for discussion of maximum velocity of tides.

The comment is regarding how much recreational benefit the Estuary and Hybrid Alternatives would provide as compared to the Managed Lake Alternative. While the EIS provides general information regarding benefits from each alternative, it does not delve into the level of detail that this comment suggests. The Draft EIS does disclose that tidal currents would affect access at times under the Estuary and Hybrid Alternatives, but additional detail was not considered necessary at this time. It is possible that signage and safety regulations would be needed, but that would be determined at a later stage, if either the Estuary or Hybrid Alternative is selected for implementation.

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O14-2-17 Since release of the Draft EIS, Enterprise Services has remained in coordination with LOTT regarding potential impacts of the project alternatives, and other project topics. LOTT has continued to evaluate potential impacts of the alternatives and has adjusted its cost estimates for potential additional treatment requirements.

In June 2022, Ecology released the Draft TMDL for Budd Inlet that outlines waste load allocations for LOTT. Additional information has been provided in Sections 4.13 and 4.14 of Final EIS Supporting Chapter 4.0 to reflect this new and updated information. Table 4.14.3 has been updated to reflect the new information from Ecology, as follows: there would be a high likelihood that the new TMDL allocations could shift additional responsibilities for nutrient reduction to wastewater and stormwater discharges. LOTT would almost certainly need to invest in treatment capacity, with increased costs for ratepayers.

The Draft EIS identified potential impacts to LOTT as a significant under both the No Action and Managed Lake Alternatives; this has not been changed.

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"The overall economic value of increased habitat and diversity would likely be higher for the Estuary and Hybrid Alternatives, which would provide better habitat quality for species of commercial, recreational, and cultural value, especially salmon."

As we stated in our comments in the Fish and Wildlife section, there is strong evidence that juvenile salmon, reared in a freshwater environment such as Capitol Lake perform as well as those in a marine environment. Further, the increase risk of predation in an estuary with multiple compression points, and the presence of toxics from Budd Inlet into the newly created estuary, make it even more problematic to assert that an estuary is preferable to Capitol Lake for salmon enhancement. **Please correct this misstatement.**

And finally, in this section, we see once again the flawed conclusion that the Managed Lake Alternative exposes downtown Olympia to a greater flood risk during high river flow conditions. As we stated before, the long-established DES procedures to utilize the storage capacity of the lake, mitigate this flood risk. In fact, for all extreme river flow and high tide conditions, the Managed Lake Alternative has a lower risk of downtown flooding than either the Estuary or Hybrid Alternatives. **Please reverse this beneficial effect to favor the lake versus the estuary.**

In 4.14.4, What are the long-term impacts under the Managed Lake Alternative?, the Table 4.14.3 needs to be corrected to reflect the issues described above. **These include recreational opportunity, LOTT utility and ratepayer costs, and salmon enhancement.**

In 4.14.5, What are the long-term impacts under the Estuary Alternative?, the Table 4.14.4 requires the same corrections as previously described for Table 4.14.3. Additionally, in the last section of the table it is asserted that:

"The 5th Avenue Dam has altered the natural system and resulted in water quality changes that have harmed species, specifically salmon, as well as plants and other animals...".

What is the basis for such a claim? If none, this comment should be deleted.

In 4.14.6, What are the long-term impacts under the Estuary Alternative?, the Table 4.14.5 also requires the same corrections as previously described for Table 4.14.3. Additionally, **the aesthetic value comment should be changed to Significant Adverse Impact due to the imposition of an industrial-scale, 2600' sheet pile and concrete barrier wall through the middle of the North basin.**

In 4.14.7, What mitigation measures would be recommended or required for the three alternatives?, adequate funding and a long-term plan for functional governance are identified as important measures to be taken, especially for the Estuary and Hybrid Alternatives. **We maintain that these measures are so important that they must be established before a preferred alternative is selected.** Then after selection of the preferred alternative, and before the dam is removed, if that is the choice, the funding and governance must be legally agreed upon. If funding or governance should not materialize partway through the project for either of these two alternatives, we cannot go back and start over, or allow sediment to accumulate without removal. Once the dam is removed, there's no going back. We get no "do overs".

Short-term Economics, Chapter 5

O14-2-18 See the Global Response for Fish and Wildlife.

O14-2-19 Please refer to response to Comment O14-1-52.

O14-2-20 Comment noted; please see responses to specific comments. Please also note that edits have been made to this table in Final EIS Supporting Chapter 4.0 and the Economics Discipline Report as appropriate to reflect changes between the Draft EIS and Final EIS.

O14-2-21 The statement provided in this comment is an excerpt of what is included in Table 4.14.4, which reads: "The 5th Avenue Dam has altered the natural system and resulted in water quality changes that have harmed species, specifically salmon, as well as plants and other animals **that tribes depend on for economic, subsistence, and cultural purposes.**" (emphasis added)

The changes from estuarine conditions have been well documented, and the impact of this change to tribal populations has been understood through coordination with the Squaxin Island Tribe. Please also see Section 4.5 of Final EIS Supporting Chapter 4.0 for an analysis of the impacts and benefits of estuarine conditions to salmon. Please also see Section 4.11 for the visual resources analysis, which concludes that the barrier wall installed under the Hybrid Alternative would have a significant impact. Table 4.14.5 is summarizing the findings of a separate ecosystem services analysis.

O14-2-22 SEPA gives the lead agency wide discretion with regard to when and how to identify a Preferred Alternative. The Preferred Alternative can be identified at any time in the EIS process; and, early designation of a Preferred Alternative in no way restricts the lead agency's final decision. Enterprise Services identified the Estuary Alternative as the likely Preferred Alternative in early 2022 based on an evaluation of the alternatives against decision-making criteria. Identifying the likely Preferred Alternative allowed the Funding and Governance Work Group to reconvene and consider how to provide shared funding and governance for long-term management. Enterprise Services described in early 2022 at this milestone, that if long-term funding and governance cannot be established, decision-making may need to be revisited. The Funding and Governance Work Group has met continuously throughout 2022 to advance the agreement for shared funding and governance for long-term management. A Memorandum of Understanding has been developed to outline areas of agreement, and to demonstrate an ongoing commitment to long-term management and funding. Please refer to

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Final EIS Supporting Chapter 7.0 for a summary of the agreement reached regarding shared funding and governance of long-term management.

Please also see Appendix 23 for the Memorandum of Understanding that has been executed among the Funding and Governance Work Group for shared funding for increased maintenance dredging under the Estuary Alternative and governance of the constructed assets. The Memorandum of Understanding serves as a bridging document to a future, binding Interlocal Agreement.

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A review of this section reveals two general conclusions that are demonstrably wrong. The first is that construction impacts will have little to no impact on economic activity in Olympia and the surrounding area. Second is that there is essentially no difference in any economic impacts among any of the alternatives. Section 5.14.2.2 states:

“Impacts on development in downtown Olympia from construction activities are unlikely to differ based on the alternative selected, and temporary disruption from construction is unlikely to have a meaningful effect on the market for downtown development. No impact is anticipated from construction activities on current or future development in downtown Olympia.”

We disagree.

Disrupting the major east-west traffic corridor, for up to 8 years, will most certainly impact commercial activities in the Downtown area. Brief disruptions have little impact, but years-long disruptions can cause more permanent changes in traffic and shopping patterns. Downtown Olympia has struggled for many years with developing a robust city core. The exodus to the westside commercial areas, traffic and parking problems, the impact of the Nisqually earthquake, lack of affordable housing, and most recently the homeless issues, have made this struggle difficult over the years. However, some progress has recently been made, especially with the increase in specialty stores, more affordable and market-rate housing and the addition of amenities like the Farmer’s Market, Percival Landing and the Port Plaza. However, traffic remains a significant issue, and up to 8 years of disruption will be significant.

Have you reviewed the loss of economic activity that occurred when the Fourth Avenue Bridge was replaced in the early 2000’s? Have you considered the impact on north-south travel from Tumwater to Olympia via Deschutes Parkway for an extended period? Or have you considered the connection from areas West of Olympia to the Port area? And what about the connection from the Courthouse to downtown Olympia?

These construction impacts may not cause developers to eliminate future activities in the Downtown area, but they may well decide to put them on the “back burner” for a while until this gets sorted out. And there is also the likelihood that the extended construction activity for the Estuary and Hybrid Alternatives will significantly impact the marinas, recreational boating, Percival Landing and other West Bay activities, translating directly to economic losses. And, finally, the duration of the disruption could result in the permanent closure of business and marinas.

Moving now to the second Draft EIS conclusion, is it reasonable to expect that all the alternative construction impacts will cause the same, minimal disruption and potential loss of economic activity? Does a couple months of repairs to the Fifth Avenue dam equate equally to 6 to 8 years of major construction at the bottleneck between Downtown Olympia and the Westside? We all know the answer to that question, yet Tables 5.14.2, 5.14.3 and 5.14.4 all show exactly the same description of impacts and effects for the three active alternatives. If the labelling (and rating) system that is used in this analysis cannot differentiate between a 7 week and up to a 400+ week construction period, then shouldn’t it be replaced with one that can? And in any case, the current labelling system should not be used for rating the various alternatives.

Other comments on this section, Short-term Economic, Chapter 5, include the following:

O14-2-23 Regarding the 5th Avenue Bridge disruptions to east-west and north-south routes, see the Global Response for Economics.

Most of the disruption associated with construction activity for the Estuary and Hybrid alternatives would occur in the Capitol Lake basin. Adverse impacts from construction on marinas, recreational boating and other activities in West Bay are not anticipated. See Section 5.14 of EIS Supporting Chapter 5.0 and the Economics Discipline Report (Attachment 18) for more information.

Uncertainty related to potential disruptions during construction could conceivably increase the likelihood a developer may put major investment decisions on hold but such impacts tied to this project would be speculative; delays in investment could be more likely if trends in other market factors similarly suggest caution. However, given the project changes (the new approach to 5th Avenue Bridge replacement) that minimize impacts to transportation through downtown, disruptions that would result in measurable adverse impacts in the overall trend of investment in downtown Olympia are unlikely.

O14-2-24 Final EIS Supporting Chapter 5.0, Section 5.14, has been updated to reflect the new approach to 5th Avenue Bridge replacement under the Estuary and Hybrid Alternatives, which avoids a long-term closure of the bridge. See the Global Response for Economics for more information on the changes in the Final EIS.

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O14-2-25

- Although it's appropriate to include Table 5.14.1 as part of the analysis for this section, the costs included need to be modified to reflect our comments in the Construction Section. Our analysis showed that the Managed Lake Alternative costs were overestimated, while Bridge and Deschutes Parkway costs for the Estuary and Hybrid Alternative were grossly underestimated. Correction of these costs will further demonstrate the disparity between the alternatives.
- The true impact on Olympia area economics is obscured for all alternatives by the inclusion of initial dredging costs in the analysis. This initial dredging will take place primarily in the North Basin, away from any direct impact on economic activity, which is mainly due to the disruption of the major east-west traffic corridor. Limiting the analysis to only the actual construction activities will also further demonstrate the disparity between the alternatives.
- A similar situation exists for Recreation impacts from construction activities, and their impact in turn on economic activities. This should not be minimized. Recreation activities are one of the main draws for visitors and locals alike, and this brings additional economic benefit to the downtown area.
- It is important to recognize that all people do not see the duration of the disruption and resultant impact on economic activity through the same lens. While some in the Gen-X or Millennial generations might see this multi-year activity as "short term", to others in the Baby Boomer generation, this may seem like a "lifetime".

LEGAL FUNDING OBLIGATIONS OF WORKING WATER FRONT BUSINESSES

The Legislature required the DES to incorporate the Economic Impacts of the Project to both the State controlled area and the surrounding Community directly impacted by the Project. The Port of Olympia and the Working Waterfront businesses were specifically named in this direction from the Legislature.

Economics and cost sharing of proposed impacts will depend on the legal and contractual obligations with the impacted property owners. The assumptions made by the DEIS in cost sharing and decision making is not consistent with current Federal, State and local business contracts.

The DEIS makes several conflicting general statements that leave this issue with no guidance to who will be making the final decisions on the selection of the preferred alternative. In one statement, the DEIS suggests that the State will be responsible for funding the selected project. Later in the DEIS they suggest that the COE must complete a pre dredge and then an every 5 to 6 year maintenance dredge for the Estuary and Hybrid Alternative to function as described.

In other discussions they suggest shifting the future maintenance to the downstream marinas and the Port/COE. They do not mention the City of Olympia's Percival Landing Harbor, with a moorage area as large as three of the marinas. They do not mention that all of this area is owned by the State/DNR with 30 year contracts that are limited by existing State Law on how the annual Lease Fees are determined, and that half of the marinas just signed a new 30 year lease with DNR.

There is no information from the COE that they are in agreement with the proposed Alternative designs and that they will accept Federal responsibility to fund and implement the "assigned DEIS responsibilities". **QUESTION: How did the DES and the Consultant Team determine that the State could**

O14-2-25 Detailed information on the planning-level cost estimates was posted to the project website during the Draft EIS comment period, in response to comments received on the Draft EIS and to provide opportunity for closer review by engaged stakeholders.

Planning-level cost estimates for construction were developed based on costs to construct the primary elements of each alternative, including dredging, habitat areas, work at the 5th Avenue Dam (as needed for each alternative), and installation of the boardwalks, etc. Dredging is a primary project component and therefore, must be included in planning-level costs that estimate construction spending.

In response to this, and other comments related to disruption associated with the multi-year closure of the 5th Avenue Bridge described in the Draft EIS, the Estuary Alternative has been modified to avoid the long-term closure. The Final EIS includes additional mitigation measures to address this impact. See the Global Response for Transportation and the Global Response for Economics for more information.

O14-2-26 Please see Final EIS Supporting Chapter 7.0 for a description of the funding approach. Please also see Attachment 23 of the Final EIS for the Memorandum of Understanding for shared funding from the Funding and Governance Work Group for increased maintenance dredging under the Estuary Alternative.

During development of the Draft EIS, Enterprise Services engaged the USACE (and Port of Olympia, among other resource agencies) as part of the Technical Work Group to review regulatory feasibility of the action alternatives. In response to comments on the Draft EIS, Enterprise Services also met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, the change to sediment conditions in West Bay was described; maintenance dredging was proposed to avoid significant impacts to navigation; and historic dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary was acknowledged. Under the Estuary Alternative, maintenance dredging is estimated to occur at an approximately 6-year frequency, though dredging in the Federal Navigation Channel and turning basin is only estimated to be needed at an approximately 12-year frequency. It should be noted that the average dredge frequency of the Federal Navigation Channel and turning basin in the Deschutes Estuary, before construction of the 5th Avenue Dam, was approximately 11-years. Additional coordination would occur with the USACE as part of the federal permitting process.

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O14-2-26 | **legally transfer significant project costs to others without their concurrence, and then reduce the assumed cost transfer from the Alternative Total Project Cost?**

O14-2-27 | **Direct cost assignment transfer versus state financing:** The DEIS fails to provide clarity of total costs of the Alternatives and then separate the cost of the total Alternative and then legally assign costs to others. The transfer of State costs to others, legally approved by the Legislature would have a very significant negative impact on the future of Downtown Olympia and its current waterfront environment. The shift in funding most likely would result in a shift from an active family oriented and commercial waterfront to a "tidal estuary passive environment" associated with a Tidal Estuary where only passive use of the waterfront would be the focus.

O14-2-28 | Another cost and economic impact that the DEIS did not adequately address was the indirect cost impact of the construction project projected to last up to nine years under the Estuary or Hybrid Alternative. A nine year disruption of the East-West major Olympia Arterial and all of the attendant costs to the business and routine land travel is a major consideration. The daily life for many of the Olympia and Thurston County residents over a nine year construction period will have a real cost. Daily business at the County Courthouse and the cross town transportation will be disrupted by the Estuary or Hybrid Alternative—as compared to a one year disruption by the Managed Lake Alternative. This was not adequately defined by the DEIS.

O14-2-29 | **Loss of boating waterfront:** The DEIS assumed the high cost transfer to the marinas and others would be a new cost of community use of the marine boating waterfront. This includes the City's Percival Landing harbor, the four private marinas, the Anthony's/Port Plaza public marina, and the Port of Olympia. The potential loss of the boating waterfront due to these new, high costs, would impact the many Community Celebrations with a waterfront focus along with the disruption or ending of the small commercial boating enterprises and family recreation that is linked to boating.

O14-2-29 | An example of this cost shift in the DEIS for the Estuary Alternative is their "footnote shift of \$18 million for each routine dredge obligation to working waterfront without recognizing that the State/DNR is the owner of this land. Most of the marinas have a 30 year lease with the owner of the land—the DNR. These DNR marina leases are adjacent to the Federal navigation channel where the DEIS propose for the Estuary Project to require the COE to complete a maintenance dredge every five or six years to keep the navigational channel open for commercial and public boating use and to protect the Estuary sediment carry over from being contaminated by the Budd Bay Legacy Pollutants.

O14-2-30 | The 30 year DNR marina land leases are for a small part of the harbor (typically about 300 feet by 300 feet) and obligate the leaseholders to maintain/dredge their leasehold, with the State and the COE obligated by Federal law to keep the navigational channels open. The DNR annually receives significant lease fees from each of these small land leases from each of the marinas while the DNR uses these funds for other purposes than to maintain the sites for the intended use.

O14-2-30 | **State law controls DNR lease fees for marinas:** Separate from the legality of the proposed new obligation proposed by the DEIS, the projected cost in the DEIS as a new obligation on the marinas that could put the marinas out of business, is a significant negative impact to the Olympia boating water front.

O14-2-27 | Please see Final EIS Supporting Chapter 7.0 for a description of an agreement among members of the Funding and Governance Work Group for shared funding of maintenance dredging of the increased sediment under the Estuary Alternative. Maintenance dredging is proposed to avoid significant impacts to navigation and to maintain a vibrant, working waterfront and recreational boating in West Bay.

O14-2-28 | See the Global Response for Transportation and the Global Response for Economics for information on how the description of impacts and mitigation related to the 5th Avenue Bridge closure has been updated in the Final EIS.

O14-2-29 | Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

O14-2-29 | The \$18M reported in Table 7.1.1. of the Draft EIS was associated with maintenance dredging that would occur over a 30-year time horizon under the No Action Alternative; this is not estimated as the cost of each dredge event under the No Action Alternative as suggested in this comment.

O14-2-29 | Please see the updated Table 7.1.1 in the Final EIS. The Funding and Governance Work Group would provide funding for maintenance dredging of the increased sediment from the Estuary Alternative; and costs associated with dredging equivalent to the No Action Alternative are expected from the Port of Olympia and private marinas. This framework would not shift cost to the private marinas; instead, it would provide funding for dredging at the marinas to maintain a vibrant, working waterfront and recreational boating in West Bay. Please see Final EIS Supporting Chapter 7.0 for more detail on planning-level costs and the anticipated funding approach. Please see Attachment 23 of the Final EIS for a Memorandum of Understanding that outlines the proposed funding and governance approach.

O14-2-30 | Please see response to Comment O14-2-29.

O14-2-30 | Enterprise Services and DNR have been engaged with the private marinas during development of the Final EIS to discuss results of the hydrodynamic and sediment transport numerical model, maintenance dredging approach, and shared funding for maintenance dredging at the marinas.

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Since the routine maintenance dredge required for the Estuary Alternative would be a State requirement, the State or the City of Olympia could assume the financial obligations of the maintenance dredge of the navigational channel as an "environmental mitigation" annual cost consistent with the Estuary project objectives.

O14-2-32

A more comprehensive review by the Consultant to addressing an approach that builds on an "adaptive management and decision process" is needed. Such an adaptive approach is typically part of all well engineered projects. An Adaptive Management approach combined with phased implementation would help the Legislature and the public proceed to a more informed decision process. This Adaptive Management Approach will both reduce the chance of making a major error in decisions, and provide a much more achievable implementation and funding strategy.

More strategically presented, the State and the local community could participate in the refined evaluation to establish with a degree of confidence, rather than an emotionally driven hopeful vote without the facts being known. The selected Alternative could then be implemented in a definable future; sooner rather than later.

Specific questions for the consultant: All of the following questions are related to the potential of the State and Consultant shifting project costs to the working waterfront.

1) **COE concurrence of project design:** Did DES and the Consultant obtain written review and concurrence from the COE on the dredging proposal in all three Alternatives?

2) **Pre dredge and deep water vs upland marine sediment disposal:** The DEIS requires the COE to dredge the Port Turning Basin prior to the initiation of the Estuary and Hybrid Alternatives on the premise that the Estuary Project maintenance dredges will only remove clean Deschutes Watershed sediment every five or six years. They project that these dredges could then be disposed of in a deep water location at a much reduced cost. However, with the big ship and tugboats constantly "mixing the sediments" in the surrounding areas, and the twice daily tidal actions moving water into the Lake Basin, it is unlikely that all the sediment will qualify for deep water deposit. **How does the Consultant conclude that a "quiescent stratification of new sediments over a six year period will occur"?**

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3) **Who pays for pre dredge and on what schedule? What is the projected cost of the COE pre dredge and then a maintenance dredge every six year with upland disposal? This is a project cost. Only as a tacit agreement by the COE to pay for this cost would the cost to the State be reduced.**

4) **Use of navigational channel by city and port transient moorage:** The DEIS did not acknowledge the City's Transient Marina at Percival Landing and the Ports Transient Marina near Anthony's. Both of these marinas rely on the COE's navigational channel for commercial uses. **How has the Consultant factored in the City and Port use of the navigational channel and confirmed the DNR requirements for maintenance of these leaseholds?**

5) **Marina and DNR 30 year contracts:** The marinas are assessed both a DNR lease fee and County property tax for their designated leasehold. This also includes an annual leasehold tax and then they are obligated to maintain their leasehold, including dredging their leasehold. **How did the Consultant differentiate the marina's current legal contract obligation with the State/DNR and determine that the Estuary Project could unilaterally assign new costs as a result of the State changing the basis on which these 30 year leases were issued?**

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O14-2-31 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

O14-2-32 This response acknowledges the commenter's position.

The characterization of impacts and benefits provided by the Draft EIS and Final EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives. The Draft EIS and Final EIS describe the goals and anticipated outcomes for adaptive management but does not prescribe specific management activities which are more appropriately defined in coordination with the regulatory agencies during permitting, and as performance standards are established in the design process. Integral to this approach is adapting management practices after construction, as needed, to meet performance standards and permit conditions.

It is also acknowledged that the planning process has been underway for several decades and a decision-making process has been established, in consultation with engaged stakeholders, to identify a Preferred Alternative and move the project toward implementation. Please also note that of the engaged stakeholders that provided input into the decision-making process (including the cities of Olympia and Tumwater, Thurston County, Port of Olympia, LOTT, Squaxin Island Tribe, and the Community Sounding Board) the Estuary Alternative received the broadest support, by a large margin.

O14-2-33 1) During development of the Draft EIS, Enterprise Services engaged the USACE as part of the Technical Work Group to review regulatory feasibility of the action alternatives. In these meetings, the change to sediment conditions in West Bay was described; maintenance dredging was proposed to avoid significant impacts to navigation; and historic dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary was acknowledged. In response to comments on the Draft EIS, Enterprise Services met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, Enterprise Services described that the Estuary Alternative would restore sediment loading, similar to conditions that existed before the 5th Avenue Dam was constructed. For many decades before 5th Avenue Dam construction, the USACE dredged the federal navigation channel to support commercial navigation at the Port of Olympia. Formal engagement with the Corps will occur during the design and

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permitting phase, which will occur following issuance of the Final EIS pending funding availability.

2) As described in Final EIS Supporting Chapter 7.0, before future dredge events, sampling for chemical quality and invasive species would occur, in coordination with the DMMP, to confirm suitability of the dredged material for in-water disposal. Because there is inherent uncertainty in the quality of future dredged material, planning-level costs are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events. Please also see additions in the Final EIS Summary and Final EIS Supporting Chapter 7.0 that describe dredging of known contaminated sediment in Budd Inlet as the responsibility of the Port of Olympia.

3) Remediation in lower Budd Inlet is a critical part of the ongoing effort to improve health of the Deschutes River Watershed; but it is a separate project from the long-term management planning for Capitol Lake-Deschutes Estuary. The Port's remediation project is required by the Model Toxics Control Act to restore the health of the marine environment, and to protect the health of consumers of fish and shellfish; whereas, the Capitol Lake-Deschutes Estuary long-term management project is being implemented to improve water quality and ecological functions, to restore active community use, and to manage future sediment deposition. Based on coordination with the Port of Olympia through the EIS process, it is assumed that dredging to remediate known contaminated sediment and restore authorized dredge depths in navigational areas of West Bay will occur within the next 10 years. This timing would ensure that those actions were taken before removal of the 5th Avenue Dam. Costs for that separate project are not included in the planning-level cost estimates for this project. Please see Chapter 7.0 for a figure that generally describes when the work will occur and the anticipated durations.

4) The Memorandum of Understanding, provided as Attachment 23 of the Final EIS, describes the approach for dredging at Percival Landing and the Port Plaza. As described in the Memorandum of Understanding and in Chapter 7.0, the Funding and Governance Work Group would provide funding for increased maintenance dredging under the Estuary Alternative.

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6) **Another alternative for in basin (upper) Capitol Lake sediment disposal:** All three Alternatives provide for the early dredging of the North Basin with in-basin sediment disposal. The DEIS projects placement in expensive "cells" to prevent erosion from Deschutes annual high water flows. A simple low cost alternative exists. A semi-permanent hydraulic dredge arrangement to pump the sediment to the state's six acre "borrow pit area near both Percival Creek and the railroad tracks would enable a simple hydraulic dredge of the North Basin with dewatering at the "borrow pit". When the dewatered sediment is full, the sediment pond would be loaded onto nearby train cars that would travel within the basin to open land near the train tracks in the Deschutes Watershed above Tumwater Falls. Permanent farm land could be purchased for routine disposal, thus retaining all of the sediment in the basin if the NZMS is documented as a true concern. **This simple alternative would eliminate most or all of the expensive "containment cells" for all of the North Basin dredges to reduce the cost of this first phase of the project. Seasonally managed, it would also substantially reduce the cost assigned to "Standby during Work Window Closures".**

Question: did the Consultant consider this sediment disposal alternative? If so, what was the cost comparison and cost savings throughout the life of the Managed Lake Alternative and the cost savings for the initial dredge of the North Basin for the Estuary Alternative?

The DEIS analysis has some significant errors, omissions, and misleading conclusions that when corrected, the DEIS first step could lead to a much improved analysis. **Additionally, a refined Adaptive Management approach will both reduce the chance of making a major error in decisions, and provide a much more achievable implementation and funding strategy. More strategically presented, the State and the local community could participate in the refined evaluation to establish with a degree of confidence (rather than a hopeful vote) that the selected Alternative will be implemented in a definable future; sooner rather than later.**

We look to additional comments from the Chamber of Commerce and the Economic Development Council to review the impact on the Community and the working waterfront. We have provided our engineering and environmentally based assessment on how the DEIS has erred. We are also providing a suggested way forward so that the "State doesn't kick the can down the road one more time."

5) The EIS Project Team and Enterprise Services, in coordination with DNR, have reviewed all marina leases as part of the work to develop a funding framework and to support engagement with the marinas as the Final EIS was developed. The marina leases define a minimum water depth that must be maintained through dredging. Dredging would be required under existing conditions, No Action Alternative, or under any long-term management alternative. The funding approach outlined in Final EIS Supporting Chapter 7.0 is for the private marinas (and USACE and Port of Olympia) to provide a funding contribution consistent with maintenance dredging under the No Action Alternative. This allows funding to be equal across all alternatives, avoiding an increase in maintenance costs to these entities as a result of the Estuary Alternative. Importantly, funding for maintenance dredging consistent with the No Action Alternative will be an increase compared to historic dredging costs given new DNR lease conditions that require lessees to maintain specified minimum water depths within the marinas.

6) Please see response to Comment O-17-1. Sediment dredged during construction will be entirely or mostly reused within the Project Area to create wetland and shoreline habitat. This beneficial reuse avoids construction costs associated with hauling the material offsite, which is suggested in this comment.

Enterprise Services developed a decision-making process that considered a wide range of information, including performance against project goals, other environmental impacts and benefits, environmental and economic sustainability, construction impacts, and feedback from engaged stakeholders (referred to as Decision Durability). The decision-making process was reviewed with the Executive and Technical Work Group, and the Community Sounding Board and refinements were made following this coordination. Please refer to Attachment 21 which provides more detail on the decision-making process and the findings from this evaluation.

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APPENDICIES

1. CAPITOL LAKE PROTECTS BUDD INLET'S WATER QUALITY.

Assessment of Water Discipline Section 4: Affected Environment [AE].

By David H. Milne, PhD. (Faculty Emeritus, TESC, Environmental Studies.)

August 29, 2021

My questions challenge the widespread view that Capitol Lake degrades water quality (specifically dissolved oxygen) levels in Budd Inlet. That mistaken view is entirely based on WDOE's interpretations of outputs of a computer simulation model, modified in various ways to simulate different scenarios. Essentially the outputs have been interpreted by personnel who are not aquatic ecologists, and certain critical simulations (such as the ecosystem behavior of nitrogen nutrients and the effects of Moxlie Creek by itself on East Bay) have been avoided.

The premise toward which all of the following questions and discussion are aimed is to support this opposite view:

**Capitol Lake safeguards water quality in Budd Inlet
and prevents it from getting worse.**

In the following, **Questions** for the DEIS analysts about DEIS statements or omissions are in **Boldface**. Italicized text that follows provides illustrative reasons for the questions. **Conclusions**, where presented, are in **Boldface** at the ends of the italicized text.

Section 1. Questions about Modelling and Observations.

- 1-1. **Please review Ecology's exhaustive computer modeling of the contribution of phosphorus to Budd Inlet water quality and determine whether it is actually relevant to the evaluation of the Lake and Estuary alternatives.**
Phosphorus is the limiting nutrient in most lakes; Ecology's modelers have apparently assumed that that is also the case in Capitol Lake. That is not true. In most lakes, nitrogen would be the limiting nutrient, except that their blue-green algae add so much nitrogen nutrient to the water via their fixation of atmospheric N₂ that phosphorus becomes the nutrient in shortest supply.

O14-2-34 The Water Quality Discipline Report includes a review of Ecology's modeling studies in Section 4.1.5, all of which were considered in evaluating project alternatives. As summarized in the EIS, the Deschutes River TMDL modeled total phosphorus and total nitrogen to develop allocation targets for these nutrients as a means of improving DO conditions. Section 4.1.5.3 of the Discipline Report describes how Ecology performed additional modeling of different Capitol Lake management scenarios, including alum treatment to control phosphorus. Section 4.1.4 provides a phosphorus budget for the lake that includes phosphorus data and findings from Ecology's studies. Section 4.1.5.4 summarizes how in the Draft Budd Inlet DO TMDL, Ecology evaluated the impacts of removing the Capitol Lake Dam on Budd Inlet with modeling that focused on total organic carbon and dissolved inorganic nitrogen as drivers of oxygen depletion.

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Both Budd Inlet and Capitol Lake are nitrogen-limited – the latter apparently due to flushing of blue-green algae from the Lake by the Deschutes River flow-through. The fact that Capitol Lake is nitrogen-limited is mentioned in the CH2M-Hill consultants’ report (1978) and can be seen at a glance in WDOE’s own ____ Report (2012). WDOE’s exhaustive modeling of P, always showing no effects whatsoever on DO levels in Budd Inlet, contrasts with the fact that (to my knowledge) Ecology has never modeled the effects of N on Budd DO levels. This massive focus on irrelevant P has diverted attention from the critical importance of a veritable tonnage of N, delivered to Capitol Lake by the Deschutes River.
**[The figures that show this are in the 2012 TMDL report. Two box-plot portrayals of nitrogen and phosphorus levels proceeding upstream from the dam, the leftmost two in CL itself. The lowermost 25% of measurements (“whiskers”) at the bottoms of those boxes reach zero in the N figure, don’t reach zero in the P figure. The zero readings, which could be as many as 25% of all measurements, identify the limiting nutrient. I can’t find my copies for inclusion here.]*
 (Thurston Co. Health Dept. Water Resources)

O14-2-35 This question pertains to work completed by the Washington State Department of Ecology, rather than the independent water quality analysis conducted for this EIS.

O14-2-36 This question pertains to work completed by the Washington State Department of Ecology, rather than the independent water quality analysis conducted for this EIS.

O14-2-37 This question pertains to work completed by the Washington State Department of Ecology, rather than the independent water quality analysis conducted for this EIS.

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1-2. **What observational data are provided by Ecology to support the claim that “pulsed flow” from the dam affects water quality in Budd Inlet (DEIS page ____)?**
Budd Inlet resembles a classic estuary with a “fjord” at its head; that is, a topography with a shallow sill (the dam) blocking its headward extremity. High tides a foot or so above MSL regularly pour over the sill headed landward, outgoing water is blocked when the level drops to the top of the dam. (Unlike a natural fjord, Capitol Lake has a siphon in the deepest part of the North Basin that drains salt water back under the dam to Budd Inlet. This helps to prevent the formation of anoxic bottom water in the Basin.) There is nothing about this topography that creates “pulsed flow.” During spring, summer and fall, water pours steadily over the fish ladder (“top of the sill”) at a rate matching the incoming Deschutes River flow to the south. The main dam gates are never opened except to lower the Lake level during winter episodes of heavy rainfall to prevent downtown flooding. This creates a rush of water into Budd Inlet for two days or so that substantially exceeds the swollen River input. This may be episodic during prolonged periods of rainfall. But the muddy floodwater thus released hugs the western shore as it exits Budd Inlet (never swerving over to East Bay) and in any event these winter episodes can’t possibly influence water quality during the growing season. “Pulsed flow” is Ecology’s attempt to move the dam/estuary conversation from nutrient considerations to water dynamics, where data accessible by critics is much more difficult to locate and analyze. Real observable data supporting this idea are never cited by WDOE.

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1-3. **What observations support the idea that Capitol Lake is detrimental to water quality in East Bay?**
East Bay is used as a surrogate for “all of Budd Inlet” by WDOE. Almost all of the claims that the Lake affects East Bay are based on computer simulations that “show” East Bay “worse” with the Lake in place than without it. No physical mechanisms are ever offered that describe how water leaving the Lake might circle the Port Peninsula and enter East Bay, or how water leaving the Lake might obstruct water entering or exiting East Bay either along the bottom at the surface, or how any other plausible observable measurable process connects the Lake with East Bay.

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1-4. **What observations support the idea that East Bay’s local intrinsic properties are not the cause of its seasonal low bottom water oxygen levels?**

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East Bay's Moxlie Creek has one of the highest concentrations of nitrogen nutrients of any stream entering the entire South Sound. The Creek has a very low flow, driving in turn a very slow, sluggish estuarine circulation with consequent long water residence time in East Bay. The LOTT outfall crosses the mouth of East Bay, creating a rising curtain of fresh water that may itself impede flushing and rejuvenation of the Bay's water. Why are these factors not responsible for East Bay's internal low DO episodes during late summers?

Section 2. Challenging Ecology's Computer Simulation Model TOC Claim. (This Section analyzes WDOE's model findings as background for the main **(boldface)** conclusion which precedes the analysis.)

The central flawed claim – that Capitol Lake impairs Budd Inlet's water quality – is based on the computer simulation whose output is shown below. The output is said to show that Capitol Lake transfers more TOC (Total Organic Carbon) to Budd Inlet than would be transferred by a replacement estuary.

Wrong.

Conclusion (in advance). The amount of TOC transferred to Budd Inlet each year is exactly the same, whether its origin be the Lake or the Estuary. The key difference is, the Estuary would transfer a large dose every day of the growing season, whereas the Lake transfers almost all of the season's TOC production at once, in late October/early November after the growing season is over.

(Introduction.) Ecology's claim that Capitol Lake puts more total organic carbon (TOC) into Budd Inlet during the growing season than a replacement estuary would do is based on the output of a computer simulation model. The Figure by WDOE showing that model's output is the oft-cited centerpiece of that flawed claim (Figure 1; shown in the DEIS as Figure 4-14, page 4-38, Water Quality Discipline Report).

The upper graph shows the concentrations of TOC in the water said by WDOE to be entering Budd Inlet from the Lake (ragged green line) or from a proposed estuary (ragged blue line) each day from January 25 to about September 15. Those amounts were *calculated* by a computer simulation of photosynthesis in those water bodies. The "pink dots" show concentrations of TOC that were *actually observed* in the Deschutes River near where it enters the south end of the Lake basin on 23 different dates.

The lower WDOE graph shows the concentrations of DIN *calculated* to be entering Budd Inlet from the Lake (green line) or an alternative estuary (blue line). The "pink dots" in that graph show concentrations

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of DIN observed in the Deschutes River where it enters the Lake basin, on the same 23 dates when the TOC entering the basin was measured.

Excess DIN is the great enemy of good water quality (that is, high bottom water oxygen levels). The lower graph shows little or no DIN escaping to Budd Inlet during late summer in the Lake alternative (green line) but a veritable firehose torrent of DIN escaping to Budd Inlet in the Estuary alternative (blue line) all summer long. Ecology's preference is to redirect attention to the upper graph, where interpretation appears to favor their claim – but in reality it does not.

The green and blue lines on the upper graph show the amounts of TOC calculated for every day in the range of calendar dates shown. That is, for every day in that entire interval the lake (green) TOC line shows the calculated amount that is said to be present at the dam and therefore poised to go over it into Budd Inlet, while the estuary (blue) TOC is the calculated amount that is said to be present at the same place and therefore also poised to leave the lake basin to enter Budd Inlet, in that case with no dam present.

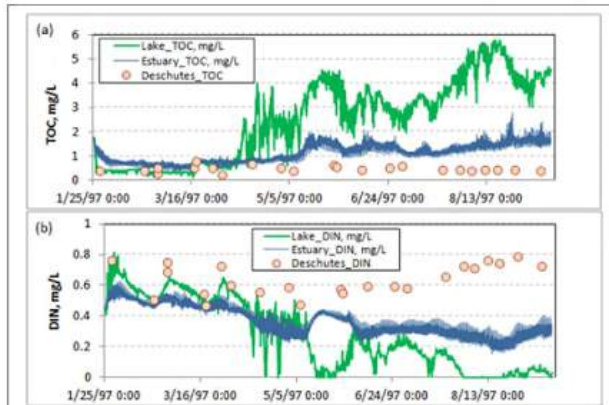


Figure 11. a) Total organic carbon (TOC) and b) dissolved organic nitrogen (DIN) concentrations at the position of the Capitol Lake dam under the Lake (with the dam) and Estuary (without the dam) scenarios compared with concentrations in the Deschutes River at E Street. [This Caption is Ecology's wording accompanying this graph in the document where it was presented as "Figure 11". Underlined text shows WDOE's error for the Lake case, highlighted by me.]

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Figure 1. Computer simulation outputs predicting TOC formation and DIN uptake, used by Ecology to claim that the Lake puts more TOC into Budd Inlet than would a replacement estuary. DEIS Figure 4-14, page 4-38, Water Quality Discipline Report.

Ecology's upper graph shows the Lake TOC (green line) is always higher than the Estuary TOC (blue line) during the late spring and summer. *That is the reason why the claim is made that the Lake puts more TOC into Budd Inlet than would an Estuary.*

I used the observed data shown in the graphs (the "pink dots") and Ecology's method of calculation (see Column F, Table 1 below) to present the results of the computer's calculations in a different format. *That alternative format helps to show why Ecology's claim is mistaken and misleading.*

(Methods) I displayed enlarged images of the graphs on a computer screen using Photoshop. I measured the horizontal and vertical distances of the "pink dots" from the origin. From the graph scales, I determined the dates on which those observations were made and the amount of TOC or DIN actually observed on each date. On those same dates, I also measured the heights of the green and blue graphs (x-axis to the top of the graph) and determined from those measurements the concentrations of TOC and DIN calculated by the computer for each of those dates. Using Ecology's formula converting DIN uptake to TOC created ($TOC = 7 \times DIN$) I calculated the amount of new TOC that would result from uptake of the observed concentrations of DIN. The values I obtained are shown in Table 1 at the end of this section.

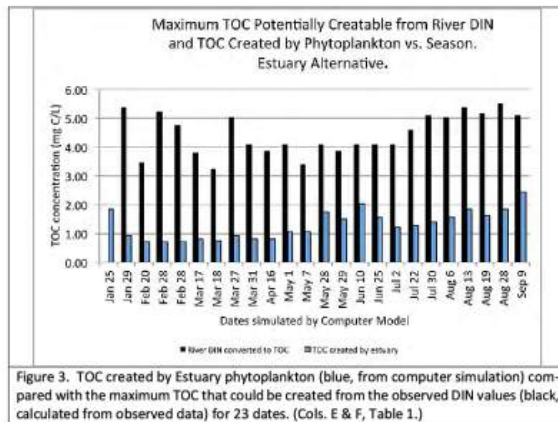
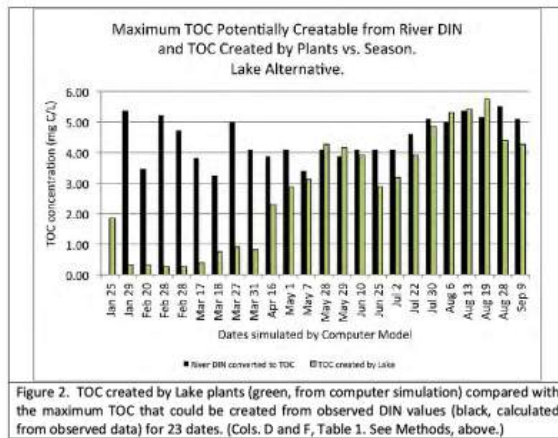
(Results) My alternative portrayals of the Ecology TOC calculations are shown in the bar graphs below (Figures 2 and 3). In both graphs, the black bars (carbon creatable from total uptake of the observed DIN (Col. F Table 1) are the same. Each black bar shows the maximum *potential* TOC that *could be created* if the photosynthesizers succeeded at taking up *all* of that day's observed available DIN.

The colored bar next to each black bar shows the computer's calculation of how much TOC was *actually created* by plants on or near that day. The green and blue bars [from Cols. D and E, Table 1] show the same values as the tops of the green and blue lines on those dates in WDOE's TOC graph (Figure 1 above). Where the black bar is much longer than the colored bar (Lake and Estuary simulations, early spring) the plants did not succeed at converting very much DIN to carbon while the water was moving through the basin. Where the colored bar is about as long as the black bar or longer (Lake simulation, growing season) the plants used up *all* of the available DIN during those days and converted it to carbon before the water reached the dam.* * See end note, this section.

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(Discussion.) Estuary Alternative. The phytoplankton in the estuary *never* succeed at converting all or even half of the DIN available into TOC before the water escapes to Budd Inlet. The escaping water carries enough DIN to more than double the amount of TOC created in the estuary itself past the dam site and out into Budd Inlet. Conversion to TOC of all of the DIN entering Budd Inlet will continue after that escaped DIN enters the Inlet, within the next day or two.

But that is outside the simulation region – “beyond the computer’s view,” so to speak. Tally up the TOC that forms in the inlet just beyond the simulation boundary and the result, a day or so after the estuary water escapes, is that just as much TOC is delivered to Budd Inlet as the Lake is claimed to create, each day.

Counting the TOC that forms in the Inlet as a contribution by the escaped estuary DIN, the WDOE claim that “the estuary would put less TOC into Budd Inlet than does the Lake” is false.

Lake Alternative. WDOE’s computer simulation asserts that all of the newly minted TOC in the Lake moves to the dam. That could only happen if all of the new TOC was in the form of phytoplankton. Not so; almost all of the new TOC stays put in the plants that created it, all summer long. The “green line” doesn’t show TOC at the dam site about to go over the dam; it shows the amount of new TOC created and parked somewhere, everywhere throughout the Lake each day, almost none of which moves downstream. In the real world, the TOC calculation is correct – *but what happens to the TOC is an uninformed assumption by the computer operators.*

Ecology’s model is a superb simulation of the whole complex world of moving water, chemical processes including photosynthesis, complex shoreline configurations, tides, weather, seasonal temperature and river runoff changes, and every other major factor that affects the levels of dissolved oxygen (DO) from surface to bottom, over the whole extent of Budd Inlet. The marine model was easily extended to Capitol Lake – for phytoplankton. A crude lump-sum subroutine is said to have been attached to it to try to represent the activities of large plants, but that first approximation doesn’t compare with the elegance and detail of the original model, can’t possibly provide much help with understanding their roles, and is never mentioned by the modelers when interpreting the results.

So why would the model accurately calculate the amount of TOC formed daily in the Lake, if its focus is on phytoplankton? The answer is that phytoplankton, minute plants capable of doubling their biomass every 24 hours, would have enough time in the Lake to take up all of the available DIN. The transit time of water through the Lake varies from about 6-8 days to 15 days [p. 4-3, AE], longer in the low-river-flow days of summer. During that time, large plants and phytoplankters alike are able to convert all of the available DIN to TOC. The transit time of water through the proposed estuary, on the other hand, is only

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about one day. During that much shorter time, the sparse marine phytoplankton are unable to photosynthesize all of the available DIN and half or more of the DIN “escapes” to fuel TOC formation in Budd Inlet beyond the dam site. Beyond the “view” of the computer.

(Conclusions.) The estuary and lake alternatives would deliver exactly the same load of TOC to Budd Inlet during a year’s time. The estuary would deliver about half of each new daily production of TOC directly to the Inlet in the form of new phytoplankton biomass and enough escaped DIN to enable Inlet phytoplankton to make up the full TOC load the next day, every day. The lake would store all of the daily load of TOC created by plants in the lake basin, then release the whole gigantic stored TOC reservoir into Budd Inlet during a few weeks in late October and early November – after the growing season and too late to lower the DO of the Inlet’s bottom water during the critical month of September.

Conclusion. Ecology’s claim is false. an estuary would deliver to (and create within) Budd Inlet more TOC every day during the growing season than would Capitol Lake.

* End note.

Complication. Each colored bar in Figures 2 and 3 actually shows the calculated amount of TOC created from DIN that became available at a time earlier than the date of the bar. For the estuary, with the river water passing through it in about one day, that would be the day before. For the lake, in which the river water takes about 15 days to pass through, the colored bar shows TOC created using DIN that entered the Lake some 15 days earlier – not the black bar standing beside it on the same date. Including this “time lag effect” in the bar graphs shown here would be so gigantically complicated as to distract from the message. I have actually shown that calculation in another publication (). The time lag results and the simplified same-day results shown in that exercise are so similar that the simplified bar graphs presented here show the situation we need to understand with very close fidelity.

[Note added for readers who might notice this and wonder about it.]

A	B	C	D	E	F	G
	Pink DIN dots	Pink TOC dots	green line	blue line	Max TOC	Max Total
Dates of	DIN	TOC	Lake TOC	Estuary TOC	= 7xDIN	TOC

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observations	mg DIN/L	mg C/L	mg C/L	mg C/L	mg C/L	mg C/L
[from graph]	observed	observed	calculated	calculated	= 7 x Col. B	Cols F + C
Jan 25			1.85	1.85		[not used]
Jan 29	0.77	0.35	0.35	0.92	5.37	5.72
Feb 20	0.49	0.35	0.35	0.69	3.46	3.81
Feb 28	0.75	0.52	0.29	0.69	5.23	5.75
Feb 28	0.68	0.23	0.29	0.69	4.74	4.97
Mar 17	0.55	0.52	0.40	0.81	3.82	4.34
Mar 18	0.46	0.75	0.75	0.75	3.25	4.00
Mar 27	0.72	0.46	0.92	0.92	5.02	5.48
Mar 31	0.59	0.23	0.81	0.81	4.10	4.33
Apr 16	0.56	0.63	2.31	0.81	3.89	4.52
May 1	0.59	0.46	2.88	1.04	4.10	4.56
May 7	0.48	0.35	3.12	1.04	3.39	3.74
May 28	0.59	0.63	4.27	1.73	4.10	4.74
May 29	0.56	0.52	4.15	1.50	3.89	4.41
Jun 10	0.59	0.40	3.92	2.02	4.10	4.50
Jun 25	0.59	0.46	2.88	1.56	4.10	4.56
Jul 2	0.59	0.58	3.17	1.21	4.10	4.68
Jul 22	0.66	0.40	3.92	1.27	4.60	5.00
Jul 30	0.73	0.40	4.85	1.38	5.09	5.49
Aug 6	0.72	0.35	5.31	1.56	5.02	5.37
Aug 13	0.77	0.40	5.42	1.85	5.37	5.78
Aug 19	0.74	0.40	5.77	1.62	5.16	5.57
Aug 28	0.79	0.40	4.38	1.85	5.52	5.92
Sep 9	0.73	0.40	4.27	2.42	5.09	5.49

Table 1. Observed and calculated values used to create Figures 2 and 3 in text. Black bars in both Figures are from Column F, green bars from Column D, blue bars from Column E. Values in Column C are not used but illustrate the small sizes of incoming existing TOC's compared to the amounts creatable from Deschutes River DIN (Col. F values).

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Two smaller (but important) mistaken Ecology claims are used to prop up the main flawed model claim. They are;

1) *rooted plants obtain the nutrient nitrogen they require from the sediments.*

2) *phytoplankton dominate the N/C cycling by plants in Capitol Lake;*

These mistaken claims are addressed below in two ways;

- 1) knowledge of the ecology of aquatic plants, and
- 2) real-life, real-time observations during the passage of the seasons at Capitol Lake.

The Truth. 1) Lake plants extract Nitrogen from the water – not the sediments.

One of the most abundant and typical Lake plants is *Elodea canadensis* [p. 4-4, AE]. It grows attached to the bottom of Capitol Lake and forms dense tangles that reach the surface. In aquaria stems of this species have adventitious roots that take nutrient nitrogen directly from the water, enabling them to develop buds and increase in size, all while floating free from the bottom. Coontail (*Ceratophyllum demersum*), a common free-floating Lake plant, likewise takes up N directly from the water [p. 4-4, AE]. So do other large attached and free-floating species. Many of them (particularly with smooth rooted stems and floating leaves; *Potamogeton*, e.g.) provide underwater surfaces that support a dense blanket of epiphytic diatoms and other small algae, themselves taking nitrogen from the water.

Detached floating plants (duckweed, water ferns, algae), all of them extracting nitrogen nutrients directly from the water, are not mobile enough in the Lake to be swept over the dam into Budd Inlet. Rafts of them get caught up in the tangle of attached plants, held in place at the surface, and are not free to drift in the direction of the dam until long after the summer growing season when the anchoring plants begin to senesce and decay.

Abundant large plants in lakes create an environment that is not favorable to phytoplankton. The dense tangles of leaves and stems provide shelter from fish for the small copepods, cladocerans, other crustaceans and various other zooplankters that graze down phytoplankton populations. Their grazing liberates much of the nitrogen that the consumed cells had taken up, setting it free to give the large plants

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a "second chance" at extracting it. Phytoplankton thrive best in open water that is too deep for submerged attached plants. There is not much of that in Capitol Lake.

Nitrogen is a soluble entity that (unlike phosphorus) does not accumulate in sediments. That is demonstrated by the fact that when Lake cleanup operations disturbed the sediments in 2019, a flush of phosphorus temporarily raised the P concentration in the water column – but there was no such flush of N at that time [Table 4.6, p. 4-15 AE]. Rooted plants have some ability to extract nitrogen from the bottom, but compared with the amount available in the water column in Capitol Lake, the sediments are almost certainly a minor source for them.

The Truth. 2) Watching Capitol Lake protect Budd Inlet.

Passersby on city streets and Capitol Lake's shores can see with their own eyes that the Lake forms TOC every day, holds most of it all summer, then releases it to Budd Inlet during late fall.

During spring and summer, observers can see floating masses of large plants forming and growing larger on the surface in the North Basin, all summer long. The floating plants become entangled in the stems and leaves of the submerged attached plants that grow up from the bottom and each whole tangled formation stays in one place. From the railroad bridge, one can watch these stationary tangles of plants growing larger and more dense as summer advances, some of the weeds showing at the surface, others forming dense submerged thickets all the way to the bottom. The submerged plant masses anchor the floating plant masses in place.

What you are witnessing is the formation, entrapment and retention of TOC in the Lake by the vegetation there, all summer long.

On occasions when a raft of floating plants breaks loose, more often than not the prevailing NW summer winds blow it southward where it piles up against the North Basin shore and the supports of the railroad bridge – or actually drifts underneath the bridge and becomes trapped and held in the Middle Basin. If by chance a raft of duckweed and other floating plants drifts northward, it becomes trapped against the concrete bulkhead of Heritage Park just east of the dam and remains there in a shallow indentation in the wall. In that shallow concavity the raft of plants remains, appearing as an unsightly mess but in reality continuing to convert DIN in the water to TOC and hold it there all summer long.

Looking down into the water flowing over the fish ladder and out of the Lake, one almost never sees a mass of plants drift over the dam during the summer. Likewise, while boating on Budd Inlet during the summer one seldom sees fragments of "lake weed" drifting out there.

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Ecology asserts that TOC creation by Lake plants during the summer is performed almost entirely by phytoplankton. That would make the water cloudy. That is at odds with the facts that the lake water has met state swimming standards for clarity (visibility to four feet below the surface or more) all summer long, since year 2000 (Thurston Health Dept. data); that the water exiting the lake at the dam's fish ladder is clear, and that one can clearly see objects on the bottom while standing on the Heritage Park wall looking downward. For a view of what the water would look like with that much phytoplankton containing that much TOC in it, look at the dense, red "tomato soup" water of East Bay during late September.

After the end of the growing season (during late October and early November) prevailing winds switch to the southwest. One can then see mats of deteriorating, senescing weed drifting toward the dam and going over it via the fish ladder water. That is the time when the TOC captured by the Lake weeds finally completes its journey to Budd Inlet.

The effects of Capitol Lake on the summer formation of TOC that we can witness directly are 1) formation and storage of TOC during the growing season, and 2) release of the stored TOC to Budd Inlet after the growing season. No computer model is needed to understand what is going on here. By October, it is too late for the released TOC to worsen the low-oxygen bottom water situation in Budd Inlet which, for several reasons, reaches its most critical levels in September.

What Else is Wrong with Ecology's Model Claims?

I spent several years critiquing Ecology's uses of their computer simulation models and their interpretations of model outputs. There was something wrong with every one of them. I will not try to include all of those critiques here but include my assessment of three flawed claims, one of them cited in the DEIS, with two others as evidence that *all* WDOE model-based claims about negative effects of Capitol Lake should be viewed with caution.

The flawed simulations analyzed here are;

1. The Model does not reliably show that half of Budd Inlet is adversely affected by Capitol Lake. [The output presented by Ecology creates a false negative impression of the Lake's influence on the Inlet.]
2. The Model's benthic algae subroutine was inoperative in some and possibly all simulations. [This flaw created demonstrable huge errors and possibly invalidates *all* late-season forecasts of WQ violations in East Bay.]

O14-2

COMMENT

RESPONSE

O14-2-38 This comment pertains to work completed by the Washington State Department of Ecology, rather than the independent water quality analysis conducted for this EIS.

3. The modelers have not shown us a simulation of Budd Inlet's WQ violations in its "natural" pre-modern (pre-dam) condition. [Failure to portray this obscures the fact that the "natural" Budd Inlet was as full of WQ "violations" as is the modern Inlet with the dam present.]

These anomalies are examined in the following. (Detailed analysis of all of them is presented in my report, available in full on the CLIPA website.)

1. Misleading "violations" calculations using WDOE's Model. (An Example cited by the DEIS.)

(Introduction.) Figure 4 shows WDOE computer simulation outputs that are presented in the DEIS (as Fig. 4.13, p. 4-37, Water Quality Discipline Report). Note that these illustrations are the same as those in the DEIS but their positions are switched (due to technical difficulties at my end).

The mistaken claim based on these Figures is that "Capitol Lake has an adverse effect on water quality affecting fully half of Budd Inlet."

Each colored grid cell is a location where the computer calculated at least one DO level lower than the DO standard assigned to that location during its exhaustive search between simulated January 25 and September 15, 1997. Where more than one violation was calculated for the same site during this time, the color shows the size of the most serious violation – the "worst case" of the "year" – calculated for that cell. (The clear cells show no calculated violations at all, despite thousands of simulation calculations per cell.) The scale alongside the map shows the sizes of the violations represented by the colors.

These Figures give a visual impression that most of Budd Inlet experiences DO violations "due to all anthropogenic effects (rightmost

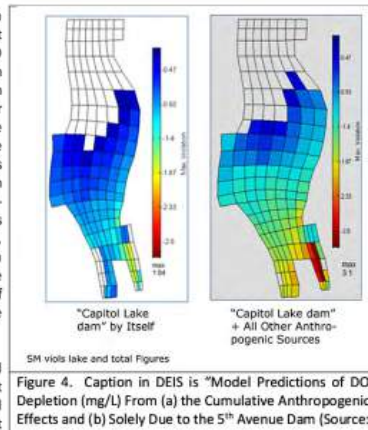


Figure 4. Caption in DEIS is "Model Predictions of DO Depletion (mg/L) From (a) the Cumulative Anthropogenic Effects and (b) Solely Due to the 5th Avenue Dam (Source: [unclear])"

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figure).⁴ The supposed contribution of the “5th Avenue Dam by itself” (leftmost figure) covers almost all of this widespread blanket of violations. Ecology 2015b, Figures 8 and 9).⁴ NOTE. In the above depiction the positions of the “dam” and “all sources” figures are switched, relative to their positions in the DEIS.

It is impossible to get anything more precise than a general impression of the supposed widespread effect of “the dam” and “all anthropogenic effects” on Budd Inlet’s dissolved oxygen from Figures formatted this way. But note that on the “dam” depiction, every dark blue grid cell shows a worst case “violation” within the range 0.2 – 0.5 mg/L. Every light blue grid cell shows a worst case “violation” of 1 mg/L or less. No indication is provided of whether each “violation” occurred only once for a duration of ten minutes (one iteration interval of the simulation), or many times, or for prolonged periods of several days or weeks.

Most of the colored cells show smaller departures from the WQ standards than the computer is capable of reliably detecting. If the “blue” cells result from errors in the calculations – as they almost certainly do – an error-free depiction would show almost the entire inlet free of violations (shown below).

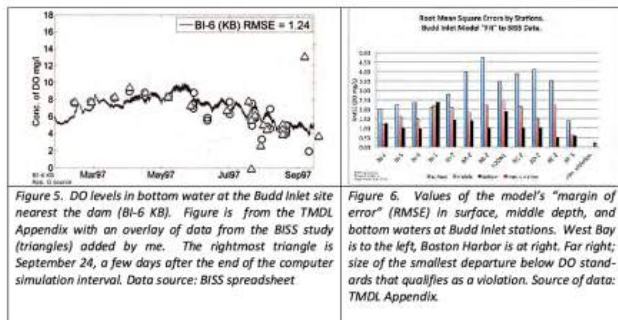
When the computer model was being developed, it was calibrated by comparing its calculations with actual observed values of DO and “tweaking” the parameters to bring the overall fidelity of its forecasts as close as possible to the overall pattern of the observed data. The calibration gave it a truly remarkable ability to broadly “track” developments in a complex natural system over a long span of time (Figure 5 below) – but it did not give it the pinpoint accuracy and precision needed to identify WQ violations as small as 0.2 mg/L on every calculation.

(Methods.) Figure 5 shows the DO levels at the bottom of Budd Inlet at a station [BISS BI-6] directly in front of the 5th Avenue dam. The ragged dark line shows the DO’s calculated by the model during the simulation period January 25 – September 15, 1997. The circles, included by the modelers, show observed bottom water data points from the Budd Inlet Scientific Study (BISS; an exhaustive study of Budd Inlet water quality during 1996 and 1997 spanning the simulation interval) at this site and depth during that interval. The triangles are my own additions of observed values to the graph, taken by me from the BISS data spreadsheet. In principle they should all coincide with the modelers’ circles. That is often but not always the case.

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The panel at upper right shows the Root Mean Square Error (RMSE) for the calculations at this depth and site (here, 1.24 mg DO/L), determined by the modelers during the calibration process. That is the average numerical difference between the observed values (circles) and the calculated values (ragged line). On the average the computer "misses the mark" at this site and depth by 1.24 mg/L.

The WQ standard here is 5.0 mg/L. With its large margin of error, whenever a real-life DO level of 5.0 mg/L occurs here, almost half of all calculations estimating its value will fall below 4.8 mg/L (the violation threshold) and give a false indication of a violation. These false "errors of estimate" almost certainly make up much of the color on the Budd Inlet maps (Figure 4).

Figure 6 shows the simulation's RMSE values at all Budd Inlet sites and depths where BISS data are available. (These are taken by me from the modelers' graphs similar to Figure 5; those graphs are available in TMDL Appendix G.) West Bay (BI-6, 5, and 4) and East Bay (BI-1, 2) sites are leftmost, Boston Harbor is rightmost.

Rightmost in Figure 6 is the size of the smallest departure from the local WQ standard that is defined as a "violation;" 0.2 mg/L or more below the standard. For confidence that most calculations can identify a violation that small, the RMSE would need to be 0.2 mg/L or smaller. The computer searches for that small difference (or greater) during each calculation with a simulation tool whose calculations routinely range over the whole lengths of the larger bars.

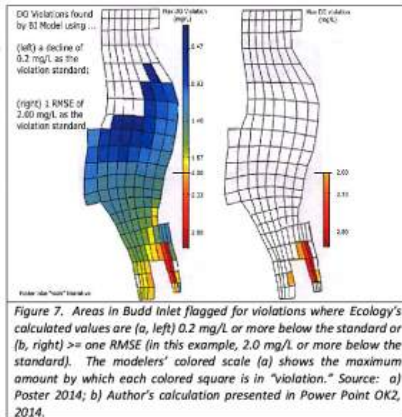
This seems like an exercise that requires using confidence limits. It is not a straightforward statistical situation; each calculated value is not independent of the value immediately pre-

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ceding it. I approximated what a solution might look like by envisioning a "confidence limit" of 2.0 mg/L applied to the whole inlet, determining the numerical values of the "violations" shown in the colored cells of Figure 7 and clearing all cells that showed "violations" that were less than 2.0 mg/L throughout. For this exercise I used the "all anthropogenic sources" depiction of Budd Inlet (from Figure 4 above).



I copied Ecology's color key (bar to the right of Figure 4) and fitted a regular numerical scale to it. Using Photoshop software I selected the colors in various grid cells of the

Figure 7. Areas in Budd Inlet flagged for violations where Ecology's calculated values are (a, left) 0.2 mg/L or more below the standard or (b, right) \geq one RMSE (in this example, 2.0 mg/L or more below the standard). The modelers' colored scale (a) shows the maximum amount by which each colored square is in "violation." Source: a) Poster 2014; b) Author's calculation presented in Power Point OK2, 2014.

"All Anthropogenic Effects" figure (Figure 7a). Photoshop highlighted all identical colors in other grid cells and also that color on the scale bar, where my graduated scale enabled me to read the numerical violation value of each highlighted cell. Where those "violation" values were less than 2.0 mg/L, I deleted the color in those cells. The result is shown in Figure 7b.

Figure 7b shows that if a confidence limit is used, many fewer "violations" are identified. For these, our confidence can be high that they are large, real indications of WQ problems. In passing, most of them are in East Bay, which almost always has the worst water quality in Budd Inlet in real life.

(Discussion.) I was not the only one who questioned the ability of the model to make fine-grain discoveries with such a broad-brush simulation model. Personnel of the HDR engineering firm asked the modelers about accuracy in the firm's comments on Ecology's draft SPSDOS Report (2013). In their words:

"Page 19: The DO decreases calculated by the model range from 0.2 to 0.4 mg/L in limited areas due to point sources. These are very modest changes in the DO levels in these locations. Due to these small calculated DO decreases, the following question arises: Is the model sufficiently accurate to predict these DO decreases? And more importantly, is there sufficient confidence in the DO decreases calculated by the model to mandate expensive nitrogen removal upgrades at point source treatment facilities to reduce nitrogen loadings?"

O14-2

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O14-2-39 This comment pertains to work completed by the Washington State Department of Ecology, rather than the independent water quality analysis conducted for this EIS.

The Department of Ecology did not respond to the HDR query (Clark, 2016).

O14-2-39

2. Was Ecology’s benthic algae simulation subroutine operative during their simulations of Budd Inlet?

Although this question was not addressed in the DEIS (to my knowledge) it illustrates the grounds for doubting all of Ecology’s proclamations about the “damage” done to Budd Inlet by Capitol Lake, stemming from their modeling efforts. If this subroutine was not operative, a critically important mechanism for adding dissolved oxygen to the bottom water was overlooked. WORST CASE: ALL OF THEIR CALCULATED EAST BAY “VIOLATIONS” COULD BE NONEXISTENT.

The Figure showing the simulation graph for station BI-6 above (Figure 5) shows evidence that the model was operating without a key subroutine. In that Figure, a triangle data point from the BISS spreadsheet, placed on that graph by me, shows the highest observed DO value at the dam site bottom water of the entire simulation interval near the end of September. The modelers did not include that data point in their graph, instead showing a circle data point (not found by me in the BISS data) near the bottom of the graph on that date.

On that date, bottom water had the highest observed DO of the entire season while the computer calculation “showed” the lowest DO of the season.

Similar portrayals of the same spectacular error in the calculations were also shown by Ecology for that same date for two other shallow locations, BI-1 and BI-2 in East Bay.* Weather and

tide data show that that was a sunny day with a very low tide at about noon. The depth of the water was only a few meters at that time and those places. The high observed DO values at the bottom in all three places were undoubtedly due to photosynthesis by benthic algae. The modelers appear not to have noticed these huge discrepancies between the calculated and observed values.

The TMDL Appendix shows that the model has a subroutine for benthic algae photosynthesis. It evidently was not “turned on” when these calculation errors were made. One of the affected grid cells (BI-1; the lowermost colored cell in the middle of East Bay) is adjacent to the “critical cell” used by Ecology as a bellwether of the water quality situation throughout all of Budd Inlet.

If the subroutine was never in use throughout Ecology’s extensive simulation program, *the accuracy of virtually all of their results is in question.* Specifically, operation of the benthic algae subroutine would raise bottom water DO levels in the extensive shallow water of much of Budd Inlet, particularly during the high-sunshine, low-streamflow, warm-water days of September.

O14-2

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Two East Bay sites of these giant model failures are routinely shown to have the worst bottom water DO violations in all of Budd Inlet. These East Bay “violations” are routinely used to brand all of Budd Inlet as “damaged” by Capitol Lake. It is imperative that the DEIS researchers learn whether the benthic algae subroutine was operating during WDOE’s many simulations. If they were not – then ALL of Ecology’s Budd Inlet simulations are suspect.

*Full disclosure. The graphs for at least one (and possibly both) of the two East Bay locations, BI-1 and BI-2, have a data circle included by the modelers actually showing the observed high bottom DO value (at the position of my added triangle) on that date. The calculated estimates are as far off the mark as in Figure 5 above; no comment on this giant discrepancy is offered by the modelers.

O14-2-41

3. What does Ecology’s “violations map” for the pre-modern, pre-dam “Natural Budd Inlet” look like? Please obtain it and display it in the Final EIS alongside and in the same format as the “5th avenue Capitol Lake” violations map (DEIS Figure 4 above).

WDOE has never presented a picture of the DO violations calculated for the “pre-modern natural” Budd Inlet estuary alongside comparable pictures of violations due to “the dam by itself” and “all anthropogenic effects.” Since the pre-modern Inlet is the “control” against which the modern Inlet should be compared, this is a striking departure from usual scientific convention.

In case WDOE “can’t find it” or wants to substitute a map in a different format, I have used WDOE data and techniques to show what it looks like (see Figure __ below).

(Introduction.) The following two figures are the only ones, to my knowledge, in which WDOE shows data that can be used to construct a conventional grid map of Budd Inlet showing water quality (low DO) violations occurring in the pre-modern “natural” water body condition before the dam and intensive human activities began to influence it. The leftmost map shows the DO standards for the main Inlet (green) and the southernmost portion (orange), respectively 6.0 and 5.0 mg/L. The “violation thresholds” (level below which the DO must drop to qualify a grid cell as “in violation” of the standards are 5.8 and 4.8 mg DO/L (0.2 mg/L below the standards).

O14-2-40 This comment pertains to work completed by the Washington State Department of Ecology, rather than the independent water quality analysis conducted for this EIS.

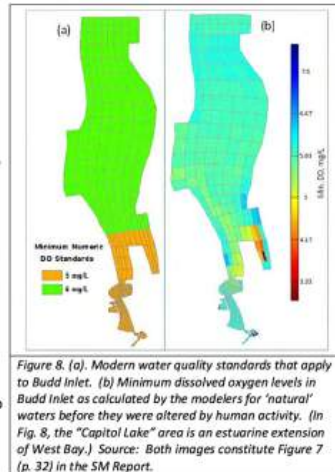
O14-2-41 The Draft EIS provides analysis and disclosure of potential environmental impacts associated with the Capitol Lake – Deschutes Estuary Long-Term Management Project. Analysis of pre-dam water quality raised by the commenter, is beyond the scope of analysis for this EIS, and no such data exists.

O14-2

COMMENT

RESPONSE

The rightmost depiction (b) shows the “natural” Budd Inlet grid map with the lowest (“worst case”) dissolved oxygen level found by the computer during the whole simulation interval (Jan. 25 – Sep.15, 1997) in each grid cell. These are not “violations;” they are actual lowest DO levels of the “year” as calculated by the simulation model, represented by colors. The colors are mostly bland pale greens and blues that are basically indistinguishable to the naked eye. A scale bar shows the same colors, but its irregular gradations make it equally useless to try to read by eye. Note that the scale bar resembles those used in Ecology’s more conventional depictions of grid maps (Figure 4 above) in that the blue end is at the top, but this one shows the *highest* DO’s at the top whereas the others show the *smallest* violations at the top.



(Methods.) The eagle eye of the Photoshop software provides a tool that can

unscramble the seemingly impenetrable presentation shown in Figure 8b. The key is that a color selected by Photoshop in any grid cell becomes simultaneously selected in every other cell with the same color, and also becomes selected on the scale bar. From its selection on the scale bar, one can determine the actual numerical DO value in the selected grid cells.

Displaying Figure 8b in Photoshop, I first added regular gradations to WDOE’s DO mg/L color scale bar to make it readable. (The numbers on the original scale are, fortunately, spaced linearly from near-top to near-bottom, making this possible. My “corrected” scale bar is not shown here.) Then, one by one, I selected the color of all of the grid cells in WDOE’s bland-colors map (Figure 8b), noted the DO reading indicated by the same color on the now-readable scale bar, then wrote the calculated DO levels in the corresponding grid cells on a paper copy of the grid map. The paper copy thus ended up with the numerical value of its lowest seasonal DO mg/L concentration hand written in every cell.

For all of the cells on the paper copy whose DO’s showed “violations” (DO’s < 5.8 mg/L green zone, < 4.8 mg/L orange zone) I hand calculated the sizes of the violations in those cells (violation mg/L = 5.8 mg/L minus calculated minimum DO of the “year” green zone, 4.8 mg/L minus calculated minimum DO of the “year” orange zone). The paper copy now had the smallest DO concentration of the year written in every cell; those with violations also had the size of the violation written as a second notation in the affected cells.

O14-2

COMMENT

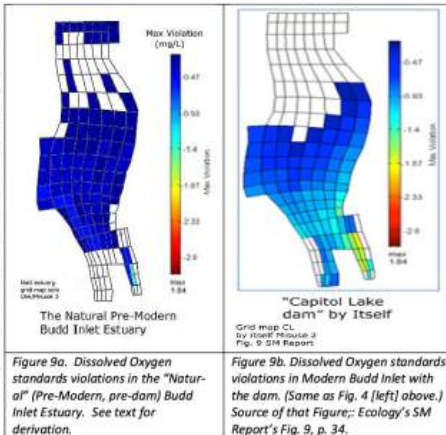
RESPONSE

To proceed, it was now necessary to obtain a "corrected" copy of the scale bar used by Ecology to indicate the colors of violations of various sizes (WDOE's uncorrected bar is shown in Figure 4 above). I had already corrected that scale bar for the "confidence limits" exercise described above. I simply used that one to link numeric violation sizes with colors here. (It was created by adding linear numeric scale gradations in the same manner as described for the corrected bar used here.)

I created a Budd Inlet grid map with all cells empty, as a Photoshop figure. I identified all of the cells on the Photoshop map with violation sizes penciled in on the paper map. For each such cell, I selected the numerical value of its violation on the corrected violations scale bar, which displayed the color that ought to go in that cell. Using Photoshop's color transfer tool, I "painted" each such cell.

(Results.) The result of this monstrously labor-intensive procedure is the Budd Inlet "Natural Estuary Violations" map shown in Figure 9a using Ecology's conventional method of violations portrayal. For comparison Ecology's own "Capitol Lake by Itself" map with their own uncorrected scale bar is shown in Figure 9b.

(Discussion.) The "Natural Budd Inlet" violations map resembles the "Modern Capitol Lake" violations map in broad overview and differs from it in some details. One might expect that "natural" Budd Inlet would have many fewer DO violations than "modern Budd Inlet with dam by itself." For DEIS purposes, it would appear that Capitol Lake has buffered Budd Inlet from widespread additional DO violations that would be expected from decades of modern developments in the Deschutes River watershed and may even have improved it.



Ecology may have obtained a similar result by actually performing the simulation that would reveal it. If they have done so, they have never (to my knowledge) presented it to the public. They gave no response to my report of this particular finding, except to change their format of showing "violations" maps to

O14-2

COMMENT

RESPONSE

prevent Photoshop analysis and to announce that “natural” Budd Inlet had no water quality violations whatsoever (in a slide show presentation; I have their modified image but can’t easily cite the source).

(Conclusion.) Capitol Lake has protected Budd Inlet from additional low oxygen water quality occurrences over the 70-odd years since the dam was built.

(Conclusions; Overall.) Capitol Lake does not have the widespread negative effect on Budd Inlet shown in DEIS Figure 4.13. Capitol Lake does not contribute more TOC to Budd Inlet (in total, and in particular during the growing season) than would an estuary. Ecology’s proclamations of the extent of WQ violations attributable to Capitol Lake throughout Budd Inlet are based on an assumption of accuracy that the model doesn’t possess, on DO calculations that fail to portray critical shallow bottom water oxygen production by benthic algae in East Bay, and in absence of showing the extent of WQ violations in “natural” (pre-dam) Budd Inlet.


O-15

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: In support of a healthy estuary in the city of Olympia

Subject: **In support of a healthy estuary in the city of Olympia**
 From: Trevizo Maria <cedarcircle@earthlink.net>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-27 12:50



Dear caring Olympians,

I could cite chapter and verse from the scientific materials we have all had access to. I could say why the reflection waters for the capital is narcissistic and misguided. I could cite the important historical importance of a free river for all tribes who accessed it since time immemorial Yet I will simply say it this way.
 We are done with reflecting our vanity and taking that as a Apex predator, which were not, we deserve to control everything which we shouldn't. We are in an environmental crisis With global warming and polar ice caps melting at a rate that is unprecedented. So when we free an estuary that has been dammed for more years than it should've been and create more estuary in our small part of the planet we take a step to right a great wrong. I participated in a focus group entertaining this conversation regarding the removal of the dam, So many years ago!

It's about time we got off our bums And breach the damn and restore the estuary to its rightful place. We need more nature not less. It's about how we can live in harmony with nature and try not to bridle her. Thank you for considering my thoughts.

Maria Trevizo
 Wellness Education Specialist
 The Healing Circle

cedarcircle@earthlink.net
 P. O. B. 11458
 Olympia, WA 98508
 Phone (360) 259-0734

O-15-1 Please see the Global Response for the Preferred Alternative Identification Process.

O-15-1


O-16

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Input on Capitol Lake and Deschutes Estuary DEIS

Subject: **Input on Capitol Lake and Deschutes Estuary DEIS**
 From: Dick Binns <dick.binns@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>, <knutson07@comcast.net>
 Cc: Dell Berg <dellberg@aol.com>, Meg VanSchoorl <meg.vanschoorl@gmail.com>
 Date: 2021-08-28 11:04



• Oyster House and Budd Bay Cafe DEIS Letter.pdf(~198 KB)

Department of Enterprise Services:

Attached please find comments from Ms. Dannielle Knutson, majority owner of two Olympia based waterfront businesses, on the Capitol Lake Deschutes Estuary Draft Environmental Impact Statement. At Ms Knutson's specific request I am forwarding her comments to you as attached in PDF format. Ms Knutson can be reached via email at knutson07@comcast.net

Thank you for your time and consideration.

Dick Binns
dick.binns@gmail.com
 971-277-0868

O-16

COMMENT

RESPONSE

8/27/2021

Via E-mail : info@CapitolLakewatershedEIS.org
Department of Enterprise Services
CapitolLake-Deschutes Estuary EIS
PO Box 41476
Olympia, WA 98504-1476



RE: Capitol Lake-Deschutes Estuary DEIS comments

To: Whom it may concern

O-16-1

My name is Dannielle Knutson, majority share owner of the Budd Bay Café, Olympia Oyster House & Rivers Edge restaurants. I would like to express concern that the 5th Avenue Dam will be removed, exposing our establishments to the direct flow of water from Capitol Lake and to the natural surges of water flowing into the Bay during times of flooding. Flood waters are very powerful and carry all manner of debris with them. To see such debris dumped into Budd Bay is a disturbing prospect. The injection of such a mess into the Bay would make the lives of many marinas difficult. Many boaters may find moorage in Budd Bay is no longer attractive.

O-16-2

My business and many others here on the waterfront depend on a lively, attractive and vibrant waterfront. Many years ago, this area was nothing like this. It was basically a run-down section of Olympia that did not attract tourists or local patrons looking for a nice lunch beside an attractive waterfront. Please do not try to fix that which is not broken. It took years of effort by city and civic leaders to bring about the attractive area that exists now. I can assure you that having dredge equipment move into the Bay every 3 or 4 years will not be a benefit to any of downtown Olympia, especially waterfront businesses.

O-16-3

My business, along with many others, is struggling to recover from our recent pandemic. We do not need to experiment with another stressful change. Please support the retention of the 5th Avenue dam and the current plans to manage Capitol Lake. Thank you for your kind attention.

Dannielle Knutson
Dannielle Knutson
managing partner
knutson07@comcast.net

O-16-1

Current velocity was investigated as part of the hydrodynamics and sediment transport modeling completed for the EIS. As described in Section 4.6.2 of the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5), removal of the dam results in the highest increase in flow velocity at the outlet where the dam is current located; changes along the east shoreline of West Bay are relatively small (<1.5 feet/second).

Regarding debris that could be carried into West Bay, and in response to this and other comments, the description of the Estuary and Hybrid Alternatives in Final EIS Supporting Chapter 2.0 has been updated to include the potential inclusion of a debris boom to minimize any potential impact from debris during and after a storm event. The debris boom would be evaluated during the design process.

O-16-2

Thank you for your comment.

Please see Attachment 21 of the Final EIS for a description of the process to identify a Preferred Alternative for long-term management, including an evaluation of the alternatives against a broad range of criteria.

Under the Estuary and Hybrid Alternative, where maintenance dredging is proposed in West Bay, maintenance dredging is proposed to avoid navigational impacts and maintain a vibrant, working waterfront and recreational boating. Please see Attachment 23 of the Final EIS for more information on shared funding for increased maintenance dredging under the Estuary Alternative.

O-16-3

Please see the Global Response for the Preferred Alternative Identification Process.

O-17

COMMENT

RESPONSE

8/30/2021

Roundcube Webmail :: Comments regarding the Draft EIS

Subject: **Comments regarding the Draft EIS**
From: Doug Mah <Doug@dougmahassociates.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Cc: David Schaffert <dschaffert@thurstonchamber.com>
Date: 2021-08-28 13:36



- Thurston Chamber - Comments draft EIS capitol lake 08282021.pdf (~459 KB)

Please find the attached comments submitted on behalf of the Thurston Chamber of Commerce. Please let me know if you have any questions or challenges accessing the file. Thank you.
- Doug

O-17

COMMENT

RESPONSE



August 28, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-1476
comment@CapitolLakeDeschutesEstuaryEIS.org

On behalf of the Thurston Chamber of Commerce, thank you for the opportunity to provide comments on the Capitol Lake – Deschutes Estuary Long-term Management Project Draft Environmental Impact Statement. We welcome the efforts to involve multiple and diverse stakeholders in the development of the Draft Environmental Impact Statement (EIS) and appreciate the complexity and details contained in the draft.

The Thurston Chamber has long expressed support to protect and enhance the community's unique urban waterfront investments, uses, and activities. The Thurston Chamber believes that the existing mix of working private and public waterfront investments helps to create a vibrant, diverse, and resilient local economy. The Chamber finds that working waterfronts across the country and throughout Washington State are critical for community identity, economic vibrancy, and high quality of life. For these reasons we offer the following comments on the draft EIS.

O-17-1

Page 15 of the executive summary states: All action alternatives include initial dredging during construction to remove some of the sediment that has accumulated within the Capitol Lake Basin over time". Should this initial action occur in advance of selecting a preferred alternative?

O-17-2

In total it is reported that the construction and 30-year maintenance costs range between \$179 million and \$607 million. How does this cost range compare to other projects with similar goals? How should this EIS be used to ensure decision makers can compare the Capitol Lake – Deschutes Estuary project / investment against other potential investments in Puget Sound? How "competitive" is this project compared to other projects of state-wide importance?

O-17-3

What are the financial costs due to the disruptions associated with a construction window of four to eight years? What is the cost to mitigate these disruptions? (Section 5.14)

O-17-4

How can the EIS include the likely cost impact associated with the disruption of the surface transportation system in and around the project areas, specifically the replacement of the 5th Avenue bridge and utilities? (Section 5.14)

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O-17-1

As described in Section 1.7 of EIS Supporting Chapter 1.0, Enterprise Services concluded through coordination with governmental partners and agencies, that dredging and other management actions could not occur within Capitol Lake until a plan for long-term management had been developed and adopted. The regulatory agencies that are responsible for issuing permits for dredging (and other long-term management actions) have stated that Enterprise Services must identify a long-term management alternative through and EIS before permits can be issued.

Also note that design of the proposed dredging that would occur during construction varies for each alternative. Under the Managed Lake Alternative, the entire North Basin would be dredged to reestablish depths that would best support recreational use. The sediment would be moved to the Middle Basin to create habitat areas. Under the Estuary Alternative, dredging would occur where the main channel of the Deschutes River would reestablish. Dredging in this location would minimize the amount of sediment that is transported by the Deschutes River after removal of the 5th Avenue Dam. Dredging would also create side channels, similar to the historic Deschutes Estuary. Sediment would be placed in the Middle and North Basins to create habitat areas. Dredging under the Hybrid Alternative is similar to the Estuary Alternative but would not occur in the eastern portion of the North Basin. A long-term management alternative must be identified to support dredge design.

Some phasing could be considered during construction as needed to compress the construction schedule.

O-17-2

The characterization of costs provided by the EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives. Analysis of costs relative to other projects is beyond the scope of analysis for this EIS.

If design and permitting is funded, Enterprise Services will develop a funding strategy for construction and will pursue available funding. Construction funding will likely include a combination of federal and state grants and appropriations of taxpayer dollars.

O-17-3

Regarding impacts specific to closure of the 5th Avenue Bridge as described in the Draft EIS, see the Global Response for Economics. The new approach to

O-17

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5th Avenue Bridge replacement included in the Final EIS eliminates the long-term closure.

Regarding other disruptions due to construction activity, see Sections 5.14.2, 5.14.3, 5.14.4 and 5.14.5 of Final EIS Supporting Chapter 5.0, and Section 5.3.1.1 of the Economics Discipline Report (Attachment 18). The analysis did not find any specific issues from construction of any of the alternatives that may require mitigation for nearby businesses, beyond the implementation of a construction traffic management plan.

O-17-4 See the Global Response for Economics.

O-17

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Department of Enterprise Services
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- O-17-5 | The draft EIS includes about 27 instances where actions and alternatives result in “significant unavoidable impact”. What is the financial cost associated with each significant unavoidable impact? Can the mitigation or solution and cost be calculated? What is the risk of litigation from impacted parties for each significant unavoidable impact?
- O-17-6 | Can the threat and risk of litigation be assessed for each alternative and the financial impact of any lawsuit to the project be calculated based on similar court challenges? Does one alternative present a greater legal challenge compared to another alternative?
- O-17-7 | In Section 4.14.3.2 it states, “From the research conducted for this evaluation, there is no clear signal that implementing any action alternative, including the Estuary or Hybrid Alternative, would reduce demand for residential or commercial development in downtown Olympia”. However, the analysis does not appear to assess *where* residential or commercial development would occur or become displaced upon implementation of any action alternative. Should the EIS address potential zoning changes necessary to sustain assumed residential densities beyond the project area?
- O-17-8 | In section 4.14.3.2 it states, “The Estuary Alternative represents the most visual and environmental changes in the downtown area. These changes have the potential to create uncertainty, at least initially, among investors, developers, and residents in downtown Olympia.” Can the EIS quantify lost opportunities and investments, and the added costs for project delays resulting from the period of “uncertainty”?
- O-17-9 | In Section 4.14.3.2 it states, “all action alternatives are likely to produce benefits for downtown development, assuming they are implemented in a way that is attractive and accessible. Can the EIS clearly describe, define, and articulate what is “attractive” and by which stakeholder(s) the term is most likely attributed to?
- O-17-10 | Can the EIS provide a single table showing the summary of long-term impacts for all the alternatives side-by-side? (Section 4.14)

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O-17-5 The significant unavoidable impacts associated with the project alternatives cannot readily be estimated. Examples of these significant unavoidable impacts include the potential for visual impacts of the barrier wall under the Hybrid Alternative; the potential for flooding impacts to cultural resources (archaeological) under the Managed Lake Alternative; or the loss of open water foraging habitat for Yuma myotis and little brown bats under the Estuary Alternative.

Where possible, consistent with SEPA, mitigation measures have been identified to avoid or minimize potential significant impacts. The EIS identifies and discloses the significant impacts so they can be considered as part of the decision-making process. Please see Attachment 21, which provides more detail on the Preferred Alternative identification process that considered a wide range of information, including performance against project goals, other environmental impacts and benefits, environmental and economic sustainability, construction impacts, and feedback from engaged stakeholders (referred to as Decision Durability).

O-17-6 The EIS cannot speculate about the potential for litigation.

O-17-7 The methods for assessing impacts to development in downtown Olympia are described in Section 3.3.2 of the Economics Discipline Report. From the assessment, there was no information that indicated that any of the project alternatives would cause residential or commercial development to not occur or become displaced. Other aspects of this comment are outside the scope of a SEPA analysis.

O-17-8 The EIS cannot quantify potential lost opportunities and investments in downtown development related to implementing the Estuary Alternative, as these would be entirely speculative. However, the analysis found that construction associated with any alternative is unlikely alone to change the trajectory of downtown development; larger market forces would have a much greater influence on development decisions downtown than actions affecting Capitol Lake.

In response to this comment, the term "attractive" has been replaced with "well-planned and thoughtfully designed." This was done to avoid the use of subjective terms and to more clearly represent the input we received during key-informant interviews.

O-17-9 Please see Final EIS Summary Table 2 Summary of Key Findings.

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O-17-10 Other economic factors that have influence on market conditions for development in downtown Olympia listed in Section 4.2 of the Economics Discipline Report include demographics and population growth; availability of residential and retail/commercial amenities; availability of other leisure and recreation amenities; employment growth; public safety; quality and location of infrastructure; cost of living; and macroeconomic trends. A more detailed analysis of these market conditions is available in the Economics Discipline Report (Section 4.2). A full market assessment that provides a comparison of downtown development with versus without conditions in the Capitol Lake Basin is beyond the scope of the EIS.

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O-17-11	<p>Construction for all action alternatives would include a period in which the 5th Avenue Bridge is closed. For the Estuary and Hybrid Alternatives, the bridge would be closed for approximately 4.5 years for replacement. What is the cost and negative financial impact associated with adverse traffic impacts, traffic increases along the 4th Avenue detour route, and other congested related impacts resulting from a 4.5-year closure? (Page 5-68)</p>	O-17-11 See the Global Response for Economics.
O-17-12	<p>What is the estimated cost to address the following items that are common to all alternatives:</p> <ul style="list-style-type: none"> • Consulting with local police, fire, and emergency response to develop and implement emergency response plans, establish emergency vehicle routes, and ensure that general emergency management services are not compromised. • Determining the extent and type of temporary protective measures that must be implemented to prevent construction damage to surface and subsurface utilities. • Coordinating with utility companies and other relevant agencies before construction to locate existing utilities and avoid damage. • Providing notification of any potential interruptions in services to the appropriate agencies and customers. • Staging utility relocations to minimize interruptions in service. • Requiring contractors to prepare traffic control plans for construction activities that may affect road rights-of-way. • Traffic control plans include advertising of planned lane closures, warning signage, flag person to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles (Section 5.13.6.) 	O-17-12 Coordination with local utilities, emergency service providers, local municipalities is an inherent component of the planning and delivery of complex public projects. This coordination has been assumed as part of the design and permitting process. Costs for design and permitting are estimated at 10% to 12% of the estimated construction costs. They are included in the estimated construction costs provided in Table 7.1.1 of the Final EIS.
O-17-13	<p>The Estuary Alternative (Section 2.2.2) states "that the alternative also includes stabilization along the entire length of Deschutes Parkway to avoid undercutting or destabilization from the tidal flow. Existing utilities and other infrastructure would be upgraded and/or protected from reintroduced tidal hydrology and saltwater conditions." (page 2-8) Can the risk or likelihood of undercutting or destabilization of Deschutes Parkway be calculated for all three alternatives?</p>	O-17-13 Design measures would be included in the action alternatives as needed, and as described in EIS Supporting Chapter 2.0, to avoid the potential for undercutting and destabilization of Deschutes Parkway. Similarly design measures have been included in the Managed Lake Alternative to address the subsurface soils that are susceptible to liquefaction.
O-17-14	<p>All action alternatives include initial dredging during construction to remove sediment that has accumulated within the Capitol Lake Basin over time (page 2-17). Should this initial dredge be excluded from the cost estimates for all alternatives, considered out of scope for the EIS, and instead be considered as part of regular maintenance of the facility?</p>	O-17-14 Dredging during construction is a required element of all action alternatives. As described in an earlier response to this comment, the dredge design during construction varies across the alternatives. The approach to dredging during construction would also help to achieve other project goals (dredged material would be placed to construct habitat areas that improve ecological conditions) and would be designed to avoid impacts as a result of project implementation under some alternatives (dredging under the Estuary and Hybrid Alternatives could minimize sediment accumulation at the Olympia Yacht Club by 49%). Dredging is not outside of the scope of this project; sediment management is an integral component of long-term management.

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- O-17-15 | What is the negative financial impact to limiting vessel access, berth and slip use during maintenance dredging for all alternatives in the long-term? (Section 4-2)
- O-17-16 | How can the long-term costs provided in Table 7.1.1 be amended to include other potential maintenance responsibilities, such as conditions within the alternative-specific adaptive management plans, habitat enhancement plans, or other operations and maintenance associated with restored recreation? Awareness of the fiscal impact should influence the selection of a preferred alternative. (Page 7-3)
- O-17-17 | What is the maintenance cost to sustain the current design between 2022 and 2026, before construction begins? (Page 7-5)
- O-17-18 | Should the “downstream economic activity” area be the same as the “recreation area boundary” so that comparable short and long-term impacts can be measured and reported in a consistent fashion?
- O-17-19 | Did the EIS include outreach to affected private property owners around the south basin, including, but not limited to the Olympia Tumwater Foundation?
- O-17-20 | Can documentation be provided to validate that maintenance dredging costs will be shared by Funding and Governance Work Group members and specifically that one-quarter of the total costs will be funded by the US Army Corps of Engineer (USACE) (Table 7.1.1)
- O-17-21 | What is the estimated range of potential additional costs associated with project permit conditions? (Page 7-6)
- O-17-22 | What are the potential maintenance costs to offset potential temporary or permanent impacts to wetlands, fish, or other ecological functions if the regulatory agencies do not consider the project benefits to outweigh the potential impacts and the project is not considered “self-mitigating”? (Page 7-6)
- O-17-23 | On page 7-11 it states: The FNC is currently impacted by sediment accumulation and needs to be dredged to reestablish authorized depths and unrestricted navigation in the waterway. Dredging has not been completed by the USACE and Port of Olympia because of known sediment contamination within the FNC. These entities are evaluating potential approaches to conduct maintenance dredging despite the presence of contaminated sediment. This need for dredging and dredging action is separate from, and not related to, the long-term management alternatives for the Capitol Lake –

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- O-17-15 | See the Global Response for Economics.
- O-17-16 | Specific long-term maintenance responsibilities will be better understood during the permitting phase when Enterprise Services is negotiating with the regulatory agencies using a project design that is advanced from the current conceptual state. Adaptive management requirements and anticipated permit conditions to meet performance standards can be estimated at that time.

Regarding fiscal impact, please see updated discussion in Final EIS Supporting Chapter 7.0, which describes recommendations from the Funding and Governance Work Group, as follows:
 - Managed Lake Alternative: long-term funding and governance should be the responsibility of the State of Washington given the similarity to status quo.
 - Estuary Alternative: shared funding and governance would be provided by members of the Funding and Governance Work Group for maintenance of the Estuary Alternative given the shared benefit of estuary restoration and its dredging program.
 - Hybrid Alternative: no recommendation was provided for long-term funding and governance of the Hybrid Alternative.
- O-17-17 | In the last biennium (2020-2022), the expenditure for maintenance of the 5th Avenue Dam was approximately \$110,000 each year. A similar annual expenditure is expected through the upcoming biennium.
- O-17-18 | The boundaries and rationale for the study area used for assessing impacts to downstream economic activity are described in Section 3.1.1 of the Economics Discipline Report (Attachment 18).
- O-17-19 | Enterprise conducted broad outreach with stakeholders consistent with the requirements of the State Environmental Policy Act, which included notifications to property owners whose parcels may be directly impacted. In addition, Enterprise Services convened a Community Sounding Board which included an Olympia Tumwater Foundation board of trustees member. Please note that impacts to private parcels are only anticipated in the middle basin, as a result of the Deschutes Parkway reconfiguration. Please see Figure 2.4.4 in the Final EIS, which shows these potential parcel impacts.
- O-17-20 | Please see response to Comment O-17-16.
- O-17-21 | Please see response to Comment O-17-16.

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O-17-22 Potential compensatory mitigation needs require extensive consultation with the regulatory agencies that would occur during design and permitting, based on impacts better defined during design. This cannot be estimated at the planning level stage.

O-17-23 Please see response to Comment L-6-7.

O-17

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Department of Enterprise Services
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O-17-23

Deschutes Estuary. *If this dredging does not occur, and if the Estuary or Hybrid Alternative is selected as the Preferred Alternative and is implemented, then additional sediment deposition from the project is not expected to significantly impact the Port of Olympia because navigation is already impaired.* Costs for the sediment dredging that is currently needed should not be added to this project” (italics added for emphasis). Why would the reestablishment of authorized depths and unrestricted navigation in the waterway be excluded from the project?

Should the reestablishment of authorized depths and unrestricted navigation be included as part of the Guiding Principles #10 to “Support the goals and objectives of the long-term management plan and the future of the overall watershed” and seeks to identify an... alternative that will improve environmental conditions and enhance community use of the resource? (page 7-11)

O-17-24

Is the statement, “Without shared long-term funding and governance, these management actions may not be implemented. In past planning processes, the lack of committed funds in the State of Washington budget was frequently cited as a potential significant obstacle to adequate long-term management of the Capitol Lake – Deschutes Estuary” (Page 7-7) fact or speculation? Is it more accurate to amend the statement to read, “Without shared long-term funding and governance, action by the State Legislature and State Agencies, including, but not limited to the Department of Enterprise Services, these management actions may not be implemented. In past planning processes, the lack of committed funds in the State of Washington budget was frequently cited as a potential significant obstacle to adequate long-term management of the Capitol Lake – Deschutes Estuary” (page 7-7).

O-17-25

Why would the State of Washington no longer “serve as the primary governing and funding body” for the long-term management of the Capitol Lake – Deschutes Estuary or Hybrid Alternatives? Does the shift to a shared governance model also assume a shift in liability associated with possible harm or damages to those using facility? (page 7-9)

O-17-26

Interlocal Agreements under Washington’s Interlocal Cooperation Act (RCW 39.34) are typically not items brought forward as ballot measures to be voted on by those impacted by funding or paying for the solution. How does this “agreement” meet the guiding principles # 2 and 3? (7-9)

O-17-24 This statement has been removed altogether in Final EIS Supporting Chapter 7.0, which now describes the approach for long-term funding. In fall 2022, the Funding and Governance Work Group executed a Memorandum of Understanding to memorialize areas of agreement regarding shared funding and governance for long-term management of the Estuary Alternative. This document has been included as Attachment 23 of the Final EIS.

O-17-25 Please refer to Attachment 23 of the Final EIS for a Memorandum of Understanding that outlines the proposed governance responsibilities after project construction, and the shared funding approach for maintenance dredging. The Funding and Governance Work Group expect to transition this Memorandum of Understanding into a binding Interlocal Agreement with additional terms, and liabilities as needed.

O-17-26 Please see Final EIS Supporting Chapter 7.0 for more detail on how the shared funding and governance approach was developed using guiding principles established by the Funding and Governance Work Group.

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O-17

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Department of Enterprise Services
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O-17-27

Will the envisioned contributions, partnerships, and small contributions from the entities represented on the Funding and Governance Work Group increase their exposure, liability, and the risk of litigation from private entities or organizations harmed by the preferred alternative? (page 7-8)

O-17-28

On Page 7-10 it is stated, "If selected, an Interlocal Agreement regarding governance of a Capitol Lake – Deschutes Estuary project would outline functional and administrative requirements of the signatories, responsibilities for operations and maintenance of a resource, and the collection and contribution of funding. Should this statement also include "liabilities, and risks" so that it reads: If selected, an Interlocal Agreement regarding governance of a Capitol Lake – Deschutes Estuary project would outline functional and administrative requirements, liabilities, and risks of the signatories, responsibilities for operations and maintenance of a resource, and the collection and contribution of funding?" (page 7-10)

O-17-29

What successful funding allocation and governance models meeting the characteristics identified in Chapter 7 exist in Washington State?

Can a public facilities district, or some equivalent revenue sharing structure, be explored, and assessed with the goal of directing the State portion of the sales tax revenue generated by the project be directed back to the Thurston community?

Again, thank you for the opportunity to provide comments on the Capitol Lake – Deschutes Estuary Long-term Management Project Draft Environmental Impact Statement. Please feel free to contact us by calling (360) 357-3362 or emailing DSchaffert@thurstonchamber.com if you have questions regarding our comments.

Sincerely,

Doug Mah, Director, Public Policy Division

Cc: David Schaffert, CEO and President, Thurston Chamber
Thurston Chamber Board of Trustees

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O-17-27 It is unclear which organizations or harms are being referred to or what hypothetical legal claims might be brought. Removal of the 5th Avenue Dam would be done with state funds and under state direction. The non-state entities' contributions, as outlined in the Memorandum of Understanding provided in Attachment 23, would be used to support increased maintenance dredging after removal of the 5th Avenue Dam, which is unlikely to form the basis of a successful legal claim.

O-17-28 Supporting Chapter 7.0 has been updated in the Final EIS and no longer includes this sentence or the associated paragraph in question.

O-17-29 The Funding and Governance Work Group identified an Interlocal Agreement as the most suitable governance model for the Estuary Alternative. Please refer to the Memorandum of Understanding provided as Attachment 23 of the Final EIS for more detail on the proposed shared funding and governance.

O-18

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Response to Capitol Lake - Deschutes Estuary Draft EIS by Coalition of Marinas and Recreational Boating Associ...

Subject: **Response to Capitol Lake - Deschutes Estuary Draft EIS by Coalition of Marinas and Recreational Boating Association of Washington**



From: <meg.vanschoor1@gmail.com>

To: <comment@CapitolLakeDeschutesEstuaryEIS.org>

Cc: Lt. Governor Denny Heck <ltgov@ltgov.wa.gov>, Secretary of State Kim Wyman <secretaryofstate@SOS.wa.gov>, Commissioner Hilary Franz <cpl@dnr.wa.gov>, Governor's Deputy Chief of Staff Kelly Wicker <Kelly.Wicker@gov.wa.gov>, Senator Sam Hunt <Sam.Hunt@leg.wa.gov>, Rep. Laurie Dolan <laurie.dolan@leg.wa.gov>, Rep. Jessica Bateman <jessica.bateman@leg.wa.gov>

Date: 2021-08-28 14:57

• OYC, Marinas, RBAW Response to Capitol Lake - Deschutes Estuary DEIS.pdf(~1.2 MB)

To the Department of Enterprise Services:

We appreciate the opportunity to comment on the Capitol Lake - Deschutes Estuary DEIS released by DES on June 30, 2021.

Attached please find a coalition response from the Olympia Yacht Club, Fiddlehead Marina, Martin Marina, One Tree Island Marina, and the Recreational Boating Association of Washington.

Please confirm receipt.

Thank you,

Meg VanSchoor1

Community Sounding Board Representative for the Olympia Yacht Club (OYC)

O-18

COMMENT

RESPONSE

O-18-41 Enterprise Services appreciates this detailed comment letter and the engagement that has been underway with the marinas since mid-2022. Responses to specific comments are provided separately. Also see the Global Response for the Preferred Alternative Identification Process.



August 29, 2021
VIA E-mail: comment@CapitolLakeDeschutesEstuaryEIS.org

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
P.O. Box 41476
Olympia, Washington 98504-1476

Re: Capitol Lake – Deschutes Estuary DEIS comments

To Whom it May Concern:

On behalf of the undersigned organizations, we appreciate the opportunity to provide comment and public input on the Department of Enterprise Services' (DES) June 2021 Draft Environmental Impact Statement (DEIS) for Capitol Lake – Deschutes Estuary.

Our comments are organized as follows: (A) General comments; (B) Background on economic impact of recreational boating in Washington State and Olympia, including relevant studies; (C) Background on recreational boating marinas in the West Bay; (D) Preferred DEIS Alternative (Managed Lake); (E) Concerns with the Estuary and Hybrid Alternatives; and (F) Questions for the DES.

As noted, Section F below contains several questions to which we'll greatly appreciate DES' formal response. There are also concerns and recommendations noted throughout the document where we request further research or reconsidered conclusions by the DES and consultants in the Final EIS. We ask that DES provide a formal response to those concerns and recommendations as well.

A. General comments

Our organizations support the intent of the DES and the Draft EIS, which is to *"identify and implement an environmentally and economically sustainable long-term management approach that meets project goals to improve water quality, manage existing sediment accumulation and future deposition, improve ecological functions, and enhance community use of the resource."*

O-18-41

O-18

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O-18-41

We appreciate that the DEIS contains some information that had not been in prior studies, including positive statements about the Lake’s improving water quality. It was encouraging to read that “...*monitoring data indicate that water quality conditions have actually been improving in the lake and are relatively good in terms of physical and chemical characteristics important to aquatic life. These improving water quality trends reduce the level of management that would be needed under a Managed Lake Alternative to meet lake management objectives.*”

In addition, we welcome the clear recognition in the DEIS of the significant sediment management implications for West Bay area marinas of the Estuary and Hybrid Alternatives.

These critical acknowledgements in the DEIS are among the reasons why our organizations support the Managed Lake Alternative. Other reasons include the lower construction costs, the shorter time frame for community disruption, and the much-reduced scope of impacts in the event of lapsed funding post-construction.

Given our organizations’ physical and geographic proximity to Capitol Lake and the 5th Avenue Dam, we are on the literal forefront of these future decisions. We are important stakeholders because we will be directly, significantly, and perhaps irreversibly affected by DES’ final decision on the Preferred Alternative.

Our concerns on relevant components of the DEIS are generally: sediment transport and deposition; dredging and disposition requirements; environmental permitting; aquatic lands leases; and the significant, corresponding costs associated with all these activities.

Our organizations’ primary concern with the consideration by DES of alternative management approaches for Capitol Lake is rooted in a matter of fundamental fairness. The State of Washington has failed to adequately manage water quality and other environmental conditions in Capitol Lake for the last 30 years. Now, the State is poised to significantly modify the operation and ecological functions and values of the Lake with alternatives that may shift and transfer those same challenges, burdens, and costs onto other private and public entities.

The DEIS acknowledges that some of the alternatives evaluated will result in a “cost/burden shift” but it is silent on exactly who those stakeholders are and thus does not adequately convey the significance or sustainability of the cost impacts that would result.

Without proper economic and cost analysis and transparent future funding commitments from the state and federal governments, a blatant cost shift to other affected stakeholders would be fundamentally unfair and could jeopardize the future existence of Olympia’s vibrant, urban working and recreational waterfront.

Accordingly, should DES move forward with either the Estuary Alternative or the Hybrid Alternative, our organizations must be held harmless from all the impacts of future dredging work, permitting, and all associated costs.

B. Background on economic impact of recreational boating in Washington State and Olympia

Economic Analysis Mandated in Capital Budget

O-18-2

During the OYC briefing by DES staff and its consultants, a presenter commented that an economic analysis had been done even though it was not required as part of the DEIS.

In fact, an economic analysis of the expanded area was mandated in the Capital Budget provisos that funded the DEIS. The 2018 Supplemental Capital Budget (SSB 6090) and corresponding proviso (Sec. 1036) passed by the

O-18-1

Implementation of the Estuary Alternative would restore sediment conditions in West Bay to conditions more similar to what existed before the 5th Avenue Dam was constructed in 1950. Before 1950, the USACE conducted dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary. The USACE has provided records to show that dredging was completed in the Budd Inlet Navigation Channel in 1893, 1909, 1924, 1931, 1938 and 1948.

The Olympia Yacht Club and Port of Olympia have existed in the same locations since 1904 and 1920s, respectively; and operated for many decades in the Deschutes Estuary, with the support of USACE-led maintenance dredging.

Construction of the 5th Avenue Dam in the 1950s was to provide a landscape architecture feature for the Washington State Capitol Campus. An indirect effect of its construction has been reduced sediment loading in West Bay and to the Federal Navigation Channel, but this was not its intended purpose. Downstream users, including the USACE, the Port of Olympia and marinas have benefited from the avoided costs since 1950, given that sediment has been artificially captured upstream, but these entities also existed for many decades in a Deschutes Estuary configuration.

Under the Estuary Alternative, maintenance dredging is proposed to avoid significant impacts to navigation. The Funding and Governance Work Group would provide funding for maintenance dredging of the increased sediment from the Estuary Alternative; and costs associated with dredging equivalent to the No Action Alternative are expected from the Port of Olympia and private marinas. This framework would not shift cost to the private marinas; instead, it would provide funding for dredging at the marinas to maintain a vibrant, working waterfront and recreational boating in West Bay.

Please see Final EIS Supporting Chapter 7.0 for more detail on planning-level costs and the anticipated funding approach. Please see Attachment 23 of the Final EIS for a Memorandum of Understanding that outlines the proposed funding and governance approach, including the governance responsibility maintained by the state for permitting and designing future maintenance dredge events at the marinas.

O-18-2

Comment noted. The State Environmental Policy Act does not require economic analyses to be part of an EIS, it was a required component of this EIS as per the referenced proviso.

O-18

COMMENT

RESPONSE

O-18-2

Legislature (reappropriated in the [2020 Supplemental Capital Budget](#) --ESSB 6248, Sec. 1026)), reads in part: "...The environmental impact statement must also consider an expanded area around Capitol Lake and Budd Inlet including the Port of Olympia for the economic analysis. The environmental impact statement must consider the use of equal funding from nonstate entities including, but not limited to, local governments, special purpose districts, tribes, and not-for-profit organizations."

Economic Analysis Inadequate in DEIS

Appendix 18, the Economic Discipline Report, does an inadequate job of factoring into the analysis the significance of the recreational boating industry to our community and region. Although OYC and a couple of the marinas are described, there is no attempt to quantify their direct or indirect economic impacts or to explore in any depth the value that Budd Inlet and its public and private facilities provides to recreational boaters.

The economics of operating marinas in the West Bay not only has a positive direct impact on their members, owners, and lessees, but also a significant beneficial impact on the state and local governments that rely on tax and fee-based revenues from marinas and boaters, the businesses supported through goods and services procured by marinas and boaters, and the broader community organizations and residents that receive intangible benefits from marina programs and facilities.

In addition, the DEIS neglects to address and quantify the adverse impacts that multiple years of demolition/construction and frequent maintenance dredging under the Estuary and Hybrid Alternatives would have on water-based recreation within Budd Inlet. Instead, the Economic Discipline Report focuses on Capitol Lake recreation and reiterates the unsupported "assurance" that: "Maintenance dredging in West Bay would avoid or minimize impacts to navigation in Budd Inlet...Recurring sediment removal would ensure that each entity is able to maintain operations and continue to generate economic value for the local and regional population and economy."

O-18-3

The Final EIS should fix these foundational gaps. There needs to be a serious evaluation of the likely economic impact of each Proposed Alternative on the continued existence of recreational boating in the West Bay and on the directly related taxes, fees, payment of goods and services, and other financial benefits accruing to governments, businesses, the Olympia waterfront, and the community.

As a starting point for the baseline economic impact, we recommend the following relevant studies that have been completed in the past six years.

[Recreational Boating Industry Data in US and by State \(National Marine Manufacturers Association, 2018\).](#)

- Washington Statewide: 241,760 registered boats, \$6.9 billion annual economic impact, supports 22,872 jobs and 1,433 businesses.
- Congressional District 10: 18,248 registered boats, \$324 million annual economic impact, supports 1,232 jobs and 63 businesses.

[Economic Analysis of Outdoor Recreation \(Washington State Recreation and Conservation Office, 2015\)](#)

- Of \$21 billion in annual expenditures for outdoor recreation in Washington state, the highest expenditures are for recreation associated with public waters.

O-18-3

The EIS Project Team have reviewed the studies provided in this comment letter. Additional detail has been added in Section 4.1 of the Economics Discipline Report to incorporate the information the Marinas provided documenting their annual spending and contribution to the local economy. We have also provided information about the regional economic contribution of the recreational boating sector in Washington, as documented in the citations provided in this comment.

Acknowledging and supporting the public benefit of a vibrant, working waterfront and recreational boating has also been fundamental to developing an approach with the Funding and Governance Work Group to provide shared funding for increased maintenance dredging under the Estuary Alternative.

Please also see the Global Response for Economics.

O-18

COMMENT

RESPONSE

- O-18-3
- Boating statewide generates \$4.48 billion in terms of equipment and trip-related expenditures annually, with 2.1 million participants and 27.3 million participant-days.
 - Eighty-six percent of total boating expenditures are for motorized boating.
- In addition, the economic analysis should factor in:
- O-18-4
- The lease fees (nearly \$4.1 million from 2019 through 2021) paid by private marinas statewide to the Department of Natural Resources (DNR) that not only support management of state lands but fund aquatic-related projects throughout Washington. Thurston county projects funded through DNR’s Aquatic Lands Enhancement Account have included: Percival Landing; Woodard Bay restoration; Frye Cove enhancements; Olympia’s West Bay Park; and an exhibit at the Billy Frank Jr. Nisqually Refuge.
 - Annual watercraft excise tax and registration/licensing fees that bring in about \$30 million/year statewide.
- Value of the Olympia Waterfront**
- Olympia’s waterfront is a key element in Olympia’s and Thurston County’s economic vitality, character, and culture. While the Economics Discipline Report does acknowledge some of these elements, it does an inadequate job of addressing and quantifying the adverse impacts that multiple years of demolition/construction and frequent maintenance dredging under the Estuary and Hybrid Alternatives would have on our “working waterfront” in general.
- O-18-5
- Olympia’s waterfront is a key factor driving over \$200 million in public and private investment in downtown in recent years, including the development of more than 900 market rate housing units built, or in planning or permitting.
 - Businesses located on the waterfront or that service recreational boaters include marine repair shops, boat sales brokers, grocers, restaurants, art galleries, and other businesses that attract residents and tourists.
 - Many of Olympia’s top tourist draws are located on or near the waterfront, including Percival Landing, the Olympia Farmer’s Market, the Port Plaza, and the Hands-on Children’s Museum.
 - Historic and cultural activities reliant on Olympia’s waterfront include: Harbor Days and Tug Races; Wooden Boat Festival; Parade of Lighted Ships; Tribal Canoe Journeys; and Dragon Boat Festival.
 - Visiting boats moor at Percival Landing, the Port Plaza dock, or at OYC, using these dock facilities as a base from which to patronize Olympia’s downtown restaurants and other businesses.
- C. Recreational Boating Marinas in the lower West Bay Area**
- O-18-6
- There are four recreational boating marinas with a large footprint and history in the lower West Bay area. Collectively, they provide 453 boat slips for use within Olympia and house 37 liveaboards. The following sections describe these marinas and the amenities and benefits they bring to our community.
- (1) **Olympia Yacht Club**

- O-18-4
- We have added detail in Section 4.1 of the Economics Discipline Report to incorporate the information the Marinas provided documenting their annual spending, including the DNR Lease. We have also provided information about the regional economic contribution of the recreational boating sector in Washington.
- O-18-5
- Please see response to Comment O-18-3.
- O-18-6
- In response to this comment, additional detail has been added in Section 4.1 of the Economics Discipline Report to incorporate the information the Marinas provided documenting their slip numbers, annual spending, and contributions to the local community through grants and sponsorship of local events and activities. The Funding and Governance Work Group specifically recognizes the marina contribution to maintaining a working waterfront and recreational boating in West Bay and the benefits they provide to the community in their commitment to fund increased sediment management under the Estuary Alternative, as detailed in Final EIS Supporting Chapter 7.0 and in the Memorandum of Understanding (Attachment 23).

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RESPONSE

Background: The Olympia Yacht Club (OYC) has been in existence at its current location for over 117 years -- since 1904. OYC has been an important partner with the public and local governments in providing for a high quality of life and recreational opportunities in Olympia and Thurston County. OYC has 238 moorage slips in its marina, houses 13 liveaboards, and currently has 480 adult members and 6 junior members. OYC Marina is Green Marina-designated.

Economic Impacts: As a non-profit organization, OYC spends nearly \$1 million per year that generates positive economic effects in the community, region, and state. Examples include:

- \$159,000 – DNR Lease and Leasehold Excise Tax (government)
- \$41,000 - Real Estate Excise Tax (government)
- \$270,000 – Payroll for 4 full-time employees and 17 part-time employees
- \$295,000– Insurance, professional services, facility and OYC boat maintenance, and events (businesses)
- \$53,500 – Permitting costs (governments)

On top of OYC expenditures, individual boat owners positively impact the economy through their payment of the following taxes and fees:

- Watercraft excise tax at ½ of 1% of fair market value, which is collected by Department of Revenue and deposited in the state general fund.
- Sales and use tax on vessels as well as on equipment, goods and services related to boating (government and businesses).
- Property tax on member boathouses at OYC (government).

Intangible Benefits OYC Brings to the Broader Community:

Our organization values and prioritizes opportunities to engage with the broader community to achieve important objectives, such as:

- **Sailing Education Program (SEP):** Sponsored in conjunction with Olympia Parks and Recreation, this Program has trained thousands of area youth and adults. The Summer Learn to Sail Program attracts 425 people, including 385 youth. Highly successful middle and high school race teams compete regionally and nationally. OYC pays for the staff and owns/houses the SEP boats.

The SEP exemplifies the spirit behind Governor Inslee’s “No Child Left Inside” initiative. Strongly supported by RBAW and OYC, “No Child Left Inside” encourages outdoor recreation to be incorporated into kindergarten through 12th grade core curriculum because “the outdoors is humanity’s first classroom, laboratory and gym.”

O-18-6

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- **Events for Specific Communities:** December Holiday Cruise for adults with disabilities; Fofaraw Cruise for active duty military co-sponsored since 1964 by Thurston Chamber and Chehalis Tribe; COVID Medical Personnel Appreciation Cruise; Wounded Warrior Cruise co-sponsored by South Sound Sailing Society; Transfer of Salmon Smolt on OYC land in support of Squaxin Tribe salmon-raising.
- **Community Grants:** Awarded annually on a competitive basis to local non-profit organizations such as Hands- On Children’s Museum, Estuarium, Harbor Days, Food Bank.

(2) **Martin Marina**

Background: Martin Marina was built in 1979 -- 42 years ago. It was sold to the current ownership in February 2021. There are 85 moorage slips in the marina, 8 of these slips are live aboard occupancy. Martin Marina is designated as a Clean Marina.

Economic Impacts: Martin spends nearly \$225,000 per year that generates positive economic effects in the community, region, and state. There is an additional \$1.2 million of improvements scheduled over the coming 10 years, including piling and dock replacements, bank armoring, and maintenance dredging.

(3) **Fiddlehead Marina**

Background: Fiddlehead Marina was redeveloped in its current location in 1981 -- 40 years ago. It was sold to the current ownership in December 2020. There are 80 moorage slips in the marina, 16 of these slips are live aboard occupancy. Fiddlehead Marina is designated as a Clean Marina.

Economic Impacts: Fiddlehead spends nearly \$350,000 per year that generates positive economic effects in the community, region, and state. There is an additional \$1.5 million of improvements scheduled over the coming 10 years, including piling and dock replacements, bank armoring, and maintenance dredging.

(4) **One Tree Island Marina**

Background: One Tree Island Marina has 50 slips.

Economic and Social Impacts:

- \$24,000 – DNR Lease (government)
- \$25,000 – Insurance, Professional Services, and Maintenance Services (business)

O-18-6

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O-18-6

- One Tree Island has, in the past, hosted the Sea Scouts and may in the future (social)

D. Preferred DEIS option (Managed Lake)

Of the three Action Alternatives considered by the DES, our organizations support the Managed Lake Alternative.

This Alternative would build upon the Capitol Lake water quality improvements noted in the DEIS:

“Despite what has been perceived to be worsening conditions in Capitol Lake, monitoring data indicate that water quality conditions have actually been improving in the lake and are relatively good in terms of physical and chemical characteristics important to aquatic life. These improving water quality trends reduce the level of management that would be needed under a Managed Lake Alternative to meet lake management objectives.”

O-18-7

The Managed Lake Alternative, in terms of construction costs and timelines, is the least expensive and least disruptive to the community. And if there is a funding lapse after construction, adverse impacts of the Managed Lake Alternative would be restricted to North Basin recreational opportunities rather than the irreversible, broader adverse impact on West Bay navigation resulting from dam removal and the resultant sediment transport and deposit.

Our support for the Managed Lake Alternative is also grounded in substantial concerns about the unknowns connected to the Estuary and Hybrid Alternatives, which are described in the following section.

E. Concerns with the Hybrid and Estuary Alternatives.

(1) Sediment Dredging Assumptions and Costs:

We appreciate the efforts by DES and its consultants to quantify and estimate the long-term sediment management requirements that would impact OYC and the other marinas in West Bay. OYC has reviewed the sediment management assumptions and costs assumed in the DEIS. Our analysis follows.

As noted above, our organizations’ primary concern with the DEIS and the Hybrid and Estuary alternatives include assumptions regarding sediment deposition, erosion and dredging that would result from the removal of the 5th Avenue Dam. Specifically, we’ve reviewed the following relevant Chapters of the DEIS: 2-52, 3-1, 4-1, 4-14, 5-1 and 5-2.

O-18-8

Our specific concerns include the data in Table 4.2.4 (pg. 4-21), which is supported by the technical data in Attachment 5 to the DEIS (*Hydrodynamics and Sediment Transport Discipline Report*), Table 5-16 (pg. 5-60) and Table 5-17 (pg. 5-66).

While we appreciate the time and effort that went into this work, our review of this data suggests that for the DEIS analysis, the consultants erred on the side of including a range of the most conservative data and assumptions in their analysis, which would result in the least amount of best case scenario for sediment exiting Capitol Lake and entering West Bay. Specifically, the DEIS analysis for sediment deposition includes data with sea level rise and only **Event A**. The range did not ultimately include data without sea level rise or **Event B**.

This omission is important because the peak annual discharge for Event A is the lowest measured daily discharge for an annual peak in the last 10 years. Therefore, Event A represents a low flow scenario and

7

O-18-7

Comment noted. Please note that Enterprise Services developed a Preferred Alternative identification process that considered a wide range of information, including performance against project goals, other environmental impacts and benefits, environmental and economic sustainability, construction impacts, and feedback from engaged stakeholders (referred to as Decision Durability). The decision-making process goes beyond findings from the water quality analysis. Please refer to Attachment 21 which provides more detail on the decision-making process and the findings from this evaluation, and the Global Response for the Preferred Alternative Identification Process.

O-18-8

The EIS evaluated all four alternatives in terms of hydrodynamics and sediment erosion/deposition under both Events A and B with and without RSLR, as shown in the Hydrodynamics and Sediment Transport Numerical Modeling Discipline Report (Attachment 5). Sediment deposition in Budd Inlet with RSLR was found to be smaller than that without RSLR.

Table 4.2.4 of the Draft EIS lists annual erosion/deposition rates for both Events A and B under all four alternatives but with RSLR. Table 4.2.4, Figure 4.2.2, and Figure 4.2.3 of the Final EIS have been updated using results without RSLR because that is more conservative in terms of sedimentation. Similar changes have also been made to the Navigation Discipline Report (Attachment 6).

Figure 4.2.1 of the Draft EIS shows the dredge areas in the West Bay. Percival Landing, Martin Marina, and Port Plaza Dock (not specifically called out on the figure) are combined into “other Nearby Marinas” (shown in blue) while the waterway between the marinas and the Port of Olympia Turning Basin is noted as “Marina Access Area” (shown in orange).

It is acknowledged that sedimentation will have the potential to result in significant impacts to navigation in the West Bay under the Estuary and Hybrid Alternatives. The annual sedimentation rate table provided in the comment picked the largest modeled rate at the Olympia Yacht Club for Event B without RSLR and assumed this rate is uniform across all other locations in the West Bay. This is contradictory to model results that indicated that rates of sediment deposition would be variable over the West Bay of Budd Inlet with highest rates at the Olympia Yacht Club followed by North Basin. For example, model results indicated that rate of sediment deposition at the Port/Turning Basin under Event B is half of the rate at the Olympia Yacht Club.

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consequently, a lower bound for sediment erosion/deposition. On the other hand, the peak daily discharge for Event B is the highest daily discharge on record. Event B represents a high flow event and, consequently, an upper bound for sediment erosion/deposition. These two events were defined to bracket the possible range of erosion/deposition within Budd Inlet upon removal of the 5th Avenue Dam.

Of course, the answer on sediment deposition likely lies somewhere in the middle. But without this complete range of pertinent data, the DEIS is incomplete, and DES cannot fairly and accurately assess all alternatives.

The DEIS also does not address the sediment accretion at other locations in the West Bay, including Percival Landing, Port Plaza Dock, or the waterway between the marinas and the Port of Olympia Turning Basin.

As a result, we believe the information and data range in the DEIS wholly underestimates how much sediment is likely to be deposited (and the corresponding dredging costs associated therewith) in West Bay under the Hybrid or Estuary Alternatives.

By contrast, to illustrate the broad range of omitted possible outcomes in the DEIS, we've evaluated a Capitol Lake/West Bay sediment deposition analysis **without sea** level rise and **with Event B**.

Marina	Moorage Area (sq.ft)	No. of slips	RATE OF SEDIMENT ACCRETION/YEAR								
			MANAGED LAKE ALTERNATIVE			ESTUARY ALTERNATIVE			HYBRID ALTERNATIVE		
			(cm/yr)	(in/yr)	(cy/yr)	(cm/yr)	(in/yr)	(cy/yr)	(cm/yr)	(in/yr)	(cy/yr)
OYC	450,000	238	8.4	3.3	4,593	29.8	11.7	16,295	35.5	14.0	19,412
Martin Marina	138,000	85	8.4	3.3	1,409	29.8	11.7	4,997	35.5	14.0	5,953
Fiddlehead Marina	93,000	80	8.4	3.3	949	29.8	11.7	3,368	35.5	14.0	4,012
One Tree Island Marina	35,000	50	8.4	3.3	356	29.8	11.7	1,264	35.5	14.0	1,512
Percival Landing	101,000	24	8.4	3.3	1,031	29.8	11.7	3,657	35.5	14.0	4,357
Port Plaza Dock	36,000	16	8.4	3.3	367	29.8	11.7	1,304	35.5	14.0	1,553
Channel Out to Turning Basin	173,000	0	8.4	3.3	1,766	29.8	11.7	6,264	35.5	14.0	7,463
TOTALS:	1,026,000	493			10,472 cy/yr			37,149 cy/yr			44,261 cy/yr

Please note: With these quantities, we believe portions of our marinas would likely need to be dredged **every one to two years**.

Using these assumptions and the data available in the DEIS (Figure 5-31), the estimated sediment deposition rate at OYC under both the Estuary and the Hybrid Alternatives is nearly double the amount represented in the DEIS.

Based on our sediment deposition figures above, we've run the following unit and overall cost estimates that are not reflected in the DEIS but must be included and considered in the final EIS. The cost estimates are based on the 2013 dredging work at OYC, assuming inflation at 3%/year.

Refer to Final EIS Supporting Chapter 7.0 for a summary of the approach to shared funding of increased maintenance dredging in West Bay under the Estuary Alternative. Chapter 7.0 and the Memorandum of Understanding developed by the Funding and Governance Work Group (Attachment 23) also describe that the state would obtain permits for the required dredge events. Chapter 7.0 also includes a description of the assumption that remediation of known contaminated sediment and reestablishment of authorized depths would occur in West Bay in the next 10 years; this work would be led by the Port of Olympia.

Please refer to Section 4.2.5.4 of Final EIS Supporting Chapter 4.0 and Sections 5.5.2.3 and 5.5.2.5 of the Navigation Discipline Report (Attachment 6) for a discussion of potential impacts to marinas, moored vessels, and boathouses during maintenance dredging.

O-18-8

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Estimated Unit Costs for Dredging After 5th Avenue Dam Removal in 2027

	2013 base year costs	2030 initial dredge	2035	2040	2045
In-water disposal	\$30/CY (60%)				
Upland disposal	\$145/CY (40%)				
Avg. cost at 60/40 inflated at 3% from 2013	\$76/CY	\$125.62	\$145.63	\$168.83	\$195.72
Est. permitting	20%	\$25.12	\$29.13	\$33.77	\$39.14
Sand overlay/CY for contaminated per acres at 60/40	\$4.30	\$7.10	\$8.24	\$9.55	\$11.07

Estimated Costs of Dredging West Bay Area

	CY/five years	2030	2035	2040	2045	Totals:
Estuary Alt.	185,745					
Avg. direct dredge costs		\$23,333,287	\$27,050,044	\$31,359,328	\$36,354,011	
Est. permitting costs		\$4,665,914	\$5,410,752	\$6,272,609	\$7,270,059	
Est. sand overlay costs		\$1,318,790	\$1,530,539	\$1,773,865	\$2,056,197	
Total:		\$29,317,991	\$33,991,335	\$39,405,802	\$45,680,268	\$148,395,395
Hybrid Alt.	221,305					
Avg. direct dredge costs		\$27,800,334	\$32,228,647	\$37,362,923	\$43,313,815	
Est. permitting costs		\$5,559,182	\$6,446,615	\$7,473,470	\$8,661,878	
Est. sand overlay costs		\$1,571,266	\$1,823,553	\$2,113,463	\$2,449,846	
Total:		\$34,930,781	\$40,498,815	\$46,949,856	\$54,425,539	\$176,804,991

In addition, neither the DEIS nor our calculations include analysis of the need for boats/boat houses to be moved temporarily for dredging. There would be significant logistical challenges and cost associated with this fact. Remediation of marina facilities to meet permitting requirements are also not included in the DEIS or our analysis.

To have potential dredge costs of \$148 million or \$177 million, respectively, over the first 15-year period is a daunting prospect, and begs the critical question: **how will costs at this level, or even at the conservative level reported in the DEIS, be paid for?**

(2) **Who Benefits/Who Pays:**

Chapter 7 of the DEIS focuses on “Planning-Level Costs, Funding Recommendations, and Other Considerations.” It assumes that the State, as the entity who built the dam and owns much of the surrounding area, would be primarily responsible for most construction costs under the Estuary and Hybrid Alternatives.

O-18-9 SEPA gives the lead agency wide discretion with regard to when and how to identify a Preferred Alternative. The Preferred Alternative can be identified at any time in the EIS process; and, early designation of a Preferred Alternative in no way restricts the lead agency’s final decision. Enterprise Services identified the Estuary Alternative as the likely Preferred Alternative in early 2022 based on an evaluation of the alternatives against decision-making criteria. Identifying the likely Preferred Alternative allowed the Funding and Governance Work Group to reconvene and consider how to provide shared funding and governance for long-term management. Enterprise Services described in early 2022 at this milestone, that if long-term funding and governance cannot be established, decision-making may need to be revisited. The Funding and Governance Work Group has met continuously throughout 2022 to advance the agreement for shared funding and governance for long-term management. A Memorandum of Understanding has been developed to outline areas of agreement, and to demonstrate an ongoing commitment to funding for increased maintenance dredging under the Estuary Alternative. Please refer to Final EIS Supporting Chapter 7.0 for an updated description of the funding approach for the Preferred Alternative.

Enterprise Services has also been engaged with the private marinas during development of the Final EIS to discuss results of the hydrodynamic and sediment transport numerical model, maintenance dredging approach, and shared funding for maintenance dredging at the marinas.

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O-18-9

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As for the long-term maintenance dredge, Table 7.1.1, footnote 7, says that the project-related maintenance dredge costs above the historical baseline are assumed to be shared by the Funding and Governance Work Group and U.S. Army Corps of Engineers.

Section 7.2 on page 7-7, acknowledges that:

“Under the Estuary and Hybrid Alternatives, the primary focus for long-term funding and governance would be sediment management in impacted areas of West Bay. Recurring maintenance dredging, at a 5- to 6-year frequency, is critical to avoiding and minimizing significant impacts to downstream resources from sediment deposition... Without shared long-term funding and governance, these management actions may not be implemented. In past planning processes, the lack of committed funds in the State of Washington budget was frequently cited as a potential significant obstacle to adequate long-term management of the Capitol Lake-Deschutes Estuary.”

Further, Section 7.2.1 on page 7-8 has a list of Guiding Principles that include:

1. *Dedicated and secure funding sources.*
2. *Those who contribute to the problem should participate in funding or paying for the solution.*
3. *Those who benefit from the solution should participate in funding or paying for the solution.”*

Our marinas welcome the above acknowledgements, assumptions, and principles.

Unfortunately, the DEIS then immediately punts on the long-term management structure, identification of beneficiaries, and a funding plan, when Section 7.2.2 states:

“Balancing a potential contribution from a State legislative appropriation for construction costs, the Funding and Governance Work Group suggests that an equitable and efficient outcome could be that funding for long-term management is provided by those who benefit from the solution. This would operationalize guiding principal #3 with details to be determined based on the selected alternative once it is known and beneficiaries can be more clearly identified (our bolding added).”

It would be wholly unacceptable to allow the EIS to be finalized and a Preferred Alternative selected without first answering the questions of “who benefits? who pays?” for each Alternative.

Until those questions are answered, it is impossible for OYC, other marinas, or anyone to judge the economic sustainability of the Alternatives. The increased sediment deposits resulting from the Estuary and Hybrid Alternatives make the OYC and other marinas the most impacted entities in West Bay. The lack of transparency on this critical issue makes the future existence of our organizations and the potential economic impacts on Olympia’s waterfront, uncertain and at risk.

A very specific “who pays” question was asked, but not answered, at the DEIS Presentation to the OYC. The commentary surrounding the invasive species of New Zealand Mud Snail was presented as something that will cause the Capital Lake sediment dredge to be treated as contaminated material, and therefore subject to upland disposal. It was also noted that the snail would not be eradicated under any of the alternatives and would likely migrate into the Budd Bay Inlet if the Estuary or Hybrid models were adopted. This prompted the question from our local marinas – If our marinas have clean sediment now, and under normal circumstances our dredging would be subject to deep water disposal, but the snails cause upland disposal, who is paying that upcharge when

O-18-10 Please see response to Comment O-18-9.

O-18-11 Because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for the persistence of freshwater aquatic invasive species in deeper waters where dredging would occur. To evaluate the validity of this assessment, a survey was conducted for the Final EIS to determine whether New Zealand mudsnails have become established in Budd Inlet. Given their transport through the 5th Avenue Dam during high flow events for more than a decade, if they could readily establish within Budd Inlet, it would be expected that a population would be present. No New Zealand mudsnails were found during this survey.

Before removal of the 5th Avenue Dam, the state would sample sediment within the future maintenance dredging areas to determine whether the New Zealand mudsnail exists within these areas.

- If sampling verifies that New Zealand mudsnails do not exist within the maintenance dredge areas before removal of the 5th Avenue Dam, and they are subsequently found in dredged material after removal of the 5th Avenue Dam during maintenance dredging events, increased costs associated with upland disposal are expected to be borne by the State of Washington during the term of the project. Cost contribution from the marinas would still be expected equivalent to dredging costs under the No Action Alternative, assuming in-water disposal, as described in Final EIS Supporting Chapter 7.0 and the Funding and Governance Work Group Memorandum of Understanding (Attachment 23).
- If sampling finds New Zealand mudsnail in the maintenance dredge areas before removal of the 5th Avenue Dam, then this would be the existing, baseline condition. In this scenario, the State of Washington would not provide funding for increased costs associated with upland disposal.

Discussions with the Funding and Governance Work Group have focused on the high end of the cost range for in-water disposal. This increases certainty that funding will be available to address future conditions. As described in Final EIS Supporting Chapter 7.0, there is inherent uncertainty in the quality of future dredged material, and both disposal options (upland and in-water) may be used in future dredge events.

O-18-9

O-18-10

O-18-11

O-18

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The Memorandum of Understanding, provided as Attachment 23 of the Final EIS, outlines the proposed funding approach for increased dredging under the Estuary Alternative. It also stipulates that, if sediment management costs increase to a degree that funds would be exhausted prior to the expiration of the initial term of the future Interlocal Agreement, the Funding and Governance Work Group would reconvene to determine an approach focused on avoiding impacts on navigation.

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O-18-11 | they migrate into the Budd Bay Inlet? The presenters were unable to answer this question and asked that we submit the same formally for further discovery.

O-18-12 | Another serious concern is the lack of documentation backing the assumption in the DEIS and in briefings that the U.S. Army Corps of Engineers (USACE) will pay 25% of the total dredging costs: *“Approximately one-quarter of the sediment that would be dredged as part of the project would be from the FNC and turning basin, and that dredging is the responsibility of the USACE. Therefore, it is assumed that one-quarter of these total maintenance dredging costs would be paid by USACE.”* (DEIS, Chapter 7, page 7-6). The USACE has not expressed a clear position of commitment to this project. A key part of evaluating the Preferred Alternative must be documentation of official USACE support for Fifth Avenue Dam removal and a commitment to prioritize its share of funding for the long-term maintenance dredge components of the project.

O-18-13 | It should be noted that the Puget Sound Nearshore Ecosystem Restoration Project (PSNERP) has in the past rejected the Deschutes Estuary Restoration proposal because of adverse impacts to the maintenance of the federal navigation channel. In line with PSNERP’s concerns, which reflect the perspectives of the USACE and the Washington Department of Fish and Wildlife, the Puget Sound Partnership (PSP) – the lead State agency on restoring Puget Sound – gave the Deschutes Estuary Restoration project a low priority (Tier 3, #318 out of 510 projects) in its 2018-2022 Action Plan. Further, a more detailed review of PSP’s 2018-2022 Near Term Action Plan show the Deschutes Estuary at \$113 million to be the single most expensive project on their comprehensive list of remediation actions by a factor of 2.5X. Many less expensive, higher priority and higher impact Puget Sound restoration projects in the PSP’s Near-Term Action Plan could be completed for the cost of this one project.

O-18-14 | Actions speak louder than words. The decision of the Funding and Governance Workgroup to not identify beneficiaries, funding partners, and sources as part of the Preferred Alternative selection process, mirrors the failed history of action and funding for Capitol Lake management. It should be easy to understand our mistrust that long-term maintenance dredging will be taken care of by some yet-to-be-determined quasi-entity using yet-to-be determined funding source(s) from unidentified beneficiaries. We are concerned that once the dam is irreversibly removed, responsibility for maintenance dredging would likely fall on our organizations.

O-18-14 | None of our organizations is in a financial position to handle multi-million-dollar dredge projects every five or six years. And so, the other conclusion stated throughout the economic analysis of the Estuary and Hybrid Alternatives – “No Effect on Downstream Economic Activity” – is also unsupported unless and until the “who benefits/who pays?” questions are answered.

(3) Additional Concerns:

As shown above, our primary concerns relate to long-term sediment management -- who benefits, who pays, and cost-shifts that could threaten the continued existence of Olympia’s vibrant, urban working and recreational waterfront.

However, we have some additional concerns that we believe should be revisited by DES and its consultants on the path to the Final EIS.

O-18-15 | **• Impact of Each Alternative on Nitrogen Load Discharge into Budd Inlet:** In Chapter 3 of the DEIS, “Existing Conditions”, Table 3.3.5 and Figure 3.3.2 do an excellent job of showing how the Lake dramatically reduces the Deschutes River’s high Nitrogen concentrations in the critical summer months. These Nitrogen concentration figures should be applied to the River’s cfs flow rate to calculate the Nitrogen load being discharged into Budd Inlet under each of the different alternatives. There should

O-18-12 | During development of the Draft EIS, Enterprise Services engaged the USACE as part of the Technical Work Group to review regulatory feasibility of the action alternatives. In those meetings, the change to sediment conditions in West Bay was described; maintenance dredging was proposed to avoid significant impacts to navigation; and historic dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary was acknowledged.

In response to comments on the Draft EIS, Enterprise Services met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, Enterprise Services also described that the Estuary Alternative would restore sediment loading, similar to conditions that existed before the 5th Avenue Dam was constructed. For many decades before 5th Avenue Dam construction, the USACE dredged the federal navigation channel to support commercial navigation in the Deschutes Estuary.

Additional coordination would occur with the USACE as part of the federal permitting process. Federal permits must be obtained prior to project construction. Coordination with USACE would also occur in the future when federal funding is needed for dredging in the federal navigation channel.

O-18-13 | Please see response to Comment O-18-12.

If the Estuary Alternative is selected for implementation, the Puget Sound Partnership would be engaged regarding a funding strategy for construction and would determine where its available funding should be prioritized across its list of potential projects.

O-18-14 | Please refer to the Global Response for Shared Funding and Governance for Maintenance Dredging under the Estuary Alternative.

O-18-15 | See response to Comment O14-1-4

O-18

COMMENT

RESPONSE

O-18-15 then be a discussion in the text on the impacts of this Nitrogen loading to the work of the Department of Ecology’s current Nitrogen Nutrient Reduction Forum and LOTT’s water discharge permit requirements.

O-18-16

- **Railroad Bridge:** Why was this bridge and its impediment to the natural ebb and flow of the river not addressed? In the Estuary and Hybrid options, this bridge, and its embankments will be as much of an impediment to the natural ebb and flow of tidal changes as the Fifth Avenue Gate is currently.

O-18-17

- **Railroad Transport Option:** An active rail line runs through the project area. There is a six-acre state-owned upland site on the west side of the Deschutes Parkway adjacent to this rail line that could be used for dewatering the sediment and transporting them at a much lower cost than trucking.
- **Water in the Estuary 80% of Time:** Graphs throughout the DEIS show that under the Estuary alternative, the Basin would be covered with water 80% of the time. This is based on a 24-hour day and over the course of a year. The tide flats start showing when the tide level is +4.0 feet.

In the summer, at the height of water-based recreation in this area, the +4.0 feet low tide exposures occur primarily during the daylight hours. July 2021 alone had 28 days with tide levels +4.0 feet or less during daylight hours, or 90% of the days when tide flats will be exposed.

For the final EIS, misleading assumptions and graphs in the DEIS must be clarified and supplemented to show the real impact. For example, the image on page 10 of the Executive Summary is deceptive to the reality at mid- to low tide in the Basin. There need to be complementary photos of the Estuary alternative at low tide included in the Executive Summary.

The photos below of the historic natural state of Capitol Lake (note the lack of a dam) and Budd Inlet need to be included in the Final EIS background summary, as does a future rendition of the lake at low water.

O-18-18



O-18-16 The railroad bridge creates a constricted section for the flow but does not impede natural flow of the river or block natural ebb and flow of tides and freshwater/saltwater mixing under the Estuary and Hybrid Alternatives.

O-18-17 The contractor would determine the transport method used for dredge spoils, based on the intended disposal location, which would either be in-water or upland, depending on chemical quality and presence of invasive species.

For the Estuary and Hybrid Alternatives, maintenance dredging would occur in West Bay rather than in Capitol Lake. The dredged sediment is expected to be suitable for in-water disposal and would be loaded onto a barge for transport to the in-water disposal site. However, given the inherent uncertainty in sediment quality, upland disposal has also been estimated and would likely require truck transport.

Under the Managed Lake Alternative, the choice between rail and truck will depend on the targeted disposal location and whether it can be reached by rail, on rail capacity, and on any equipment needed to move sediment to and from a rail line and its transload and offload locations. Before dredging, the contractor would evaluate all potential cost saving measures, which could include rail transport from the site if upland disposal is required.

O-18-18 Please see response to Comment I-649-4.

In response to this comment, additional visual simulations of the Estuary at low tide have been added to the Final EIS Summary and Final EIS Supporting Chapter 2.0. Historic photos from the project have also been included in the Final EIS Summary for additional context.

Consistent with the Deschutes Estuary Feasibility Study Independent Technical Review, the Draft EIS and Final EIS also describe that the predominant habitat feature under the Estuary Alternative would be tideflats (see Section 2.2.2 of EIS Supporting Chapter 2.0).

O-18

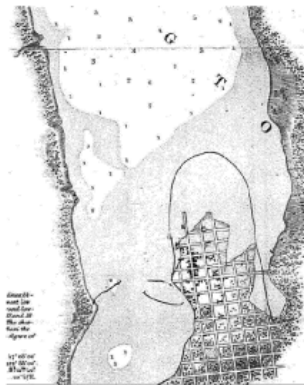
COMMENT

RESPONSE



It is also imperative to review the historical results from former impact studies: "...opening the system to tidal exchange will result in the re-establishment of predominantly mudflat and channel habitat." ("Deschutes Estuary Feasibility Study Independent Technical Review", October 2007, Page 9, Section 6.1.1).

As for the low tide conditions in Lower Budd Inlet, the graphic below is a historic navigational chart that depicts the natural state of Budd Inlet at low water.



O-18-18

O-18

COMMENT

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The following three images capture the reality of water at low tide in Lower Budd Inlet Summer 2021:

Low Tide, entire West Bay Area, June 2021



Low Tide, facing north from OYC, boat at anchor aground



Low Tide, facing east from West Bay Park



O-18-18

14

O-18

COMMENT

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O-18-19

- **Recreational Vessel Usage of Budd Inlet.** We encourage the consultants to revisit the incomplete methodology used to produce the graph on Page 3-9 in Chapter 3.0 of the DEIS, “Existing Conditions and Affected Environment.” The coloring of the graph estimates vessel usage in Budd Inlet at no more than 200 vessels per year. As the text explains, this figure counts only those vessels equipped with AIS and tracked by the Coast Guard.

The problem is that a high percentage of recreational boats have no AIS or receive-only AIS.

This limited methodology dramatically undercounts vessel usage and triggers a misleading conclusion that downplays the very active use of Budd Inlet by recreational boaters who are community residents or tourists.

The fact that the four marinas in Lower Budd Inlet permanently moor vessels in over 450 slips and that two public docks offer space for 40 visiting boats daily also calls into serious question the 200/vessel/year estimate in the DEIS.

- **“Recreational Equivalency”.** An associated concern is the Statement in Chapter 4.8.5.2: “Under the Estuary Alternative, there would be qualitative differences in some recreational activities compared to the No Action Alternative or the Managed Lake Alternative. Most activities in the study area would remain the same, while some would continue with modifications that would **have equivalent beneficial recreational value (our bolding added)**.”

There is no reference to physical risk associated with tidal activity, nor the impacts of each alternative on different public recreational use. The focus of the DEIS analysis is on current and potential Lake/North Basin recreational activities. Since the “study area” includes Lower Budd Inlet, so should the recreational analysis. Without that, it is not possible to claim “equivalent beneficial recreational value”. Each alternative needs to identify and evaluate the impact on existing and potential activities in the entire “study area” -- both West Bay and the North/Middle/South Basins -- such as recreational boating, swimming, paddle boarding, and remote-control hobby boating.

One of several warnings posted along the Budd Bay shoreline at Priest Point Park

O-18-20



O-18-19 Refer to response to Comment I-781-25 regarding the Budd Inlet Vessel Traffic Pattern figure.

Additional emphasis on the use of West Bay by recreational vessels has been included in the Navigation Discipline Report (Attachment 6). And, this additional qualitative emphasis on recreational use does not change the information used to analyze potential significant impacts from the proposed alternatives and support decision making. Significance criteria is not based on a specific number of vessels using West Bay or impacted, but rather is based on vessel wait times and/or a percent access of impact to leased moorage at existing West Bay marinas.

O-18-20 The focus of the EIS is on significant changes to areas within the study area. The Estuary Alternative is not expected to change current conditions in West Bay such that it would preclude existing boating activities. Please see Tables 4-22 through 4-25 of the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5) for a summary of potential changes to current speed, and Figure 4-46 for a location of the measured stations. While there is a considerable percentage of change, the projected current speed under the Estuary Alternative under the modeled events would not result in more than a knot difference in velocity at the representative stations.

As shown in these tables, under higher river flows current speeds in parts of West Bay tidal would increase, and boaters would need to be aware, as they must be in any tidal system. Because boaters would have access into the basin that is currently unavailable, there would also be benefits to shallow draft boats currently using West Bay under the Estuary (and Hybrid) Alternative. Hazards associated with tideflats are discussed in Section 4.11.9.4 of EIS Supporting Chapter 4.0.

O-18

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- Swimming Beach and Sailing Lessons:** Chapter 2.3.4: We understand that developing a swimming beach is not in scope, so not evaluated, however, the Estuary alternative eliminates the future option to develop a safe, fresh-water swimming beach. This is a significant limitation to potential public use and potential revenue for the City. Another use of the Lake as an urban resource that supports the “No Child Left Inside” Initiative is all-day safe access for youth sailing lessons. Public “opportunity costs” like swimming and sailing need to be identified and called out in the final EIS.



O-18-21

F. Questions for DES

(1) Economic Questions

- (a) The DEIS drafters apparently support the Funding and Governance Work Group recommendation to not identify “who benefits/who pays” for long-term maintenance dredging until after the Preferred Alternative is selected.

O-18-22

How can the “economic sustainability” of each of the three “action alternatives” be rigorously evaluated and compared one to the other without naming and assessing the most viable funding sources for each?

What is the justification for putting on this critical aspect of the decision-making process?

- (b) Chapter 7 of the DEIS assumes that the US Army Corps of Engineers (USACE) will pay for 25% of the total maintenance dredging costs.

O-18-23

Has DES, the DEIS drafters, the Funding and Governance Work Group, or any other entity received written communications from the USACE documenting its intention and commitment to cover these costs if the Estuary or Hybrid Alternative is selected? If so, please provide copies of any such correspondence.

O-18-24

- (c) Why are the current economic impacts of Lower Budd Inlet recreational boating and the working waterfront minimized in the DEIS?

O-18-21 As noted in the Draft EIS and Final EIS, all action alternatives would improve water quality and address invasive species in the Project Area. These efforts would improve conditions for swimming. However, because formal swimming facilities are not part of any action alternative, the EIS does not speculate on the ability of the action alternatives to support swimming. Operating formal swimming facilities is not within the scope of services or agency mission of Enterprise Services. If an entity were to pursue swimming in the future, the opportunities would differ among the action alternatives. The Managed Lake and Hybrid Alternatives could support freshwater swimming, if water quality criteria are achieved. Under the Estuary Alternative and within a portion of the Hybrid Alternative, swimming could potentially be supported, and would occur in a saltwater environment. Swimming would not be well supported at low tides, and tidal currents would be a potential hazard for swimmers.

See Final EIS Supporting Chapter 4.0, Section 4.8, for clarifications around the differences in benefits that the action alternatives would provide with regard to boating.

O-18-22 Please see response to Comment O-18-9.

Please also see Attachment 21 of the Final EIS, which outlines the Preferred Alternative identification process and outcomes, including the evaluation of each alternative relative to economic sustainability.

O-18-23 Please see response to Comment O-18-12.

Written authorization of the project proposal would not be received until the federal permitting process (including federal review of the potential project impacts and associated federal consultations) for the selected alternative, after the EIS.

O-18-24 The Final EIS has been updated to provide more information about the contribution of the private marinas specifically and recreational boating generally to the local economy. It also addresses the impacts that could occur if maintenance dredging does not happen for any reason (e.g., if funding fails to materialize).

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- O-18-25 (d) Why are the clear adverse economic impacts of 7-8 years of Estuary/Hybrid Alternative demolition and construction similarly downplayed in the DEIS?
 - O-18-26 (e) Why doesn't the DEIS address the total cost of dredging all of the marinas located in West Bay of Budd Inlet, including the waterway between the marinas and the Port's turning basin?
 - O-18-27 (f) The draft EIS has assumed that any future dredging under the Managed Lake Alternative would require the far more expensive upland disposal due to contamination. That expense appears to be the primary driver of the higher cost associated with that alternative vs. the others. How does releasing that contamination directly into Puget Sound not result in a similar expensive disposal cost when deposited in the West Bay under the Estuary and Hybrid options?
 - O-18-28 (g) The Draft EIS notes the extended demolition and construction period and frequent maintenance dredging for both the Estuary and Hybrid Alternatives. Why does the Draft EIS fail to address the economic impacts of these on water-based recreational activity in the West Bay?
- (2) Other questions**
- O-18-29 (a) If our marinas have clean sediment now, and under normal circumstances our dredging would be subject to deep water disposal, but the New Zealand Mud Snails cause upland disposal, who is paying that upcharge when they migrate into the Budd Bay Inlet?
 - O-18-30 (b) To have potential dredge costs of \$148 million under the Estuary Alternative or \$177 million under the Hybrid Alternative over the first 15-year period is a daunting prospect. How will costs at this level, or even at the conservative level reported in the DEIS, be paid for?
 - O-18-31 (c) Why was the railroad bridge and its impediment to the natural ebb and flow of the river not addressed?
 - O-18-32 (d) Why does the Draft EIS not consider the existing active rail line in the Capitol Lake basin as a vehicle for disposal of contaminated future dredging under the Managed Lake Alternative?
 - O-18-33 (e) The Hydrodynamics and Sediment Transport Discipline Report identifies a range for the amount of sediment anticipated to be deposited into the West Bay of Budd Inlet. Why did the Draft EIS document choose to only evaluate the impacts resulting from the lowest end of the range of sediment transport?
 - O-18-34 (f) The Hydrodynamics and Sediment Transport Discipline Report states the sediment transport will be significantly greater the first few years after the dam removal. Shouldn't the sediment transport and dredge intervals be adjusted to reflect the increased sediment deposits that are anticipated one or two years after the dam removal?
 - O-18-35 (g) The Hydrodynamics and Sediment Transport Discipline Report identifies sediment deposition as being lower considering Sea Level Rise. Assuming dam removal in 2028, is the time frame of the impact analysis consistent with anticipated 2-feet of sea level rise in 7 years?

O-18-25 The Draft EIS identifies that the impacts of demolition and construction over 7 to 8 years under the Estuary and Hybrid Alternatives would have a substantial impact on the value of recreational trail use in the Capitol Lake Basin. By closing the trail for this duration, people would lose substantial value and potentially permanently substitute to other sites for recreation. Construction and demolition impacts on other activities and businesses were expected to be similar in scale to construction disruptions experienced in downtown during other projects.

In response to comments received on the Final EIS, the Estuary and Hybrid Alternatives have the bridge configuration and construction processes have been modified to avoid long-term closure of the 5th Avenue corridor. This would minimize impacts to transportation and circulation, further reducing the significance of these construction and demolition impacts. The analysis of impacts reflects these changes.

No construction activities would occur in West Bay under the Estuary and Hybrid Alternatives.

Please also see the Global Response for Economics.

O-18-26 The planning-level cost estimates provided in the Draft EIS do include these costs. Table 4-13.2 provides planning-level cost estimates by alternative. The dredging costs required to maintain the Marinas in West Bay and the access waterway between the marinas and the turning basin is included in the estimates in column three (3) of the table titled "Maintenance Dredging (\$M) Over 30 Years." The Draft EIS lumps all costs of maintenance dredging together because the Funding and Governance Work Group was in process to identify a governance and funding plan to cover these costs.

Please also refer to the Memorandum of Understanding provided as Attachment 23 of the Final EIS for a more detailed cost breakdown, funding strategy, and figure of maintenance dredging areas.

O-18-27 It is assumed that the sediment removed during maintenance dredging in the Estuary and Hybrid Alternatives would be disposed at an allowable in-water location within the Puget Sound. This assumption is based on the suitable chemical quality of the Deschutes River sediment, which was sampled as part of the EIS analysis to get a representative understanding of sediment quality. The Deschutes River sediment would be naturally deposited in West Bay under the Estuary and Hybrid Alternatives and removed during recurring dredge events to avoid significant impacts to navigation and to maintain a

O-18

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working waterfront and recreational boating. Because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for freshwater aquatic invasive species persistence in deeper waters where dredging would occur. To evaluate the validity of this assumption, a survey was conducted for the Final EIS to determine whether New Zealand mudsnail have established in Budd Inlet, given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnail were found during this survey. See the Aquatic Invasive Species Discipline Report (Attachment 8) for additional analysis and rationale that support the assumption that in-water disposal of dredged material from the Estuary and Hybrid Alternatives would not pose a risk relative to spreading invasive species.

Under the Managed Lake Alternative, existing environmental conditions and environmental regulations prohibit sediment from being disposed of in-water disposal due to the presence of the New Zealand mudsnail. However, in response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative. Environmental conditions and/or environmental regulations would have to change for the sediment to be considered suitable for in-water disposal. Dredging would not occur sooner than the 2050s under the Managed Lake Alternative, and conditions could change in that time, although there is no current indication of changes in that direction.

- O-18-28 The economic analysis in the EIS describes that, during construction, there would be no direct disruption to recreational activity in West Bay, or related economic activity in downtown Olympia. The economic analysis describes the potential economic impacts of maintenance dredging on recreational boating. See the Global Response for Economics for more information.
- O-18-29 Please see response to Comment O-18-11.
- O-18-30 Please see Final EIS Supporting Chapter 7.0 for more detail on planning-level costs and the funding approach. Please also note that the planning-level costs provided in Chapter 7.0 for maintenance dredging after construction are projected over a 30-year time horizon, rather than the 15-years suggested in this comment.
- O-18-31 See response to Comment O-18-16.
- O-18-32 The Draft EIS considered truck, rail, and a combination of both as options for transporting dredged sediment for disposal. The Transportation Discipline

O-18

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Report (Attachment 10) findings indicate that rail transport could eliminate up to 72 truck trips per day.

Under the Managed Lake Alternative, the choice between rail and truck will depend on the targeted disposal location and whether it can be reached by rail, on rail capacity, and on any equipment needed to move sediment to and from a rail line and its transload and offload locations. Before dredging, the contractor would evaluate all potential cost saving measures, which could include rail transport from the site if upland disposal is required.

O-18-33 Table 4.2.4, Figure 4.2.2, and Figure 4.2.3 of the Final EIS have been updated using results without RSLR because that is more conservative terms of sedimentation. Similar changes have also been made to the Navigation Discipline Report (Attachment 6).

O-18-34 EIS Supporting Chapter 4.0, Sections 4.2.5.2 and 4.2.6.2, discuss the necessity of initial dredging during construction to reduce sedimentations after dam removal under the Estuary and Hybrid Alternatives, respectively. A sediment monitoring program would ensure that dredging is responsive to actual environmental conditions, whether that be increased or decreased frequency from the estimates, and to avoid significant impacts.

O-18-35 As mentioned in Section 3.1.7 of EIS Supporting Chapter 3.0, the Relative Sea Level Rise of 2 feet was based on the best information available at the time of Draft EIS preparation and was used to define the “future condition.” This “future condition” is not the time dam is removed but years after that to investigate the long-term impacts such as the sedimentation in the West Bay.

O-18

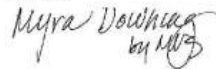
COMMENT

RESPONSE

- O-18-36 (h) The work will be completed prior to the sea level rise impacts. Why didn't the DEIS evaluate the impacts of sediment transport with no sea level rise?
- O-18-37 (i) Why has the Draft EIS failed to include available historical photographs of the Capitol Lake Basin and the West Bay taken pre-dam? Why would they not be the best available representation of the reality of the Estuary and Hybrid Alternatives?
- O-18-38 (j) Why does the Draft EIS fail to recognize the likelihood that, under the Estuary and Hybrid Alternatives, the Deschutes River will not remain in its dredged channel but rather will meander through the existing sediment exacerbating the siltation and contamination in the West Bay in the early years after dam removal?
- O-18-39 (k) Why does the Draft EIS fail to consider the nitrogen flowing into Capitol Lake that is captured there that would flow directly into the West Bay and Puget Sound under the Estuary and Hybrid Alternatives?
- O-18-40 (l) Why does the Draft EIS fail to recognize and address the recreational risks and public hazard represented by the tide flats that will replace Capital Lake under the Estuary and Hybrid Alternatives? (That danger is clearly marked on warnings posted currently at Priest Point Park.)

In conclusion, we thank you for providing the opportunity to comment on the DEIS. We look forward to DES' responses to the issues we have raised and would welcome future conversations with DES and the consultants related to our interests and concerns.

Sincerely,



Myra Downing, Chair
Board of Trustees, Olympia Yacht Club



Bart Brynstad, Owner
Martin Marina



Shannon Tiegs, Owner
Fiddlehead Marina

- O-18-36 The numerical modeling study did consider potential impacts of sediment transport with and without RSLR. It should be noted that under the Estuary and Hybrid Alternatives, sediment deposition rates in West Bay are higher without RSLR than with RSLR. Therefore, sediment deposition rates without RSLR (more conservative) have been used for planning purposes in the EIS.
- O-18-37 The assessment of visual resource impacts in the EIS considers the changes that would occur compared to existing conditions (or baseline conditions). In many cases, the historic photos (pre-dam) would not reflect how the Estuary or Hybrid Alternative would look in the future due to historic-era development and activities that are no longer present along the shoreline. However, several historic photos of the basin (pre-dam) are included in the Cultural Resources Discipline Report (Attachment 13) and several have also been added to the Final EIS Summary for context.
- O-18-38 The Hydrodynamics and Sediment Transport Discipline Report acknowledges that the sediment transport will be significantly greater the first few years after dam removal. Sections 4.2.5.2 and 4.2.6.2 of EIS Supporting Chapter 4.0 discuss the necessity of initial dredging during construction to reduce sedimentations after dam removal under the Estuary and Hybrid Alternatives, respectively. Dredging would be designed to reflect a stable alignment, and thereby reduce the quantity of sediment transported from the restored estuary.
- O-18-39 See response to Comment O14-1-4.
- O-18-40 Tideflat hazards are discussed in Sections 4.11.9.4 and 4.11.9.5 of EIS Supporting Chapter 4.0. These sections acknowledge that tideflats can pose a hazard to people and animals. Similar to the signs the commenter noted are posted at Priest Point Park, the EIS describes that to minimize the risk, warning signs would be posted at recreation areas around the basin.

O-18

COMMENT

RESPONSE



Dell Berg, Owner
One Tree Island Marina



Robert (Bob) Wise, President
Recreational Boating Association of Washington

cc:

State Capitol Committee:
Lieutenant Governor Denny Heck, Chair
Secretary of State Kim Wyman
Commissioner of Public Lands Hilary Franz
Governor Jay Inslee/Designee Kelly Wicker

22nd Legislative District Delegation:
Senator Sam Hunt
Representative Laurie Dolan
Representative Jessica Bateman

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COMMENT

RESPONSE

Subject: **Black Hills Audubon Comment on the Capitol Lake Deschutes Estuary DEIS**
From: Samuel Merrill <sammerrill3@comcast.net>
To: <Comment@CapitolLakeDeschutesEstuaryEIS.org>
Cc: C. Persons <cpeople2u@gmail.com>, Anne Van Sweringen <avansw2@gmail.com>
Date: 2021-08-29 14:35



-
- Black Hills Audubon Comment - Deschutes Estuary - Capitol Lake EIS 8-29-2021.pdf(~304 KB)

Attached is a **Comment on the Capitol Lake Deschutes Estuary DEIS** from the **Black Hills Audubon Society**, covering the Counties of Thurston, Mason, and Lewis.

Please confirm by return email that this attached Comment has been received in good order.

Thanks!

Sam Merrill, Chair, Conservation Committee
Black Hills Audubon

O-19

COMMENT

RESPONSE



A Washington State Chapter of the National Audubon Society
P.O. Box 2524, Olympia, WA 98507
(360) 352-7299 www.blackhills-audubon.org

Black Hills Audubon Society is a volunteer, non-profit organization of more than 1,300 members in Thurston, Mason, and Lewis Counties whose goals are to promote environmental education and protect our ecosystems for future generations.

August 29, 2021

TO: Comment@CapitolLakeDeschutesEstuaryEIS.org

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
P.O. Box 41476
Olympia, WA 98504-1476

To whom it may concern,

Black Hills Audubon Society (BHAS) appreciates the opportunity to submit comments on the Capitol Lake-Deschutes Estuary Draft Environmental Impact Statement (DEIS). A chapter of the National Audubon Society, BHAS has a membership of approximately 1,300 members throughout the counties of Thurston, Lewis, and Mason.

BHAS supports the Estuary Alternative. Seventy-five percent of river delta tidal wetlands in Puget Sound have been degraded or lost. The Puget Sound Partnership’s goal of restoring estuaries by 2020 was reached by only 20%. Restoration of the Nisqually estuary was presumed to be upwards of 80% of that figure. The Deschutes delta has lost 51% of its shoreline length to development.

A restored Deschutes estuary will re-establish a functional, resilient estuary and increase habitat for seabirds, shorebirds, salmon, shellfish, and marine life. The visual benefits to the city and its residents and tourists of a healthy estuary once again, will have long-term economic gains for Olympia. The Estuary Alternative has significant beneficial effects of restoration for tribes - ecological, cultural, heritage, spiritual, and educational.

BHAS has suggestions regarding the Estuary Alternative and its implementation:

- **BHAS would like to see the Deschutes/Capitol Lake project developed in a landscape context** since the functioning of the system is dependent on what happens upstream and throughout South Puget Sound. Natural communities of wetland, sea, wading and shorebirds and other animals are associated with its habitats, from wetlands and riparian forests to nearby communities, farmlands and working lands. By restoring historical habitat, the estuary will provide a safety factor for rearing fish. Conversion to an estuary would substantially benefit anadromous fish. Mudflats are teeming with life. There will be a shift in avifauna and wildlife, but there won’t be any overall loss.

Black Hills Audubon Society is a 501(c)(3) non-profit organization. Contributions are deductible to the extent allowed by law.

- O-19-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
- O-19-2 Thank you for your comment. Enterprise Services and the EIS acknowledge that the Capitol Lake – Deschutes Estuary is part of a larger interconnect system. This is described in additional detail in the Final EIS Summary, related to the nexus of this project with other actions undertaken in the Deschutes River Watershed by the Department of Ecology and Port of Olympia, for example. Please also see the Global Response for the Preferred Alternative Identification Process.

O-19-1

O-19-2

O-19

COMMENT

RESPONSE

- Three major steps are necessary to restore the historic estuary, e.g. both west and east bays of Budd Inlet - cleaning up toxic sediment, removing non-point pollution from stormwater and leaky septic systems, and restoring water input from historical tributaries. The value of wetlands, rivers, marshes, tideflats, and uplands as ecosystem services are reduced when contaminants are present in habitats or water (page 3-139). The project described in the DEIS is an opportunity to clean up non-point pollution from 50 water outfalls into Capitol Lake.
 - It is also an opportunity to ensure the federal government cleans up sediments with dioxins and PAHs in west Budd Inlet *before* new sediments are delivered by the free-flowing Deschutes River (see explanation below). These projects are a necessary first step. However, to restore the historic Deschutes estuary, the FEIS must include a plan to remove toxic sediments from the entire delta, to focus current programs to cleanup septic tanks and stormwater on developments along all its shores, and to daylight and restore water volume to its tributaries.
 - Consider restoring Moxlie Creek to have inflow to East Bay and reconnect upstream for salmon use again. Connection with historical tributaries is critical in returning length to the shorelines. The Deschutes delta historically had a shoreline of roughly 11 miles; it now has a current length of about 5.6 miles, as many delta tributaries have been lost. Restoration would mean the Deschutes estuary would, once again, be the next largest in South Sound. No longer will migratory salmon fry have to travel a long way to find habitat when they leave the Nisqually estuary.
 - We ask all the parties involved in the EIS to apply NOW for grants to restore the entire historic delta of the Deschutes Estuary. State and national governments make grants available for estuary restoration projects. Since native salmon runs in the Deschutes Estuary are currently at historic lows, other funding should also be explored. Tribes and foundations have supported other dam removals in Washington that restored fish habitat. They may be able to make considerable contributions for this project, particularly regarding the steps suggested below to speed up the permitting and dam breaching process.
- Estuary Alternative**
- We urge Department of Enterprise Services, parties that serve on the Work Groups, and Washington State agencies to expand the scope and continue the momentum of the Deschutes Estuary/Capitol Lake project as described in the DEIS.
- Modeling**
- Model the settling and accretion of sediment throughout the three basins of Capitol Lake, West Budd Inlet and beyond. Expand the current northern border of the project area to include the entirety of Budd Inlet. Hydrodynamic and sediment transport models, along with historic maps, help determine where flow conditions would re-create existing tidal sloughs from transported sediments. Popular birding destinations, sloughs are braided channels where tidal saltwater and freshwater mix in estuaries. River sloughs form in old river channels. Sloughs act as buffers from waves and weather events, and as protective habitats for juvenile salmon, other young fish, and marine species. Sloughs also serve key

O-19-3 Please see the Final EIS Summary for a description of the work being conducted by the Washington State Department of Ecology to improve water quality in the Deschutes River and Budd Inlet, which include requirements to state agencies and other municipalities for improved stormwater discharges. The Final EIS Summary also includes information on the Port-led remediation of contaminated sediment in Budd Inlet, which is expected to occur before removal of the 5th Avenue dam. Enterprise Services does not have decision-making authority over the environmental elements and areas described in the comment, but acknowledges the interconnectedness of the system and is making decisions relative to a long-term management project that will improve environmental conditions in the Project Area.

If the Washington State Legislature provides funding for the next project phase, Enterprise Services could begin to pursue grant funding opportunities for project implementation. The soonest that funding design and permitting could be provided is the 2023-2025 biennium.

O-19-4 A state of the art, process-based computer model was developed to analyze sediment transport under each of the alternatives; refer to the Hydrodynamic and Sediment Transport Numerical Modeling Discipline Report (Attachment 5) for more detail. The conceptual dredge design for the Estuary Alternative is based on historical configuration of the Deschutes River and its side channels. This conceptual dredge design was an input to the numerical model.

Figure 4-46 of the Hydrodynamic and Sediment Transport Numerical Modeling Discipline Report (Attachment 5) shows the numerical modeling domain, which includes the West and East Bays of Budd Inlet and covers Budd Inlet bordering Gull Harbor on the north.

Initial model results indicated that changes to hydrodynamics and sediment transport as a result of all four alternatives would be limited to the selected modeling domain, and expansion of the domain would change the results of the analyses or further inform decision making.

The alternatives presented in the EIS are based on a conceptual level of design as is appropriate for a SEPA analysis. More detailed assessments and characterization of the Preferred Alternative will be addressed during the design and permitting phase.

O-19

COMMENT

RESPONSE

O-19-4	<p>functions in pollution control. Once cleanup is assessed and accomplished, sloughs could be established in East Bay to aid in its restoration. Modeling can determine where sediments would accrete.</p> <ul style="list-style-type: none"> • <u>Good modeling of the historic estuary will create also more certainty for many kinds of planning:</u> for the initial and periodic dredging of the Deschutes Estuary and siting its new amenities; for Budd Inlet’s shoreline buildings, parks, boat launches, docks, and roads; and for the frequency and extent of dredging Budd Inlet, whether for private and public marinas or for the Port of Olympia’s marine channel and turnaround basin. 	O-19-5	Please refer to the Global Responses for Sediment Quality. Please also refer to comment response I-747-7.
O-19-5	<p><i>Sediment contaminants</i></p> <ul style="list-style-type: none"> • <u>Contaminants must be removed before the dam is breached.</u> Low levels of chemical exceedances in contaminated sediments can become cumulative over time. Sediment contaminants must be removed from West Bay and all exceedances before the dam is removed. Does the statement that West Bay sediments would be “the clean sediment deposited from the Deschutes River, rather than the existing West Bay sediment” (page 2-23) presume the federal government/DMMP will have removed contaminants from existing sediment before dredging? • <u>This statement about federal regulations pertaining to West Bay contaminants must come earlier in the DEIS:</u> “...this [West Bay] sediment contamination is expected to be addressed through a separate regulatory process before long-term operation of the selected alternative” (page 4-154). Instead, it must say “before the dam is breached.” Clarify the potential conflict on page 4-150 to match this information. Create a timeline with the federal government/DMMP to ensure they conduct their regulatory sediment removal process before the dam is removed. Add the timeline to this project as well, and list timeline dates in the FEIS. 	O-19-6	<p>Maintenance dredging under the Estuary and Hybrid Alternatives would occur in areas that have been maintained for navigation, including the Federal Navigation Channel and its turning basin, vessel berths at the Port of Olympia, and at the marinas. The Federal Navigation Channel, turning basin and vessel berths have been dredged to maintain deep water for more than 100 years. Most marina leases require 5 to 7 feet of water depth at low tide.</p> <p>Please see the Sediment Quality Discipline Report for a discussion of potential impacts to sediment quality during maintenance dredging in these areas. Best management practices would be implemented to minimize turbidity (suspended sediment) during this work.</p> <p>Additionally, based on coordination with the USACE, Port of Olympia, and other parties, the needed dredging and remediation of known sediment contamination is expected to occur in West Bay before removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives and associated maintenance dredging for this project.</p>
O-19-6	<p><i>Dredging</i></p> <ul style="list-style-type: none"> • <u>Please be mindful of human effects of long-term maintenance dredging on Budd Inlet’s marine environment.</u> Spot dredging for sediment placement during restoration should have no major effects. The Port of Olympia marine channel/turning basin must be maintained. However, the risk of sediment quality degradation from recurring maintenance dredging throughout the project area is not necessarily low (page 4-150). 	O-19-7	Please see response to Comment I-747-8.
O-19-7	<ul style="list-style-type: none"> • <u>Dredged sediment quality loses its capacity to hold dissolved oxygen (DO).</u> During dredging, organic material (aquatic plants and planktonic algae) in bottom sediments is re-suspended. Oxygen is lost to the air, causing significant reductions in the DO concentration in a tidal waterway. When bottom waters do not flush into surrounding waters, oxygen is used up in the bottom sediments when bacteria eat excess organic material. Low DO levels can affect migration and spawning for salmon, reducing hatching success and causing direct mortality to adult and juvenile salmon. 	O-19-8	See response to Comment I-747-1.
O-19-8	<ul style="list-style-type: none"> • <u>Dredging impacts marine organisms</u> by degrading their habitat, introducing noise, and remobilizing contaminants. It creates sedimentation issues including increases in suspended sediment, where invertebrates, eggs, and larvae are most vulnerable. High turbidity levels from suspended sediments cause waterways to fill in faster. 		

O-19

COMMENT

RESPONSE

- Marinas*
- Dredging for shoaling and navigation is known to reduce DO levels, aside from creating turbidity and destroying vegetation and marine life. The Sediment Management Standards and Water Quality Standards do not consider habitat issues. In the case of private marinas, dredging will not promote natural system recovery. Shoaling means vessel-generated waves cause boats to erode the banks and seabed, removing substantial amounts of sediments, aquatic plants, and marine life. Low DO would be enhanced without dredging or shoaling. All three West Bay marinas experience shoaling and/or sediment accumulation to some extent (page 3-15).
 - Consider moving marinas to a location where dredging is not required, Limiting or moving private and public boating and marina facilities away from the tidal zone and east Budd Inlet removes some of the need to maintenance dredge. Habitat to support estuarine functions could then be established, to the benefit of all citizens, particularly in the tidal/freshwater mixing area at the breached dam and at East Bay. Does maintenance dredging due to private boat mooring preclude the possibility of sloughs in East Bay?
 - Consider establishing mitigation for DO on permits for private uses, such as marinas, BHAS applauds DEIS efforts to have the Port and marinas conduct sediment monitoring as mitigation (page 4-106). However, monitoring for sediments alone would not truly mitigate the environmental damage caused by moored boats. Dredging for navigation, port development and maintenance, and marinas leads to significant changes in the functional arrangement of the seabed and a reduction in DO. While it serves navigational purposes, dredging has no benefits supporting ecological functions (Chapter 2).
- Water pollutants*
- Use the construction project to restore the water quality of Budd Inlet, which is more contaminated than most other Puget Sound estuaries. The current construction plan for the Estuary alternative will simply replace the approximately 50 stormwater outfall pipes along the shore with pipes made of a material that will not corrode in saline water. However, these outflows are known sources of “non-point” pollution from tire residues, vehicle oil leaks, lawn pesticides and fertilizers, and a host of other pollutants.
 - The perfect opportunity to monitor stormwater pollutants is when the outflow pipes are dug up and exposed. The pipes can then be directed to move stormwater into underground retention facilities that will clean the stormwater before it flows into the Deschutes Estuary. Restoring a clean Deschutes estuary would be a tremendous net ecological gain for Puget Sound estuaries.
- Bat Habitat*
- Please document the “severe” impact to bats with conversion of Capitol Lake to an estuary. One bat species is a state Species of Concern, but not state- or federal-listed. Is there best available science/data supporting the loss of Capitol Lake as a “severe impact” to bats? BHAS supports the protection of bats in their natural habitats and encourages the protection of freshwater wetlands, but not in converted historic estuaries. Freshwater wetland mitigation could also be acquired near Woodard Bay.

- O-19-9 Under the Estuary and Hybrid Alternatives, dredging in Capitol Lake is not assumed because it would have an impact on the proposed habitat elements that are planned for the Middle and North Basins, and would affect ecological function of the restored estuary. It is only proposed in West Bay, in the deeper areas that are used for navigation. Dredging would not be conducted in the existing intertidal habitat area along the western shoreline of West Bay, for example.
- Sediment management is a project goal and maintenance dredging is the approach to sediment management for the Estuary and Hybrid alternatives. Temporary impacts during dredging are typically not expected to be significant and dissolved oxygen is expected to improve as a result of either the Estuary or Hybrid alternatives. Although the EIS does not preclude marina relocation in the future, relocation is not proposed.
- O-19-10 Please see response to Comment I-747-12.
- O-19-11 A significant impact to fish and wildlife species is defined in the EIS as an alternative that would eliminate or make non-viable a species group or species of regional importance within the Capitol Lake Basin or West Bay, through the loss of suitable habitat.
- Regarding potential mitigation to address bat impacts, see the Global Response for Fish and Wildlife and Section 4.5.8 of Final EIS Supporting Chapter 4.0.

O-19

COMMENT

RESPONSE

O-19-12 Please see responses to Comments I-747-16 through I-747-21.

O-19-11

- If the Estuary Alternative is chosen, mitigation for removal of the freshwater Managed Lake habitat for bats may be necessary. Creating freshwater habitats to serve bats upstream would improve overall diversity. Find places upstream to restore freshwater wetlands with bat habitat. Consider protection or restoration of freshwater wetlands upriver and inland. Pondered riparian areas may be suitable for amphibians, such as tree frogs. Can wet meadows be provided for upstream?
- Acquisition can steer the plan's freshwater direction for the Estuary Alternative. Work with Capitol Land Trust to acquire restorable lands along the Deschutes River.

Construction

O-19-12

- Breach the dam earlier in the process to help conserve salmon. Estuarine habitat loss is one of the greatest threats to native salmon runs. The current construction plan for the Deschutes Estuary alternative involves 2 to 3 years on the FEIS and 5 years on permitting. At the very end of the 7 to 8 year construction period, the construction plan will release the dam and let the Deschutes River flow freely. Under the proposed plan, assuming no delays, the dam will actually be opened 15 to 16 years from now!
- Start construction in 4 years instead of 8 years. To speed up the end goal of opening the 5th Avenue dam, we urge fast-tracking of the FEIS and permitting process. Modeling of shore accretion and other changes, including changes to East Bay, can begin as soon as the Estuary alternative is chosen. Similarly, permitting of some construction pieces can begin before the FEIS is completed. All of the permitting can be expedited - similar to emergency bridge repairs.
- Permitting must be more clearly defined in the EIS. The statement "management activities to maintain water quality and ecological functions would be defined during permitting" (page 2-53) is vague. Describe the levels of permitting involved for these activities. Describe how management activities would be defined in the permitting process, particularly since it has been shown time and time again that no net loss of wetland ecological functions, applied during permitting, has not been achieved.
- To speed up the process of dam release and removal, the first step before the estuary construction project begins must not be moving and extending Deschutes Parkway. Instead, consider moving and extending Deschutes Parkway after Capitol Lake is dredged, outfalls are secured, and the dam is breached. It is not clear from the DEIS whether increased water flow from the un-dammed Deschutes River will require moving Deschutes Parkway. The current intersection of Deschutes Parkway SW and Olympia Avenue SW is certainly not ideal, and we applaud the desire to improve it. Yet if the Deschutes Parkway will not be at risk, consider moving and extending the parkway to improve the intersection *after* the dam is breached.
- Revise the construction plan to open the dam as soon as the three basins of Capitol Lake are dredged to create a channel. Building the 5th Avenue bridge can be done without a coffer dam, or with a coffer dam that allows the river to flow freely or almost completely freely. The amenities - 5th Ave. pedestrian bridge, fishing dock, boardwalk, boat launch and decontamination station - can be added after the river is flowing.

O-19

COMMENT

RESPONSE

O-19-12

- Speed up the construction process by removing the dredge spoils off-site from Capitol Lake instead of using them to create habitat. Creating artificial habitat such as islands and artificial shores with the dredge spoils may not be feasible if New Zealand mud snails and pollutants are too numerous. Artificial islands or shores may simply disappear if not modeled accurately. Over the years, the river will ebb and flow with high and low tides and droughts and floods. Very likely these artificial “habitats” will be moved around, just like other sediments. Instead, with native plantings along the shores to support the system, let the river create its own shoreline habitat.

With careful planning, the dam could be opened by 2027, not 2037.

Managed Lake Alternative

While BHAS emphatically prefers the Estuary Alternative, we would like to comment on some problems with the description of the Managed Lake Alternative.

O-19-13

- When the 5th Ave. dam was built in 1949, the Deschutes was actually transformed into a dammed river impoundment, an artificial reservoir, not a lake. Comparing Capitol Lake to lowland lakes is like comparing apples to oranges.
- The EIS must provide comparisons to other dammed lowland river impoundments, not lakes. Regarding flooding: we can’t step back to the historical floodplain, but we can get closer with mitigative actions. Consider any potential overflow channels, or natural processes (as in Percival Creek), and enhancements needed to increase flow frequency, to create small ephemeral (from rain runoff) wet meadows upstream. An adaptive management plan with monitoring for invasive species will probably be needed in the Habitat Enhancement Plan.

O-19-14

- Delete the sentence on page 12: “Perceptions of poor water quality and worsening conditions in Capitol Lake are likely based on the impaired aesthetics from aquatic plant growth and the ongoing restrictions on recreational use, rather than water chemistry.” Impaired aesthetics is a subjective term, and perceptions must be left to public comment. The next sentence “However, recent monitoring data indicate that water quality in Capitol Lake is relatively good.” Relative to what? Other impoundments? Freshwater impoundments are not directly comparable to saltwater habitats. Capitol Lake’s water quality is only as good as what comes out of the outfalls.

O-19-15

- It is best not to compare freshwater DO in an impoundment to a tidal saltwater delta. Under the Estuary alternative in Table ES.2, the DEIS compares Capitol Lake, a freshwater impoundment, to Budd Inlet, south Puget Sound, for DO. Briefly explain the dynamics of how estuarine water is “inherently” different than freshwater. Without an explanation, a comparison of a freshwater impoundment is not comparable to a saltwater habitat, particularly when freshwater vegetation is part of the problem.
- BHAS is pleased to learn re-established estuarine conditions would reduce the extent of overland flooding from river floods. Consider a pumping station, if necessary, to move

O-19-13

Regarding the comparison of Capitol Lake to lowland lakes, it is one of the complexities of the existing condition that Capitol Lake has many lake-like attributes and those attributes, but it has been defined (regulatory) as a river based on flow dynamics. And, regardless of regulatory definitions, Capitol Lake is viewed as a lake by local residents and the EIS includes multiple alternatives that would retain the system in a ‘lake-like’ condition; further supporting the relevance of comparing it to other lakes the public may be familiar with.

Regarding flooding, flood mitigation was not a defined goal of the long-term management project (see Section 1.9 of EIS Supporting Chapter 1.0). Therefore, the alternatives do not include the actions described in this comment. However, the long-term management project does not preclude these types of actions from occurring in the future. See also Global Responses on Hydrodynamics and Sediment Transport for clarification around the flooding potential under the alternatives.

Regarding adaptive management for invasive species management, as described in EIS Supporting Chapter 2.0, adaptive management plans would be developed during the design and permitting phase to manage invasive species and improve ecological functions.

O-19-14

Please see response to Comment I-747-23.

O-19-15

Under SEPA, mitigation measures must be reasonable and capable of being accomplished, and need only be identified for those impacts that are attributable to the identified adverse impacts of the proposal. Installing and operating a pump station to divert water to Budd Inlet would present enormous logistical and regulatory challenges, if found to be technically feasible. While the Draft EIS described that the impacts related to flooding would be significant under the No Action and Managed Lake Alternatives (due to the higher maximum river flood elevations that would occur under those alternatives), this flooding is considered a continuation of the “baseline” flooding, and not attributable to the project. Sections 4.1, 4.8, and 4.13 of Final EIS Supporting Chapter 4.0 includes clarifications around the characterization of flooding that would be expected under the alternatives.

O-19

COMMENT

RESPONSE

O-19-16 Comment noted. Enterprise Services appreciates commenter’s detailed review of the Draft EIS.

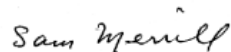
O-19-15

water to Budd Inlet during extreme flood events if the Managed Lake or Hybrid Alternative is selected as the Preferred Alternative.

O-19-16

Stepping back, the EIS should consider the integrity of the lower Deschutes Watershed and Budd Inlet ecosystems as an active estuary for future generations. BHAS urges DES and its partners to keep this perspective as our comments are reviewed.

Sincerely,



Sam Merrill, Chair, Conservation Committee
Charlotte Persons, Member, Conservation Committee
Anne Van Sweringen, Member, Conservation Committee
Black Hills Audubon Society

O-20

COMMENT

RESPONSE

Subject: **Capitol Lake-Deschutes Estuary DEIS**
From: Jenifer Rees <fsopjen@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Cc: Jerry Arbes Anne Knight <jeta75@aol.com>, Andy Milton <andym@bergerpartnership.com>, Susan Olmsted <susieolmsted@hotmail.com>, <SCC-CCDACPublicComments@des.wa.gov>, <itgov@itgov.wa.gov>, <secretaryofstate@sos.wa.gov>, <kelly.wicker@gov.wa.gov>, <cpl@dnr.wa.gov>
Date: 2021-08-29 16:01



• Deschutes Basin Letter Final w Att.pdf(~2.4 MB)

All:

Please see our comments for the Deschutes Estuary DEIS, attached.

Best,
Jenifer Rees
Friends of Seattle's Olmsted Parks

O-20

COMMENT

RESPONSE

O-20-1 Enterprise Services appreciates commenter’s detailed review of the Draft EIS, and preface to their comments presented below.

Responses to comments are provided below.



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- Virginia Wilcox

August 29, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-1476
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We, the Friends of Seattle’s Olmsted Parks (FSOP), wish to comment on the draft EIS for Capitol Lake-Deschutes Estuary. We are an advocacy and education group focusing on historic Olmsted landscapes in Seattle and throughout the Pacific Northwest.

The Washington State Capitol campus in Olympia was designed by the Olmsted Brothers firm with initial study in 1911-12 that was further developed into the full campus in 1927-31. A significant feature of the State Capitol campus is its north-south axial arrangement aligned with Budd Inlet, the southernmost navigable section of Puget Sound and regionally important for commerce. Today, the North Basin lies between the Capitol and the city’s harbor at Budd Inlet and serves as a focal area and feature for adjacent parks and trails as well as foreground for views both to and from the Capitol building and terrace. The North Basin also serves as a reflecting water feature for views to the Capitol buildings.

As referenced in the West Capitol Campus Historic Landscape Preservation Plan (GA project # 08-099, June 2009), John Charles Olmsted recognized the importance of these regional views with the siting of the Capitol. One proposal included a rail station and park near a proposed passenger steamer landing on Budd Inlet, creating a setting wherein “all visitors coming to Olympia either by steamer or by railroad will have a fine symmetrical view of the Capitol and its group of buildings” (p. 58). This particular view is today realized at Heritage Park Fountain (see Attachment A, photo #4). He also proposed “a connected series of park spaces between what is now Sylvester Park and the proposed location for the railroad station” and a “small harbor view park between the two waterways.” The report concludes that “in addition to creating a publicly accessible and symmetrical view of the Capitol within its setting, John Charles Olmsted was looking for opportunities to extend the healthful influences of the Capitol development to the surrounding community through a connected series of parks and open spaces along the water. . . .”



Also in the report is an aerial photo of the campus that shows Capitol Lake as an estuary, fluctuating between mud flat and salt water basin, before mid-century construction of the dam.

O-20-1

O-20

COMMENT

RESPONSE

O-20-1

In reviewing the proposed alternatives for the North Basin in the draft EIS, FSOP primarily considered view impacts both to and from the Capitol building across the North Basin, but we also explored impacts to existing recreational use around the Basin and read through the document's Cultural Resource section for acknowledgement of the historically significant siting and design of the Capitol campus.

View Impacts

Of the three proposed alternatives, only the Estuary Alternative might change view opportunities to and from the Capitol building. In this alternative, the largest of the proposed islands as currently shown would eventually obscure views to the city's harbor and would also prevent any chance for reflection of the Capitol in the water, even at high tides. That said, FSOP feels that estuarine islands can be located to preserve select view corridors (please refer to Attachment A for additional graphic information). Regarding the DEIS alternatives, we recommend that:

- 1) unobstructed views be maintained between the Capitol building and the city's harbor and Heritage Park immediately adjacent (DEIS Photo Pt #2, Fig 3.10.1);
- 2) unobstructed views likewise be maintained between the Capitol building and the viewing platform at the west end of Heritage Park (DEIS Photo Pt #1, Fig. 3.10.1);
- 3) with the Estuary Alternative, the larger island be located nearer the basin's north shore and outside or between these two view corridors (as illustrated in Att. A); and
- 4) the FEIS include simulated views toward the Capitol from Photo Pt #2 in Heritage Park.

Additionally, we note that in the Hybrid Alternative, the proposed multimodal trail atop a retaining wall (separating the basin from the Deschutes), as it's depicted in DEIS Fig. 4.10.12 and 4.10.13, creates a visual obstruction to the water basin from Marathon Park. We suggest that:

- 5) for the Hybrid Alternative, a visually softer (greener) treatment of the trail/retaining wall be considered, perhaps by creating a landscaped berm sloping to the water's edge.

Recreational Impacts

There is an existing pedestrian loop that circles the North Basin, incorporating the sidewalk along Deschutes Parkway, and crosses the Deschutes River at Marathon Park. In the draft EIS, it is unclear whether the bridge at Marathon Park is to be retained to keep this loop intact. Figures 2.2.1 (Managed Alternative), 2.2.3 (Estuary Alternative), and 2.2.5 (Hybrid Alternative) show no bridge at this juncture.

- 1) Please clarify whether the Marathon Park boardwalk/bridge will be retained in each alternative. If it is not proposed to be retained, we believe it is important to provide a loop pathway around or connecting through the North Basin (in the case of the Estuary alternative, this might be accomplished by providing boardwalks between islands and the north and south shores).

We appreciate your careful study of the Deschutes Estuary and surrounding areas and your efforts to consider all impacts. FSOP believes that a preferred alternative accommodating significant historic views and recreational use as well as restoring the estuarine environment can be reached.

Sincerely,



Jennifer Rees
Past President, Friends of Seattle's Olmsted Parks

P. 2

O-20-2

It has been clarified in Final EIS Supporting Chapter 2.0 (Section 2.3.2.1) that, during design of the selected alternative, the habitat islands could be moved, and final design will take aesthetic considerations, such as views, into account along with other design considerations.

The comment states that views of the harbor from the Capitol building would be obscured. This is not correct. There are views of the harbor from the North Overlook, but views of the harbor are not available presently from the Capitol building. The view from the Overlook shows that the trees on the habitat island, even as shown in a relatively mature height, barely affect views of the far shore of the North Basin. In the simulation, the existing trees between the North Basin and the harbor obstruct that view to a greater degree and are likely to grow larger. Views of the harbor from the Overlook would not be adversely affected.

The comment also states that the Estuary Alternative would prevent any chance of reflection of the Capitol in the water. This is not correct. As shown in the simulation in Section 4.10.5 of EIS Supporting Chapter 4.0, during higher tides, there would be a reflection of the Capitol dome in the North Basin. The simulation used a water surface with slight wind, similar to the existing condition photo (Exhibit 3.55 in the Draft EIS).

Other aspects of this comment refer to aesthetic choices rather than addressing a specific adverse visual impact. An additional visual simulation from the suggested location at Heritage Park was not done as it would be similar to the simulation in the Draft EIS at the Eastern Washington Butte, and was not determined necessary to understand potential adverse visual impacts and to inform decision making.

O-20-3

The existing pedestrian loop and pedestrian bridge at Marathon Park around North Basin will remain under all alternatives. The comment regarding accommodating historic views and recreational use are noted.

O-20

COMMENT

RESPONSE

cc: State Capitol Committee SCC-CCDACPublicComments@des.wa.gov
Denny Heck, Lieutenant Governor ltgov@ltgov.wa.gov
Kim Wyman, Secretary of State - Vice Chair secretaryofstate@sos.wa.gov
Governor Jay Inslee - Kelly Wicker, Governor Inslee's Designee kelly.wicker@gov.wa.gov
Hilary Franz, Commissioner of Public Lands cpl@dnr.wa.gov

Attachments: Attachment A - Sightlines & Viewsheds to/from Capitol

References: GA project # 08-099, June 2009
https://www.des.wa.gov/sites/default/files/public/documents/Facilities/MasterPlan/LandscapeMasterPlan.pdf?_af2/
OlmstedOnline.org - job 05350
Olmsted Archives - Flickr images
Plan 05350-16 - courtesy of NPS - Frederick Law Olmsted National Historic Site
Photo images: Courtesy of Susan Olmsted, Anne Knight and Juan Hernandez


O-20

COMMENT


RESPONSE

ATTACHMENT A - Sightlines & Viewsheds to/from Capitol


Showing importance of keeping islands clear of sightline corridors.




SIGHTLINE CORRIDORS TO/FROM CAPITOL




1. VIEW FROM CAPITOL
To Budd Inlet, Heritage Park and Capitol Lake Park




3. VIEW FROM CAPITOL LAKE PARK



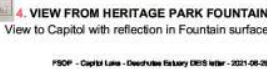
2. VIEW FROM HERITAGE PARK



4. VIEW FROM HERITAGE PARK FOUNTAIN
View to Capitol with reflection in Fountain surface



1912 Olmsted Brothers Plan - 05350-16 - NPS-FLONHS
Plan for Land and Water Approaches to the Capitol



PSCOP - Capitol Lake - Deschutes Estuary EIS letter - 2021-08-28

O-21

COMMENT

RESPONSE

Subject: **Thurston EDC, Comment Letter, Capitol Lake 8 29 21**
From: Michael Cade <mcade@thurstonedc.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Cc: Gene Angel <GAngel@thurstonedc.com>
Date: 2021-08-29 20:06



- Thurston EDC, Capitol Lake DEIS Comment 8 29 21.pdf(~495 KB)

As per your published instructions on submitting comment on the draft EIS regarding the Capitol Lake – please find attached a pdf file of our comments.

Thank you for your attention to this matter. Please do not hesitate to contact me if you have any concerns and or questions about this transmittal.
Michael Cade

Michael Cade

Executive Director | 360.464.6085 | mcade@thurstonedc.com



Thurston Economic Development Council | Center for Business & Innovation
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O-21

COMMENT

RESPONSE

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August 27, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
PO Box 41476
Olympia, WA 98504-1476

DELIVERED ELECTRONICALLY: comment@CapitolLakeDeschutesEstuaryEIS.org

Thank you for your attention:

The following comments and input are provided by the Thurston Economic Development Council based upon the environmental impact analysis conducted by ECONorthwest and provided to the Washington Department of Enterprise Services in June of 2021. Our comments assume the report provided by ECONorthwest is accurate and objective. It is not within the expertise of the Thurston Economic Development Council to evaluate ecological or environmental concerns and, as such, defers to the analysis provided in the DEIS as to those issues.

Our comments are formed with these primary considerations in mind:

- Honoring currently existing investment within the downtown core of Olympia.
- Supporting on-going investment in the downtown core of Olympia.
- Protecting existing and developing additional access to recreational amenities in the downtown core.
- Developing a sustainable and equitable economy in alignment with regional environmental and social values.

Based upon our review of the analysis provided in the DEIS, the Thurston Economic Development Council believes that in the long-run, the economic outcomes associated with the hybrid option are likely to produce the largest economic returns on investment when compared with the managed lake and estuary options. The hybrid plan also represents a significant opportunity to implement carbon sequestration initiatives that could allow for a more flexible and resilient economy as carbon becomes increasingly economized. As such, the Thurston EDC believes that the hybrid option strikes the best balance between economic, social and environmental outcomes related to the future of Capitol Lake.

Impact to the Port of Olympia

The continued success of the Port of Olympia is critical to the Thurston County economy. Any solution or planned action for management of Capitol Lake must consider the impact to the the Port of Olympia and the long-term operation of the marine terminal. It is unclear to the EDC at this point who will bear the fiscal responsibility for the regular dredging that will be required for the hybrid or estuary options and what financial constraints the Port of Olympia may encounter in meeting

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- O-21-1 Enterprise Services appreciates Thurston Economic Development Council's detailed review of the Draft EIS. Please see responses to individual comments.
- O-21-2 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
- O-21-3 Please refer to the Global Response for Shared Funding and Governance for Maintenance Dredging under the Estuary Alternative.

O-21-1

O-21-2

O-21-3

O-21

COMMENT

RESPONSE



EDC Board of Directors

O-21-3

Heather Burgess, President
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O-21-4

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O-21-5

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Perry Shea
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South Puget Sound
Community College

O-21-6

those future dredging requirements. The EDC is very concerned that some or all of the costs of more frequent dredging will fall disproportionately on the Port and by extension Thurston County taxpayers. It is clear that all of the alternatives outlined within the DEIS will have impacts upon the operations of the Port of Olympia.

Impact of Construction and Maintenance

According to the DEIS report, the majority of construction spending associated with any changes to Capitol Lake will not provide meaning positive economic impact on Thurston County as local firms are not likely to have significant expertise in the type of work required and use out-of-region firms would be required. Across all four options presented, the hybrid option is expected to require the most amount of public investment. Currently, however, there is a lack of clear funding and governance structure that would detail in what way funds would be raised. ECONorthwest articulates this in their report and concludes that it is then impossible to calculate the net economic impacts of any option presented in comparison with alternative uses of public funding. As such, the EDC cannot properly evaluate construction and maintenance impacts with these comments.

Impact on Downtown Investment

The DEIS concludes that all alternatives will have minimal impact on the long term investment for residential or commercial activity within the downtown core. Investment into the downtown core of Olympia is (primarily) determined by generalized market conditions and is unlikely to be significantly impacted in the long-run by any action. However, uncertainty generated by radical changes in the downtown landscape may drive away investment in the short-run and is most relevant should the estuary option be selected. It is unclear if the hybrid option offers an opportunity to keep the reflecting pool downtown, preserving some of the established character of Capitol Lake that existing investment has relied upon. As a result, the hybrid option may decrease uncertainty investors have in the future aesthetic of the downtown core, helping to mitigate upfront risks and potential losses of downtown investment.

Impact on Recreation Value

All proposed actions have been found to significantly impact recreational value of downtown in the short-term. While the development of the hybrid option is estimated to take the longest amount of time to complete, and therefore the largest amount of initial disruption – it could also generate the highest long-term return on investment as it retains the two most prominent features of both the managed lake and the urban estuary. While both the estuary and the hybrid option expand access to water recreation into the Capitol Lake Basin, the hybrid option is likely to provide increasing economic value as it retains the majority of the offerings of a managed lake, while increasing access to water recreation. This access to recreation, in the long-run, is projected to grow in value over time as the downtown core is developed. Both the hybrid option and the estuary option may significantly decrease the chance of flooding events, which would reduce long-term uncertainty and support continued investment.

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O-21-4

The Draft EIS did not provide this level of analysis because the Funding and Governance Work Group had yet to make any decisions on project funding sources or strategies; thus, any economic trade-offs were entirely speculative. The Final EIS expands the description of the impacts of the potential funding responsibilities and tradeoffs based on the assumptions documented in the Funding and Governance Work Group's MOU about project funding and governance under the Estuary Alternative. These details are still subject to uncertainty--in part related to what trade-offs, if any, local decision makers would make to allocate funds to maintenance dredging in the future. The Final EIS provides information sufficient at the planning level to understand broad patterns of impacts and benefits that would materialize in the future.

O-21-5

As described in Section 5.5.2.2 of the Economics Discipline Report, there was no clear signal from the research conducted for the economics assessment that implementing the Estuary Alternative would reduce demand for residential and commercial development. As the report also notes, it is impossible to isolate and quantify the magnitude of the effect of the Estuary Alternative on development trends in downtown Olympia directly, relative to other factors. Developers and planning professionals interviewed in the scope of this analysis consistently identified that careful attention to implementation of the Estuary Alternative is critical to how people experience it and ultimately how it affects individual decision-making and overall market trends. A thoughtfully-planned and well-executed project is likely to have minimal short-term impact and no long-term impact.

As acknowledged in Section 5.7.2, the Hybrid Alternative is likely to have a similar long-term effect as the Estuary Alternative, though with less upfront risk because it retains the familiar feature of the reflecting pool. The Managed Lake Alternative would represent the least amount of visual change compared to current conditions and is unlikely to increase uncertainty among potential investors about future conditions

O-21-6

Comment noted. It is acknowledged in Section 4.14.6 of EIS Supporting Chapter 4.0 and in Section 5.6.2.3 of the Economics Discipline Report that the overall economic value associated with recreation in the Hybrid Alternative could be somewhat higher than the Managed Lake and Estuary alternatives.

O-21

COMMENT

RESPONSE

O-21-7 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

O-21-7

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- Charlie Schneider
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Impact of Social and Environmental Outcomes

While it is not the expertise of the Thurston Economic Development Council to evaluate environmental or social outcomes, both are closely tied to economic policy. In addition to the economic factors discussed above, based upon our review, we believe that the hybrid option is most consistent with the local community values of protecting and improving tribal communities, improving water quality and addressing climate change.

Thank you for the opportunity to provide comment on the draft DEIS.

Sincerely,

Michael Cade
Executive Director

O-22

COMMENT

RESPONSE



O-22-13 Enterprise Services appreciates The League of Women Voters of Thurston County's detailed review of the Draft EIS. Please see responses to individual comments.

August 29, 2021

Washington Department of Enterprise Services
c/o Ann Larsen – Capitol Lake – Deschutes Estuary DEIS
Post Office Box 41476
Olympia, Washington 98504

Dear Ms. Larsen:

SUBJECT: Comments on the Draft Environmental Impact Statement for the Capitol Lake – Deschutes Estuary Long-Term Management Project

The League of Women Voters of Thurston County appreciates the opportunity to comment on the Draft Environmental Impact Statement (EIS), for the Capitol Lake – Deschutes Estuary Long-Term Management Project. The League of Women Voters is a nonpartisan political organization that encourages informed and active participation in government, works to increase understanding of major public policy issues, and influences public policy through education and advocacy. In addition, the League works to increase voters' access to the polls, including expanding early voting, and automatic and online voter registration.

From its beginnings, the League has been at the forefront of the environmental movement, seeking to preserve and protect life-supporting ecosystems and public health. For over 50 years, since its citizen activists helped to pass the Clean Water Act, the League has asserted that natural resources should be managed as interrelated parts of life-supporting ecosystems. Resources should be conserved and protected to assure their future availability, and pollution of these resources should be controlled to preserve the physical, chemical, and biological integrity of ecosystems and to protect public health.

Fighting to improve opportunities for public participation on natural resource issues has always been a League theme. Therefore, we value the research and analysis in this draft statement and encourage the ongoing involvement of citizens in the Washington Department of Enterprise Services' critical decision-making processes. The recent presentation to our membership by representatives of Enterprise Services is most appreciated.

The comments that follow are guided by the League's commitment to democratic governance, diversity, and the unbiased study of issues. They are grounded in League positions that speak to the importance of policies that promote water quantity and quality, maintain species populations and diversity, and protect lakes, estuaries, wetlands, and in-stream flows. As requested by the DEIS team, we have focused on specific aspects of the draft plan rather than advocating a particular alternative.

O-22-13

O-22-13

O-22

COMMENT

RESPONSE

O-22-1

No Action Alternative
The Thurston League cannot support further consideration of the No Action Alternative. Current operations of Capitol Lake perpetuate unhealthy and undesirable conditions. We agree with the findings of Section 2.2.4 that the No Action Alternative fails to achieve adopted project goals and those of Section 4.14.2 which find no long-term beneficial outcomes and a variety of adverse impacts associated with current operations. While the No Action Alternative is useful as a baseline of deliberations and analysis, it has no practical application for the future.

Democratic Governance
The League supports policies that achieve water quality essential for maintaining species populations and diversity. We believe that the overriding consideration should be protecting the quantity and quality of the water resource. For decades, the League has supported a watershed-based approach to water resource management, an approach that is consistent with the intent of Washington State's Watershed Planning Law (RCW 90.82). Further, the League has always worked to promote the values and processes of open, accountable, representative, and responsive government. The League of Women Voters believes efficient government requires competent personnel, a clear assignment of responsibilities, adequate financing, and effective coordination among the different levels of government.

O-22-2

Guiding Principles - With these positions in mind, the Thurston League finds all ten of the "guiding principles for a future funding and governance model", which were identified in the 2016 Phase One Report, to be well-reasoned and critical to success. Those guiding principles are:

1. Dedicated and secure funding sources,
2. Those who contribute to the problem should participate in funding or paying for the solution,
3. Those who benefit from the solution should participate in funding or paying for the solution,
4. Shared distribution of costs,
5. State participation,
6. Watershed-wide in scale,
7. Manageable governance,
8. Commitment to a long-term collaborative process,
9. Adequately resourced administration,
10. Support the goals and objectives of the long-term management plan and the future of the overall watershed.
- 11.

In addition, we suggest that federal participation and equitable representation in decision-making are critical elements for this endeavor.

O-22-3

Watershed Scale - We recognize that actions within the Project Area must not be disconnected from the people and the natural systems that make up the entire watershed. For this reason, we are concerned with the findings of Section 7.2, which

O-22-1 This response acknowledges the commenter's position.

O-22-2 Thank you for this comment. Please see updates in Final EIS Supporting Chapter 7.0 for a description of how these guiding principals have influenced the project funding approach.

In response to comments on the Draft EIS, Enterprise Services met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, Enterprise Services also described that the Estuary Alternative would restore sediment loading, similar to conditions that existed before the 5th Avenue Dam was constructed. Formal engagement with the Corps will continue during the design and permitting phase, which will occur following issuance of the Final EIS pending funding availability.

O-22-3 The EIS acknowledges the Capitol Lake – Deschutes Estuary is part of a larger interconnected system. Please see the Final EIS Summary, which has additional text to describe related actions that are also occurring in the Deschutes River Watershed to improve overall health, such as implementation of TMDLs and remediation of contaminated sediment in West Bay.

The Project Area is defined by the areas over which the Department of Enterprise Services has jurisdiction and where project actions, like maintenance dredging, would occur. Under the Estuary and Hybrid Alternatives, maintenance dredging is only proposed in "impacted areas" so that other areas that are not impacted by sediment accumulation do not need to be dredged. For example, sediment will accumulate on the western shoreline of West Bay, along the existing shallow, intertidal habitat. This area will not be dredged though, because sediment accumulation along this shoreline does not result in impacts.

O-22

COMMENT

RESPONSE

O-22-3 conclude that in each of the action alternatives “the primary focus for long-term funding and governance would be sediment management *in impacted areas*” (emphasis added). By limiting its considerations to the impacted Project Area, the DEIS misses the mark for real economic and environmental sustainability. A watershed-scaled approach to collaboration, governance, financing, and ecosystem stewardship will allow concerns to be addressed at their source, resulting in more effective and efficient outcomes.

A geographically limited approach, which focuses principally on the Project Area, fails to pursue an objective effort to “identify and implement an environmentally and economically sustainable long-term management alternative that improves water quality and manages existing sediment accumulation and future deposition”, which is the stated purpose of the EIS process. Representative and responsive governance requires a watershed-based approach to water resource management.

Responsiveness - The League believes responsible government should be responsive to the will of the people and promote the conservation and development of natural resources in the public interest. We concur with the finding in Section 1.12, that a decades-long political stalemate has impeded progress in the Deschutes watershed and further delay is not acceptable. The unhealthy and undesirable conditions of current operations are compounding, as time moves on. We are concerned that the eleven-to-fifteen-year timeline, which has been estimated for project completion, is not an adequate response to serious harms. Ecological, cultural, and economic injuries attributed to business-as-usual management require prompt action. We appreciate the role of careful analysis, design, and permitting; however, we encourage simultaneous processes and efficient construction techniques.

Cultural Contributions of Indigenous and Chinese People
The League recognizes that systemic and institutional racism exists at all levels, is endemic within our political and social order, and that an authentic reckoning requires acknowledgment and recognition of the injustice and cruelty that brought us all to the current day. The history of the Capitol Lake – Deschutes Estuary area is central to the history of Olympia and its people. If we hope to make informed decisions about this area, we must consider where we are and how human history provides a context for the future.

The Cultural Resources Discipline Report attempts to reckon with the ethnic and cultural context of the Project Area. Section 4.2 provides a thorough and useful accounting of the built environment and the early days of Tumwater, Olympia, and the surrounding area. Section 4.1 provides a broad and sweeping overview of the prehistory of the region. Section 4.3; however, takes an odd turn, here the cultural resources initiative relies upon a single, 12-year old report offering interviews with a

O-22-4 Comment noted. Enterprise Services would explore all opportunities to expedite the construction schedule during the future design and permitting phase of the project.

Please see the Global Response for the Estuary and Hybrid alternatives.

O-22-5 See the Global Response for Cultural Resources regarding comments related to precontact/pre-settlement history and comments related to the identification of Traditional Cultural Properties.

Please also see response to Comment I-781-18.

Finally, the Cultural Resources Discipline Report has been updated to note that ethnographic studies in coordination with local tribes, data recovery and interpretation of archaeological sites and districts, and other mitigation could occur in the next project phases to provide more complete documentation of history that pre-dated construction of the 5th Avenue Dam.

O-22

COMMENT

RESPONSE

O-22-5

small handful of representatives of current-day ethnic minorities. The referenced 2009 report, “Study of Cultural & Spiritual Values Associated with Future Alternatives for Capitol Lake Basin”, is useful but falls far short of the standards expected for documenting traditional cultural properties and contributions. This discipline report has failed to recognize the significance of hyper-local history and the experience of the cultures that shaped the Project Area and their descendants, who are members of our community.

O-22

COMMENT

RESPONSE

O-22-6

Indigenous People - The Steh-chass people lived in a village at the base of Tumwater Falls for thousands of years in a permanent settlement of gabled cedar plank homes.¹ The village was a sacred site, where people gathered for ceremonies, feasts, potlatches, and to harvest and preserve the abundant natural resources of the area.² Those people are now recognized as the forebearers of at least five tribes - the Nisqually, Squaxin, Chehalis, Suquamish, and Duwamish. Maps of Budd Inlet from the mid-1800s show the Steh-chass Indians lived along the shores of the entire inlet, with another key village located near, what is today, the corner of 4th Avenue and Columbia, in Olympia.³

The Steh-chass village at Tumwater Falls became the first permanent settlement of European people in Washington State, and soon those settlers took over the Indian village and the entire peninsula comprising Olympia and the State Capitol of today⁴.

As more settlers arrived, they could not get free title to land. Federal law said that the Indians held legal claim to the land. Soon territorial officials sought to extinguish Indian ownership of the land and remove the Indians.⁵ The egregious Medicine Creek Treaty of 1854⁶ resulted in the expulsion of all Indigenous people from the Project Area and displaced an estimated 10,000 Indians who were living west of the Cascades. Some 400 people from five major South Sound villages were forced onto Squaxin Island, a small piece of land, some four and a half by one-half miles in area.⁶ The Medicine Creek Treaty set the stage for the horrific Indian Wars of 1855 and 1856 and the forced expulsion of Indians from the Project Area, which set the stage for today's social and cultural conditions.^{6b}

Chinese People - Like much of the American West, Olympia found substantial economic benefits from the large immigration of Chinese workers in the mid-1800s.⁷ These laborers are best known for their contribution to the construction of the Transcontinental Railroad but they found work in agriculture, mining, the timber industry, as domestics, and wherever workers were needed. By the 1880s, more than 100,000 Chinese had come to the West.⁸

O-22-7

Olympia's Chinese residents were predominantly from the Lok family villages near the town of Shuibu in Taishan County of Guangdong Province in southern China. Olympia's earliest Chinatown was on 4th Avenue between Columbia and Capitol Way, including a hand laundry, stores, and lodging for residents. In the 1880s the Hong Yek Kee Company, Quong Yeun Sang Company, and the Hong Hai Company relocated to the waterfront at the corner of 5th Avenue and Columbia Street. Still later, five buildings were moved to the northwest corner of 5th Avenue and Water Street, which was the final location of Olympia's Chinatown.⁹

The Chinese expulsions from Tacoma and Seattle (1885 and 1886 respectively) were not localized events. In Tenino, the homes of Chinese American railroad workers were burned to the ground on Christmas Eve, 1885.¹⁰ Olympia's Chinese

O-22-6 Elements of this comment are presented in a broader context in Section 4.1.2, Indigenous Context, of the Cultural Resources Discipline Report (Attachment 13). However, in the interest of protecting potential archaeological sites, the authors defer from discussing specific locations.

O-22-7 Section 3.9.3.2 of EIS Supporting Chapter 3.0 discussed the Chinese-American community's historic ties to the area, which was also described in more detail in Sections 4.2.5.1 and 4.3.2 of the Cultural Resources Discipline Report (Attachment 13). See the Global Response for Cultural Resources for an explanation of changes in the Final EIS to provide a more balanced level of information on historic periods and perspectives.

O-22

COMMENT

RESPONSE

O-22-8 Please see response to Comment O-22-12.

O-22-7

community faced a riotous group of agitators on February 9, 1886, who unsuccessfully demanded their expulsion.^{xii} These events fit a pattern of national anti-Chinese sentiment.^{xv} The US Chinese Exclusion Act of 1882 reinforced economic and racial tensions in the West during a time of severe economic contraction. Many whites felt the Chinese were taking away jobs by agreeing to work for less. Some argued that lower-paid Chinese workers would lower the standard of living for average Americans.^{xv} Race riots and labor camp massacres by nativists and labor organizers continued into the 1900s.^{xvi} Widespread anti-Chinese sentiment and anti-immigration policies led to substantially reduced numbers of Chinese in the West.^{xvii} Some Chinese Americans stayed in Olympia and some Chinese American business activity continued, but the cultural composition of the community and the Project Area was markedly impacted by the social and political upheaval of this period.^{xviii}

The Cultural Resources Discipline Report misses the mark by glossing over the ethnic and cultural context of the Project Area. By perpetuating an underdeveloped history this Environmental Impact Statement squanders an opportunity for cultural understanding and risks moving forward with a preferred action alternative that is uninformed and insensitive, thereby compounding inherent biases and institutional racism in our community. We agree with the finding in the Executive Summary that some alternatives carry environmental justice concerns.

O-22-8

Best Available Science

On issues of resource management, the League supports comprehensive long-range planning and believes that wise decision-making requires adequate data and a framework within which alternatives may be weighed. The 2014 Ruckelshaus Center “Situation Assessment for Capitol Lake Management” identified disagreements on certain basic facts related to scientific and financial data. It concluded with a recommendation to establish “a common information base before pursuing efforts to initiate a collaborative process”, saying “it will be important to gain agreement on both scientific data and cost estimates to serve as a foundation for generating and agreeing on management actions or priorities”. This recommendation informed the 2016 “Phase One Report on the Capitol Lake/Lower Deschutes Watershed Long-Term Management Planning”.

A great deal of effort and expense has been put forth to establish a common information base that is built upon the best practices of scientific inquiry and analysis. The current Water Quality Discipline Report alone contains more than 260 pages of technical analysis with tables, figures, appendices, and references. Yet, after reviewing the DEIS and its supporting documents, we remain concerned that the information required to provide agreement on certain basic facts is still lacking.

O-22

COMMENT

RESPONSE

O-22-8

Analysis of water quality management scenarios for the Deschutes River, Capitol Lake, and Budd Inlet has been ongoing for many years. This process has generally followed a methodical progression by building upon prior findings and creating a better understanding of the complex processes and interactions of the watershed. Critically low dissolved oxygen levels in lower Budd inlet have been a primary focus. Although the public is waiting for the completion of Ecology’s Budd Inlet “Total Maximum Daily Load” report, which will establish water pollution clean-up requirements, the progression of reporting has resulted in a general understanding of how this natural system works and the development of an implementation plan that can address identified deficiencies in water quality.

Some of the summary findings from these many years of work can be found in Ecology’s “Deschutes River, Capitol Lake, and Budd Inlet Total Maximum Daily Load Study Supplemental Modeling Scenarios” of 2015. Key conclusions included:

- Current human activities cause violations of dissolved oxygen standards throughout most of Budd Inlet.
- The Capitol Lake dam has the single largest negative impact on dissolved oxygen in Budd Inlet.
- The dam produces pulsed releases from the lake increasing the amount of time that water stays in Budd Inlet.
- The increase in residence time of the water contributes to lower dissolved oxygen levels in southern Budd Inlet than would occur without the dam in place.
- Carbon loading from Capitol Lake produces substantially more oxygen-demanding organic carbon than would occur in a natural estuary. As the excess organic carbon decays, oxygen is used up in the process. This causes lower oxygen levels than would occur without the dam in place.

O-22-9

As prescribed by the Water Resources Methodology report (July 2019), Section 4.1.1.2.2.1 of the Water Quality Discipline Report explains that the current analysis sought to “provide more recent data and to augment the historical dataset with additional analytes” through sampling in 2019. However, the Discipline Report explains that sampling was likely impacted by the distressing spill of 600 gallons of electrical transformer oil (containing toxic PCBs which are bioaccumulative and not biodegradable) and the associated cleanup activities, which extended from February through July of 2019. The cleanup activity involved the extensive disruption of vegetation and sediments, at a cost of \$9 million.¹⁶

O-22-10

Further, two high-volume sewage spills in May of 2019 disrupted biotic conditions in Capitol Lake. The first occurred at South Puget Sound Community College and lasted for an undetermined duration. The broken line may have carried as much as 200,000 gallons of raw sewage per day.¹⁷ The second leak in Percival Canyon is estimated to have run for five days and released as much as 232,560 gallons of

O-22-9 With regard to the influence of the transformer and sewer spills on 2019 data, with the exception of phosphorus, all of the parameters were within the same range in 2019 as in the earlier period and were considered to be acceptable to use in the analysis. Further, the spills would be expected to increase the concentration of these parameters; therefore, if the concentrations in 2019 had been biased by the spill, they would have been biased toward indicating poorer conditions in the lake. To support the EIS analysis, additional data was collected in 2021 and the Water Quality Discipline Report has been updated with these data. The lake data collected in 2021 were similar to the 2019 data for those parameters that were not qualified, which further confirms that the concentrations measured in 2019 (for all but phosphorus) are acceptable.

O-22-10 Please see response to Comment O-22-9. Please also note that the 2019 and 2021 data helped to confirm trends observed in the 2004–2014 data set.

O-22

COMMENT

RESPONSE

O-22-10 sewage into the lake.²⁶⁰ The EIS analysts determined that the total phosphorus concentration in the Middle Basin throughout all of 2019 averaged seven times higher level than the average measured in previous years. However, the authors of the Discipline Report found that, aside from phosphorus, “data from other parameters collected in 2019 was generally within the expected range of historically observed values and was accepted for use in this analysis” (Section 4.1.1.2.2.1).

The unfortunate fouling of the lake during the analysis period and the subsequent need to normalize the data is understandable, even as it challenges the audience of the DEIS to consider the accuracy and precision of the findings. However, these same 2019 samples are then used to support an entirely new interpretation of the complex bio-nutrient interactions of Capitol Lake and Budd Inlet.

O-22-11 Section 4.1.1.4 says, “One of the main objectives of the 2019 data collection effort was to compare [biochemical oxygen demand, total nitrogen, and total organic carbon] between the lake and river to evaluate the extent to which the lake is a principal contributor ... to low [dissolved oxygen] in Budd Inlet”. Section 5.5.2.1 then states “in consideration of lower [total organic carbon] concentrations measured in 2019, a [dissolved oxygen] improvement of half of what the [2015 Ecology] model predicts is assumed for this analysis”.

The Draft EIS discounts by 50% the beneficial impacts of dam removal on dissolved oxygen based upon a single set of fouled nutrient samples. The authors are asking us to set aside years of prior work and professionally reviewed findings and insert a new understanding of bio-nutrient dynamics based upon data that has been corrupted with several hundreds of thousands of gallons of nutrient-rich municipal waste and six months of active sediment disturbance.

O-22-12 League members are not prepared to perform the required analysis on a series of complex datasets to support or refute these latest findings, yet it is clear that DEIS has not been successful in providing a “common information base...to serve as a foundation for generating and agreeing on management actions or priorities” as called for in the Ruckelshaus Center “Situation Assessment”. On the contrary, the uncertainty that this report brings to a principal water quality consideration has left us with general discomfort, affecting our confidence in other technical and financial findings. It has been our fervent hope that this Phase Two process would provide clarity and closure, allowing the community to move forward with a generally supported preferred alternative. We are quite disappointed in these results. We regret the time lost if a credible process must wait for the completion of Ecology’s Budd Inlet TMDL analysis.

O-22-14 **In Conclusion -**

O-22-11 Please see response to Comment O-22-9. Please also see the Global Responses to water quality comments regarding use of the 2015 Ecology Water Quality Improvement Report.

O-22-12 Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report, and supplemental analysis that has been added to the Final EIS regarding the ability of the alternatives to meet water quality standards and TMDL allocations.

Please see Attachment 21 of the Final EIS for more information on the Preferred Alternative identification process, which considered a range of criteria including the ability of each alternative to achieve project goals, to result in other environmental impacts or benefits, relative economic and environmental sustainability, construction impacts, and durability of the decision with stakeholders.

O-22-14 Enterprise Services appreciates the Thurston County League of Women Voters’ detailed review of the Draft EIS. Please see responses to individual comments.

O-22

COMMENT

RESPONSE

O-22-14

The Thurston County League of Women Voters remains grateful for this opportunity to review and comment upon the Draft Environmental Impact Statement for the Capitol Lake - Deschutes Estuary Long-Term Management Project. Our statements and positions on the No Action Alternative, Democratic Governance, the Cultural Contributions of Indigenous and Chinese People, and Best Available Science are built upon a foundation of adopted state, national, and local League positions. Founded by the activists who secured voting rights for women, the League has always worked to promote the values and processes of representative government.

We hope that our comments will be helpful to the process, the technical teams, and the community. The story of the Capitol Lake - Deschutes Estuary area is central to the story of Thurston County and its people. The considerations of this process matter deeply. They are tied to our history, our culture, and our place in the world. We trust that our participation in this process will be considered and used to support a wise, prudent, and workable outcome. If you have questions about any of our comments, please feel free to contact Nathaniel Jones, Thurston League Board Member, at nkhl@comcast.net.

Sincerely,
Karen Tvedt
Karen Tvedt,
President - The League of Women Voters of Thurston County

O-22

COMMENT

RESPONSE

- i <https://www.historylink.org/File/7979> and New Market: Stehtsamish - Tumwater Historic District Nomination for National Registry of Historic Places at <https://npgallery.nps.gov/GetAsset/0f3f29e7-7b32-4dd1-b2c7-25407eb7305e>
- ii 1987. Investigations in the Tumwater Historic District: Archaeological Excavation of the Tumwater Site (45TN119), Thurston County, Washington. Eastern Washington University Reports in Archaeology and History, Report No. 10059. Archaeological and Historical Services, Cheney, Washington.
- iii <https://www.antiquityconsulting.com/post/history-at-main-second-olympia-wa>
- iv Early history of Thurston County, Washington : together with biographies and reminiscences of those identified with pioneer days by Blankenship, Georgiana Mitchell, 1860-
- v https://www.ycs.wednet.edu/cms/lib/WA01001221/Centricity/Domain/354/viewpoint_carpenter.pdf
- vi <https://www.historylink.org/File/5253>
- vii 2009. Olympia, Washington: A People's History. Crooks, Drew p.18
- viii 1975, Rouges, Buffoons, and Statesmen. Newell, Gordon pp. 21-28
- ix Crooks op. cit. p. 48
- x 2015, Chinese Americans: The History and Culture of a People. Lee, Jonathan H. X. p.4
- xi Crooks op. cit. p. 49
- xii Ibid.
- xiii Ibid.
- xiv 1882. Speech on Chinese Immigration - United States Senate. Jones, Honorable John P. p.7 at <https://archive.org/details/chineseimmigrati00jone/mode/2up>
- xv 1878. "Appeal from California. The Chinese Invasion. Workingmen's Address," Indianapolis Times. Dennis Kearney and H. L. Knight, Workingman's Party of California, at <https://web.archive.org/web/20110719203246/http://historymatters.gmu.edu/d/5046/%7C>
- xvi 2001, Debating American Immigration, 1882 - Present. Daniels, Roger p. 13
- xvii 1920, Abstract of the Census - Population. US Census Bureau p. 94 at <https://www2.census.gov/library/publications/decennial/1920/abstract/abstract-1920-part2.pdf>
- xviii Crooks op. cit. p. 50-52
- xix <https://www.theolympian.com/news/local/article231320438.html> and <https://www.chronline.com/stories/dept-of-ecology-preparing-report-on-9-million-cleanup-of-oil-spill-into-capitol-lake,6142>
- xx <https://www.theolympian.com/news/local/article231017468.html>

O-22

COMMENT

RESPONSE

- xxi <https://ecology.wa.gov/About-us/Who-we-are/News/2021/Jan-4-Olympia-pays-penalty>

O-23

COMMENT

RESPONSE

O-23-1

From the wealth of materials and information gathered from the major stakeholders in this outstanding EIS, it is unimaginable a rationale can be produced for not choosing the Estuary Option. I have provided a letter with the letterhead with my nonprofit organization JustUs Productions who are a consortium of friends from TESC, The Procession of the Species and Fraternal Order of Eagles producing all-ages, nonprofit benefits for charity and disaster relief. The single point to be made is that the present Managed Capitol Lake Basins are a complete disaster in almost every conceivable context. The damage done culturally, environmentally and our future depend on making the strongest effort possible to correct the wrongs made in the past and to insure we make the strongest effort not with a 30 year view, but a seven generations view in providing remedial actions to heal the health of Olympia, the Puget Sound and internationally. This study must consider the global impacts of developing cleaner water, healthier ecosystems and a community that understands the importance of restoration of the natural world is our responsibility.

O-23-1 Please see the Global Response for the Preferred Alternative Identification Process.

O-23

COMMENT

RESPONSE



JustUs Productions-John Kersting, President
2404 Olympia Ave NE
Olympia, WA 98506
Cell- 360-970-5550
johnkersting@yahoo.com

August 29, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
P.O. Box 41476
Olympia, WA 98504-1476

Dear Staff Members,

O-23-2

Having lived in the Olympia area for over 40 years studying the environment as a four-year News/Public Affairs Director at TESC's campus radio station, two years as a feature writer on environmental issues with the South Sound Alliance monthly magazine and as a founding staff member of the Procession of the Species, I am intimately aware of the critical problems with choosing any other alternative than the Estuary Option. Change is difficult, but this is a critically damaged area. The Estuary Option simply must be chosen and done with all due haste to have the greatest possible positive impact. The cultural, environmental and community needs demand recreating a different, healthy and affordable community resource. Each of the other options is too expensive, may have unintended significant issues or ignores that something must be done for Puget Sound's critical health problems and done NOW.

O-23-3

I have been running around or along each of the basins of Capitol Lake and anyone claiming the lake is healthy and has a more pleasant smell than an estuary is dead wrong. The evidence of the pollution and effect of invasive species is clearly in the surrounding odor. A cursory look at the collected waters particularly in the Middle and South Basin clearly show how unhealthy the waters are right now. This study seems to be short on the historical pollutants that only an estuary can begin to remediate including pollution flowing from the Cascade Pole site, sewage from innumerable unknown sources and the historical dumping of paint and other items by military, corporate and government sources. Those should be in it.

O-23-4

Reviewing the Cultural Resources Discipline Report, particularly the statements in Appendix B, the interviews were rambling and dated. Most were poorly facilitated and merely show the event producer's attachment to their event but also the critical need for large public gathering spots needed for our ever-growing city and that also must be developed- ELSEWHERE. As a 40 year event producer, I know the needs, the Estuary Option is needed MORE! However, the descriptions by the Squaxin Island representatives Charlene Krise and Jeff Dickison in their interview clearly illustrate the invaluable vitality and beauty of estuaries.

Appendix E has several comments taken in 2008 that are just as relevant today as they were then, this letter is an effort to restate that we must take the option that is for the greatest

- O-23-2 Please see the Global Response for the Preferred Alternative Identification Process.
- O-23-3 As described in Section 4.7.4.1 of EIS Supporting Chapter 4.0, potential odors associated with the Managed Lake Alternative would be similar to existing conditions. While the EIS Project Team was not able to identify any formal odor complaints logged with the regional clean air agency related to the basin, it is recognized that several commenter's have noted odors from the lake basin at times. Discharges to the lake from stormwater outfalls as well as accidental spills, including recent spills of contaminated transformer oil and sewage, are discussed in Section 3.3.1 of EIS Supporting Chapter 3.0, and described in more detail in the Water Quality Discipline Report (Attachment 7). This information was used to characterize existing water quality and sediment quality conditions in the lake and to help interpret water quality and sediment quality data that were obtained following spill events. The Sediment Quality Discipline Report (Attachment 15) confirms that sediment in Capitol Lake is relatively good and does not exceed sediment management standards that would require cleanup. The Sediment Quality Discipline Report also includes additional information about the Cascade Pole site. Finally, the Final EIS has been updated to note that remediation of contaminated sediment in West Bay should occur prior to removal of the 5th Avenue Dam under the Estuary Alternative.
- O-23-4 Thank you for your comments. See the Global Response for Cultural Resources for a description of how tribal values were considered in the EIS.

O-23

COMMENT

RESPONSE

O-23-4 | good, for the health of our environment, community and brings the new treasures only a new set of actions can bring us. Ironically, this can be done by restoring the historical nature of our Estuary. The comments submitted by Paul Allen MD and Jana Wiley summarize the important values an Estuary will provide and the present almost catastrophic problems that the science in the IES provides.

O-23-4 | Since the effects of the community, recreational and spiritual activities that could be held I do think the study should have considered the thoughts of the entire Puget Sound Tribal leaders in that it would be Restorative Justice to add to the list of values a rejuvenated estuary would provide statewide or even nationally. Having worked as a teacher at Wa He Lut Indian School, I have no doubt our principal, Harvey Whitford could provide local historical perspectives, if he has not commented, and you should seek his input. (360) 456-1311

O-23-5 | The study is also shortsighted in not providing a comparison to other restored estuaries such as the recreational, cultural and environmental effects of the Nisqually Delta restoration efforts. It is reasonable to believe that without restorations such as these and others, Puget Sound Orcas and a number of other Puget Sound Marine Life Forms will soon be extinct.

O-23-6 | The study is overwhelming and intimidating to me and I can imagine that it is to others. I think a reasonable thoroughness was achieved, but the limitations in voices, global impacts and the clout of stakeholders fearing change seem significant. Last, but not least, it may come down to being forced by the evidence you have provided by suits filed by environmental organizations, which I also do not see represented by this study in a substantial manner.

For the monumental effort and thoroughness of what you have produced, let me thank you and I am assured you love our area as much as I do.

Sincerely,

John Kersting

O-23-5 | The characterization of impacts and benefits provided by the Draft EIS and Final EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives.

O-23-6 | Enterprise Services appreciates the commenter's detailed review of the Draft EIS.

O-23

COMMENT

RESPONSE



O-24

COMMENT

RESPONSE

O-24-1

Position on the future of Capitol Lake

The Olympia Downtown Alliance supports future configurations of Capitol Lake complete with all of the following considerations:

- Aesthetically pleasing-Both the body of water itself and areas adjacent to the lake should be visibly attractive and clean.
- Environmentally conscious-The body of water should be healthy, supporting a vibrant ecosystem of area plants and wildlife.
- Community amenity-The body of water and surrounding area should be an accessible space for our community to assemble and recreate.
- Connected to Downtown-This space should be connected and accessible to our Downtown, featuring intuitive corridors bridging these community assets.

O-24-1 This response acknowledges the commenter's position.

O-25

COMMENT

RESPONSE

O-25-1

Thurston Climate Action Team is the leading grassroots nonprofit in Thurston County, partnering with our community to restore earth's climate and create a healthy, just, and joyous world for all people and our planet. We acknowledge that the area in question is the traditional territory of our Squaxin Island neighbors, and we seek to nurture our relationship with our Coast Salish neighbors and our shared responsibilities to this place — their homelands — where we mutually abide.

As such, we support the removal of the 5th Avenue dam and the ultimate restoration of the Deschutes Estuary. Removing the dam would have significant benefits to the health of the ecosystem, benefiting the native flora and fauna.

O-25-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.


O-26

COMMENT

RESPONSE

9/7/2021 Roundcube Webmail - Comment - Puget Soundkeeper

Subject: **Comment - Puget Soundkeeper**
 From: Sean Dixon <sean@pugetsoundkeeper.org>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-30 07:41



Good morning – I'm resending these in as I received a bounce-back last night; can you confirm you received these?

Thanks

Sean


~~~~~

Good afternoon, please see our comments below, submitted on behalf of Puget Soundkeeper and its members:

---

**Sean T. Dixon** (he/his)  
Soundkeeper & Executive Director

Puget Soundkeeper Alliance  
 130 Nickerson Street, Suite 107  
 Seattle, WA 98109  
 206-297-7002 x101  
[Sean@pugetsoundkeeper.org](mailto:Sean@pugetsoundkeeper.org)  
[www.pugetsoundkeeper.org](http://www.pugetsoundkeeper.org)



~~~~~

Puget Soundkeeper appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for Capitol Lake – Deschutes Estuary. This DEIS states that the presented alternative will be evaluated for the ability to improve water quality, manage sediment, improve ecological function and enhance community use of the resource. Several modifications to this document would enhance the applicability of the DEIS for making these evaluations to the alternatives.

A major omission of the DEIS is a failure to acknowledge the 70 years of cumulative and continuing ecological, habitat and water quality degradation caused by the destruction of the Deschutes estuary, and subsequent negative impacts on both sovereign tribal treaty rights and the greater Puget Sound ecosystem. Today, any proposal to dam an estuary on Puget Sound for the purpose of creating a reflecting pool would never be seriously considered - let alone permitted. An inherent bias in the DEIS is exemplified in the project description "*The waterbody has long been valued community amenity*" (pg. 5 Introduction), referring - imprecisely and without basis, no less - to outmoded lenses through which only some members of the community view this 1951-built artificial impoundment. Additionally, the DEIS includes an unsubstantiated opinion (presented as a statement of fact) that '*All action alternatives would improve ecological functions within the Project Area*', overstates the potential benefit of maintaining an artificial pool and failing to acknowledge the ecological damage from the historic and on-going loss of the estuary.

The Deschutes Estuary has long-standing cultural and spiritual significance to local tribes, particularly the Squaxin Island Tribe. The 70 years of loss of the estuary has cultural, religious, and economic significance, and does not adequately consider these sovereign tribal treaty rights. This omission would have significant impacts on permitting, schedules and cost which are not adequately considered in the DEIS, although they are acknowledged in an addendum, *The Managed*

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=295&_mbox=INBOX&_action=print&_extwin=1 1/4

O-26-1 Please see the detailed analysis in Sections 4.3, 4.5 and 4.6 of EIS Supporting Chapter 4.0, which describe how water quality, fish and wildlife habitat, and wetlands would improve as a result of the long-term management project. These sections also describe how the potential benefits would vary across the alternatives. Please also see Attachment 21, which provides a summary of the decision-making process for identifying the Preferred Alternative, and a numerical description of the alternatives relative to improved ecological function. The Estuary Alternative best achieves the goal of improving ecological function in the Project Area. The Global Response for the Preferred Alternative Identification Process also describes how tribal values were integrated into the decision-making process.

O-26-2 See the Global Response for Cultural Resource regarding how tribal resources and tribal values were considered in the EIS. Tribal values and resources were also incorporated into the process to select a Preferred Alternative as described in Section 1.12 of Final EIS Supporting Chapter 1.0 and the Preferred Alternative Identification (Attachment 21):

- Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
- Each alternative was also evaluated relative to cultural resources, which considered whether precontact landscapes would or would not be restored or preserved.
- The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.

Please refer to Appendix 21 for a more detailed discussion of the environmental impacts and benefits that were comprehensively considered in the process to identify a Preferred Alternative. Regarding the commenter's request that the EIS better characterize the costs and benefits of the project alternatives, a cost/benefit analysis is not a component of a SEPA EIS.

O-26-1

O-26-2

O-26

COMMENT

RESPONSE

9/7/2021

Roundcube Webmail - Comment - Puget Soundkeeper

O-26-2

Lake Alternative would also perpetuate historic and continued loss of tribes' and tribal members' connection to the natural environment. Removal of the 5th Avenue Dam under the Estuary Alternative (and the Hybrid Alternative, to a lesser extent) would have beneficial effects for ecological, cultural, heritage, spiritual, and educational value for tribes. Tribal populations would likely experience the beneficial effects of restoration of the Capitol Lake Basin to an estuarine system most significantly. The Estuary and Hybrid Alternatives would restore the Capitol Lake Basin to an estuarine system similar to historic conditions. Estuarine wetlands are rare in the region and provide additional functions that are not available in freshwater deep-water habitats, and there would be a substantial beneficial effect.(pg. 6-134). Puget Soundkeeper fully agrees with these statements regarding the real costs of the Managed Lake Alternative and supports the full restoration of the estuary as the only alternative that supports tribal rights and the restoration of regional ecological functions in Puget Sound. These issues should be emphasized in the Executive Summary and included in Table ES-1 and the DEIS should be modified to better characterize the cost and benefits of the proposed alternatives.

O-26-3

While the DEIS contains a substantial amount of information, the DEIS and addendums do not appear to have been read in their entirety for analytical consistency, extent of the study area, descriptions of impacts, or for a consistent application of available literature or datasets. Many statements of opinion are presented as conclusions that are unsupported either by data, analysis or the scientific literature. Comments such as "water quality standards "might be met" or "water quality in the Lake is not as bad as some people think it is" are unsubstantiated conjecture and diminish more scientifically supported conclusions. Many of the conclusions in the addendums are not consistent or accurately reflected in the DEIS.

Study Area Inconsistencies:

O-26-4

The study used in the DEIS is too circumscribed to adequately evaluate impacts of the different alternatives. This inadequacy is functionally acknowledged in the DEIS when much of the analysis is based on data from the upper watershed and includes data from outer Budd Inlet (site BUD005). East Bay the entire Budd Inlet and upper watershed should be included in the study area as well to be consistent with the TMDL modeling done by Ecology and be consistent with hydrologic reality. A much larger study area would reflect the actual areas that would be impacted by the selection of any of the proposed alternatives. Ecology modeling indicated that half of the DO impacts in Budd Inlet resulted from the dam. As the DEIS is intended to evaluate alternative that include keeping or removing the dam, it would be more reasonable to acknowledge a more accurate and expanded study area.

O-26-5

There are multiple statements that low DO is typical of South Sound estuaries, but those estuaries are not specifically identified, nor is it reported if any of those "typical" south sound estuaries have a major river inflow. It would have been more appropriate to select the Nisqually estuary as a reference site as it has a major river inflow.

Data Quality:

There are inconsistencies in the use of various annual datasets and conclusions that are presented in the DEIS. This inconsistency in data use makes any conclusions in the DEIS less viable. Sample sites are inadequate to represent macrophyte dominated systems (discussed in more detail under water quality).

O-26-6

The DEIS notes that Thurston County had ongoing water quality data from 2004-2014, but for purposes of the DEIS, only water quality data from 2010 to 2014 was used because there was a "trend" in that five-year period. This does not seem to be a proper way to use this data and undermines conclusions the DEIS draws from it. The DEIS should explicitly state what factors have been considered in determining that a shorter period of data is appropriate for this analysis.

The data collected for the single growing season in 2019 is presented as refuting the Ecology model trend results. The selective use of a single annual to dismiss the trend data is not supported by statistical methodology. The statement that the 2019 Capitol Lake water quality conditions resulted from improvements in the upper watershed are not supported and a further reason that the watershed should be included in the study area and that multiple years of data collected (and standard statistical procedures applied) before claiming changes in trends. The TMDL developed by WDOE included loadings from the watershed, was peer reviewed, and is accepted as the best available science. It is unlikely that a single growing season dataset collected at two sites in the open water of a macrophyte dominated basin would change the conclusions to the peer reviewed study.

Water Quality:

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O-26-3

Where possible, subjective statements have been removed from the Final EIS. In some disciplines, subjectivity cannot be removed. For example, odor is subjective and people have different perceptions to odors from a natural environment.

The Final EIS and discipline reports have been reviewed by the EIS Project Team and Enterprise Services. Consistent with SEPA, the geographic study areas encompass the areas where the project could result in significant adverse environmental impacts (or benefits). As such, the study areas varied by environmental resource in terms of geographic extent and of level of analysis. The description of impacts and level of analysis also varied by discipline as needed to evaluate and disclose potential changes as a result of the project.

Please refer to Attachment 4 for a list of reference documents for the Draft EIS and Final EIS.

O-26-4

Please see the Global Response for Water Quality regarding the study area for the water quality analysis.

O-26-5

Please see response to Comment O-13-5.

O-26-6

Please see the Global Response to water quality comments regarding use of the 2015 Ecology Water Quality Improvement Report; and use of the 2004-2014 dataset.

O-26

COMMENT

RESPONSE

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O-26-7

303d listed parameters: All of the listed 303d water quality parameters should be used in the alternative analysis. The focus on impacts to dissolved oxygen criteria simplifies the water quality considerations and ability to adequately evaluate the alternatives. The criteria should be evaluated based on lake criteria (see discussion below).

Macrophyte dominate waterbodies: The DEIS reports Capitol Lake has dense growths of aquatic macrophytes, dominated by *Elodea Canadensis* and *Ceratophyllum demersum*. These macrophytes create dense canopies of vegetation that have very strong impacts on the water quality of both lakes and rivers in Washington not addressed in the DEIS. Capitol Lake is described as having very dense growths of aquatic macrophytes. Elimination of water mixing and increased detention times within the macrophytes beds is documented in the scientific literature as are associated changes to water quality such as increased dissolved oxygen within the actively photosynthesizing upper layer, decreased dissolved oxygen beneath the dense canopies, increased sedimentation, elevated pH and increased internal loading of phosphorus.

The use of single sampling sites in open waters is inadequate to characterize the water quality in macrophyte dominated waterbodies and brings into question the accuracy of the open water collected data as representative of this macrophyte dominated water body. The statement in the DEIS (pg. 2-28) that the existence of dense aquatic vegetation in Capitol Lake does not indicate that water quality in Capitol Lake is "bad" is an unsubstantiated opinion and does not take into consideration macrophyte induced water quality changes that will not be quantified with single samples in the open water.

O-26-8

Also, the lack of winter data collection also misses the annual senescence of these macrophytes and seasonal loading of detritus and impact to downstream TOC loading and BOD. The water quality sampling sites (Figure 3.1) shows the single sampling sites for the North and Middle basin located along the thalweg which is likely to be open and faster flowing waters than in the areas of dense macrophyte. Only bacteria samples were collected at the near-shore sampling site.

The purported reduction in DIN within the lake compared to inflows from the Deschutes River should also be considered based on the minimal sampling design (single sample in open water, no winter sampling) used in the DEIS. Lack of winter in-lake data when most of the senescence and mineralization of plant material occurs adds substantial uncertainty to any assumptions on loading or export of nutrients from the basin. The lake is unlikely to act as a perpetual TIN sink and the TIN and TOC dynamics will impact the attainment or not of the dissolved oxygen criteria in Budd Inlet.

O-26-9

BOD and TOC: The DEIS states that (pg 3-32) because BOD (biochemical oxygen demand) is low, more recalcitrant total organic carbon (TOC) was released and had less of an impact on Budd Inlet dissolved oxygen. It is not clarified whether this is BOD₅ or BOD₃₀ which are used to answer different questions and would likely give different results. Multiple forms of TOC were included in the WDOE model and would be a more accurate source of information on dynamics and forms of TOC and specifically on impacts to BOD₃₀. The data discussed in the DEIS was not collected during the winter, which in a macrophyte dominated system such as Capitol Lake would be when much of the TOC resulting from macrophyte senescence would be exported. This statement in the DEIS requires substantial additional analysis and explanation, particularly in light of the support this opinion gives to the 'managed lake' alternative.

O-26-10

Lake vs River: The discussion on whether Capitol Lake is a river or a lake is based on inflow and basin calculations which ignore macrophyte induced short circuiting and most likely the functional detention time is greater than the 15 days in the water quality standards Capitol Lake should be evaluated based on lake criteria.

O-26-11

Reference sites and 'typical south sound inlets': Water quality in Budd Inlet is compared with other unidentified inlets in the South Sound. If the inlets are to be assumed to be those identified in Figure 4-10 as not meeting DO criteria, none of these inlets have a freshwater river flowing into them. The Nisqually estuary close to Budd Inlet does have a major freshwater river inflow and did not exceed the DO criteria, this inlet should have been used as the reference site for comparison with the Deschutes.

O-26-12

Invasive Species: The DEIS states (Table ES-1 and addendums) that the New Zealand mudsnail is not expected to be eradicated entirely under any alternative, so decontamination stations are assumed for the Managed Lake, Estuary, and Hybrid Alternatives. Capitol Lake is ground zero for the spread of New Zealand mudsnails in the Puget Sound basin. The DEIS acknowledges that there would be a greater population (density) of the New Zealand mudsnails under the Managed Lake Alternative, 'but distribution may be wider under the Estuary and Hybrid Alternatives'. This is highly unlikely as saltwater inundation is used as a control measure and this opinion has no scientific support and the opposite result is far more likely an outcome of opening up the basin to natural saltwater flows.

O-26-7 Please see the Global Responses to water quality comments regarding the focus of the analysis on dissolved oxygen (and total organic carbon).

O-26-8 In regard to the selection of sampling sites, while we agree that a few sampling sites may not fully represent the wide variety of conditions that exist in Capitol Lake, the sampling sites used in the analysis have been used for decades by the County, Ecology, and others to characterize the lakes water quality and determine compliance with standards. It was in fact essential for the analysis of trends and water quality standards compliance to rely upon the same sampling sites and methods as used in past monitoring efforts. It should be noted that aquatic macrophytes do exist in both the North and Middle Basin sites and are especially dense at the Middle Basin site. In regard to the lack of winter data collection, the primary period of interest identified by Ecology in their modeling efforts was mid-summer through fall when DO conditions in Budd Inlet are most critical; the monitoring and analysis focused on that period. And, as described in the EIS, the monitoring did document late season changes (e.g., increases in TOC in both the river and lake) that can be attributed to senescence and decay of aquatic macrophytes as well as other organic sources in the watershed.

O-26-9 There are numerous methods of estimating oxygen demand, and the relationship between TOC and expected BOD is tenuous, and beyond the reach of the EIS. The sentence correlating TOC and BOD has been removed from the Final EIS and Water Quality Discipline Report. Please see the revision to Section 3.3.3.1 in Final EIS Supporting Chapter 3.0.

O-26-10 Please see response to Comment O-13-30.

O-26-11 Please see response to Comment O-13-5.

O-26-12 Refer to the Global Responses for Aquatic Invasive Species.

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O-26

COMMENT

RESPONSE

9/7/2021 Roundcube Webmail - Comment - Puget Soundkeeper

The dense beds of aquatic macrophytes, both native and non-native freshwater spp. Would be greatly reduced.

Aesthetics: The primary benefit of the managed lake alternative is to maintain the reflection of the capitol building, a symbol of our state government. An Estuary, which would restore tidal flow to conditions similar to the historic Deschutes Estuary would have water in it approximately 80% of the time. The managed lake alternative benefit is to provide a reflecting pool for and additional 20% of the day.

O-26-13

Currently, this reflection occupies the specific location that for millennia provided spiritual, and subsistence resources to the Squaxin Tribe. This cultural bias is acknowledged in the DEIS 'Tribal populations would experience disproportionately adverse impacts from the Managed Lake Alternative, raising environmental justice concerns. The Managed Lake Alternative would have a continued impact on Usual and Accustomed Fishing Grounds and Stations, (Draft EIS June 2021 Executive Summary pg 17) and 'The status quo conditions perpetuate historic inequities, particularly for tribal populations that have experienced ongoing adverse impacts from changes to the ecosystem since nonindigenous settlement of the region occurred. Improvements to culturally and economically important species and habitat functions in the Estuary and Hybrid Alternatives, particularly from the removal of the 5th Avenue Dam, have the potential to result in substantial beneficial effects for tribes.' The managed lake alternative and hybrid alternative place the additional 20% time for the reflecting pool above the cultural and environmental justice impacts that the elimination of the estuary created.

Managed lake option:

O-26-14

The impacts of this alternative are not adequately addressed in the DEIS. It is acknowledged that Capitol Lake causes the largest negative impact to dissolved oxygen of any single source in the entire Salish Sea and is the most expensive option; based on Table ES.4 total costs would of the Managed lake Alternative would be \$337-\$667 and for the estuary \$179-\$336, the estuary would be half the cost of the managed lake.

The managed lake option also assumes that the management portion of this alternative will be funded in perpetuity. This is unlikely and the experience with the current management of the basin shows that the management strategies committed to are often not carried out. DES has a very poor track record of fulfilling these obligations.

Hybrid option:

O-26-15

"Under the Hybrid Alternative, the barrier wall for the reflecting pool would mitigate impacts on historic resources related to the 5th Avenue Dam and 5th Avenue Bridge removal to less than significant levels" - this statement is not supported and will result in the loss of usual and accustomed fishing and hunting areas. The aesthetically unappealing sheet pile wall pounded into outwash sediments is not accurately costed out and would likely cost substantially more than estimated. The creation of a saltwater detention tank/reflecting pool will potentially create a low DO solar collector with minimal mixing that instead of being a 'salmonid refuge' would more likely be low DO high temperature a mortality trap.

Conclusions

O-26-16

In closing, there are numerous technical questions with the data and analysis submitted in the DEIS. The conclusions appear to provide a biased, unscientific evaluation of several of the options that - at all turns - leans on the idea that this mirror lake is beloved by the people and thus is and always has been good. A significant revision of this document would be required if it were to adequately evaluate the alternatives' ability to improve water quality, manage sediment, improve ecological function and enhance community use of the resource. Several modifications to this document would enhance the applicability of the DEIS for making these evaluations to the alternatives. Most importantly, what option will provide the greatest benefit to not just the local Olympia area (let alone an unknown subset of local Olympians that favor the retention of this mirror lake regardless of tribal, economic, or environmental costs), but to the entire Puget Sound ecosystem and the State of Washington.

O-26-13 Comment noted.

O-26-14 Comment noted; the characterization of effects provided by the Draft EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives. The Final EIS has been updated to provide additional analysis regarding the ability of the alternatives to comply with water quality standards, given that Ecology has released a draft TMDL for Budd Inlet that suggests Capitol Lake is the largest source of pollution that results in low dissolved oxygen conditions in Budd Inlet. The costs and funding strategy were also considered in the decision-making process for identifying the Preferred Alternative.

O-26-15 Section 4.9.6 of Final EIS Supporting Chapter 4.0 includes updates to the analysis of historic resource impacts under the Hybrid Alternative. These updates were made to reflect Determinations of Eligibility received from the Washington State Department of Archaeology and Historic Preservation subsequent to the release of the Draft EIS. See Sections 3.5.3 and 4.5.7 of EIS Supporting Chapters 3.0 and 4.0 for discussion of tribal resources, including usual and accustomed areas.

If the Hybrid Alternative is selected for long-term management, costs would be further developed during future design and permitting. Note that the Hybrid Alternative has been updated in the Final EIS to include a freshwater reflecting pool, which would not be subject to solar heating to the same degree as a saltwater pool. See Final EIS Supporting Chapter 2.0 for more information.

O-26-16 Enterprise Services appreciates the Puget Soundkeeper Alliance's detailed review of the Draft EIS. Please see responses to specific comments.

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=295&_mbox=INBOX&_action=print&_extwin=1

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CAPITOL LAKE – DESCHUTES ESTUARY

Long-Term Management Project Environmental Impact Statement

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Responses to Comments from Individuals

I-1

COMMENT

RESPONSE

8/5/2021 Roundcube Webmail - EIS REPORT

Subject: **EIS REPORT**
From: Steve Miller <SMiller@dredge.com>
To: <info@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-06-30 10:29



I-1-1

Comment noted. The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-1-1

Very detailed and well researched EIS report. Long term self managed lake restoration programs work and I have seen first hand the positive effects that routine dredging and sediment management can provide to a community. Dane County WI just started began there lake restoration program using our equipment, training and in house county workers.

I-2

COMMENT

RESPONSE

I-2-1

Comment noted; this comment is a statement and does not affect the environmental analysis in the EIS.

7/15/2021

Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Steve Miller <SMiller@dredge.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-06-30 10:32



- S5000426.JPG (~1.8 MB)
- 300SL.JPG (~32 KB)

I-2-1

Very detailed and well researched EIS report. Long term self managed lake restoration programs work and I have seen first hand the positive effects that routine dredging and sediment management can provide to a community. Dane County WI just started began there lake restoration program using our equipment, training and in house county workers.

Sent from [Mail](#) for Windows 10



S5000426.JPG
~1.8 MB



300SL.JPG
~32 KB

I-3

COMMENT

RESPONSE

I-3-1 | Based on review of the EIS, it appears to me that the Hybrid is the best option. The managed lake is a waste of resources, as you end up back exactly where you started in the beginning and it has limited environmental or public benefit. The estuary option is the best environmentally, but for public use, people would not like the look at low tide. The hybrid option 1) preserves the views people like, 2) allows for recreational activities, 3) provides value for the upfront cost due to reduced flooding, and 4) has a massive environmental benefit. The price tag is high on all options, so it should be the alternative that makes the most sense and has the longest shelf life.

Joel Hecker

I-3-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-4

COMMENT

RESPONSE

I-4-1 | I'm in favor of either the estuary or hybrid, with preference over the full estuary. I also didn't see public swimming listed in the planned recreation options, but I may have missed it. I would like to see that return.

I-4-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-5

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Mail

From Daniel Locke <daniellocke1946@gmail.com>
To <comment@capitolakedeschutesestuaryeis.org>
Date 2021-07-04 06:50



I-5-1

Do the hybrid

I-5-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-6

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: hybrid, please

Subject **hybrid, please**
From George Kurzman <grgkrzmn0@gmail.com>
To <comment@capitolakedeschutesestuaryeis.org>
Date 2021-07-04 08:09



I-6-1

If it were entirely up to me, I would choose the restored-estuary option, but I understand the reflecting pool has cultural significance for a lot of people here. Separating the reflecting pool from the estuary preserves that cultural asset while allowing the estuary to be restored. Any option that removes the dam will increase costs for the yacht club, primarily. The yacht club pre-dates the dam by more than 40 years, so we know it was possible to function there without it. Keeping the dam for their sake is essentially a government subsidy for a luxury/recreational organization. The public interest is better served by a restored estuary. GK
George Kurzman
1517 San Francisco Ave. N.E.
Olympia, Wa. 98506

I-6-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-7

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: How about no more studies and some action

Subject **How about no more studies and some action**
From Martin Kimeldorf <kimeldorf@icloud.com>
To <comment@capitolakedeschutesestuaryeis.org>
Date 2021-07-04 09:41



I-7-1

we've lived in Tumwater for 40 years and read this same article for 40 years.
From Martin K's cell

I-7-1

Comment noted.


I-8

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capital Lake Options

Subject: **Capital Lake Options**
 From: Paul Bunge <drbunge@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-07-04 09:27



I read the paper today and I would generally prefer the fresh water option.

I do notice that this is the most expensive which is a downside. And of course it is not the natural state of the area. But the decision to make a dam and make a freshwater lake was made years ago and all other decisions surrounding that (buildings, parks, etc) depend on the lake as it is. I would support other areas remaining estuaries, and am very glad for the Nisqually Valley decisions over the years.

The large homeless encampment is a recent twist to the lake's history. That may be one of the most dangerous and disruptive things currently and should be addressed as well.

Another interesting issue:
 Those investors who after many years risked to make a very nice and usable facility out of the ugly green monster building that was there before would be punished for their good work by removing the fresh water lake in my opinion.

Thank you
 Paul Bunge
 Olympia, WA

I-8-1

I-8-2

I-8-3

I-8-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-8-2

Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-8-3

This response acknowledges the commenter's position.


I-9

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capital lake

Subject: **Capital lake**
 From: Marybeth Bland <marybethbland1@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-07-04 09:30



I am leaning to the hybrid model for the lake. I am leaning this way because of the cost. It would be cheaper than keeping the Capitol Lake as it is now. I also like the learning that we could get from it and this might be the way the lake was really should've been in the first place. A lot of money would have to go into this and I'm not sure where the money will come. I hope that can be outlined so that we can have a more clear idea of how to move forward.

Sent from my iPad

I-9-1

I-9-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-10

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: > CAPITOL LAKE - Beautiful Lake

Subject: > **CAPITOL LAKE - Beautiful Lake**
 From: Tom Schrader <schraderfour@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-07-04 09:44



KEEP CAPITOL LAKE....

Reflective Beauty vs Smelly Flats

Since our Liberal based government always has idiocy over reason.... such as allowing dozens of homeless tents along the lake shore-- Or shutting down the lake for 12 years because of a snail which will never be eradicated (and so what...??!).
 > Much like the Mazama gopher ruling where all of us at the county has had to endure since the three wacky left commissioners decided that a creature which nobody sees was more important than the county's residents.

Heck with "GloBull Warming", the downtown seashore will rise twenty feet, so it will all be a mute point... A lake or an estuary will soon be a sea.

EVERYBODY RUN!!!!!!

Wow.

Tom Schrader

+++++

I-10-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-10-1

I-11

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capital Lake

Subject: **Capital Lake**
 From: Trace_and_Leslie Pierson <movingimagememorials@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-07-04 12:57



Hello,

For those not old enough to remember what it was like before the fifth Avenue dam was installed let me remind you....

Two or three days a week the stench of pungent "sea rot" was inescapable downtown. The eyesore of it undeniable to any visitor, industrial as it was.

Not a reflection pool, not a place to spend a hot summers afternoon cooling off. Not a place to bring the kids for a picnic and a dip.. no this place was hideous!

Please, save the lake as our fore Fathers and Mother's had envisioned some 70 years ago as a place of recreation and beauty for generations to come.

If we don't, the sediment issue will only become spread around. Install a sediment filter/ collector at the lake head where it meets the Deschutes River, dredge and exterminate or control invasive species. Restore the lake for recreational use.

Make Capitol Lake an asset we can use, enjoy and admire as the center piece of a great city!

Thank You

Trace and Leslie Pierson

I-11-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process. Please refer to Section 3.7 and 4.7 of Final EIS Supporting Chapters 3.0 and 4.0 for the analysis of odor impacts.

I-11-1

I-12

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Choices

Subject: **Choices**
From: Scott Cubberly <swcubberly@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-04 16:02



I-12-1

Read Olympian article today and have long considered my opinion.
I strongly support the estuary option!!! Back to more natural, less money, healthier and less worries about sediment!
Scott Cubberly
Resident since 1972

I-12-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-13

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
From: Cathy Smith <rigved@comcast.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-04 16:33



I-13-1

The estuary plan makes the most sense to me. It is the least expensive, and restores the area to its most original intended form.
Cathy Smith
Olympia, WA

I-13-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-14

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capital lake

Subject: **Capital lake**
From: Kirsten Weinmeister <kiwanne7@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-04 22:12



I-14-1

When do you plan a public showing with an artist rendering of the 2 options? Wouldn't that be nice? Have it at the little restaurant behind chase bank or in the lobby of the new bldg. by the capitol. Or traditions? That way there would be more positive input.
Kirsten Weinmeister

I-14-1

Thank you for your comment. This comment does not affect the environmental analysis in the EIS.


I-15

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capitol Lake Project

Subject: **Capitol Lake Project**
 From: Jason B <jlbritsasbros@hotmail.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-04 23:18



All three of these proposals have good aspects built into them. Time is always going to lead to needed improvements and I hope the people involved make sound decisions.

My biggest concern is the homeless people who live on the south side of the lake, and all about the city. Are there any plans to deal with the camps and all the environmental issues they bring about? For crying out loud! Not only is it an injustice to leave people languishing on our streets, but why is the subject never talked about? Is the plan to ignore it and hope they will all die? You are all cowards and don't deserve your positions. DO SOMETHING TO HELP THESE PEOPLE GET OFF OF OUR STREETS!!

Pathetic!!

J.L. Britsas

I-15-1

Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-15-1

I-16

COMMENT

RESPONSE

I-16-1 Let's make it a functional lake again! This is a show piece for our community and an opportunity to bring back the lake to its full glory! I know it's more expensive but it is worth it!

I-16-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-17

COMMENT

RESPONSE

I-17-1 | Remove the dam and recreate the estuary. The increased saline conditions of the water should eliminate the habitat for the invasive species currently living in capitol lake. Also, reintroducing the Deschutes river system to Puget sound also creates the opportunity for natural salmon runs. Returning the body of water to its natural state will also allow the lake to reopen to recreational activities. This would be an economic boost for the downtown olympia area.

I-17-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-18

COMMENT

RESPONSE

I-18-1 | I believe the estuary should be fully restored, completely remove the dam.

I-18-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-19

COMMENT

RESPONSE

I-19-1 | This area should be an estuary. That lake is disgusting.

I-19-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-20

COMMENT

RESPONSE

I-20-1 | Turning Capitol Lake back into an estuary sounds like a great idea to me. I love the idea of returning it to its natural state!

I-20-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-21

COMMENT

RESPONSE

I-21-1 | I support the estuary option. I believe it is the right thing to do as it will be best for the environment and the wildlife, including the birds.
I-21-1 | I think it would be wonderful to see that. I know some people might prefer to retain the lake and feel the estuary wouldn't look as nice but the estuary would have its own beauty, just a different one. It's time we worked with nature, not against it.

I-21-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-22

COMMENT

RESPONSE

I-22-1 | I support the managed lake plan and oppose turning Capitol Lake into an estuary.
I-22-1 | I visit Capitol Lake every day and want to preserve it's beauty and enjoyment for locals and visitors who value our community and outdoor activities.

I-22-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-23

	COMMENT	RESPONSE
	To Whom It May Concern,	I-23-1 Comment noted.
	I wish to express my support for the removal of the 5th Street Dam to implement the long-term management strategy of restoring the Deschutes Estuary. Restoration of this invaluable habitat would support vital salmon populations, which are a of	I-23-2 Comment noted.
I-23-1	referred prey of southern resident orcas. Southern resident orca populations have diminished to dangerously low levels. Restoring the Deschutes Estuary would support an ongoing, sustainable food source for this iconic species, in addition to supporting economically important salmon fisheries and providing nursery habitat for other fish and shellfish species.	I-23-3 Comment noted. Please refer to Attachment 21, which provides an overview of the Preferred Alternative identification process and the evaluation of alternatives relative to evaluation criteria, such as cost and environmental sustainability.
	Restoring the estuary would also support economic and environmental resiliency in Olympia. The effects of global climate change can already be observed in western Washington. Removing the 5th Street Dam would help to mitigate the effects of sea level rise and more frequent flooding that are expected consequences of climate change.	I-23-2
I-23-2	In addition to the economic and environmental benefits associated with restoring the estuary, this management strategy has the additional advantage of costing substantially less than other proposed alternatives, including maintaining the dam and developing a hybrid solution.	I-23-3
	I urge you to remove the 5th Street Dam as the long-term management strategy for this project.	
I-23-3		

I-24

COMMENT

RESPONSE

I-24-1 | I hope to see the area restored to its natural estuary ecosystem. The estuary option has a positive impact on salmon and other threatened wildlife. It provides recreational opportunities, such as birdwatching and kayaking. It honors native tribes' culture, expanding equity. It could provide educational opportunities, similar to Pier Peer. As our capital city, Olympia has a chance to repair, restore, to lead our state to a healthier future.

I-24-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-25

COMMENT

RESPONSE

I-25-1 | Aesthetic values from the beginning should rule and managed lake option best. All else is wide speculation and original purpose serves all better.
Thank you

I-25-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-26

	COMMENT	RESPONSE
I-26-1	<p>Hello, I grew up in Olympia and have always known Capitol Lake to be toxic. I often spend time at the Nisqually Wildlife Refuge because of the natural habitat and wetland wildlife. I would love to see the same thing in my city with a native Olympua estuary and wetland. It will make the city more beautiful and more people will have access to nature. The estuary plan will benefit everyone in the long run. I already walk around Capitol Lake, but would do so more if it was returned to its natural state. My main concern is that there is a good plan to get rid of the invasive species as much as possible so that we don't end up with a different problem down the road. The native wildlife should be given ways to thrive. I will be following this project and hope to be able to take pride in the new landscape. I currently tell people who come to visit the sad truth about the lake, including the invasive snails, sediment, etc. I would love to have a wonderful ending to that history: a lovely habitat for plants and animals that should live in their city too.</p>	<p>I-26-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p> <p>I-26-2 Comment noted.</p> <p>I-26-3 As described in the Aquatic Invasive Species (AIS) Discipline Report (Attachment 8), Capitol Lake would be treated to significantly reduce populations within the waterbody, which reduce the risk of potential spread during construction. The reintroduction of saltwater into the basin under the Estuary and Hybrid Alternatives would have a substantial benefit by reducing AIS, because most of the AIS in Capitol Lake are intolerant to higher salinity levels. There would be no significant change to the number and type of AIS under the Managed Lake Alternative.</p> <p>All alternatives would include an AIS Adaptive Management Plan including monitoring, treatment, and other measures. Decontamination stations would also be installed, along with informational signage, to prevent the spread of AIS outside of the Project Area.</p> <p>There are no known methods to eradicating the New Zealand mudsnail. The New Zealand mudsnail population would be substantially reduced under the Estuary and Hybrid Alternatives because of the saltwater environment.</p>

I-27

	COMMENT	RESPONSE
I-27-1	<p>Remove the dam and let the river return to a natural state. An estuary is more than a polluted pond for legislative postcards.</p> <p>The dam is strangling nature.</p> <p>Wayne Kigerl</p>	<p>I-27-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>

I-28

COMMENT

RESPONSE

I-28-1 | I have lived in the Olympia area since 1960. I have observed the slow demise of Capital Lake. The lake was a real asset to Olympia. I am in favor of a Managed Lake approach as the best solution to this problem..

I-28-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-29

COMMENT

RESPONSE

I-29-1 | Having read a summary of the options being considered for capitol lake's future, I think the estuary option is the best. It seems like the area should be a natural environment as much as possible while still allowing people to walk around it and enjoy a natural setting. The recreation opportunities of the managed lake aren't really worth the cost especially if it will return to unusable condition if maintenance funds lapse.

I-29-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-30

COMMENT

RESPONSE

I-30-1 To whom it may concern,

my name is Erick Dietrich, and although I am a resident of Olympia since no more than a few years ago, I remember my mom who went to Capitol Lake where she enjoyed visiting it. As a resident here, I am asking you to be fully open to the idea of making this deteriorating place a better place where people can swim and enjoy nature and for nature to thrive. Moreover, the concept of giving to nature places a second lease in life for it and residents can be realized.

I appreciate your considering the revitalization of Capitol Lake and its surroundings for everyone

Erick D.

I-30-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-31

COMMENT

RESPONSE

I-31-1 Please choose the managed lake option. If the lake was turned into an estuary it would severely hurt downtown Olympias appeal, and waste great recreation opportunities.

I-31-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-32

COMMENT

RESPONSE

I-32-1 | I support the estuary option. I feel the estuary option is cost effective, reduces and eliminates historic water quality and invasive species problems, and best supports Salmond species. I support state funding for all or most future project expenditures.

I-32-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-33

COMMENT

RESPONSE

I-33-1 | The estuary proposal allows for a wide variety of habitats to exist in the basins, which will attract various types of wildlife for public viewing, while still allowing for the expansion of recreational opportunities. The estuary option is the best choice for Olympia and the state of Washington to further establish itself as one where people can coexist with nature.

I-33-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-34

COMMENT

RESPONSE

I-34-1 | \$179 million is the minimum expenditure? \$607 million is possible? How sad that we're willing to spend this much money when many of the residents of Olympia are living on the streets. We see these people as "homeless." Yes, they are. But, foremost they are citizens of our city. Let's address the sad lives of human beings with little hope for a better life. We are such a wealthy country. Our state prospers above dozens of others economically. These hundreds of millions could build housing for our neighbors who are struggling. Let Capitol Lake return to its most natural state. But, look for a way to address our neighbors who are struggling. Human beings are a priority. Find a plan to address both issues --- our neighbors without homes, and our lake. Imagine \$179 million spent on solving homelessness in Washington's Capitol.

I-34-1 | Comment noted. The issues raised are outside the scope of an EIS which is to evaluate potential environmental impacts of the project alternatives and to inform decision-makers and the public of reasonable alternatives and mitigation measures that could avoid or minimize adverse impacts or enhance environmental quality. Enterprise Services is not able to act as a direct service provider, alter operations to add new services not authorized by statute, or to divert agency resources. See also the Global Response for Land Management.

I-35

COMMENT

RESPONSE

I-35-1 | Do what is most beneficial in spite of cost. Remove homeless encampment to help clean and preserve natural beauty.

I-35-1 | This response acknowledges the commenter's position. See also the Global Response for the Preferred Alternative Identification Process.

I-36

COMMENT

RESPONSE

I-36-1 | The history of the lake and why it was built was for the capitol as a reflection lake. I grew up in Olympia and remember the great times with the swimming area with my family and the hydro plane races on the other side of the lake. Those days brought us all together to enjoy the many wonders of what Olympia has to offer. Please go to a Managed Lake and retain what Olympia was once known for, and make our area beautiful again.

The lake should be a Managed Lake. Bring back the lake we enjoyed for years, and one of the wonders of Olympia.

I-36-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-37

COMMENT

RESPONSE

I-37-1 | I support the estuary option. Once I learned more about the history of the lake, the invasive species, etc...it always felt slightly sad going there. It was a lovely idea but I think, like in many other examples of "progress" that were made decades ago, it's best to reverse course and allow the natural world to exist as it was meant to be and stop trying to control it. Not to mention, the estuary option appeared to be the most financially feasible.

I-37-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-38

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capital Lake

Subject: **Capital Lake**
From: Jody Suhrbier <jodymay@mac.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-05 08:17



Thank you the years of effort on this project! Embracing the natural ecosystem approach for long-term management is sound both scientifically and financially. The estuary option is the way to go.

If the hybrid option is the way that generates the most public and political will, that's a reasonable compromise. The managed lake option is not sustainable ecologically or financially.

It's time to take action, thanks for moving this project forward.
Jody

I-38-1

I-38-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-39

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Estuary

Subject: **Estuary**
From: DONNA WRIGHT <dwright799@comcast.net>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-05 09:08
Priority: Normal



As a life-long resident of this area I believe the Estuary plan to be the best route to take. It costs less and seems a more practical plan.

Donna Wright

I-39-1

I-39-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-40

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Comments from Larry Glenn

Subject: **Comments from Larry Glenn**
 From: <chiefbub@aol.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-05 09:21



My name is Larry Glenn.
 After receiving a job offer with the Olympia Fire Dept. we moved to Olympia in early January of 1960.
 We were awestruck with the serene beauty of Capitol Lake. Thousands of visitors were taking in the beauty of Christmas Island.
 Many people were viewing the salmon returning to Capitol Lake to spawn. This salmon run was started by a City employee named
 Wally Turner. Before then, there were no Salmon in Capitol Lake.

Capitol Lake hosted events throughout the year.
 In the Summer there was swimming off the dock on the East shore, Hydroplane racing in the South basin, water skiing through out the
 summer, the big event of the crowning of the Lakefair queen, and of course Lakefair itself.
 Capitol Lake was a magnet drawing visitors year round from across the Northwest. Olympia was an exciting place to visit and live.

In 1980 after receiving a job offer in Port Angeles, my family and I reluctantly moved to Port Angeles. There we spent 15 years.
 After I retired from the fire service in 1985, we moved back to Olympia. We were shocked by what had been allowed to take place with
 Capitol Lake.

- 1) The small non-native salmon run had been decimated by tribal netting at the outfall of Capitol Lake.
- 2) By failing to continue flushing the lake with salt water annually, allowed non native plants to take root in the lake.
- 3) By the State failing to fulfill there original commitment to dredge the lake as needed, allowed the silt to nearly fill the lake.
- 4) The lake had become so polluted from failing to flush and dredge, that activities such as swimming, and water skiing had become
 unhealthy and was no longer allowed.
- 5) All the activities at the lake sady had ceased due to the failure of the State to maintain the lake as they had committed to when the
 lake was first formed.

In closing, Capital Lake was first formed to function much like the reflection pond at the Nations Capitol, not as an
 estuary, which in my opinion is nothing more than a sour smelling mud flat. This might be acceptable at the Nisqually
 flats, but not in the heart of the State Capitol.
 As Capitol Lake has been allowed to deteriorate, so has the downtown of the city. Bringing it back to it's original glory
 would definitely work wonders for the city as well.

I-40-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-40-1

I-41

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Re: Thank you for your comment

Subject: **Re: Thank you for your comment**
 From: <chiefbub@aol.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-05 09:29



I-41-1 Comment noted.

I-41-1

One misprint in my submitted document, we returned to Olympia in 1995, not 1985.
 Larry Glenn

-----Original Message-----

From: comment@CapitolLakeDeschutesEstuaryEIS.org
 To: chiefbub@aol.com
 Sent: Mon, Jul 5, 2021 9:21 am
 Subject: Thank you for your comment

Thank you for your comments on the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement (EIS). All comments will be considered equally regardless of format.

The Final EIS will include a comment response summary that documents comments received and how substantive comments were addressed. The EIS Project Team will publish all comments on the project website approximately 1 month following the August 13, 2021 close of the comment period.

Thank you,

EIS Project Team

I-42

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Re: Thank you for your comment

Subject: **Re: Thank you for your comment**
 From: Kirsten Weinmeister <kiwanne7@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-05 10:09



I-42-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-42-1

I vote for estuary.

On Sun, Jul 4, 2021, 10:12 PM <comment@capitollakedeschutesestuaryeis.org> wrote:
 Thank you for your comments on the Capitol Lake – Deschutes Estuary Long-Term Management Project Draft Environmental Impact Statement (EIS). All comments will be considered equally regardless of format.

The Final EIS will include a comment response summary that documents comments received and how substantive comments were addressed. The EIS Project Team will publish all comments on the project website approximately 1 month following the August 13, 2021 close of the comment period.

Thank you,

EIS Project Team


I-43

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail : Capital Lake future

Subject: **Capital Lake future**
 From: Virginia Towne <vitowne@yahoo.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-05 12:33



I feel the need to comment on the proposals for the future for capital lake. I feel that an estuary is important to fish health and the river. This can be accomplished with either a straight estuary or a hybrid with an estuary and the lake. I worry the lake in any plan will be left to become a silted up problem in the future. I love the lake and would like to see it remain, if there is a plan with money to keep it up. If the lake isn't going to be maintained the a straight estuary is better for the environment and far less costly.

Virginia Towne
 360-539-7768. vitowne@yahoo.com

I-43-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-43-1

I-44

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail : make the estuary whole

Subject: **make the estuary whole**
 From: Susan <sdavenportmoore@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-05 14:31



My strong opinion about the three options is that the full estuary restoration is the right and only choice. The most simple and elegant solution is returning the southernmost point of the Salish Sea to it's original configuration. I am heartened to see the recognition of the ancient history and social justice being considered at long last. The more contemporary history of the architects that designed the lake, heritage park and walking path is of no consequence compared to this greater historical legacy. I might say the shanty town from the estuary shores that housed the diverse Asian and other POC service, oyster, lumber workers and greens gatherers is also of profound NW significance. My question is why the Olympia Yatch Club is even mentioned as a concern. That organization poisoned the south sound for more than two generations with it's haul out area with toxic scraped off debris and marine paint dripping. The Club had no concern for Budd Inlet then. They can well afford to move their operations elsewhere. A natural estuary can be an example of restoration and effective filtration for the Deschutes and the bay offering walking recreation and natural history exposure. The lake was a cesspool from its origination with an undiscovered sewer line belching into the lake for over 90 years. No wonder it has always had an algae bloom. This is rarely spoken about in any writing about the "reflecting pool". The Managed Lake is just an repeat of an earlier mistake and should not be dragged like an anvil of poor decision making into the future. The hybrid is an unfortunate example of design by committee and compromise with the best of each option unnecessarily complicated and awkwardly configured in trying to "please all the people". I think the environmental impact statement speaks well for itself in pointing to the estuary restoration. The other factors examined should all be measured with environmental protection carrying the most weight. I for one will look forward to the day when the river runs through the gently swaying marine plants to the inlet and the smells of the mud and salt water waft over the bridge and up the Westbay hills.

Susan Davenport
 115 Sherman St. NW
 Olympia, WA 98502
 360-970-6302

I-44-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-44-2 Comment noted.

I-44-3 The shantytown "Little Hollywood" is described in Section 3.9.3.2 of EIS Supporting Chapter 3.0, and Section 4.3.2 of the Cultural Resources Discipline Report (Attachment 13).

I-44-4 Comment noted. Consistent with the State Environmental Policy Act (SEPA) rules, an environmental impact statement must evaluate potential significant environmental impacts to the natural and built environment. For this project, implementation of the Estuary and Hybrid Alternatives could have a significant impact to the Olympia Yacht Club and other private marinas in West Bay. The analysis discloses potential impacts to those built environmental resources, and opportunities to avoid significant impacts from sediment deposition.

I-44-5 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-44-6 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-44-1

I-44-2

I-44-3

I-44-4

I-44-5

I-44-6

Sent from [Mail](#) for Windows 10

I-45

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: jodyannette1@gmail.com <jodyannette1@gmail.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-05 16:12



I-45-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-45-1

I stand in support of returning Capital Lake to its original form as an Estuary as much as is possible. A combination would be my second choice.

Jody A. Disney
1609 Evergreen Park Lane SW

I-46

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Estuary please

Subject: **Estuary please**
 From: Meghan Hopkins <meghanhopkins27@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-05 23:55



I-46-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-46-1

I support the Estuary for the health of the river and the bay and all of the species that reside here. I support the hybrid option only if the health of the waters is the priority.

Thank you,
Meghan Hopkins
Olympia resident

I-47

COMMENT

RESPONSE

I-47-1 stop spending money studying . enough already!
take an action. let it return to an estuary.

I-47-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-48

COMMENT

RESPONSE

I-48-1 | Keep the lakes. They are the heart of Olympia. Moreover, the trails along the lakes provide valuable exercise & recreation for many people, all year long. This is a city, not a wilderness.

I-48-1 | Comment noted. The trails around the lake would be retained under all the alternatives and new recreational amenities are proposed to improve community use of the resource. The approach to restoring recreation is similar across all of the long-term management alternatives. See also the Global Response for the Preferred Alternative Identification Process.

I-49

COMMENT

RESPONSE

I-49-1 | the lake is very important to me-i walk around it daily.

I-49-1 | Comment noted.

I-50

COMMENT

RESPONSE

I-50-1 | Please go with the full managed estuary plan. Return this space to nature smartly.

I-50-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-51

COMMENT

RESPONSE

I-51-1 | I am in favor of the estuary option.

I-51-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-52

COMMENT

RESPONSE

I-52-1 | I support the hybrid model first, then the restoration and ongoing maintenance of the lake as a second option. I do not support the plan to create an estuary only, recreational uses must be considered. No specific opinions on each of the plans.
Great work everyone!

I-52-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-53

COMMENT

RESPONSE

I-53-1 | I would like it to be a managed lake so all can take part in water recreation anytime of the day. A boardwalk, dock and launch are wonderful but these should be at no cost and free for all to use. I don't think more buildings should go up along Deschutes parkway or 5th Avenue. There are already many vacant buildings and land in the downtown core that can be utilized. Capitol Lake and its surroundings should remain as untouched as possible to retain its beauty.

I-53-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-54

COMMENT

RESPONSE

I-54-1 | My grandmother used to bring me to Capitol Lake in the late 60s, and talked about what should be done to make the waterways healthier.
I'm pleased to see that nearly 60 years later, this issue is finally being talked about.
In my opinion, turning the area into an estuary, as it was originally, would benefit humans, fish, birds and so many other species that I don't understand the value of any other options.

I-54-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-55

COMMENT

RESPONSE

I-55-1 | Please adapt the alternative to restore the estuary only. Given our severely degraded local and regional aquatic habitats and imperiled salmonid species populations it is ecologically imperative to maximize habitat restoration opportunities. It would also improve Olympia's sense of place by cultivating a more natural marine environment, and provide a golden opportunity to demonstrate and give hope to residents and visitors alike how an urban landscape with modern infrastructure can accommodate major habitat restoration. Thank you for your consideration.

I-55-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-56

COMMENT

RESPONSE

Simply, I've lived here since 1972. The Lake used to be vibrant, clear, fishable and swimmable. Now it's an eco hazard, smelly, shallow, full of bird feces, unswimmable/fishable/boatable. It was intrusive in 1951; it's now useless and still intrusive.; so why have it. Man created this mess because he could, but no one wants to pay for frequent dredging; the invasive species pose a hazard, it stinks, and the dam causes drastic harm to salmon ala sealions, etc. Let's let nature do its thing; it used to be tide flats; it should be now.

I-56-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-56-1

Salmon win, we win, snails lose. Nisqually works; Mud Bay works; the area near East Bay drive works (and no complaints there). Asian inhabitants on the once natural tide flats harvested shell fish! We don't need a mirror pond at the expense of the natural ecology. The architects vision was ruined anyway the minute the 'mistake by the lake' went up and it's still there, so at least let's fix the artificial "lake/pond" and return to nature. Yes it will smell like salt water half the time; that's what tide flats do; I love it. We tried the pond; it's failed; move on...and the Estuary is the least expensive option too; bonus!! Thanks for taking input

I-57

COMMENT

RESPONSE

I think a hybrid sounds like the best option and the most innovative. It would be nice to still see water and not just mud flats during low tide, and the lake staying as it is seems like an issue and a waste in many ways. I would have to think that the wildlife would thrive more in a more true to nature setting like the hybrid or the estuary.

I-57-1

I-57-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-58

COMMENT

RESPONSE

I-58-1	<p>Hello.</p> <p>I wish to express support for the Estuary option to attend to the many issues that impact Capitol Lake.</p> <p>An Estuary is the most logical, ecologically supportive and cost effective response to a human made problem which has not been successfully resolved despite decades of effort and significant taxpayer monies spent on repeated dredging.</p> <p>An Estuary would provide life and health to plant and animal species, as well as long term sustainability on an ecological and economic basis. The opportunity for residents and visitors to recreate on the Estuary (birdwatching, kayaking/canoeing, fishing) would bring additional value to our city and promote human health and balance.</p> <p>It is time to let go of a vanity project of the past which led to such negative outcomes and cost.</p> <p>Please adopt the Estuary plan for Capitol Lake.</p> <p>Thank you, Jill Joanis Casebolt</p>	I-58-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
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I-59

COMMENT

RESPONSE

I-59-1 | make the lake usable again
for swimming boats no motor
it would be quite a ugly eyesore if the lake was gone
the lake draws people to sorunding
bunesses etc bringing in money
a dirty empty hole not so much
if we have to pay taxes to do this lets make it nice not ugly

I-59-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-60

COMMENT

RESPONSE

I-60-1 | Let it go back to being an estuary. No more studies and waiting.

I-60-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-61

COMMENT

RESPONSE

I-61-1 | I believe a managed lake is the worst option for Capitol Lake. It would be a waste of money and energy and I fear would leave us no better off in the future than we are today.
It should instead be an estuary for the health of our local plants and animals. As a mother of two and a school teacher, I think it is better for our children to see and learn about natural habitats and ecosystems through an estuary as well.

I-61-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-62

COMMENT

RESPONSE

I-62-1 | How about instead of starting a massive new project and spending a bunch of our money there, you move the homeless population away from privately owned wetland and public bodies of water. I have seen them attempt Fishing and literally throwing whole bags of trash in the lake. The last thing we need to help the covid recovery is our politicians spending our money on non essential projects when a fraction of the money could be spent to have greater impact or on the infrastructure.

I-62-1 | Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-63

COMMENT

RESPONSE

I-63-1 | Please retain the lake and dam (option1). There are already an excess of mudflats in and around Olympia, We don't want to see or smell another one.

I-63-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-64

COMMENT

RESPONSE

I-64-1 | We must restore the estuary. It is the will of our local tribes and the only way to protect our city from Sea Level Rise. My children deserve to live in a safe, clean and healthy Olympia.

I-64-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-65

COMMENT

RESPONSE

I-65-1 | My vote is for the estuary. If we don't do this, nature will, eventually.

I-65-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-66		COMMENT		RESPONSE
I-66-1	<p>We should use the Estuary solution. It seems to be the most cost effective and best option for the environment. Wouldn't it bring the southernmost tip of Puget Sound onto the Capitol Campus? That would be a nice addition for the campus meant to represent the evergreen state.</p>		I-66-1	<p>Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>
I-67		COMMENT		RESPONSE
I-67-1	<p>estuary</p>		I-67-1	<p>Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>
I-68		COMMENT		RESPONSE
I-68-1	<p>When I moved to Olympia in 1975 I enjoyed swimming, fishing & kayaking the waters of this area, until they were understandably closed. I support returning the area to its natural state, an estuary, where visitors can learn about & enjoy nature with the least long-term financial & environmental impact. Although it wasn't mentioned in the brief, a visitor attraction such as a salmon run fish viewing (underwater) ladder would be a real bonus.</p>		I-68-1	<p>Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>
I-69		COMMENT		RESPONSE
I-69-1	<p>I prefer the Managed Lake concept for a number of reasons. First it would manage lake sediment properly. It would retain the reflecting pond for the Washington State Capital. It would again allow recreation on the lake. And using the dredged sediment to develop the upper lake into a wetland sanctuary is a good ecological solution. And last, the managed lake would maintain the 1950s agreement to create a beautiful setting for our Capitol.</p>		I-69-1	<p>Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>

I-70

COMMENT

RESPONSE

I-70-1 | I think the environmental impact statement speaks well for itself in pointing to the estuary restoration. The other factors examined should all be measured with environmental protection carrying the most weight.

I for one will look forward to the day when the river runs through the gently swaying marine plants to the inlet and the smells of the mud and salt water waft over the bridge and up the Westbay hills.

My strong opinion about the three options is that the full estuary restoration is the right and only choice . The most simple and elegant solution is returning the southernmost point of the Salish Sea to it’s original configuration.

I am heartened to see the recognition of the ancient history and social justice being considered at long last. The more contemporary history of the architects that designed the lake, heritage park and walking path is of no consequence compared to this greater historical legacy. I might say the shanty town from the estuary shores that housed the diverse Asian and other POC service, oyster, lumber workers and greens gatherers is also of profound NW significance.

My question is why the Olympia Yatch Club is even mentioned as a concern. That organization poisoned the south sound for more than two generations with it’s haul out area with toxic scraped off debris and marine paint dripping. The Club had no concern for Budd Inlet then. They can well afford to move their operations elsewhere.

A natural estuary can be an example of restoration and effective filtration for the Deschutes and the bay offering walking recreation and natural history exposure. The lake was a cesspool from its origination with an undiscovered sewer line belching into the lake for over 90 years. No wonder it has always had an algae bloom. This is rarely spoken about in any writing about the “reflecting pool”. The Managed Lake is just an repeat of an earlier mistake and should not be dragged like an anvil of poor decision making into the future. The Hybrid is an unfortunate example of design by committee and compromise with the best of each option unnecessarily complicated and awkwardly configured in trying to “please all the people”.

I hope better sense prevails and not special interests in the final rounds of decision making.

I-70-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-71

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Public Comment on the Lake/Estuary EIS

Subject: **Public Comment on the Lake/Estuary EIS**
From: Desdra Dawning <desdradawning@yahoo.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-06 06:53



Greetings!

I vote for the **hybrid plan**. It would restore the estuary, but also continue to give us the pleasure of having a bit of a lake downtown, with walkways. Continued maintenance would of course be necessary, but that would be true of any of the plans as far as dredging is concerned.

I hope this can move forward in a timely manner. This change has been long coming and is much needed! Restoring the estuary is of vital importance to our ecosystem, and all the plants and animals who also call this place their home.

Thank you,
Desdra Dawning
434 Cushing St NW
Olympia WA 98502
928-707-1738
Desdradawning@yahoo.com

"To this day I believe we are here on Earth to live, grow, and do what we can to make this world a better place for all people to enjoy freedom."

~ROSA PARKS~

I-71-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-71-1

I-72

COMMENT

RESPONSE

I like the hybrid option because it is cost effective and it pleases everyone.
Hopefully the invasive species can be prevented from spreading in any case.
Thanks

I-72-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-72-1

I-73

COMMENT

RESPONSE

I-73-1 | Hello, Could lake be restructured as a bird sanctuary/ marsh/ wastewater treatment plant patterned after Arcata, Ca. 's on Humbolt Bay??

I-73-1 The Draft EIS and Final EIS evaluate long-term management alternatives that were developed to meet project goals. The alternatives incorporate several components put forward in comments received during EIS scoping that were found to have regulatory and technical feasibility. The alternative suggested in this comment has been considered, but would not achieve project goals, such as active recreational use. Please also see the Global Response for Alternatives Design.

I-74

COMMENT

RESPONSE

I-74-1 | I want the DELI plan. It would be a way to maintain the lake in a cost effective way. We do not want to give up on the beauty of our city. It was the original hybrid plan.

I-74-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-75

COMMENT

RESPONSE

I-75-1 | What I liked about the hybrid and the managed lake is that there would be community use of the Capitol Lake area. I think it's very important to develop that area as a community recreation center.
My other thought is that I hope this is the last time we have to address this issue. Please take some action that moves this project to completion.
Thank you for this opportunity to comment and for making it very easy to do.

I-75-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-76

COMMENT

RESPONSE

I-76-1

I prefer the hybrid option that opens up the estuary but retains a smaller capitol lake. It is also important that the the mud snail issue be dealt with and the lake be available for recreational use. As much as possible of the Arc of Statehood and its county markers should be preserved. The report is well done. I do not have the expertise to comment on its technical and analytic aspects. Given the large amount of money required to implement any of the options, we may be left by default with allowing the lake to become a fresh water marsh. This would not be ideal, but not unacceptable.

I-76-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-77

COMMENT

RESPONSE

I-77-1

I think it's important to maintain the reflecting pool. I think a hybrid plan seems to be the most cost effective and the biggest bang for the buck. It will be nice to restore recreational use of the lake.
A managed plan to dredge the lake and other sediment areas that place the cost onto the State and or Federal government is desirable.

I-77-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-78

COMMENT

RESPONSE

I-78-1 | There is ample data. Please add our voices to the Estuary option. It is the most sustainable of the three.
Nancy Sullivan, Mick Synodis, and Ana Sullivan who live on the west side of Olympia and have watched the lake degrading for years.

I-78-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-79

COMMENT

RESPONSE

I-79-1 | I worry that an estuary path would create an overall unappealing aesthetic if we just add another area that is mud during low tides and would severely detract from the capitol grounds and surrounding parks and downtown core. The odor of stagnant salt water also would add to this issue. However cost is always a factor so I am not sure if the lake plan is financial feasible. My preference is to keep the lake, but a hybrid approach would be acceptable. I don't see a way the estuary model would end up satisfying anyone.

I-79-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-80

COMMENT

RESPONSE

To whom it may concern,

I am very excited to hear that capitol lake is being prioritized to make it healthier for the environment and for the community. I had no idea how unhealthy the lake seems to be due to the invasive species and such. I personally only learned this past year that it was a man made lake. And after reading the report and finding out that it's so unhealthy that it can't currently be used for recreation or for native habitat mad me sad that it's just been getting worse through the years.

After reading about the options I think helping it turn back into a thriving Estuary sounds like the best option for the community and environment, as so often we find out nature truly does know best and the lake may be able to thrive by being influenced by the tides again. This option also sounds like it would be the most financial responsible and one of the best options for the Olympia yacht club and would allow for wonderful recreation. If I had to pick a second choice the hybrid option sounds interesting.

All in all I would love to see that area of water and land begin to thrive again and helping it be more like it naturally was prior to the dam building and the lake make a lot of sense foe the environment and the community.

Thank you,

Margaret Chapman

I-80-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-80-1

I-81

COMMENT

RESPONSE

I-81-1 | At least 3x per week I am at lake. My interest is maintaining enough fresh water, not
brackish, for local yr around waterfowl and seasonal migratory songbirds and other
birds.

I-81-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-82

COMMENT

RESPONSE

I-82-1 | I strongly support the estuary proposal for environmental and fiscal reasons. I lived
in Olympia for many years and spent a lot of time at Capitol Lake. It's a special
place that should return to its natural form.

I-82-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-83

COMMENT

RESPONSE

I-83-1 | I don't like any of the 3 proposals put forth by this study. A real useful approach is the one put forth by DELI, the hybrid model that creates a swimming area using artesian water and allowing the Deschutes to flow into an estuary as well. Olympia needs a swimming area, now the YMCA and Evergreen's pools are no longer available. There was a swimming area at one time at the lake, there is no reason this plan shouldn't be implemented. Any dredging that needs to be done can be paid for by the Yacht Club. If those folks have the money to own yachts, they can certainly pony up the fees to keep their basin clear. The DELI model is supported by most folks who have heard and read about it. The DELI model was not mentioned in this study and I think that's ridiculous. This is a solid, popular plan that will yield a compromise that gives everyone something and the people of Olympia a swimming area!

I-83-1 | Comment noted. Please see the Global Responses for the Hybrid Alternative, the Preferred Alternative Identification Process, and for Land Use, Shorelines, and Recreation.

I-84

COMMENT

RESPONSE

I-84-1 | I went to grade school in Lacey, WA. In elementary school, I wrote a report regarding how Capitol Lake should be returned to an estuary to sustain a more natural life for the wildlife that has suffered since the lake's creation. As a 24 year old woman, my stance still stands. The cost of revitalizing the wildlife of that body of water far outweighs the financial costs. A hybrid solution would only solve a partial problem. Full estuary return is the most appropriate answer to return the Capitol to its true glory.

I-84-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-85

COMMENT

RESPONSE

I-85-1

As a recent (~3yr) transplant to Olympia I have to say that Capitol Lake and environs looked to be a great place to paddle. I was so disappointed when I discovered that the area was closed for watersports. One need only look at cities like Bend, Or that have urban waterparks and the vibrant community that support them. While the Deschutes (in WA) does not provide the flow for whitewater activities it certainly can support seasonal recreation, and a saltwater/tidal pool would also help. In any case, I would really like to see SOMETHING done with this area to allow more public use. It could be a huge improvement and draw to downtown. Quite frankly, Olympia needs all the help it can get. Given the options from the EIS, I would choose the estuary, the hybrid, then the lake, in that oprder.

I-85-1

Comment noted. See also the Global Response for the Preferred Alternative identification process.

I-86

COMMENT

RESPONSE

I-86-1 The Capitol Lake, as is, has outlived it's lifespan, and has basically become a cesspool and an environment for a wide variety of invasive/toxic species. In essence, it is also a health hazard. NOTE: numerous warning signs around the lake regarding it's "toxicity."

I strongly support restoring the area to an estuary. An estuary that will improve water quality, and thus, improve the habitat for native fish, wildlife, and vegetation - and could be aesthetically very pleasing.

An estuary won't reflect the capitol building. However, with the increase of algae blooms and dead fish floating on the lake surface - there's really not much to admire.

I-86-1 Existing conditions, and potential impacts and benefits related to aquatic invasive species were evaluated, and are described in Sections 3.4, 4.4, and 5.4 of EIS Supporting Chapters 3.0, 4.0, and 5.0. As described in Section 3.3.1 of EIS Supporting Chapter 3.0, Capitol Lake is affected by a complex and continually changing interaction between physical, chemical, and biological characteristics. However, none of the data reviewed for the EIS suggests that the water quality in the lake presents a health hazard.

Regarding the commenter's support for the Estuary Alternative, this response acknowledges the commenter's position. The comment does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-87

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail - Please make the Managed Lake Alternative the Preferred Alternative

Subject: **Please make the Managed Lake Alternative the Preferred Alternative**
 From: Gerald Steel <geraldsteel@yahoo.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-09 12:54



I-87-1

As a Professional Engineer and retired environmental attorney in Washington State and as a frequent user of the walkways around Capitol Lake, I strongly recommend that you make the Managed Lake Alternative the preferred alternative in the FEIS. I do not support removal of the Fifth Avenue Dam and Lock as this has become an important historic feature of the City of Olympia that deserves preservation. I recommend that the rest of the Managed Lake Alternative be adjusted to minimize costs and to avoid cost overruns, while maintaining the long-term viability of the Chinook Salmon runs.

Thank you for consideration of my comments.

Gerald Steel RCE PE
 Retired Attorney
 7303 Young Rd. NW
 Olympia WA 98502
 Tel/Fax (360) 867-1166

I-87-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-88

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Draft EIS Comment Capitol Lake

Subject: **Draft EIS Comment Capitol Lake**
 From: Jon Cushman <joncushman@aol.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-09 12:23



I-88-1

I am Jon Cushman. Our family farm is at Gull Harbor. It has been in the family for nearly 110 years. We enjoy an abundance of clams and oysters. We swim throughout the summer season. My personal concern is for water quality in Budd Inlet. If the Deschutes empties uninterrupted into Budd Inlet the noxious matter I understand comes along with that water will not settle out in the lake, which is effectively a huge settling pond. If the lake continues to be a settling pond and if the state will once again dredge the noxious spoils which settle there and dispose of them appropriately, I believe water quality in Budd Inlet will be best protected.

Thank you for your consideration.

Jon E. Cushman

I-88-1

See Section 4.3 of EIS Supporting Chapter 4.0 for a description of long-term water quality impacts and benefits of the alternatives. As described in this section, with continued plentiful nutrient inflow from greater Puget Sound and the Deschutes River, Budd Inlet would continue to experience algal blooms of approximately the same extent and frequency as occur under existing conditions. In summary, the Estuary Alternative is expected to result in no change to minor to or moderate benefit to dissolved oxygen concentrations in Budd Inlet and no change in water quality conditions related to algal blooms and aquatic plants.

I-89

COMMENT

RESPONSE

While I support in theory, the conversion of the lake back to an estuary, I think now, with all of the homes and businesses in place, the smell alone at low tide would be awful and detract from people wanting to be downtown. Or, renting or owning a home or business where you would be disinclined to open your windows. The latest heatwave put an exclamation point on that smell.

I do like the idea of our humble lake even with its problems. I sadly promote dredging as that at least encapsulates the toxins from getting into the bay, if the dam was eliminated. There is still wildlife living here also.

I-89-1

Thank you for your time. A very difficult issue that has taken far too long to resolve, regardless of the ultimate decision.

We are not an area like Nisqually where reverting back to the estuary made complete sense.

J. Rich
 Voter
 No justice, no peace.

I-89-1

This response acknowledges the commenter’s alternative preference. For information regarding odor (smell) refer to the Global Response for Air Quality & Odor.

I-90

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail : Keep the lake

Subject: **Keep the lake**
From: Linda Rhodes <lindarhodes@me.com>
To: <info@capitolakedeschutesestuaryeis.org>
Date: 2021-07-10 15:52



I-90-1

I really think tidal flats and or estuary would be a bad choice for the beauty and economy of down town. Please do what needs to be done to keep the lake and return it to usable condition

Linda Rhodes

I-90-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-91

COMMENT

RESPONSE

I-91-1 | Please restore the area to an estuary, it is really the only responsible option. Thank you.

I-91-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-92

COMMENT

RESPONSE

I-92-1

I support the estuary option. The estimated construction costs are reasonable and the long term maintenance costs are lower than the other two options. The tribes support this option and I support the tribes and other social justice issues. The estuary option is a better ecological fit than the other options and will have the most positive effect on the diversity in the area.

I-92-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

In my opinion, the hybrid alternative is unnecessarily expensive and is a political move to attempt to sway those who want a freshwater lake.

I-93

COMMENT

RESPONSE

I-93-1

I am for returning the Capitol Lake ecosystem to estuarine habitat or the hybrid option. Restoring the ecosystem to its original state may undo some of the sedimentary and invasive species impacts in the area, while providing more habitat for forage fish, intertidal habitat, and other ecosystem services that benefit humans and salmon recovery.

I-93-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-94

COMMENT

RESPONSE

I-94-1

After reading through the alternatives, I support the Estuary alternative. It seems that the most important objectives in future planning for the project area are to restore rare and disappearing estuarine habitat and to allow the Squaxin tribe to resume some of their traditional and historical uses of the area. Both of these objectives would be met by either the Estuary or the Hybrid alternatives. Between the two, the Estuary alternative would be less expensive to construct in the short term and would require less maintenance in the long term.

I-94-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-95

COMMENT

RESPONSE

7/15/2021

Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Paul Meury <gbaoysters@comcast.net>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-11 08:06



I-95-1

I would like to see implementation of either the estuary or hybrid options, preference in that order.

I-95-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-96

COMMENT

RESPONSE

I-96-1 I was disappointed to see that all of the alternatives (except do nothing) abandon the open water of the upper two sections of the lake. I think that many people will consider the list of alternatives incomplete without an alternative that includes retention of these two parts of the lake. I think you would add to the legitimacy of the analysis by including such an alternative, even if it is shown to be expensive. If you include it, but determine that it doesn't meet the project objectives, I think some would question your objectives.

The sketches of the hybrid alternative show a truly ugly structure. I can't see that enduring 7 or 8 years of construction only to end up with this is worthwhile. Grand Coulee Dam was built in 9 years.

I-96-1 See Section 2.1 of EIS Supporting Chapter 2.0 for a description of how the alternatives were developed. A range of concepts and alternative variations (including different dredging concepts) that were proposed through past planning projects and through the scoping period at the beginning of the EIS, were evaluated through a Measurable Evaluation Process. See Attachment 19 for more information on the concepts that were screened through this process. See also the Global Response for the Preferred Alternative Identification Process.

I-97

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Lasha Steinweg <lasha.steinweg@gmail.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-11 13:15



Regarding the draft EIS for Capitol Lake:

It seems that the hybrid option for Capitol Lake's future is a good alternative to either a managed lake or a return to estuary. Since the landscape of downtown Olympia was formed with a lake concept in mind, being able to compromise and have some semblance of a lake, but on a much more modest scale, might serve all purposes. If a hybrid option is not just wishful thinking..

The land and water this area 'wants' to be an estuary, so being realistic about development and maintenance of a hybrid landscape will be very necessary as we look forward to what is actually a viable option.

Thank you, looking forward to progress on this issue.

Lasha Steinweg

I-97-1

I-97-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-98

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Comments on EIS

Subject: **Comments on EIS**
 From: John Newman <nwsurveyqc@cs.com>
 To: <info@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-11 15:09



Dear Managers,]
 The best solution and the least cost solution is to create an estuary. There should be no Lake and no Hybrid solution. They are too expensive and do not meet a scientific analysis of good science. An estuary will last for an eternity. The other 2 proposals must be continually funded for sediment removal. We need an estuary returned to its natural state.
 Thank you;
 John Newman
 2103 Harrison Ave NW
 Olympia WA 98502

I-98-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-98-1

I-99

COMMENT

RESPONSE

For the last 40 years, I have been part of the discussion concerning Capitol Lake. We own a home nearby. We need to take out the Capitol Lake Dam. We need to allow the salt water into that former lake area. Salt water will kill any invasive species. We need to kill the Zebra snail that is a terrible pest. We need to allow the salt water to follow into that area, has it had for thousands of years before white men came to this area. This will allow the salmon to swim to the Deshutes River. This will allow the silt that now fills that marsh land, to go into Budd Inlet where it has gone for a thousand years, up to now. I do not support the "hybrid system" with the pond. It will do nothing except bring more costs to this problem. We need Budd Inlet to be allowed into the marshland area!

I-99-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-99-1

I-100

COMMENT

RESPONSE

I-100-1

I support the Hybrid model. It makes total economic and environmental sense to return the basin to a natural estuary, and providing the aesthetics of a small lake at Heritage Park is a good gesture of compromise to satisfy those who desire a lake to walk around. A natural estuary will undoubtedly help juvenile salmon surmount the odds for survival and hopefully will go a long way towards ridding the lake of invasive plants and animals.

I-100-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-101

COMMENT

RESPONSE

I-101-1

My comment is solidly grounded in the TRUTH that "YOU CANNOT FOOL MOTHER NATURE!"

Mother Nature created this area to be an ESTUARY!

Human-imposed distortions (a "lake" or an enclosed sub-area as recently proposed) are CONTRIVED and ARTIFICIAL and CONTRARY TO MOTHER NATURE!

Restoring the estuary as naturally and authentically as possible is the CHEAPEST and MOST SUSTAINABLE solution for the mess that exists now.

I-101-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-102

	COMMENT	RESPONSE
I-102-1	<p>After reviewing the EIS, it is my preference to see the Hybrid option as the Management plan going forward. It appears to achieve, what I see, as the important goals for the Capitol Lake Basin without some of the more undesirable aspects of the other two options.</p>	<p>I-102-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process. Please refer to EIS Supporting Chapter 4.0, Section 4.7 regarding the analysis of odor impacts.</p>
I-102-2	<p>Even with the Hybrid option, as it restores tidal flows, I am concerned about the odors that are present during low tide periods. Also, none of the maps show maintaining the pedestrian bridge on the South side of the reflecting pool. I hope this was just a graphical error and the bridge will remain. It is a valuable recreational asset to the community.</p>	<p>I-102-2 The existing railway trestle and pedestrian bridge will remain under all alternatives.</p>
I-102-3	<p>There is concern with the transient settlement on the Northwest of the reflecting pool (and likely other areas along the Capitol Lake system). I would assume that the activities with the transient camp are likely affecting water quality and introducing pollutants. I did not see any assessment of the impact of the human waste and chemical use of this camp. It may be small or negligible, but it is a concern I have. The Capitol Lake systems issues have been left unaddressed for two ling and I am glad to see this important step taken.</p>	<p>I-102-3 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.</p>

I-103

COMMENT

RESPONSE

I-103-1

I will not pretend to have read every bit of the EIS draft. I did read the entirety of the three proposed alternatives. I favor the hybrid plan. First, I naturally have an inclination toward a compromise position. After reading the proposals, I feel that in this instance the compromise accomplishes the most important aspects of both other plans. To my mind it is essential that we restore use of the lake. By creating a lake that can support boating and fishing while still removing the dam and creating a partial estuary seems the most sensible approach to me. Originally I favored the existing lake version, but I can see where the hybrid is actually better and therefore and am choosing it as the best option for the lake and the city of Olympia.

I-103-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-104

COMMENT

RESPONSE

I-104-1

It's time for the dam to go. It's also time for us to learn to appreciate the way natural systems work. I strongly support returning the Lake to the natural estuary it was. Thanks for all your work on this. Kathleen

I-104-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-105

COMMENT

RESPONSE

I-105-1 | I support a return to the natural state of the mouth of the Deschutes river as an estuary. The lake is gross and mud full of essential life would be much better than a lake full of invasive snails.

I-105-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-106

COMMENT

RESPONSE

I-106-1 | I would like to see the estuary restoration option put in place. The lake itself is unusable and a hinderance for native wildlife. I have never see a reflection of the capital building in the lake. All around the estuary option is the most environmentally sound and while I will miss the walk around the lake, I imagine a walk along the estuary will be equally congenial.

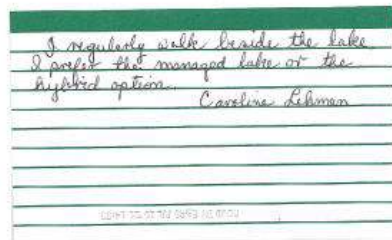
I-106-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-107

COMMENT

RESPONSE

I-107-1 |



I-107-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-108

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: CLDE Draft EIS Comment

Subject: **CLDE Draft EIS Comment**
 From: Madeline Bishop <mbishop.bishop@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-13 14:02



I would like you to quantify the flood relief or lack of for the different alternatives methods. I specifically want to know how and how much the reflection pool will help.

I saw some references in 7.1.1 that the Hybrid alternative would provide some flood reduction provided by the reflecting pool barrier. I do not feel the EIS gave evidence for this benefit. What would be the dollar cost estimate of reduced flood damage?

I-108-1

I-108-1

Please see the Global Response for Hydrodynamics and Sediment Transport for clarifications around the flooding potential under the alternatives. Under an extreme flood, the Hybrid Alternative’s barrier wall would reduce the depth and extent of flooding in areas of Heritage Park and along Powerhouse Road SW when compared to the other alternatives. Quantifying potential flood-damage costs and cost savings is outside the scope of the EIS.

I-109

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: CLDE Draft EIS Comment

Subject: **CLDE Draft EIS Comment**
 From: Madeline Bishop <mbishop.bishop@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-13 14:09



I would like more detail about the difference for the salmon in the hybrid vs the estuary alternative. Would the salmon be just as 'free' and healthy in the hybrid alternative? Reference 3.3 Analysis of impact.

Madeline Bishop
 9529 62nd Ave SE
 Olympia, WA 98513

I-109-1

I-109-1

See EIS Supporting Chapter 4.0, Section 4.5 (Fish and Wildlife) for a description of the potential long-term impacts and benefits to salmon under the project alternatives. See EIS Supporting Chapter 5.0, Section 5.5 for a description of the anticipated short-term impacts during construction. For more information, see the Fish and Wildlife Discipline Report (Attachment 9).


I-110

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: CLDE Draft EIS Comment

Subject: **CLDE Draft EIS Comment**
 From: Madeline Bishop <mbishop.bishop@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-13 14:21



Reflecting Pool

The Executive Summary mentions saltwater and freshwater possibilities for the reflection pool. "Under the Hybrid Alternative a barrier would be constructed to retain a smaller saltwater reflecting pool in the North Basin...A freshwater reflecting pool concept was also evaluated; refer to Appendix E for more detail on this analysis... If a freshwater reflecting pool were chosen over a saltwater reflecting pool, it would require active management to avoid impacts to public health and visual quality."

My question is how would this decision be made and I'm asking you to be clear about the cost difference between salt and freshwater reflection pool.

Table 7.1.1 shows that the cost of the hybrid over the estuary would be at least \$46M more for planning, and \$70M more for construction plus maintenance over 30 years. The reflecting pool would cost \$116 million. Also, as you noted in the Executive Summary, if there was a freshwater pool, there would be the additional requirement of active management to avoid impacts to public health and visual quality.

I think people who want a community feature like the reflection pool need to know the cost.

Madeline Bishop
 9529 62nd Ave SE
 Olympia, WA 98513

I-110-1

I-110-1

As described in Appendix E of the Water Quality Discipline Report (Attachment 7), an adaptive water quality management plan would need to be developed to maintain water quality in the freshwater reflecting pool. Consultant costs to prepare an adaptive management plan and to obtain permits for the intended treatment typically cost between \$50,000 and \$100,000. The total annual cost for a buffered alum treatment would be approximately \$5,000 for one annual dose to inactivate 50 ug/L TP for the best-case scenario, and would cost approximately \$20,000 for two doses per year to inactivate 330 ug/L TP for the worst-cast scenario. Whole-lake Phoslock treatments would likely cost approximately 25% more than buffered alum treatments. These costs would be further refined during design and permitting, if the Hybrid Alternative was selected for long-term management. Planning-level cost estimates for the barrier wall needed to develop the reflecting pool for the Hybrid Alternative are approximately \$11.5 million. There are other differences in the planning-level cost estimates for the Hybrid Alternative and the Estuary Alternative, and that information can be found in the supplementary material provided on the project website: <https://capitollakedeschutesestuaryeis.org/library>.


I-111

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Estuary Support

Subject: **Estuary Support**
 From: Matt Newton <matthewnewton@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-13 18:38



I have lived in Olympia for 20 years and currently a school teacher at Chinook Middle School. I have been following Capitol Lakes decline since we first moved here. Back then, I knew that removing the damn would solve all of the problems. It cost the least. It will not make a swamp. Anyone that has been to the Nisqually Wildlife Preserve knows what the area could be. Repairing the area to its natural position would bring thousands of people to the area and make Olympia an example of making the hard corrective decisions. For me and my family, we fully support the estuary option.

Sincerely, Matt Newton

I-111-1

I-111-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-112

COMMENT

RESPONSE

I-112-1 | As a taxpaying citizen of our great state, I am against the higher long-term cost that the state would be responsible for paying under the "Managed Lake" scenario (Table ES.4 Planning-Level Costs Summary Table). The other scenarios would provide better benefits to salmon as well - how much is the state already paying to help restore our diminishing salmon runs? Let's vote for More \$aving\$ and more salmon! One of the saltwater options please, preferably the real estuary and not the hybrid.

I-112-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-113

COMMENT

RESPONSE

I-113-1 | I read the draft EIS and I'm pleased to see the planning that's been done so far, and relieved to see the recreational opportunities that would exist. While change is hard, I am in favor of the Estuary plan. Estuaries are critical and undervalued. The Hybrid plan would be an acceptable alternative.

I-113-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-114

COMMENT

RESPONSE

I-114-1 | I am wondering if there was consideration in the hybrid option for landscape island screening along the the wall, to mitigate the visual impact. Specifically on the marathon park side. Thanks for working on this.

I-114-1 | This suggestion was evaluated by the technical team and it was determined that given the flow dynamics, establishing landscaped islands along the wall would be impractical from an erosion perspective.

I-115

COMMENT

RESPONSE

I-115-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-115-1

July 9, 2021
FROM: BY: DATE: JUL 10 2021 15:02

Re - Capitol Lake + Deschutes Estuary

As a native Olympian, all my life I have viewed Capitol Lake as the "Curb appeal" of our town. I worked for the state for 30 years, so the lake is a symbol of our capital's presence.

I would like to see Capitol Lake restored to its glory - so leave it as a lake! Restore the lake for its beauty as the reflecting pool the 1911 plan advised. Dredge it + clean it up so swimming can resume. For some reason, the planners have never made our lake + shores the priority that so many other places have - they are always left out.

Keep Capitol Lake on ice - clean it up + make it shine! To have it look like mud Bay in the middle of downtown would be sickening.

Sincerely, July Morgan

I-116

COMMENT

RESPONSE

7/15/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
From: Kirsten Larsen <kbethlarsen@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-14 22:11



To Whom It May Concern,

I am writing to express my support for the Capitol Lake estuary restoration proposal. Environmental impact statements show that estuary restoration would improve water quality, manage sediment accumulation, improve ecological functions, and enhance community use of the resource. The lake was created with no attention to the many environmental issues it now causes. The best and most future facing solution would be to return the lake to an estuary.

Signed,
Kirsten Larsen
Resident of Thurston County

I-116-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-116-1

I-117

COMMENT

RESPONSE

I strongly support the estuary alternative as the solution. Restoring the estuary would return it to its' natural environment benefitting numerous species. Please consider this as the best long term alternative.

I-117-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-117-1

I-118

COMMENT

RESPONSE

I am in favor of the hybrid estuary alternative. It retains a sizable reflecting pool feature which is one of my favorite features of the current arrangement, it includes a trail across the middle of the north basin allowing visitors to enjoy both the reflecting pool and a natural estuary feature. It also gets rid of an entirely unnecessary and ugly dam. The reflecting pool feature is especially important to me since allowing that basin to return to entirely estuary would just create an ugly mud flat right in the center of downtown.

I-118-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-118-1

I-119

COMMENT

RESPONSE

I-119-1

All of us who love this area and call Olympia our home(even those of us outside the city) appreciate the Capitol Lake space. It's past time to resolve the issue of its future. I like the DELI approach. It is a compromise. We need to have compromises in our society today. It addresses both sides of the issue in a well thought out plan. Let's not over think this . That leads to more costs , inefficiency and inaction. DELI is well thought out, and comprehensive, with many details in place. Please go forward with a sense of cooperation and a listening heart.
Nancy Peterson

I-119-1

Please see Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-120

COMMENT

RESPONSE

I-120-1

I prefer the option of removing the dam, adding a round-a-bout at deschutes/5th ave to go south on deschutes directly and lastly making a swimming area out of the eastern portion of the main capital lake pool with a demarcation moat with bay water on one side and artesian well filling the swimming area.

I-120-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-121

COMMENT

RESPONSE

I-121-1 | We can let go of the dam and allow the estuary to return to its natural course.
Our own Mud Bay is one of the most beautiful places on Earth. We could allow that to happen downtown, too.

I-121-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-122

COMMENT

RESPONSE

I-122-1 | ►I prefer the Estuary Alt, in order to restore a semblance of estuarine function to this site. These important ecological functions have been substantially reduced by human alteration of coastlines in Puget Sound over the past century. These functions are necessary for early life history of local salmonid populations.
And please ensure this Alt factors in latest projections of high tide flooding; cf following paper:

Article

Published: 21 June 2021, Nature Climate Change

I-122-2 | Rapid increases and extreme months in projections of United States high-tide flooding. <https://www.nature.com/articles/s41558-021-01077-8>

►Expect greater levels and frequency of high tide flooding likely starting in a few decades in Puget Sound.

I-122-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-122-2 | See Global Response for Hydrodynamics and Sediment Transport regarding sea level rise projections used in the analysis modeling.

I-123

COMMENT

RESPONSE

I-123-1 | I choose the hybrid alternative because this will retain the look of a lake although officially it would be salt water reflective pool. I also like the hybrid alternative due to work on re-establishing native habitat areas. Thank you.

I-123-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-124

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Capitol Lake – Deschutes Estuary Long-Term Management Project

Subject: **Capitol Lake – Deschutes Estuary Long-Term Management Project**

From: Jon Kime <jekime@gmail.com>

To: <comment@capitollakedeschutesestuaryeis.org>

Date: 2021-07-16 11:00



I-124-1

The lake should be brought back to its original condition as a lake. It should be dredged so the weeds and algae are under control and returned to the public for recreation. The dream of returning the lake to its "natural" state is silly. There is nothing natural about the entire area. The best we can do is manage it.

I-124-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-124-2

There is a reason the lake was created from the original mudflat, it smelled terrible and was a constant flood danger. "Estuary" is a pleasant word for salt water swamp. I am a realist, politics are a real and powerful force in any decision, so if scientific fact is outweighed by political forces let's examine the politics for a moment. **Downtown Olympia is quickly becoming developed with condominiums and apartments. Judging by the rents the people moving in have serious resources. Within a short period of time do you honestly believe these people will tolerate the stink of an "estuary"?** Take a quick look at Mud Bay, does anyone want to jog around Mud Bay, or picnic next to it?

I-124-2 | See the Global Response for Air Quality & Odor.

Please, let's move past short term expediency.

Jon Kime

Olympia

I-125

COMMENT

RESPONSE

As a member of the Olympia Yacht Club, I'd like further clarification regarding what the estuary solution will mean for the Yacht Club. Will we be inundated with silt and will the Yacht Club have to relocate?

I-125-1

I understand that something has to be done with the lake, but would like a clarification on how this will impact me personally.

Thank You.

I-125-1

For a description of potential impacts to the Olympia Yacht Club and other private marinas, see the Navigation Discipline Report (Attachment 6). That analysis provides the potential increase in annual sediment deposition within West Bay as a result of the Estuary and Hybrid Alternatives, based on hydrodynamic and sediment transport numerical modeling conducted for the EIS. It also describes annual sediment monitoring that would be conducted, and maintenance dredging that would occur, to avoid significant impacts to the marinas. Significant impacts are defined as over 10% of vessels at any single marina unable to access leased moorage due to shallowed water depth caused by sediment deposition.

Please also refer to Final EIS Supporting Chapter 7.0 for additional information regarding funding from the Funding and Governance Work Group for dredging of the increased sediment that would be deposited in West Bay under the Estuary Alternative.

Three months following the spring 2022 announcement of the Estuary Alternative being the likely Preferred Alternative, Enterprise Services initiated coordination with the Olympia Yacht Club and West Bay marinas specific to the funding and governance approach for maintenance dredging.

I-126

COMMENT

RESPONSE

I-126-1 I appreciate the attempt to measure the economic impact on downtown business development. But there does not seem to have been much consideration of the impact on existing small businesses that are the heart of downtown Olympia - especially during the 4-7 years of anticipated construction (of the estuary and hybrid plans). I am concerned that construction disruptions in traffic and noise and the temporary (4-7 year?) removal of 5th Ave will have a chilling effect on downtown customer traffic. Many small and longtime businesses operate on a very slim margin, and even a minor reduction in walk-in customer traffic can tank them. This is evident from the number of downtown businesses that have closed their doors during COVID. Perhaps I am being short-sighted, but some of the best things about downtown Olympia are the unique locally-owned boutiques and restaurants. I would hate to lose our fun funkiness and am disappointed that the EIS does not address the economic impact on this aspect of our lovely little city.

I-126-1 See the Global Response for Economics.

I-127

COMMENT

RESPONSE

I-127-1 366% increase in sediments at my home!? I live on a houseboat in Martin Marina. At low tide my home is already close to sitting on the bottom. Due to a DNR settlement agreement, I am prohibited from moving my houseboat to another marina. If increased sediments in Budd Bay end up closing Martin Marina, my investment in my home would be lost. On the verge of retirement, this would impoverish me. Are there any provisions in the plan to provide for people like me (and the owners of the marinas and OYC) who have invested in the Budd Bay waterfront, should the estuary or hybrid plans be selected?

I-127-1 Thank you for your comment. The lease that Martin Marina has with the Washington Department of Natural Resources allows the three floating homes to remain through the end of the lease term (2049), as outlined in Exhibit B of the lease. As outlined in Final EIS Supporting Chapter 7.0, Enterprise Services has worked with the Funding and Governance Work Group to develop an agreement for shared funding and governance of the dredging that would be needed to remove the increased sediment that would deposit along the eastern shoreline of West Bay as a result of the Estuary Alternative. The duration of this agreement is expected to be through 2050, with opportunity for extension. This maintenance dredging is intended to avoid significant impacts to the private marinas in West Bay and to the Port of Olympia. Please see Chapter 7.0 for additional detail.

I-128

COMMENT

RESPONSE

8/2/2021

Roundcube Webmail :: comment on the draft EIS

Subject: **comment on the draft EIS**
From: Dave Nicandri <nicandri@comcast.net>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-16 09:41
Priority: Normal



-
- Capitol Lake EIS response.docx(~15 KB)
-

please find my comment on the draft EIS attached.

Sincerely,

Dave Nicandri

I-128

COMMENT

RESPONSE

July 16, 2021

Capitol Lake/Deschutes Estuary Environmental Planning Team
Department of Enterprise Services
Olympia, Washington

Dear Planners:

First, let me congratulate you all on reaching this important stage. I found the draft EIS well designed and relatively easy to review, notwithstanding its voluminous nature.

But I write more particularly to address what I consider the woeful lack of attention and critical analysis given to the South Basin in the draft EIS. I have to admit, I'm not surprised. As a former member of the Tumwater City Council, I'm long familiar with the privileging of the City of Olympia's interest within the local intergovernmental nexus.

Throughout the draft EIS the South Basin, the only part of the study area that is located exclusively within the City of Tumwater, is, at best, considered as merely an annex to the middle basin, not in its own right with its own distinct problems needing attention and mitigation. Let me offer a checklist of issues that need to be addressed in the development of the final EIS.

As a historian, I find it truly astonishing that a *potential* historic district—the so-called Deschutes Basin Historic District, involving, seemingly, the modern Capitol Lake infrastructure—gets infinitely more attention than the *existing* Tumwater Historic District, including its signature aspect—the historic Brewery complex. I say the following without hesitation: With the single exception of the west capital campus, crowned by the Legislative Building, there is not a *single* historic aspect of the built environment in Thurston County, and indeed few in entire state of Washington, with greater iconic significance than the old Brewhouse Tower and adjacent buildings. The draft EIS studies, at considerable length, what the various options might portend for the development of recreational, cultural and economic interests in downtown Olympia, but not a word as to how a new river/lake/estuary option might improve the practicability of the restoration/rehabilitation or re-use of the historic Tumwater brewery, including access thereto.

Relatedly, the draft reports that there are no documented cultural properties in the project area. This statement stands, seemingly, without awareness of the ancient shell midden located below the falls. The archeological investigation of this site was conducted by the former director of the State Capital Museum, Derek Valley. I believe a report of that excavation is on file with the Department of Archeology and Historic Preservation. State Law requires the safeguarding of the location of such resources, for reasons as readily conceived as imagined. Perhaps planners are aware of the study, for which Mr. Valley was the principal investigator, but shielded the matter

- I-128-1 Comment noted, please see the responses below to the specific comments included in your letter.
- I-128-2 See the Global Response for Cultural Resources regarding Determinations of Eligibility received from DAHP following the release of the Draft EIS and related updates in the Final EIS. See also the Global Response for Cultural Resources regarding updates in the Final EIS related to the Tumwater Historic District. Final EIS Supporting Chapter 4.0, Sections 4.9.5 and 4.9.6 and Sections 5.5.2.2 and 5.6.2.2 of the Cultural Resources Discipline Report (Attachment 13), have been updated to address impacts and benefits to the Tumwater Historic District under the Estuary and Hybrid Alternatives, including the historic brewery complex and how a return to an estuary setting would provide a setting more compatible with the historic waterfront character of Tumwater and the brewery. The Final EIS and discipline report have also been updated to address the view potential of the historic brewery complex along the new boardwalks in the South Basin.
- I-128-3 Yes, the EIS Project Team was aware of the previous archaeological investigations in the area, including the investigation mentioned in this comment. In response to comments on the Draft EIS, additional information and clarifications have been added to the Final EIS Supporting Chapter 3.0, Section 3.9.1.2, and Section 4.1.3 of the Cultural Resources Discipline Report (Attachment 13), related to the presence of recorded archaeological sites and the likelihood for as-yet undiscovered archaeological sites.

I-128-1

I-128-2

I-128-3

I-128

COMMENT

RESPONSE

from public view, again, consistent with state law. In any event, the project team should consult with that report, or Mr. Valley directly.

I-128-4

Similarly, the draft plan section on Visual Impacts ignores the aesthetic and allied recreational aspects of what a revived South Basin can mean in terms of waterborne access to, or appreciation of, the intersection of a freshwater waterfall into an arm of the sea. One has to travel hundreds of miles north, into the wilderness of the central British Columbia coast, to find the next example of this phenomenon along the Pacific Slope of North America. Indeed, combining this point with those above, hundreds of pages in the draft document are devoted to the question of a watery reflection of the Legislative Building in the North Basin, yet, not a single mention is made of what was once considered a view prospect of the first order--the wide expanse of open water that used to exist at the foot of the falls bordering the old brewery complex. In effect, the South Basin is the only one of the three wherein the deleterious aspects of the dam/lake construction is now to be considered a permanent feature of the landscape. In no option is there a prospect for any dredging of the South Basin; no remediation except a pitiful stretch of new boardwalk.

The other grievous oversight in the plan is found in the recreational analysis. There are existing City of Tumwater and regional transportation plans that call for a linkage of the evolving Deschutes River corridor bike trail system with the existing system that extends to Woodard Bay. The latter, of course, commences at the Olympia city center I-5/Henderson Boulevard interchange, less than a mile from the South Basin. The final EIS should consider using the occasion of a new Lake/River/Estuary plan to link these bike/trail systems. The most viable option, to my eye, is to use the notch created by the I-5 undercrossing of Capitol Way. Of course, to link the Tumwater stretch with the Olympia one, a bike/pedestrian crossing between Tumwater Historical Park and the old brewery complex will be necessary. The obvious design devise to achieve this vision is a structure which evokes the railroad crossing that was once located there. This feature itself once figured prominently in the former aesthetic aspect the south basin had prior to the construction of the 5th Street Dam and the creation of Capitol Lake.

I-128-5

Of course, pursuant to one of my major themes, though the South Basin is an afterthought when it comes to remediation, ½ of the proposed construction staging will take place there.

I-128-6

I thank the team in advance for its consideration of the matters I have raised in this letter.

Sincerely,

David L. Nicandri

- I-128-4 Thank you for your comments. In the context of a SEPA analysis, the EIS analysis focuses on project changes relative to existing conditions. Therefore, the No Action Alternative represents the appropriate baseline for analysis. Under either the Estuary or Hybrid Alternative, the South Basin, would return to an estuary condition, and tidal flow would reestablish natural sediment transport. See Figure 4.1.3 of the Draft EIS and Final EIS for information about the sediment transport patterns expected. Over time, the South Basin would also see changes in high tide levels with relative sea level rise. From a visual standpoint, the conditions at high tide would closely resemble existing conditions, except for changes in shoreline vegetation due to saltwater. It is acknowledged that an informed viewer would know that the water in the South Basin was contiguous with and part of Puget Sound, even though the connection to Budd Inlet would only be visible at a great distance and from a few locations in the South Basin.
- I-128-5 See Global Response for Land Use, Shorelines and Recreation regarding links to regional trails.
- I-128-6 Comment noted.

I-129

COMMENT

RESPONSE

I-129-1 | I would like to see the current lake properly dredged and cleaned up. That will leave us with the beautiful lake, swimming, and boating again. It will also not dump huge amounts of silt into Budd bay.

I-129-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-130

COMMENT

RESPONSE

I-130-1 | The lake should be brought back to its original condition as a lake. It should be dredged so the weeds and algae are under control and returned to the public for recreation. The dream of returning the lake to its “natural” state is silly. There is nothing natural about the entire area. The best we can do is manage it. There is a reason the lake was created from the original mudflat, it smelled terrible and was a constant flood danger. “Estuary” is a pleasant word for salt water swamp. I am a realist, politicks are a real and powerful force in any decision, so if scientific fact is outweighed by political forces let’s examine the politics for a moment. Downtown Olympia is quickly becoming developed with condominiums and apartments. Judging by the rents the people moving in have serious resources. Within a short period of time do you honestly believe these people will tolerate the stink of an “estuary”? Take a quick look at Mud Bay, does anyone want to jog around Mud Bay, or picnic next to it? Please, let’s move past short term expediency.

I-130-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-131

COMMENT

RESPONSE

I-131-1

Estuary please! We need to honor the land, the original purpose of the estuary and delta to feed species and enrich the ecosystem. We have been talking about this for years, and we know what is best for the land, the environment, and the people. We need to restore, not rebuild.

I-131-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-132

COMMENT

RESPONSE

I-132-1

I am in support of restoring the estuary. Given the evidence of climate change and impact of sea level rise, in my opinion, the estuary restoration is the best solution and makes the most financial sense.

I-132-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-133

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail : Comment - Capitol Lake Deschutes Estuary

Subject: **Comment - Capitol Lake Deschutes Estuary**
 From: SusieGreg Knight <hilosilverawaylem@outlook.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-17 08:51



I was born in Olympia in the early 1950's and I've lived here for all but a couple of years. I remember seeing people waterskiing on Capitol Lake, fishing from the shore, and swimming at the park near Water Street. I swam there myself a few times until the word got out that the water was unhealthy. I also recall repeated efforts to clear the lake of debris and silt. One summer a helicopter lifted logs out of the lake. Converting an estuary to a lake seems like a long, losing battle.

I-133-1

The July 4, 2021 article in the Olympian had a photograph of Mud Bay "Experts say it is close to what Capitol Lake area would look like if the dam were removed." The photo shows a discarded tire and leads one to believe the lake area would look like a mud flat with rubbish all the time. Pretty dismal and not a true picture. Mud Bay is lovely at different times during the day. The article states that people are concerned about the unpleasant smells that come with mud flats. I don't recall any foul odors at Mud Bay and I never smell bad odors at the Billy Frank, Jr. Nisqually Wildlife Refuge. I think the mud flats at Nisqually are interesting and attractive. I do recall bad smells in Budd Bay, but those were related to sewage from humans living nearby.

I am in favor of the estuary. Without human interference, this is an estuary. An estuary attracts birds and provides a natural environment for other life. If people could open their minds, a beautiful, natural estuary in an urban town may be a unique, positive addition to our community. It could be something that people want to see and understand. A reflecting pool is there to reflect and honor the capitol building – an artificial creation. (I have yet to see the capitol building actually reflected in the pool.) An estuary honors the natural world and encourages people to look at and understand the meeting of salt and river waters.

I-133-2

Costs and maintenance will be necessary in any event. The yacht club – why build something like that in an estuary? Seems like a mistake. Very few of us use the yacht club. I'm not happy to pay for the maintenance of the yacht club. Yes, it has been there for a while, but the estuary was there for thousands of years before a group of people decided to create an artificial place for their boats. Maybe it is time to move the yacht club to a deeper water location.

My vote goes for an estuary, a unique and interesting environment within the city. Not many cities have a beautiful estuary right downtown.

I-133-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-133-2 Thank you for your comment. As outlined in the Final EIS, Enterprise Services has identified the Estuary Alternative as the Preferred Alternative for long-term management because it best meets project goals, and stakeholders have identified it as the alternative that is most likely to achieve long-term support. Also outlined in Final EIS Supporting Chapter 7.0, is an approach to avoid significant impacts to the private marinas in West Bay, which includes shared funding and governance for the increased sediment that would be deposited in West Bay under the Estuary Alternative. The duration of this agreement is expected to be through 2050, with opportunity for extension. It is expected that the private marinas would also contribute funding toward maintenance dredging.

I-134

COMMENT

RESPONSE

Thank you for preparing this analysis of the alternatives for Capitol Lake.

I-134-1

Having reviewed the executive summary, I would like to see the Estuary alternative moved forward because it appears to best address Tribal/EJ issues and to be most resilient to sea level rise.

I-134-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-135

COMMENT

RESPONSE

I-135-1 | I have lived in Olympia for 34 years and love it, but I am distressed both the degradation of Capitol Lake and by the lengthy process to address the problems. How many studies/proposals/mediated sessions have there been over the years, with no change in the situation? I am hopeful that this current project will lead to some resolution of this thorny problem. I would like to see the hybrid solution approached seriously, recognizing that it is expensive and takes the most time. It would be lovely to see some of the reflecting lake preserved, but also allowing some tidal fluctuations in the estuary. I walk around the lake frequently and would love to see the new walking areas and boardwalks. And having some recreation back on the lake would be wonderful. Thank you for your efforts on this immense, important project.

I-135-1 | Comment noted. Also see Global Response for the Preferred Alternative Identification Process.

I-136

COMMENT

RESPONSE

I think this project needs to be a shining example of environmental responsibility for the rest of our state and nation. Washington State is investing in cleaning up streams, creeks, and rivers to aid in salmon habitat restoration. This is happening throughout our state. Olympia is more than just a city, we are the capitol of a green state and should set an example.

When I attended the zoom meeting on July 15, I became aware of 3 options the draft EIS has listed. I believe we will need to compromise between the extremes to get anything done. My greatest fear is that once again NOTHING will result from all our efforts when we become deadlocked. Therefore I think it best to consider the option I have heard the least about: the hybrid that would give us a lake over by Heritage Park and a free flowing estuary with the outdated dam removed. I would like to know more about the new lake being fed by fresh underground water that is available due to the unique feature of natural artesian springs. We need to come up with a solution that brings our community together this time.

I speak for myself, and am an active member of the organizations I listed.

Ann Chenhall,
annlc325@gmail.com

I-136-1 Comment noted. Please see Global Response for the Hybrid Alternative, which has been updated in the Final EIS to include a groundwater-fed freshwater reflecting pool. See also the Global Response for the Preferred Alternative Identification Process.

I-136-1

I-137

COMMENT

RESPONSE

We support the managed lake option. The northern reflecting pond know as Capitol Lake is one of the most beautiful sites in Olympia. Hundreds of walk around the lake each day. To restore the lake for recreational use would would be a huge benefit for the residents of Thurston County. Why the G.A. stopped maintaining the lake over 30 years ago is mind boggling. To resume regular maintenance and bring it back for recreational use would be wonderful.

I-137-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-137-1

I-138

COMMENT

RESPONSE

I-138-1

This has been long in coming! Thank you for all the hard work and the attention to detail. The view from my home is of Capitol Lake. I had to separate my love of the view and the love of history and wildlife for our community's future. I have felt strongly for the Hybrid option since our early Sounding Board meetings. It recognizes the value of our wildlife ability to enjoy it. Allowing the natural tides of this waterway is important but won't always provide the best view. Using this lake with our friends and family is also important. Boating, possibly swimming and the beauty of the lake is first. Walkways and historical and wildlife markers will teach us about this land. It's the best bang for our buck.

I-138-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-138

COMMENT

RESPONSE



I-139

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Capitol LAKE

Subject: **Capitol LAKE**
 From: ROGER BRITTINGHAM <rogervickib@comcast.net>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-18 15:12
 Priority: Normal



I-139-1

My wife and I are totally discouraged and disappointed with all the talk of turning what used to be a beautiful lake into mud flats. The lake used to be a focal point for Olympia. Decades ago, people would come down town to swim, and hang out by the lake. Will anyone come downtown to visit mud flats (just in case you are unsure, the answer in no)? The same people that want mud flats must have driven on East Bay Drive or seen Mud Bay (there is an obvious reason it is called that) when the tide is out. Please tell me anything in our region that is uglier.

Please spend the money needed to restore Capitol LAKE.

Roger Brittingham

I-139-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-140

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Capital lake

Subject: **Capital lake**
 From: sharon <shariroses@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-18 08:02



I-140-1

I have reviewed the plans and walked around Capital Lake, also reviewing diagrams around the lake. I recommend the hybrid plan as my number one choice of plans.

Sharon Graham

I-140-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-141

	COMMENT	RESPONSE
	I am opposed to the estuary option for what is currently Capitol Lake.	I-141-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
I-141-1	We already have the unattractive mud flats of Mud Bay, as well as the creation of the newer estuary at what is now the Billy Frank Wildlife Refuge.	I-141-2 Thank you for your comments.
	The mud flats often stink at low tide - merchants and visitors should not have to cope with that smell. There's plenty of the mud flat area near the marina.	Regarding continued tourism connected with Lakefair it is unknown at this time how implementing the Estuary Alternative would change the events and community gatherings currently centered around the Lake. It is possible that they could transform along with the Lake and provide a similar level of value to the community, in the form of tourism and quality of life for residents.
	There's a beauty to the lake in front of the Capitol. It is a wonderful walk to circumnavigate the lake.	These events provide economic value in at least two ways: through tourism, which supports economic activity in the region, and in the form of social capital—in this case the "glue" of shared identity, traditions, and culture that brings people together and contributes to quality of life. The Estuary Alternative would require an initial investment to redefine events that have an identity tied to the Lake, in the form of both monetary cost and non-monetary cost of time and energy. These are short-term costs and once the transformation has occurred the annual value could continue to materialize at similar levels.
I-141-2	I would like to see the continued tourism connected with Lakefair - an event that would be rather pointless without a lake. The reflection of the Capitol, as well as the fireworks helps to make Olympia special.	In response to this comment, discussion has been added to Sections 5.5.2.3 and 5.5.2.4 of the Economics Discipline Report (Attachment 18) to acknowledge this potential short-term cost of the Estuary Alternative.
	It would be wonderful if boating could return to the lake.	I-141-3 EIS Supporting Chapter 4.0, Section 4.5 discusses impacts on bats. See also the Global Response for Fish and Wildlife for information on how potential impacts on bats were clarified in the Final EIS.
	I feel the cost estimates are slanted, and do not take into account the impact of tourism.	
I-141-3	I am uncertain if a freshwater lake would be better than a saltwater. Changing to salt might greatly impact the bats. Has anyone done a study of this impact? Bats are important - are there alternatives for them? On the other hand, salt might take out some of the invasive species infesting the lake now.	
	But I am decidedly opposed to turning the lake into an estuary.	
	Sincerely, Karen Knudson	

I-142

COMMENT

RESPONSE

I-142-1 | I strongly support allowing the lake to return to an estuary. I believe this will contribute to a healthy ecosystem. I could support a hybrid solution but prefer the estuary.

I-142-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-143

COMMENT

RESPONSE

I-143-1 | I appreciate something finally being done about this. Please fix the capitol lake area.

I-143-1 This response acknowledges the commenter’s position.

I-144

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: I would prefer the Estuary option

Subject: **I would prefer the Estuary option**
From: Patricia Holm <pholm76@gmail.com>
To: <comment@capitolakedeschutesestuaryeis.org>
Date: 2021-07-19 15:24



I-144-1 | We should try and return this area to more of what is what before humans came and changed to an artificial lake.
Patricia Holm
1216 Ethridge Ave NE
Olympia, WA 98506
360-357-4151

I-144-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-145

COMMENT

RESPONSE

I-145-1 | Save the dam. Dredge the north and central lake sections.
Our forefathers called for the creation of the reflection lake. We do not know better.
Any who have viewed the beauty of the reflections of our capital, Lakefair, the
forest, and the city know what our forefathers wished for this former resource that is
now choked with weeds and mud.
The quality of the water could be improved with enforcement of proper farm
practices upstream and onsite storage of contaminated water from residences and
roads along the route of the river & creek.
Save the Lake!

I-145-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-146

COMMENT

RESPONSE

I-146-1 | The hybrid approach seems to meet the desires of most of the residents. It is a
shame that a whole generation of Olympians have not been able to enjoy a lake.

I-146-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-147

COMMENT

RESPONSE

I-147-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-147-1

It is time to remove the 5th Ave Dam. Show some leadership in favor of a healthy estuary. The lake is a cesspool, an embarrassment for Olympians. We need to improve water quality, improve usability for fish + other creatures. We can manage the sediment + develop a lovely healthy estuary for people, plants + Birds. Remove the dam and make Olympia an environmentally healthy + beautiful place to call home + attract tourists
Annie Luff

I-148

COMMENT

RESPONSE

I-148-1 The road that would be constructed to connect Deschutes Parkway SW to Olympic Way would gain elevation as it travels north. The highest point would be the connection point at Olympic Way, which would be an elevation similar to where Olympic Way crosses the railroad right-of-way. Based on the current conceptual design, the proposed roadway ramp appears to be below your property elevation; therefore, the road is not expected to block the view of the waterbody. Design would be further developed during the design phase of the project.

I-148-1

8/2/2021 Roundcube Webmail :: Deschutes revamp

Subject: **Deschutes revamp**
From: patrick.stegner <pstegner@hotmail.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-20 16:27



Hi, I own 731-733 4th ave w Olympia, wa 98502. This new road crosses over my property. The bigger concern, this road appears elevated. Will it impede my view of the lake? Currently I have a beautiful view. You can imagine I would not want to look out my window at an elevated road blocking my view of the beautiful lake

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I-149

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Re: Capitol Lake

Subject: **Re: Capitol Lake**
From: Jacqueline Stone <ejps@me.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-20 15:38



I vote for the hybrid model!

Thank you,
Jackie Stone

I-149-1

I-149-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-150

COMMENT

RESPONSE

I-150-1 | I am in favor of the Estuary Alternative. Thank you so much for your hard work.

I-150-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-151

COMMENT

RESPONSE

I-151-1

The removal of the 5th Avenue dam
will improve Capitol Lake - return of
fish, recreation fun and the cost is the
least of all the proposals.
Thank you,
Brenda Paull

I-151-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-152

COMMENT

RESPONSE

I-152-1

The LWF supports the removal of the 5th Ave Dam, & improvement to the Pedestrian Bridge. Improve water quality, recreation & the fish estuary. Sediment management.

Arden Suchan

I-152-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-153

COMMENT

RESPONSE

I-153-1

So far, everything that I have read in the draft EIS and elsewhere on this site completely misses the point, which is this:

You, the city and the people of Olympia, unnecessarily and unacceptably altered the waterfront, altered the natural resource, and altered the natural state of critical habitat. Stupid, stupid, stupid, from the very beginning. You need to undo it all and return it to the natural estuary that it was, that it always should have been, and that it should be again.

I-153-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-154

COMMENT

RESPONSE

I-154-1 It should be returned to its natural habitat: estuary. Thank you.

I-154-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-155

COMMENT

RESPONSE

I-155-1 | Treat the lake for the invasive plant species so it can open back up for fishing and recreation! Do NOT turn this back to an estuary!

I-155-1 Comment noted.

I-156

COMMENT

RESPONSE

I-156-1 | I favor allowing the area to become a more natural estuary.

I-156-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-157

COMMENT

RESPONSE

I-157-1 | I support an estuary for Capitol Lake.

I-157-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-158

COMMENT

RESPONSE

NZ Mudsnail Concerns.

I am a member of the Olympia Yacht Club (OYC) and have a boat moored there and will be moving to Olympia shortly. I am also a professional biologist and understand selection pressure on organisms that changes their ability to adapt to originally adverse environments by somatic and germ line mutations. After hearing your presentation to the OYC, I became concerned about the likelihood of mudsnails becoming established in Budd Inlet to the detriment of the native organisms living there, the ecology of the inlet, as well as to the boats moored there.

I have done a literature search and have become even more concerned than I was after your presentation. Here is what I found:

1. Salinity in Budd Inlet is 2/3 seawater, or 22.7 ppt.
2. "Our results show that the Columbia River snails were more tolerant of acute salinity stress with the LC₅₀ values averaging 38 and 22 Practical Salinity Units for the Columbia River and freshwater snails." This publication is referenced below.
3. Since there is moderate salinity in Capital Lake and basins already, the snails are already mutated to tolerate that level. Once there are large numbers of snails coming into the Inlet on a continuing basis, they will further mutate to thrive in a 22.7 ppt or even higher salinity level. They could continue migrating up the Inlet to contaminate the entire Puget Sound with only 28.5 ppt salinity. Note that 50% of the Columbia river snails tolerated 38 ppt salinity, which is far above Puget Sound and Budd Inlet levels. Mudsnail mutation and adaptation will no doubt occur to 28.5 ppt salinity, opening the Sound and Salish Sea to colonization.
4. Since mudsnails cling to boat surfaces and multiply to prodigious biomass, boaters in the Sound will regret what likely will happen.
5. My recommendation is to do everything you can to keep mudsnails out of Budd Inlet and Puget Sound. While I agree an estuary would be a nice to have, but the almost certain mudsnail disaster trumps that aesthetic.
6. *All of this sounds like an ecological disaster waiting to happen! I doubt that's what you want!*

Salinity adaptation of the invasive New Zealand mud snail (*Potamopyrgus antipodarum*) in the Columbia River estuary (Pacific Northwest, USA): Physiological and molecular studies

Aquatic Ecology

By: Marshal Hoy, Bruce L. Boese, Louise Taylor, Deborah Reusser, and Rusty Rodriguez
<https://doi.org/10.1007/s10452-012-9396-x>

I-158-1

I-158-1 Capitol Lake is currently separated from Budd Inlet by the 5th Avenue Dam. However, debris discharges through the dam under existing conditions, during high river flow events. This has provided an opportunity for New Zealand mudsnails to spread into Budd Inlet since their establishment in Capitol Lake more than a decade ago.

In a letter submitted by WDFW on the Draft EIS, WDFW opined that the 5th Avenue Dam does not function as a barrier preventing the spread of New Zealand mudsnails into Budd Inlet, and the removal of the dam is not expected to create additional colonization opportunities beyond what currently exists.

In response to comments submitted on the Draft EIS and to support analysis in the Final EIS, a study was commissioned to investigate whether New Zealand mudsnails are currently present in Budd Inlet (Johannes 2022). The study occurred in April 2022 and investigated 21 sites, 16 of which were previously surveyed in 2011 and included several sites adjacent to various freshwater inputs. Most sites collected in Budd Inlet had marine fauna present, indicating conditions would allow for colonization if New Zealand mudsnails were tolerant to salinities. No New Zealand mudsnails were found during this survey, and the study concluded it is likely that year-round salinity levels are too high anywhere in Budd Inlet for New Zealand mudsnails to survive.

There are limited data, Best Available Science studies, or literature regarding New Zealand mudsnail salinity tolerance; however, available studies indicate the New Zealand mudsnail may be tolerant of salinities above 30 parts per thousand (ppt or practical salinity unit). Although the salinity within Budd Inlet (between 23 and 28 ppt) is within the tolerance range for New Zealand mudsnails, the recent survey conducted by Johannes (2022) found no New Zealand mudsnails in Budd Inlet. And, as indicated above, given movement of debris through the 5th Avenue Dam under existing conditions, New Zealand mudsnails would have colonized in Budd Inlet since their introduction into Capitol Lake more than 10 years ago, if conditions were suitable.

New Zealand mudsnail salinity tolerance is dependent on temperature and the rate of acclimatization to the higher salinity (LeClair and Cheng 2011). A study of New Zealand mudsnails in the Columbia River estuary found the mudsnails from brackish environments are more tolerant of acute salinity stress with LC50 values (lethal concentration causing 50 percent mortality) averaging 38 ppt salinity versus only 22 ppt salinity for mudsnails from a

I-158

COMMENT

RESPONSE

I-158-1

Abstract

In this study, we examine salinity stress tolerances of two populations of the invasive species New Zealand mud snail *Potamopyrgus antipodarum*, one population from a high salinity environment in the Columbia River estuary and the other from a fresh water lake. In 1996, New Zealand mud snails were discovered in the tidal reaches of the Columbia River estuary that is routinely exposed to salinity at near full seawater concentrations. In contrast, in their native habitat and throughout its spread in the western US, New Zealand mud snails are found only in fresh water ecosystems. Our aim was to determine whether the Columbia River snails have become salt water adapted. Using a modification of the standard amphipod sediment toxicity test, salinity tolerance was tested using a range of concentrations up to undiluted seawater, and the snails were sampled for mortality at daily time points. Our results show that the Columbia River snails were more tolerant of acute salinity stress with the LC₅₀ values averaging 38 and 22 Practical Salinity Units for the Columbia River and freshwater snails, respectively. DNA sequence analysis and morphological comparisons of individuals representing each population indicate that they were all *P. antipodarum*. These results suggest that this species is salt water adaptable and in addition, this investigation helps elucidate the potential of this aquatic invasive organism to adapt to adverse environmental conditions.

freshwater source (Devils Lake) (Hoy et al. 2012). The results of the study of salt-tolerant New Zealand mudsnails in the Columbia River estuary also found that, although the species was surviving, they were not thriving in a way that would significantly impact native populations. The lack of New Zealand mudsnails observed in Budd Inlet is likely indicative of their salt tolerance and the LC50 value of 22 ppt salinity for mudsnails from a freshwater source like Capitol Lake.

Additional salinity data and New Zealand mudsnail distribution within Budd Inlet have been added to Section 4.2.1.1 of the Aquatic Invasive Species Discipline Report (Attachment 8) under subsections describing *Distribution and Abundance Within the Study Area* and *Management Approaches*, and in Sections 5.3.2, 5.5.2.2, and 5.6.2 of that report.

Under the Estuary and Hybrid Alternatives, New Zealand mudsnails may continue to persist in areas of freshwater input, including the Deschutes River, Percival Creek, and stormwater outfalls. Those mudsnails would be washed into Budd Inlet during storm events, but likely at much lower rates due to the smaller numbers in the smaller freshwater area. It is possible for New Zealand mudsnails to spread to nearby freshwater streams that also drain to Budd Inlet. But there has been an apparent lack of colonization by New Zealand mudsnails in Budd Inlet from the large population in Capitol Lake, and that suggests that smaller populations that may remain in the freshwaters draining to the basin under the Estuary or Hybrid Alternative may not colonize Budd Inlet either. They are also not expected to thrive in the brackish environment if they are able to colonize Budd Inlet.

Given the existing New Zealand mudsnail presence and distribution, control measures are suggested for all alternatives to reduce density and numbers prior to any actions within Capitol Lake. Although it is unlikely that control measures can eradicate the AIS completely, as New Zealand mudsnails can repopulate from a single living organism, control measures would significantly reduce the population size and potential spread.

I-159

COMMENT

RESPONSE

I-159-1 My name is Paul Lambert. I have lived in Olympia all my life and I am encouraging Enterprise Services to choose the Dual Estuary/Lake Idea for how to fix the polluted Capitol Lake problem. The lake cannot be used as it is now. I grew up in Olympia when the lake was usable. When people could enjoy the lake. Now it's just a polluted place to walk by. It's just a reflecting pool for the capitol and that's not enough. An estuary could be a viable and vital place for people, animals and plants. The DELI option could be something that would make most everyone happy. A usable lake portion for the lake only people, an estuary and possibly and improvement for the returning salmon. Maybe we could also deal a blow to the New Zealand Snail fiasco. Let's help bring the health back to the Deschutes River basin and take out the dam that should never have been built.

I-159-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-160

COMMENT

RESPONSE

I-160-1 After looking at the virtual town hall, reading summaries of the findings, and listening to the presentation to the Port of Olympia Commissioners (7/1921), I am in favor of the hybrid model. I do want to make sure that whichever model is adopted does include continual funding for dredging so that the marinas and shipping canal don't fill in.

I don't really like the looks of the retaining wall but understand after listening to the Q & A during the Port of Olympia Commissioner presentation that earthen berms would not be earthquake-proof.

I also hope that there will be a beach added so that swimming can resume once the water quality has improved.

Thanks

I do hope that

I-160-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-161

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capital Lake**
From: John Bosshart <jhbosshart@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-21 19:25



I-161-1

To whom it concerns,
I am a resident of Thurston county and I would like to see the Deschutes River restored to it's natural pathway that allows for tidal flow and removes the dam or control of flow.
The "lake" is not an attractive part of Olympia as the "lake" is for the most part filled in and acting as a retention or settling area for runoff debris and silt from the river. If the impounded area / lake was allowed to become tidal naturally and grow native plants and trees then a city park area could be established. It is a fact that the natural debris/silt from the deschutes would end up in the harbor but that is the natural course of the river. The boat moorage and dock areas would have to be dredged occasionally but that occurred before the lake was established.
Thank you,
Sincerely,
John Bosshart
7615 Cooper Point Road NW
Olympia, Wa 98502

I-161-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-162

COMMENT

RESPONSE

REF ID: A69 JUL 21 2021 13:45

July 19, 2021

Department of Enterprise
Services Capitol Lake
Deschutes Estuary EIS
P.O. Box 41476
Olympia, Wa. 98504-1476

Committee:

I have lived in Olympia all my life -
87 yrs. My grand father was an attorney who
lived on No. Sherman street. We saw
the mud flats. My paternal grand parents
home stood Kaiser Rd on the west side
of Olympia.

I would go with my mother to get fish to
feed the Dairy Cowher. I know what a
mud flat looks like I saw
Capitol Lake at its worse.

I still lives on Kaiser Rd. I love the lake and
the reflection of the Capitol Mt. It says
Capitol Lake beautiful as it is now - managed
lake.

Thank You
Joann Kaiser Herper
2627 Kaiser Rd NW
Olympia, Wa 98502

I-162-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-162-1


I-163

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Comments on Capitol Lake

Subject: **Comments on Capitol Lake**
 From: <gwsheehan@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-21 08:29



I-163-1 | My feeling is that the cheapest solution is not necessarily the best solution. Sometimes you have to spend more to maintain what you have. I, for one, would be willing to pay higher taxes to retain the reflecting pond aspect of the lake. I think it enhances the character of the community and contributes to a more vibrant downtown.

I-163-2 | The estuary concept works fine in undeveloped areas like Nisqually but I don't think it contributes to economy of Olympia in the same way that that the reflecting pond would. I think the elected officials of Olympia have let the city decline over the past couple of decades by not acting in the best interests of all the community. Homelessness has not been adequately dealt with and that is a huge detractor from bringing people and businesses back downtown. Rising crime has hurt the vibrancy of the city. Allowing the lake to return to a smelly tidal flat certainly won't help to bring the people and businesses back either. All of these factors also reduce tourism in the area.

I urge the city council and the state to make the hard decisions necessary to return Olympia to the beautiful, vibrant city it once was when I first moved here.

Gerald W. Sheehan

- I-163-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
- I-163-2 Comment noted. The commenter does not raise specific issues regarding the adequacy, accuracy, or completeness of the Draft EIS.


I-164

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Visual impact of options for Capital Lake

Subject: **Visual impact of options for Capital Lake**
 From: Judy Kennedy <jken@reachone.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-21 19:21
 Priority: Normal



I-164-1 | From a visual standpoint the hybrid option seems very unappealing. Though it provides a reflecting pond, the wall separating the pond and estuary is ugly.

I-164-2 | Maybe I have this wrong, but why is a boardwalk proposed for the west shore when there is a perfectly good sidewalk?

- I-164-1 Comment noted.
- I-164-2 Please see Section 1.9 of EIS Supporting Chapter 1.0 for discussion of project goals. Boardwalks are one of several design elements included in the action alternatives to achieve the goal of enhancing community use of the resource. The boardwalks would be integrated with the habitat islands to allow closer interaction with these habitat features.

I-165

COMMENT

RESPONSE

I-165-1 Capital lake is a valuable part of Olympia, providing views and aesthetics while controlling sedimentation in the west side of Budd Bay. As a boat owner with moorage downtown I agree with the Olympia Yacht Club, Recreational Boaters Association of Washington, and the Port of Olympia and advocate for the preservation of the Olympia waterfront. Boaters care about the marine environment and bring both dollars and public interest to downtown Olympia. I recommend you preserve Capital Lake as is, and maintain the beautiful downtown and waterfront we have enjoyed for decades.

I-165-1 Comment noted.

I-166

COMMENT

RESPONSE

I-166-1 My feeling is that the cheapest solution is not necessarily the best solution. Sometimes you have to spend more to maintain what you have. I, for one, would be willing to pay higher taxes to retain the reflecting pond aspect of the lake. I think it enhances the character of the community and contributes to a more vibrant downtown.

I-166-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-166-2 The estuary concept works fine in undeveloped areas like Nisqually but I don't think it contributes to economy of Olympia in the same way that that the reflecting pond would. I think the elected officials of Olympia have let the city decline over the past couple of decades by not acting in the best interests of all the community.

I-166-2 See response to Comment I-163-2.

I-166-2 Homelessness has not been adequately dealt with and that is a huge detractor from bringing people and businesses back downtown. Rising crime has hurt the vibrancy of the city. Allowing the lake to return to a smelly tidal flat certainly won't help to bring the people and businesses back either. All of these factors also reduce tourism in the area.

I-166-2 I urge the city council and the state to make the hard decisions necessary to return Olympia to the beautiful, vibrant city it once was when I first moved here.

Gerald W. Sheehan

I-167

COMMENT

RESPONSE

I-167-1

I believe you could include a swimming area, even though that is not considered at this time. Using available free water resources would reduce the cost and maintenance of that addition. The outfall of the artesian spring used to fill steam locomotives, adjacent to the old railroad station, could be used to provide a constant and clean flushing action for a pool or swim beach. I support the hybrid option.

I-167-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-168

COMMENT

RESPONSE

I-168-1

Capitol Lake "as-is" is horrible, and is an example of poor decision-making and mis-management. Just as some people in our community are staunchly holding onto "values" that (didn't even rightfully) belong in the early 1950s, there are some people who wanna hold fast to the "legacy" of the lake from the 1950s. These people are probably also climate science deniers, and no consideration should be given to their wants, because Capitol Lake is an environmental disaster! It also strikes me as racist that "preserving the lake" is even an option, given that the Tribes of the area have emphatically come out against the gross fake lake and in support of an estuary. The only option that should be considered is an estuary.

I-168-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-169

	COMMENT	RESPONSE
I-169-1	<p>Could you explain what property would be used to achieve the 500 foot opening to establish the estuary?</p> <p>Is the cost of replacing the bridge included in the estuary plan?</p> <p>How would the yacht club be impacted by creating an estuary?</p>	<p>I-169-1 Under the Estuary (and Hybrid) Alternative, the 5th Avenue Dam would be removed, along with the earthen berm, to create the 500-foot-wide opening. The 5th Avenue Dam and earthen berm are on property owned by the State of Washington.</p> <p>The cost of replacing the 5th Avenue Bridge is included in the planning-level cost of the Estuary Alternative (see Final EIS Supporting Chapter 7.0, Planning-Level Costs, Funding Recommendations, & Other Considerations).</p> <p>See Sections 4.2 and 5.2 of Final EIS Supporting Chapters 4.0 and 5.0 for information on impacts and mitigation related to boat navigation and moorage. See also Sections 3.1 and 4.1 of Final EIS Supporting Chapters 3.0 and 4.0 for information on sediment transport and deposition impacts in West Bay.</p>

I-170

	COMMENT	RESPONSE
I-170-1	<p>I support the managed lake or hybrid option.</p> <p>An estuary would turn the lake into a mud pit at low tide and make the area less attractive to visitors and negatively impact the vibrancy of the city, downtown, and Capitol.</p>	<p>I-170-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>

I-171

COMMENT

RESPONSE

I-171-1

I vote for either the Managed or Hybrid Options. The estuary option will be disgusting once it's empty and full of mud. We don't want that look for olympia. Super disgusting. With the lake full of water year-round day and night, there is the option for rowboats and paddle boats, and other fun activities for families and tourists. I vote for the paddle boats that look like swans for tourists and families to row about on capital lake. It will be so fun and cute. Other tourist attractions could include a cotton candy or ice cream truck/ stand, a little place to get snacks, water, smoothies, and souvenirs, different art located around the boardwalk, fun stuff that tourists will enjoy and locals will love. Other improvements could include a playground structure at Marathon park, more picnic tables out of there, food trucks in the parking lot, and if the boardwalk was widened around the perimeter of the whole lake surrys (group/family bike) could also be rented and enjoyed by tourists and locals. With all these types of improvements this area could become a hub for more community events, such as Lakefair, but many many others. Thank you for your consideration, if these improvements are made my friends and family and I will come here often and enjoy this delightful area. Thank you very much!

I-171-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-172

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: In support of estuary protection.

Subject **in support of estuary protection.**
From Rebecca Canright <rebeccagroovypeace@gmail.com>
To <comment@capitollakedeschutesestuaryeis.org>
Date 2021-07-22 05:41



I-172-1

Greetings!
I am a young person who cares about safeguarding our magnificent estuary ecosystem. I respectfully ask you to please do all you can to protect our Deschutes Estuary and the wildlife that calls it home. Environmental and economic health go hand-in-hand, thus I ask you to please support the restoration and protection of this special place.
Thank you for your time and consideration!
Have a wonderful day,
Rebecca Canright



Compassion for all creatures great and small.
There are 33 species of seals found throughout the world. Seals are found in most waters of the world, mainly in the Arctic and Antarctica but also in some areas of the tropics.

I-172-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-173

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: EIS Capitol Lake Comment

Subject **EIS Capitol Lake Comment**
From Valerie Anderson <valhikes@gmail.com>
To <comment@capitollakedeschutesestuaryeis.org>
Date 2021-07-22 20:16



I-173-1

To Enterprise Services,

I strongly support restoration of the Deschutes Estuary for the many environmental benefits it would provide. Restoration of the estuary would go a long way towards improving water quality, creating healthy habitat for salmon and other wildlife, and reducing invasive species. In these times when we are clearly seeing the terrible effects of climate change, I believe that taking bold action to restore the estuary would be an extremely important step towards a better world for future generations.

However, given that there are many people deeply committed to preserving the lake as it is, for a variety of reasons, selection of the estuary-only option would leave a significant portion of our population dissatisfied.

For this reason, I support the hybrid option and I hope that the EIS Project Team gives the Dual Estuary Lake Idea the consideration it deserves. As a society, we are deeply divided in so many ways that compromise is difficult to achieve. Landing on a sensible solution that does provide the important environmental benefits of estuary restoration while also maintaining a freshwater lake for people to enjoy would demonstrate that we are indeed capable of working together for the common good.

For the sake of the water, the fish, the environment, and as a meaningful act of cooperation, the Dual Estuary Lake Idea is the best possible solution.

Thank you very much for your time and consideration.

Valerie Anderson
Olympia, WA

I-173-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-174

COMMENT

RESPONSE

I-174-1 | I didn't see any link to a proposed action if it exists. My preference would be to take out the dam, restore the estuary and augment its access to the community with a series of boardwalks through the area similar to those at the Nisqually estuary and in California, where the Klamath River empties into the ocean.

I-174-1 EIS Supporting Chapter 2.0 includes a description of the project alternatives. The objectives of the project are described in Chapter 1.0. See also the Global Response for the Preferred Alternative Identification Process.

I-175

COMMENT

RESPONSE

I-175-1 | As a child growing up in the '60's I was able to enjoy swimming & even watered skied in Capital lake. It saddened me when the water quality got so poor that we could no longer enjoy the lake like that.
It was nice when the parks were added but the past several years w/the homeless camps & their RV's parking along the lake it's become not only unsightly & has become unhealthy w/lots of garbage, it's also unsafe & especially not something I'd want to take my Grandchildren to. The focus needs to be on protecting nature & making it a place that is safe & family friendly again.

I-175-1 All long-term management options are expected to restore community use, which is one of the project's primary goals. Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-176

COMMENT

RESPONSE

I-176-1 | Making something that was not a lake into a swamp/lake caused this all. It is a ruined river that had a smallish estuary. It's so simple if you remove the bureaucracy. Let it become a bigger estuary than it was but not a lake/reflexive pond that glorifies the bureaucracy that got us here.

I-176-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-177

COMMENT

RESPONSE

I-177-1 I've been here since 1946, my brothers and sister used to walk across the old 4th ave bridge and were familiar with the lake before and after the dam. prior to the 60s and early 7030s there were a lot of places where artisian waters were discharging into the lake. someone the state, city, county or who knows. after that the Quality of the lake water started to go downhill. Open them back up and leave the lake alone. too many unscientific scientists are butting in

I-177-1 The area surrounding Capitol Lake has a high density of artesian wells that contribute, still, to the total inflow to the lake. Following the hydrologic budget presented in Entranco (1984), ground water input was estimated as 10 wells each at 30 gallons per minute (gpm). The magnitude of these flow rates was validated based on measurements taken by the EIS Project Team at two nearby wells in 2020 that were estimated to discharge at rates of 10 and 35 gpm. This data was incorporated into the water budget used for the water quality analysis. See the Water Quality Discipline Report (Attachment 7).

I-178

COMMENT

RESPONSE

I-178-1 I want to voice my support for the DELI. After having been introduced to the concept by some of its supporters, it has consistently struck me as the best of both worlds; a more functional estuary, with a great community option for leisure and fun. I hope you'll consider keeping the freshwater option proposed in the DELI.

I-178-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-179

COMMENT

RESPONSE

I-179-1 I believe the hybrid model would be the best for both "walkers" and "wildlife". Thank you for coming up with alternatives.

I-179-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-180

COMMENT

RESPONSE

I-180-1

Thank you for the opportunity to comment on the Capitol lake-Deschutes Estuary Draft EIS. I have significant personal and professional background on this issue from living and working in the Olympia area for 15 years in the environmental sciences for both public sector agencies and environmental non-profit organizations. I have a BS in Marine Biology, an MS in Environmental Science and 35 years professional experience throughout the coastal US as well as educational travel to several foreign countries to study models of fish and wildlife conservation and restoration of large scale landscapes. In particular, I served on a science team for the Puget Sound Nearshore Ecosystem Restoration Project (PSNERP) during my tenure as a habitat and wetlands specialist at Puget Sound Action Team and Senior Scientist at People For Puget Sound as well as serving on one of the earlier Deschutes Estuary evaluation teams. PSNERP developed process-based restoration methodologies, support documents and funding criteria for Puget Sound investments made by several state and federal grant programs. The principles identified and tested throughout Puget Sound's shorelines by that process underscore my comments. Capitol Lake as it exists now is the quintessential disruption of natural hydrologic and sediment transport processes responsible for degradation of Puget Sound's nearshore environment and it must be restored. Therefore, I support the Estuary alternative as the most ecologically sustainable and cost-effective alternative. The Draft EIS is comprehensive, detailed and fair in its assessment of the alternatives. The comparisons of short-term construction and long term maintenance costs in table form was particularly compelling as the State of Washington considers the long term investment in any of these alternatives. It might also have been useful to project the costs of the no action alternative alongside the 3 action alternatives as doing nothing still has a significant cost now and into the future. In my review of the DEIS and my knowledge of the Budd Inlet watershed, the estuary alternative seems to support the goals best because it's the only alternative that protects water quality and native living resources throughout the basin while still maintaining a viable recreational amenity for the Capitol Campus and the Cities of Olympia and Tumwater.

- I-180-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
- I-180-2 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
- I-180-3 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-180-2

Moreover, the State of Washington has a duty to honor tribal treaty rights with the Squaxin Tribe and the general public who would benefit from restored salmon runs and other native fish and wildlife. As with all impounded basins, the destiny is to fill up with sediments and become stagnant sinks of nutrients that can be liberated by storm flows in an uncontrolled fashion degrading downstream waters like Budd Inlet. I spend quite a bit of my time now that I am here in the Chesapeake dealing with the legacy water quality and fish passage issues of the Conowingo Dam on the

I-180

COMMENT

RESPONSE

I-180-2

Susquehanna river. Capitol Lake was a perfect microcosm and crucible for those issues as the Conowingo Dam creates all the same problems at a multi-state scale. The DEIS scoping of alternatives was wise to identify that even a restored estuary will need some structural modifications such as a dredged channel and reconstructed tidal marshes to reverse the simplification of the lake bottom and prevent overwhelming offshore migration of fine sediments.

I-180-3

I believe the New Zealand Mud Snail infestation can best be remedied or at least minimized by regular tidal flushing with saline water and the estuary alternative is the only one that will positively affect Budd Inlet circulation across an expanded tidal domain addressing persistent dissolved oxygen problems. I understand the desire by many to go back to the "good old days of Capitol lake". This attitude denies the scientific reality of this and every other freshwater impoundment in tidal wetlands and people will be reckoning with the poor decisions of yesteryear for decades to come as the realities of sea level rise affect our relationship with the coast.

Sincerely,
 Doug R. Myers
 (responding as a concerned citizen and life-long defender of Puget Sound)
 Maryland Senior Scientist Chesapeake Bay Foundation

I-181

COMMENT

RESPONSE

I-181-1

I have reviewed each of the options, read the commentaries available in The Olympian, and walked the lake a few times to review the updated boards (GREAT IDEA!!!). In light of that, as a lifelong Olympian resident since the 60's (family being here much much longer than that), what I desire most to share as a response is that ACTION begets ACTION which in itself crushes INACTION - the place we have been for decades. Given this, I actually think all three options are excellent and provide a roadmap forward for managing the lake. Each has different pros/cons/HIGHLY REACTIVE opinions by some stakeholder groups, but as just a community representative/member with no special interests, please just choose one option and begin ACTING.

I-181-1 Enterprise Services appreciates commenter’s detailed review of the Draft EIS.

I-182

COMMENT

RESPONSE

I-182-1 | The Woodard Bay bat colony and its regional significance are mentioned frequently as being a positive part of the environment. With the worry much of the public has regarding bats, should the EIS mention why supporting the bat colony is important?

I-182-1 As described in Section 3.3.2 of the Fish & Wildlife Discipline Report (Attachment 9), the assessment of potential adverse impacts considered several factors, including whether an alternative would eliminate or make non-viable a species group or species of regional importance within the Capitol Lake Basin or West Bay, through the loss of suitable habitat. See also the Global Response for Fish & Wildlife for additional information on the bat analysis and related updates in the Final EIS.

I-183

COMMENT

RESPONSE

I-183-1 | I vote for the full estuary!

I-183-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-184

COMMENT

RESPONSE

I-184-1 | Hi, Senator Hunt! Thank you for taking the time to read my request.

I am not writing directly about the capitol lake project but a vision for the south sound waterway. I would like to see a park development stretching from the Westbay Rotary park south all the way under the bridge thru Capitol Lake. Currently that part of town is run down railroad tracks but it has potential to be a truly wonderful park for families, dog walkers, and all types of casual fun. I do not know who currently has ownership of that area but I think it would be in the best interest of city and state to create that park into a public green space looking back onto downtown Olympia. Many cities find success with large long parks across from downtown and I think it would be a much greater benefit to the region than large apartment buildings which are inevitable under current developmental plans. First steps would be further developing Westbay park to the south concrete lots and then down the line renovating the train tracks to be an acceptable path or trail. I am really excited about the prospect of this idea! Please consider and pass on to whoever you deem most fit. Thank you for the email alerting me of this meeting Senator Hunt.

I-184-1 Please see EIS Supporting Chapter 2.0 of the EIS for a description of how alternatives were developed.

I-185

COMMENT

RESPONSE

I-185-1 | There can't be clean water when encampments are allowed around the lake and any other type of bodies of water and forest areas. Keeping the encampments clean isn't enough to bring clean water to the sound. There needs to be resources and better living conditions available for people who want it or need it. Thank you.

I-185-1 | Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-186

COMMENT

RESPONSE

I-186-1 | I have only one comment at this time, not knowing about a project. Which is that this area is of course, a historic, natural & iconic treasure of the region as well as the entire state. I would offer that the area should be kept in its current "minimally improved" condition, giving people, families, pets to enjoy the tranquility, with the only "improvements" towards that end. Much like the royal gardens of Asia where its beauty is allowed to show in its most natural state.

I-186-1 | This response acknowledges the commenter's position.

I-187

	COMMENT	RESPONSE
I-187-1	<p>Water Quality: The EIS should be using data from the 2015 Ecology Water Quality Improvement Report and Implementation Plan for the Deschutes River, Percival Creek, and Budd Inlet, and/or the 2020 U.S. Environmental Protection Agency (USEPA) total maximum daily load (TMDL) for the Deschutes River when evaluating water quality impacts of the various alternatives. How would the various alternatives contribute to meeting the water quality goals in these reports? How would they impact these goals long term (e.g. would the managed lake require more resources to meet USEPA TMDL than other options?)</p>	<p>I-187-1 See the Global Response for Water Quality regarding how the findings of the 2015 Ecology Water Quality Improvement Report were considered in the EIS. In response to comments on the Draft EIS, the water quality analysis has been expanded to include summary statements regarding potential regulatory compliance for the alternatives, based on Ecology’s interpretation of their model findings. This includes supplemental information regarding potential compliance with both numeric and narrative dissolved oxygen water quality standards. These updates better align the Final EIS with Ecology’s determination of regulatory compliance based on the 2015 Water Quality Improvement Report. These additions have been included in Final EIS Supporting Chapter 4.0, Section 4.3 and in Section 5.0 of the Water Quality Discipline Report (Attachment 7).</p>
I-187-2	<p>Sediment: Could the shape of the retaining wall be altered to reduce the sediment deposits under the hybrid option?</p>	<p>I-187-2 The alternatives presented in the EIS are based on a conceptual level of design as is appropriate for a SEPA analysis, which should be completed early in project planning to inform later design efforts. If the Hybrid Alternative is selected for long-term management, more detailed assessments of the hybrid wall would occur during the design and permitting phase and could include modifications to the wall shape to incorporate minimized sediment deposition as one of the design parameters. The shape of the wall could have some impact but would not substantially change sediment deposition.</p>
I-187-3	<p>General: The managed lake option does not seem to have the habitat and water quality benefits that the other two options have. The estuary option seems to meet all the goals stated, at the 'highest' levels.</p>	<p>I-187-3 This response acknowledges the commenter’s position.</p>

I-188

COMMENT

RESPONSE

Olympia was my home town for many years since 1949. Olympia was my Fathers residence all his life, beginning in 1921. What we call Capitol Lake today used to be exposed tide flats at low tide. Hence, Capitol Lake is very shallow, between the 5th street dam to the base of the falls.

I clearly recall my Father describing the daily stench, of the muddy estuary at every low tide. The community was incredibly pleased with the construction of the dam, to end the rotten smell of the mud flats every day.

Low tides tend to be predominantly during daylight hours during summer months, and after darkness during winter. The exposed mud was useless for recreation, spawning habitat, as well as dangerous to venture out on.

There used to be a good run of salmon and steelhead every fall. They would congregate at the dam in salt water, and fisheries would lower the dam to let them migrate up towards the ladders below the most recent brewery. Many spectators enjoyed watching the fish at the 5th street dam, as well as the stripping operations at the upper dam, to collect eggs for the hatchery.

In summary, everyone must prepare for a nasty stench every low tide, if the mud flats a the bottom of Capitol Lake are exposed again. Spend some time at Mud Bay, to gather some ideas of how the low tide environment will look and smell like. I fully endorse protecting those habitats at that location.

People are also a part of these evaluations, when considering all habitats and natural processes. I therefore recommend, that for all things considered, Capitol Lake is one instance where restoration back to a pre-1949 tidal flat may not be a good idea now.

I-188-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-188-1

I-189

COMMENT

RESPONSE

I-189-1 | I believe the return to an estuary option is the best. Thanks for the opportunity!

I-189-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-190

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Need to use solar or wind or green energy to to a good role model for public

Subject: **Need to use solar or wind or green energy to to a good role model for public**

From: Kelvin Hoang <p_k_hoang@yahoo.com>

To: comment@CapitolLakeDeschutesEstuaryEIS.org <comment@CapitolLakeDeschutesEstuaryEIS.org>

Cc: p_k_hoang@yahoo.com <p_k_hoang@yahoo.com>

Reply-To: Kelvin Hoang <p_k_hoang@yahoo.com>

Date: 2021-07-24 18:31



I-190-1 The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-190-1

Going green energy is not easy. This movement needs a good role model from state and federal level. USA also needs to be a good model for other countries too. I think we might be behind some European countries. Thank you for listening.

Sent from Yahoo Mail on Android

I-191

COMMENT

RESPONSE


8/2/2021 Roundcube Webmail :: Open the lake's dam so we can see what to expect!

Subject: **Open the lake's dam so we can see what to expect!**

From: W Page <well_duh@hotmail.com>

To: comment@CapitolLakeDeschutesEstuaryEIS.org <comment@CapitolLakeDeschutesEstuaryEIS.org>

Date: 2021-07-24 11:16



I-191-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-191-1

I was thinking the other day that it would make sense to open the dam for the rest of the summer, or at least a month, so that people could get an idea of what to expect if the dam was removed completely.

I was one of the children swimming in the lake as a child, so I'd love to see it cleaned up and swimmable again. We have so few "swimming holes" available in this area it would be nice to have someplace for the children to play besides fountains. Perhaps a freshwater pool of some sort on the east side of the lake?

I know it's a process, but the lake has been looking pretty sad for many years now, I'd like to see something/anything done.

Thanks,

Wendy Page
1707 Farwell Ave NW
Olympia, WA 98502

I-192

COMMENT

RESPONSE

I-192-1 | I would prefer the Estuary option for Capitol Lake for a number of reasons. Major reason, as per your draft EIS, is that "The estuary habitat conditions reestablished by dam removal would result in substantial beneficial effects for salmon, other anadromous species, and marine fish." The other reason is that while the initial cost for the Estuary option is high, the annual maintenance cost following the completion of the project is much less. I do not favor continuing the lake and neither do I favor the hybrid option, which does not appear to benefit the salmon and other species as much as the estuary option.

I-192-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-193

COMMENT

RESPONSE


8/2/2021 Roundcube Webmail :: Comments on the Draft EIS, on long-term management of Capitol Lake Region

Subject: **Comments on the Draft EIS, on long-term management of Capitol Lake Region**

From: <llmcc1@comcast.net>

To: <info@CapitolLakeDeschutesEstuaryEIS.org>

Date: 2021-07-25 15:46



The following are my comments on the draft document:

General Comments:

- The EIS is well written and organized.
- My feeling is more analysis should have been done on long-term impacts from each alternative.
- The project area as it now stands is not an estuary and should not be called as such.
- Needs more analysis showing how the alternatives meet set goals. These should be compared to the results of the short and long-term impacts that is addressed in the EIS

I-193-1

Specific Comments:

CHAPTER 3

3.2 Sedimentation

3.2.2.2 West Bay Marinas

.... This is likely due to the higher water levels in the Capitol Lake Basin associated with RSLR, which would reduce current velocities and would reduce erosion of sediments in the Middle Basin. For this reason, later sections describing the analysis of impacts focus on numerical model results without RSLR, because impacts are greater under this scenario.

1.Comment: Shouldn't all analysis use the model "with RSLR? This will be the norm

3.2.2.3

Importantly, annual sediment deposition rates in West Bay are highly dependent on river flow events with more extreme flow events depositing more sediments. Additionally, sediment deposition rates are higher on the east side of West Bay because of an area of shallow intertidal habitat along the west side of West Bay, which directs sediment eastward

2.Comment: Did the analysis consider erosion and source of sedimentation from the watershed, from future further development?

I-193-2

I-193-3

I-193-1

Regarding the analysis of long-term impacts, analysis of long-term impacts for each alternative is included in EIS Supporting Chapter 4.0. Additional information can be found in the Discipline Reports attached to the Final EIS (Attachments 5 through 18). Achievement toward project goals is discussed in the relevant environmental disciplines (e.g., water quality, aquatic invasive species, fish and wildlife) for each of the alternatives. Long-term impacts and benefits of the alternatives, and their ability to meet project goals, were also carefully considered in the process to identify the Preferred Alternative, as described in more detail in Attachment 21.

The project name (Capitol Lake - Deschutes Estuary Long-Term Management Project) acknowledges that historically, what is now known as Capitol Lake was part of the Deschutes Estuary. The Deschutes Estuary has long-standing cultural and spiritual significance to local tribes, particularly the Squaxin Island Tribe.

I-193-2

The commenter is correct that the analysis of sediment transport in the EIS presents the findings that assume no rise in sea level. This is because, based on the numerical modeling, these results are more conservative as they result in more sediment deposition.

I-193-3

The cumulative effects analysis (EIS Supporting Chapter 6.0) considers future projects. As described in Section 6.6.1.2, some of these future projects would result in localized changes to sediment transport (decrease or increase depending on the project). The influence of these on overall sediment transport is likely minor and would have no clear effect on modeling input parameters.

I-193

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Comments on the Draft EIS, on long-term management of Capitol Lake Region

3.3 Water Quality
3-3-1

As part of the water quality analysis for the Draft EIS, the EIS Project Team evaluated monitoring data from 2004 to 2014 and also collected water quality samples in 2019 to compare current conditions against the historical dataset. Despite what has been perceived to be worsening conditions in Capitol Lake, monitoring data indicate that water quality conditions have actually been improving in the lake and are relatively good in terms of physical and chemical characteristics important to aquatic life. There are only occasional seasonal violations of water quality standards, primarily associated with slight changes in temperature and dissolved oxygen.

I-193-4

1. Comment: Although there is a trend for better water quality, this will probably not be the norm, especially under a Lake managed Scenario.

.... These improving water quality trends reduce the level of management that would be needed under a Managed Lake Alternative to meet lake management objectives.

4. Comment: Not sure why the level of management would be reduced. How can this conclusion be made when conditions of the ecosystem is drastically changing, more eutrophication and the basin a settling pond for pollutants.

3.3.5.2

The model shows that Budd Inlet has a relatively high maximum daily depletion of dissolved oxygen due to anthropogenic sources when compared to other South Puget Sound inlets.

I-193-5

5. Comment: Is this high maximum daily depletion due to lack of flushing?. It seems this water quality parameter would improve by the constant flushing from the Deschutes, rather than the existing situation

3.5.2.1

...Habitats along Capitol Lake

I-193-6

6. Comment: Current development and any enhancements that is proposed need to take into consideration all the amenities that would occur with restoration of the natural systems. For example, a managed lake scenario will not support or enhance habitats, only those degraded habitats that currently exist.

The area, including Capitol Lake, Percival Cove, and the riparian corridor associated with Percival Creek, is considered a biodiversity area (native habitat within an Urban Growth Area) by WDFW Priority Habitats and Species (PHS) mapping because of its terrestrial habitat and remnant wooded shoreline, which provide nesting and foraging habitat for wildlife. Wetland areas are important for many wildlife species.

7. Comment: This is misleading, since original habitats have been degraded.

I-193-4

As described in Section 2.2 and in Section 4.3.4 of EIS Supporting Chapters 2.0 and 4.0, the Managed Lake Alternative includes an adaptive management approach that would be adopted to integrate water quality, aquatic plant, algae, invasive species, and habitat management.

Adaptive management will be responsive to actual water quality conditions.

Management actions would be taken to meet a range of objectives identified for the Managed Lake, including

- Controlling nuisance or toxic algae blooms if they become problematic
- Controlling aquatic plants to improve aesthetics and boating access, and reduce fall and winter nutrient release to Budd Inlet
- Controlling invasive species
- Supporting beneficial uses (fish and wildlife habitat, fishing, small nonmotorized watercraft, aesthetics, reflecting pool, and other noncontact recreation uses)
- Supporting work to reduce nutrients and contaminants as identified in the Deschutes River TMDL and draft Budd Inlet TMDL.
- Enhancing ecological value

However, notably, Ecology has determined that the Managed Lake is not likely to meet water quality standards or recent TMDL allocations, regardless of management approach. This has been described in Final EIS Supporting Chapter 4.0, Section 4.3.5.

I-193-5

Ecology’s modeling effort has identified a number of human-caused sources for the high oxygen depletion to Budd Inlet, including existing pollution sources such as wastewater, tributary inputs, and others and also Capitol Lake. The modeling indicates that Capitol Lake influences Budd Inlet oxygen depletion through both its effect on the hydrodynamics, or flushing of Budd Inlet, as well as its impact on TOC. Therefore, to some extent the model indicates that the oxygen depletion rate is impacted by flushing. This is described in Section 4.1.5 and 4.2 of the Water Quality Discipline Report (Attachment 7). The impact/benefit of removal of the dam on oxygen depletion in Budd Inlet is embedded in Ecology’s model results and described in the discussion of impacts of alternatives.

I-193

COMMENT

RESPONSE

I-193-6 SEPA requires analysis of project change relative to existing conditions. As described in EIS Supporting Chapter 4.0, Section 4.6, wetland habitat conditions under the Managed Lake Alternative would improve with a transition from deepwater to vegetated freshwater wetlands and an increase in habitat complexity, providing a minor beneficial effect. Wetland habitat conditions under an Estuary Alternative, and to a lesser degree under a Hybrid Alternative, would reintroduce valuable estuarine wetland and tidelflat habitats, now rare in the region because of historical development patterns. The reestablishment of estuarine wetlands by reintroducing saltwater and tidal influences to the Capitol Lake Basin was found to provide a substantial beneficial effect.

The description of WDFW's PHS designation in Final EIS Supporting Chapter 3.0, Section 3.5.2.1 has been changed to clarify that WDFW considers biodiversity areas as areas within a city or an urban growth area that contain habitat that is valuable to fish or wildlife and is mostly comprised of native vegetation.

Also, see Attachment 21 for more detail on how overall ecological function of the alternatives were considered in the Preferred Alternative identification process.

I-193

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Comments on the Draft EIS, on long-term management of Capitol Lake Region

I-193-7 **3.5.1.3 What threatened or endangered fish species and habitats are present in the study area?**
8. Comment: Would wild chinook and steelhead return if the natural system was restored? Searun cutthroat numbers would have the chance to improve, as well as other marine species.

I-193-7 Section 4.4.1 of the Fish and Wildlife Discipline Report describes the fish use in the Project Area. As there are no naturally reproducing populations of Chinook salmon or bull trout in the Deschutes River or Percival Creek, none of the Alternatives would change this. However, additional text addressing the likely use of Capitol Lake for growth and feeding by ESA-listed Chinook salmon and other salmon species spawned in other river basins (under the Estuary and Hybrid Alternatives) has been added in Section 5.5.1.2 of the Fish and Wildlife Discipline Report.

I-193-8 **3.6.1.1 Historical (Wetland)Conditions Tideflats**
Eelgrass can be present at lower elevations if tidal currents, sediment deposition, and water quality create appropriate growing conditions. Although prevalent before the 5th Avenue Dam was constructed, very little of this wetland type is found in the study area
9. Comment: Eelgrass is a major, crucial component of the natural system and the more opportunities for establishment has great value for the Salish Sea. Is there any eelgrass present now? This increase is only possible under estuarine conditions.

I-193-8 Section 3.6.1.2 of Final EIS Supporting Chapter 3.0 has been modified to describe there is no mapped eelgrass within West Bay. Eelgrass is not typically found in southern parts of Puget Sound and it would be speculative for the EIS to describe future development of eelgrass beds in the study area as a result of this project.

I-193-9 **3.9.3.1 Squaxin Island Tribe**
The Deschutes Estuary is the ancestral home to many of the Squaxin Island Tribe's members. The Deschutes Estuary was originally inhabited by the Steh-chass people who occupied the area around Budd Inlet. The Deschutes watershed continues to be used for ceremonial, subsistence, and commercial harvesting of natural resources, and is a place of strong cultural and spiritual value. The tribe sees value and significance of the Capitol Lake – Deschutes Estuary area as a provider, educator, connection to ancestors, and source of meditative tranquility. In addition, the natural condition of the original river and estuary is valued for the sake of itself.
10. Comment: It is important to point out that not only Tribal members place spiritual value in restoring this area to its former natural state, but many others living in the community. This needs to be emphasized that many of us and our environmental organizations also see the value and if restored, a teaching tool.

I-193-9I-193-10 Enterprise Services recognizes the value the Squaxin Island Tribe, and others, place on the Capitol Lake - Deschutes Estuary area. Please see the Global Response for Cultural Resources for a response.
Regarding the values others place on restoring the area to an estuarine condition, this was described in Section 4.14.3.4 of the Draft EIS. In this section, it was acknowledged that the Estuary Alternative (and the Hybrid to a lesser extent) would enhance cultural values for populations that prefer the restoration of naturally functioning ecosystems. It has been clarified in the Final EIS that this encompasses educational values as well. Conversely, the Managed Lake Alternative would preserve values for people who prefer maintaining the more recent historic condition of the basin.

I-193-10 **Key Findings: Long-Term Effects on Water Quality**
Under the Managed Lake Alternative, the lake would experience minor to moderate beneficial effects from algae control and substantial benefits from aquatic plant management. Capitol Lake would continue to experience summertime algal blooms. Seasonal exceedances of water quality standards in Capitol Lake (temperature, dissolved oxygen, total dissolved gas, and pH) are likely to continue, and there would be no change in impact to water quality in Budd Inlet.
11. Comment: What would be the substantial benefits on algal blooms and control if chemicals are used over a long period of time.

As described in Section 4.3.4 of EIS Supporting Chapter 4.0, there are expected to be minor to moderate beneficial effects related to algae reductions under the Managed Lake Alternative; this is not due to chemical applications but due to long term improvements in watershed management, stormwater treatment, and other activities associated with implementation of the TMDL. Substantial benefits are expected related to aquatic plant reductions due to control efforts that would be implemented under the alternative. Under the Managed Lake Alternative, a lake management plan would be developed that would define lake management goals and strategies for meeting those goals; including the strategy that would be implemented to control aquatic plants. It is unknown at this time what activities might be selected to control aquatic plants or the extent to which they might be used. It is assumed the control strategy selected would be balanced against possible impacts to algae.

I-193

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Comments on the Draft EIS, on long-term management of Capitol Lake Region

I-193-11 *The Estuary and Hybrid Alternatives would create an estuarine environment in the existing lake basin that would have seasonally low dissolved oxygen, as is typical for South Puget Sound estuaries. This shift would be a significant impact when compared to existing conditions.*

11. Comment: This transition to a natural estuary state should be a benefit to Budd inlet.

I-193-12 *Climate change (under all project alternatives) will result in increased water temperature in all three water bodies: the Deschutes River, Capitol Lake, and Budd Inlet. The increase in temperature is likely to result in increased algal blooms, increased pH, and decreased dissolved oxygen and related impacts on nutrient dynamics. None of the project alternatives considered will affect the magnitude or extent of these impacts*

12. Comment: Climate change is an unknown. However, there needs to be projections made on what likely scenarios would impact the project alternatives. A natural system would have more resiliency against the vagaries of climate change impacts and would go far in preserving and/or enhancing the values associated with a natural system, rather than one that's artificial.

I-193-13 *Reflecting the goals of the project to improve ecological functioning and water quality, the Managed Lake Alternative would benefit fish and wildlife in the study area, although not to the same extent as the Estuary and Hybrid Alternatives.*

13. Comment: Again, it should be stated here the importance of designing a system that is as natural as possible and mirrors the goals of the project.

p. 4-70

I-193-14 *For wildlife species, the change to an estuarine environment would eliminate the freshwater lake. This would be a significant impact on bats because of the size of the Woodard Bay colony, its regional importance, its dependence on the freshwater environment of the Capitol Lake Basin for emergent insects, and the elimination of this foraging base.*

14. Comment: Wouldn't lakes in the area become a source of insects for the bats? What studies have been done regarding changes in flight patterns and food sources for bat colonies?

Thanks for the opportunity to comment:

Larry McCallum

I-193-11 As described in Final EIS Supporting Chapter 4.0, Section 4.3.5.2, the analysis does describe that concentrations of dissolved oxygen would improve in Budd Inlet under an Estuary Alternative, though water quality conditions for cold water fish would not substantially change. Minor to moderate benefits are anticipated.

I-193-12 Comment noted.

As described in Final EIS Supporting Chapter 1.0, Section 1.12, resiliency to climate change was considered as part of 'environmental sustainability', which was one of the key criteria used to identify the Preferred Alternative. During the scoring process, the Estuary Alternative scored highest relative to other alternatives for environmental sustainability (see Attachment 21).

I-193-13 The EIS evaluates the alternatives for their ability to meet project goals. While improving ecology functions is one of the goals, designing a system that is as natural as possible is not a goal of the project.

I-193-14 See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

I-194

	COMMENT	RESPONSE
I-194-1	<p>Consider removing the dam. Dams have led to problems throughout the state and we have begun to remove some; the Elwha River now runs free. Your statement, "Between 1949 and 1951, a dam was constructed at 5th Avenue, and without the tidal exchange, the area was transformed into a fresh water lake, fed primarily by the Deschutes River. The newly formed Capitol Lake began to experience a range of environmental impairments after construction of the 5th Avenue dam, eventually leading to community restrictions that persist today." Well, there you have it, the dam caused problems almost immediately and they still persist today; that is what you said and it seems very clear, the dam is the problem. I am hoping you will consider removing the problem, rather than trying to 'fix it'. It would be wonderful to see that area returned to somewhat what it used to be prior to 1949. Imagine seeing the tidal influences nurturing the area daily. Imagine the fish running freely. We could plant the original native plants along the banks of the estuarial area. Eliminating the problem at the source is keen to resolve, otherwise, continually resolving the problems it creates is the chore. Please consider removing the dam, please.</p>	<p>I-194-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>
I-194-2	<p>Another issue for me to address is the pedestrian usage of the area. My wife, age 65, used to very much enjoy walking around the lake. She is afraid to do so now due to the homeless population congregating in that area. We need to devise some measures to insure safety and tranquility in that area. Perhaps, an assigned pair of Police Officers could patrol that area on bicycles during the daylight hours.</p>	<p>I-194-2 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.</p>
	<p>Good luck to you all in your efforts on these issues; I really do appreciate you. Sincerely, John James</p>	

I-195

COMMENT

RESPONSE

I-195-1

The dam needs to go. Estuaries are often called the “nurseries of the sea” because so many marine animals reproduce and spend the early part of their lives there. As the tide rises and falls, water depth and chemistry change, creating a wide range of habitats. In some parts of estuaries, filtered by plants such as marsh and seagrasses, moving water becomes still, allowing mud and food particles to settle at the bottom. These variations create safe conditions, making estuaries ideal homes for plants and animals who feed, grow, or reproduce there. Estuaries are also a major stopover point for migratory animals such as waterfowl and SALMON.

I-195-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-196

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Tami Jones <pacac3jones@yahoo.com>
 To: comment@capitolakedeschutesestuaryeis.org
 <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-07-26 15:08



I-196-1

stop wasting money on studies and all the crap. Do something this has been going on for over 10 years now. You all on the project are about to retire by now you've made a career on studies.

I-196-1 Comment noted.

I-197

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Lorrie Mahar <Lorriemahar@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-26 13:10



I-197-1

Good day,
 Thanks for requesting input to this very important issue. I have lived in Olympia since 1979. I would support either the Estuary alternative or the Hybrid Alternative.

I-197-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-198

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Elizabeth Baldo <izchica@yahoo.com>
 To: comment@capitollakedeschutesestuaryeis.org
 <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-26 12:14



I-198-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-198-1

As someone who lives right up the 4th avenue hill from Capital Lake, I would like to us move forward with a return to is natural estuary origins.
 Thank you,
 Elizabeth Baldo
 522 Milroy St SW
 Olympia 98502

I-199

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Dotti Wilke <dotti.wilke@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-26 13:08



I-199-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-199-1

I think the hybrid model gives everyone a little of what they want, part of the lake (the part most people visit and enjoy) and the estuary which should be better for the environment.
 And it keeps the investment of the work done around the north part of the lake. It seems wasteful to destroy that.
 I hope there is funding to make progress on this project.

 Dorothy Wilke
 3953 Holladay Park Loop SE
 Lacey, WA 98503
 360-870-4648

I-200

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Richard Laurance <rowerrich@msn.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-26 15:11



I-200-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-200-1

I prefer the managed lake alternative (2.2.1)

 Richard Laurance
 1556 sunflower lane sw
 apt. 34-301
 tumwater, wa. 98512

I-201

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
From: Dave Bulger <bulgerdc@comcast.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-26 16:57



I am in favor of the Hybrid model as long as it allows for swimming and kayaking in the new, clean lake.

Dave Bulger
4215 Amber CT SE
Olympia, WA
98501

I-201-1

I-201-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-202

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: In support of estuary protection.

Subject: **in support of estuary protection.**
From: Rebecca Canright <rebeccagroovypeace@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-26 17:58



Dear Whom it May Concern,

Greetings! I am a young person who cares deeply about protecting water bodies and especially estuary ecosystems. I respectfully ask you to please protect our beautiful Deschutes Estuary as much as possible, and prioritize the well-being of wild native species of plants and animals. We would be wise to restore the water quality of this estuary and minimize human impact.

Thank you for your time!
Take good care,
Rebecca

--



Compassion for all creatures great and small.
There are 33 species of seals found throughout the world. Seals are found in most waters of the world, mainly in the Arctic and Antarctica but also in some areas of the tropics.

I-202-1

I-202-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-203

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
From: laura stratton <laurahstratton@yahoo.com>
To: comment@capitollakedeschutesestuaryeis.org
<comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-26 13:24



I prefer the Managed Lake Alternative because:

I-203-1

1. The reflecting pond is a beautiful amenity, literally the centerpiece of downtown.

2. Removing the dam would require prohibitively expensive continuous dredging in the area of the Olympia Yacht Club and perhaps even in the ship canal which is transited by ocean going ships calling at the Port of Olympia.

I-203-2

However, if the Managed Lake alternative is selected, a much safer pedestrian bridge at the dam on Fifth Avenue is needed. It's just a matter of time before a walker or jogger gets killed by a car while crossing the existing bridge/dam. The distance between passing vehicles and pedestrians is sometimes just a couple of feet. This is VERY, VERY dangerous.

Thank you for soliciting my input,

Laura Stratton
Long-time Olympia resident

- I-203-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
- I-203-2 As described in EIS Supporting Chapter 2.0, a non-vehicular bridge would be constructed for the Managed Lake Alternative south of 5th Avenue for pedestrian, bikes, and other modes of transportation (except vehicles).

I-204

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: All for estuary option

Subject: **All for estuary option**
 From: Lucas Claussen <leninstrip@yahoo.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-26 12:55



I-204-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-204-1

Olympia resident and home owner here. Am 110% in favor of the estuary option for capital lake. Especially in times of climate crisis and more it seems like we should be working towards the most sustainable option.
 Thank you,
 Lucas Claussen
 1507 oak Ave ne
 Olympia, wa
 Sent from Yahoo Mail on Android

I-205

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Response to EIS Capitol Lake

Subject: **Response to EIS Capitol Lake**
 From: Lisa Johnson <lisaajwa@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-26 10:33



I-205-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-205-1
I-205-2

I would be most in favor of 1. Estuary and 2. Hybrid proposals as they do more for salmon and sea level rise concerns. There should be bike paths included in planning, along with walking paths and non-motorized boat access.
 thank you for the opportunity to read and comment.
 Lisa Johnson
 5813 Swayne Dr NE Olympia 98516
 360-951-7208

I-205-2 Under the Managed Lake Alternative, a non-vehicular bridge would be constructed south of 5th Avenue for pedestrian, bikes, and other modes of transportation (except vehicles). Under the Estuary and Hybrid Alternatives, a separated bike lane would be included in both directions on the new 5th Avenue Bridge, along with a multi-modal path and sidewalk. For additional information, see Final EIS Supporting Chapter 2.0 for additional details.


I-206

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Comcast Mail <eydie.vargas@comcast.net>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-26 13:09



I-206-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-206-1

Good afternoon, thank you for this opportunity to comment.
 From looking at these photos combined with what I have read about the 3 choices, I am liking the estuary. From what I've read the estuary is the least expensive option and if it were to look somewhat like the photo, I like the greenery on the "islands" in the water.
 I have lived in Thurston county since 1977 and have always enjoyed the scenery around the lake with the building in the background, so it does matter to me.
 Thank you, Edith Vargas
 Sent from my iPad

I-207

COMMENT

RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
From: Randy Neff <rneffhunter@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-07-26 12:43

Get rid of the scum and all of their trash and body waste around the lake first, then think about changing the lake.

Sent from my iPhone



I-207-1

I-207-1 Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-208

COMMENT


RESPONSE

8/2/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
From: <stan2steve@yahoo.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-26 12:52
Priority: Normal

I support the managed lake option. A potential jewel for Olympia and the state

Stanley A Crossman
1910 Evergreen park dr sw, Olympia



I-208-1

I-208-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-209

COMMENT

RESPONSE

I-209-1 I prefer the estuary plan as it still has public use while improving the environment for salmon and waterfowl.

I-209-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-210

COMMENT

RESPONSE

I-210-1 | I really like the idea presented by the 'Do the Deli' group.
| <https://www.facebook.com/dothedeli2021>
| <https://www.youtube.com/watch?v=1hgb1Mxy1ZI>
| It seems to give both sides what they want. Getting a clean freshwater lake in
| Olympia would be ideal, especially given how hot the summers have been lately.
| Capitol lake as it is just looks ugly and polluted and gross. It would be a great asset
| to downtown to have a better freshwater feature that's big and swimmable. Then
| restoring the estuary would be great for the environment and the health of the
| watershed. It seems more low maintenance, just to let nature do most of the work of
| washing things out with the tides and have a smaller lake to keep clean and
| maintain. I don't see a downside to what this group has presented, and it seems like
| the only solution that has been proposed thus far that might actually get funded and
| done.

I-210-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-210

COMMENT

RESPONSE

I-210-2 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-210-2

DELI DUAL ESTUARY/LAKE IDEA

A PLAN TO FIX CAPITOL LAKE



September 2020

I-211

COMMENT

RESPONSE

I-211-1

if the public could vote on this issue, I would vote for the Hybrid option. That seems like the best of both worlds. I fear the estuary option would result in a smelly mudflat in the middle of town - not a great idea.

I-211-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-212

	COMMENT	RESPONSE
	<p>I am mainly concerned about three things: 1. the smell if all or part of the lake is turned into an estuary; 2. the effect on tidelands and waters below the current dam; and 3. the ongoing cost of dredging the tidelands below the current dam.</p>	
I-212-1	<p>1. Friends who lived near the lake prior to the construction of the dam said that the surrounding area would stink at low tide. The lake is not like the East Bay tidelands, which were anaerobic. Although sewage no longer flows into the lake, I am concerned that the lake, which is aerobic, when turned into an estuary, will smell. The effect is a definite possibility, as shown by the die-off of shellfish during the recent very hot weather. The smell of dying oysters and clams was overpowering. What studies have been done to determine whether this will happen? If it will smell, what steps will be taken to ameliorate the situation?</p>	<p>I-212-1 While shellfish die-off during heat waves may cause odors in South Sound estuaries and inlets, including Budd Inlet, any odors caused by shellfish die-off in the basin under the Estuary or Hybrid Alternative would be similar in nature to those produced in other tideflat areas of Budd Inlet. The odor would be infrequent, temporary in nature, and would not be expected to contribute substantially to overall odor. Please also see the Global Response for Air Quality & Odor.</p>
I-212-2	<p>2. If the dam is removed, how will the lands below the current dam be protected? Currently, silt is caught in the south lake basin. If the dam is removed, that silt will flow into north lake basin and then into the Sound and accumulate on the tideland below the current dam. This silt could bury the current fishing sites for our heron rookeries and cause economic harm to West Bay Marina and the Olympia Yacht Club. The lowest part of the Sound, just in front of the Olympia Yacht Club, is already a tide flat at low tide and not navigable. What is being done to alleviate the damage which will be done by the removal of the dam and to compensate the land owners?</p>	<p>I-212-2 The EIS included hydrodynamic and sediment transport numerical modeling to evaluate the change in sediment deposition for each of the alternatives. See EIS Supporting Chapter 4.0, Section 4.1, and the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5) for more information. Annual sediment monitoring and maintenance dredging is proposed to avoid significant impacts to the private marinas and the Port of Olympia from the increased sediment deposition in West Bay as a result of the Estuary and Hybrid Alternatives. Please see Final EIS Supporting Chapter 7.0 for additional detail on the agreement related to funding and governance of the future maintenance dredging.</p> <p>Please also see EIS Supporting Chapter 4.0, Section 4.5, for an analysis of the impacts and benefits to fish and wildlife for each alternative, and the finding that the Estuary Alternative would result in substantial beneficial effects. The analysis concludes that there would be an increase in suitable habitat and positive changes in the types of prey available for shorebirds and wading birds from conversion to estuarine habitat.</p>
I-212-3	<p>3. The removal of the dam is not a one-time cost. There will be recurring costs for dredging, which will go on forever. The dredging of the channel will be born by the public through the Corps of Engineers, however the silt will not be limited to the channel. The costs of dredging West Bay Marina, the Olympia Yacht Club and other property will go on for years to come. Dredging costs a lot of money, and some property owners may not be able to bear those costs. If a marina is unable to dredge its business, moorage slips, will be lost, affecting the marina, boats owners and marine businesses. What is being done to address dredging down the road?</p>	<p>I-212-3 Please see Final EIS Supporting Chapter 7.0 for a description the proposed approach to funding maintenance dredging under the Estuary Alternative. Members of the Funding and Governance Work Group would provide shared funding for dredging of the increased sediment that would be deposited along the eastern shoreline of West Bay. Maintenance dredging and annual sediment monitoring are proposed to avoid significant impacts to the private marinas and to the Port of Olympia. The agreement for funding and governance of the maintenance dredging is expected to be through 2050, with opportunity for extension. The initial duration through 2050 aligns this agreement with the longest existing lease term of the private marinas.</p>
	<p>Thank you for your consideration,</p>	
	<p>Victoria W. Sheldon</p>	
	<p>222 West Bay Drive NW, Unit G, Olympia</p>	

I-213

	COMMENT	RESPONSE
I-213-1	I really like the lake and am more than willing to support and contribute to the higher cost of pursuing this alternative.	I-213-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-214

	COMMENT	RESPONSE
I-214-1	<p>Please consider the estuary alternative as both the best restoration of the environment and the most resilience to sea level rise due to climate change.</p> <p>Restoring the full estuary will return a rare and precious ecosystem to Olympia and the Puget Sound.</p> <p>In addition to restoring the estuary, please consider improvements to active transportation around the lake - including walking and biking. Particularly on the west side of the lake sidewalks are too narrow and bike lanes too unsafe to allow for the full potential of the area for recreation and transportation.</p>	<p>I-214-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p> <p>I-214-2 See the Global Response for the Estuary and Hybrid Alternatives, which describes changes to the 5th Avenue Bridge design that includes a new traffic circle and dedicated walking and biking facilities at Deschutes Parkway. The new 5th Avenue Bridge would also have a separated bike lane on either side, along with a sidewalk and multimodal path. Final EIS Supporting Chapter 2.0 includes figures of the proposed changes. The improvements have been designed in coordination with the City of Olympia and in accordance with their prioritization of the 5th Avenue corridor for non-vehicular movement.</p>
I-214-2	<p>Finally, with the removal of the 5th Ave dam, take the opportunity to remove a dangerous intersection from traffic coming down from the traffic circles. Be bold a consider making this new bridge one that is primarily for walking and biking, while allowing for emergency vehicles. This will support Olympia's climate goals, create a safer and cleaner Capitol Lake, and reduce maintenance costs for the bridge. If necessary, any negative impact on the automobile network can be mitigated by building a bridge/ramp up to the traffic circles and 4th Ave bridge - though it would be simpler - and beneficial to carbon emissions - to convert this route to non-automobile all together.</p> <p>Thank you for your consideration.</p> <p>Greg</p>	

I-215

COMMENT

RESPONSE

I-215-1 | Please return the Deschutes Estuary to its original form. Tide flats and all. I have lived here since 1969 and have watched the detrimental effects of short sighted policies as they have unfolded. I am of the firm belief that all dams have long term negative effects on our natural world. They always silt up. Don't keep doing stupid stuff. Silted up dams are considered to have contributed to the downfall of the Mesopotamian civilization thousands of years ago. Have we learned nothing from our history? Please restore our estuary. Thanks Brian Scheffer

I-215-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-216

COMMENT

RESPONSE

I-216-1 | YES, CAPITAL LAKE is in bad needs of getting rid of those snails. Brought in from China, probably on container ships that dock in our port. YES, it is a grave problem for our once beautiful lake.
Solution, I am not sure?????
But, THE HOMELESS PROBLEM IN OUR CITY, in my opinion, needs to be addressed by the mayor who lets it continue .My family and I and my friends feel VERY UNSAFE when we go downtown or drive through town. Messes everywhere and dirt . Let's get rid of that and then tackle the lake problem.

I-216-1 | Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-217

COMMENT

RESPONSE

I-217-1 | I favor the Estuary Alternative! =>

I-217-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-218

COMMENT

RESPONSE

I-218-1 | I think that Capital Lake should be about what's best overall for the environment.
Therefore I think the estuary or hybrid models look like the best choices to bring about the most advantageous environmental issues.

I-218-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-219

COMMENT

RESPONSE

I-219-1 | Leave it as is and clean it out periodically instead of doing nothing for 10-15 years an letting it become a problem.
It's a great resource and is enjoyable to walk around. Swimming for children would be nice, too, if the lake were properly maintained.

I-219-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-220

COMMENT

RESPONSE

I-220-1 | I'm in favor of returning the lake to a functioning lake.

I-220-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-221

COMMENT

RESPONSE

I-221-1 | The managed lake alternative is the best approach for the downtown corridor. The lake should be preserved as a public resource and water activities should be protected and encouraged, such as swimming and fishing. It could become a true community asset instead of it's current use.

I-221-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-222

COMMENT

RESPONSE

I-222-1 | Having looked at the three proposals, I favor the Estuary Alternative. Letting nature take its course generally works well. We have all seen disasters and/or major repairs coming from the old attitude that human engineering improves the natural layout, guaranteed/oops.
Anyway, this choice will save money, it appears. I like the change in Capitol Lake wherein islands will crop up. This may offer shelter for more birds. If the Estuary Alternative is chosen, it seems the water quality will improve, with the natural fresh and salt water mix. Thank you.

I-222-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-223

COMMENT

RESPONSE

I-223-1 | Restore it to its natural state (get rid of the dam), maintain it for public use and stop being so short sighted when it comes to our local environment.

I-223-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-224

COMMENT

RESPONSE

I-224-1 | I favor the Estuary Alternative for the sake of wildlife preservation and to honor our Native Americans' values. As with the farm at Nisqually Delta, the dam removals in the Olympic Peninsula and the north end of Lake Washington at Juanita Bay, reverting land to natural habitat is always the most humane approach. However I also realize we could wind up with something similar in appearance to Mud Bay at low tide. If that is indeed what the future of Capitol Lake will be, please don't skip over that part of the presentation. Make that an honest part of your proposal, as I can easily predict a strong reaction - possibly negative - from Olympia's citizens and landowners after they see what their view is like from the condo tower. If I'm wrong about this, all the more reason to go Estuary!

I-224-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-225

COMMENT

RESPONSE

Before cement and asphalt took over, one could walk a dirt path, say hello to water critters, wade in with your dog at the known gravelly spots, sail a small boat and kayak. Then it slowly became dolled up, the picnic tables disappeared, the lakefair became "oh, really" and the snail arrived.

I-225-1

Will this project be an enabler for people use? An enabler for fish and others? Will it become a real lake instead of a human mess?

May final decisions be the best for all life forms including humans. Sincerely,
Kathleen Guest

I-225-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-226

COMMENT

RESPONSE

Hello and thank you for the opportunity to comment. While I love details, my busy life does not always allow me to digest all that is presented within my time constraints. If you all could put out a "snapshot" of the 3 plans with simple bullet point on each plan's name, cost of initial work, level of environmental improvement (as to how close the restoration will get the area to it's original health prior to the dam being built), and cost of annual maintenance to sustain that level of health all wrapped up in a paragraph or two, it would be helpful. The simulated photos are also helpful. I do not like the way the hybrid option looks, but if it got the environmental aspect closest to being the most healthy, I'd live with it. My opinion as a voter and tax payer, since it is unlikely to be returned to it's natural state, is that it needs to be as healthy as is possible FIRST (the snails must be eradicated), and then the easiest to maintain - which hopefully will translate to lower costs to maintain and keep healthy.

I-226-1

I-226-2

I-226-1

The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS. Please see Table 2 and 3 of the Final EIS Summary for a summary of key findings.

I-226-2

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-227

COMMENT

RESPONSE

I-227-1 | Keep the lake. It is a pretty drive and enjoyable place to take a walk.

I-227-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-228

COMMENT

RESPONSE

I-228-1 | Dear politicians, I am a Olympia VOTER for twenty years.. I just want you politicians to stop spending our money. Stop TAXING us and stop spending our money. Stop taxing and stop spending. YOU ARE STEALING MY MONEY and giving it to others you think deserve it more. THAT IS STEALING, PERIOD. YOU STEAL. And I think you are thieves. Thanks, Jason Ball.

I-228-1 | Comment noted.

I-229

COMMENT

RESPONSE

I-229-1 | I am a 25 year Olympia resident, I live within a few blocks of Capitol Lake and use the lake trail and park frequently.

I believe that the dam should be simply removed, and the lake returned to its original state as an estuary, the variation of tide and water flow will bring a better connection with natural world to the area.

Please return Capitol Lake to its natural state!

I-229-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-230

COMMENT

RESPONSE

I-230-1 | I am a 25 year Olympia resident, I live within a few blocks of Capitol Lake and use the lake trail and park frequently.

I believe that the dam should be simply removed, and the lake returned to its original state as an estuary. the variation of tide and water flow will bring a better connection with natural world to the area.

Please return Capitol Lake to its natural state!

I-230-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-231

COMMENT

RESPONSE

I-231-1 | I am a 25 year Olympia resident, I live within a few blocks of Capitol Lake and use the lake trail and park frequently.

I believe that the dam should be simply removed, and the lake returned to its original state as an estuary. the variation of tide and water flow will bring a better connection with natural world to the area.

Please return Capitol Lake to its natural state!

I-231-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-232

COMMENT

RESPONSE

I-232-1 | Remove the Dam.
ckd

I-232-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-233

COMMENT

RESPONSE

I-233-1 | I like the idea of returning it to an estuary. It seems the most ecologically beneficial option (plus, the little island in the middle looks nice). I would guess it would also be must supportive of wildlife, and it would be nice to have a great variety of non-human residents in the area.

I-233-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-234

COMMENT

RESPONSE

I-234-1 | I am a mother of five, living in the SW Olympia neighborhood. One of the many aspects I enjoy about my neighborhood is the ability to walk down the hill and around Capitol Lake. During a recent walk with three of my kids, we stopped to appreciate signage with information on the three proposals. My kids and I all preferred keeping Capitol Lake a lake. I understand that swimming is not currently proposed, but we especially liked the fact that maintaining the lake kept open the option to further restore the lake to enable swimming in the future. A swimmable Capitol Lake would be a wonderful gathering spot for the community!
Thank you for all the work and development of three thoughtful proposals!

I-234-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-235

COMMENT

RESPONSE

I-235-1 | Just writing in to voice my support for Capitol Lake as an estuary. I think this is the right move and long overdue. Thanks!

Ahniva Ferrari

I-235-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-236

COMMENT

RESPONSE

I-236-1 | I have followed this debate about what to do with the lake for quite sometime and am pleased that finally something will be done. I am 72, born and raised in Olympia. The "Lake" was a special place to socialize, recreate and enjoy downtown.. I am sorry that this last generation was not able to have the many good memories, that I and many others who have lived here, of the lake. My comment is to restore the lake back to the the way it was originally planned and keep the dam. Thank you for your consideration.

I-236-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-237

COMMENT

RESPONSE

I-237-1 | I used to live nearby in Lacey, WA... 98516 zip code...not a resident now. However, as a concerned person, I'd recommend whatever it takes to normalize/improve the overall natural system so such drastic change at cleaning things up is not needed again. Restore the balance needed.

I-237-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-238

COMMENT

RESPONSE

I-238-1 | I am concerned that a heavy investment in the estuary plan will present long term problems around encampments, etc. It will be like the investments made in the highway beautification program (just look at the state of the wonderful gardens along I-5 through Olympia).. I believe that the hybrid model will be the most sustainable (although the estuary along the western side will present problems stated above). I just do not believe that investments in parks and public beauty stand much of a chance in a society that cannot bring itself to sustain those investments. I am losing hope in the future of Olympia.

I-238-1 | This response acknowledges the commenter’s alternative preference. All long-term management options are expected to restore community use, which is one of the project's primary goals. Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-239

COMMENT

RESPONSE

I-239-1 | I do not favor the refuge plan...may be too difficult to clean up the water and maintain the cleanliness

I-239-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-240

COMMENT

RESPONSE

I-240-1 | I support the estuary alternative

I-240-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-241

COMMENT

RESPONSE

I-241-1 | when we first moved here swimming was allowed in capital lake. a few years later that stopped. i would love to see the lake usable it is sad to have it and only be able to look at it and not use it.

I-241-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-242

COMMENT

RESPONSE

I-242-1 | As a resident of Olympia, it is my humble opinion that spending the extra time, effort, and money to keep the lake full and non-tidal is a benefit to the city. I do value the environmental consciousness of our city. However, in this particular instance, because of the central location and aesthetic of the capitol campus, I don't think trading a man-made lake for a body of water that will revert to mud at each low tide is in the city's best interest. I think it will make Olympia, our state's capital, less beautiful.

I-242-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-243

COMMENT

RESPONSE

I-243-1	Estuary or Hybrid. While I prefer the Estuary, as a longtime public policy person I believe the hybrid is more likely to gain traction and approval.	I-243-1	Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
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I-244

COMMENT

RESPONSE

I-244-1	I'm thinking we have much LARGER problems around Capitol Lake than a snail. Any you people been over that way recently?? You continue to allow the homeless population to live there, you won't have to worry about a snail doing damage. At this point, I surprised the snails are all dead.	I-244-1	Regarding concerns with unauthorized camping, see the Global Response for Land Management.
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I-245

COMMENT

RESPONSE

I-245-1	I am in favor of the Managed Lake Alternative and strongly feel that "No Action" is not a viable option to preserving this valuable community asset.	I-245-1	Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
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I-246

COMMENT

RESPONSE

I-246-1	I favor the Estuary Alternative to remedy issues surrounding Capitol Lake. I think the free flow of the Deschutes River will improve fish health and water quality it the Deschutes.	I-246-1	Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
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I-247

COMMENT

RESPONSE

I-247-1	I have a Master's in Hydrogeology. My husband has degrees in Ecology and Anthropology. Returning the land as close as possible to it's original state is what is best for the physical and ecological environment. Likely, human development rules out tidal flats, but an estuary is a step in the right direction.	I-247-1	Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
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I-248

COMMENT

RESPONSE

26 July 2021
 I recently watched the recorded presentation of the Draft EIS Report. Obviously, something needs to be accomplished to at least renovate Capitol Lake. As a retired civil engineer, I was impressed with the quality and thoroughness of the Draft EIS Report summary presented.
 As long as my wife’s health permitted, we frequently would stop by the lake for reasonably extended periods with a picnic in our car. We would stop at the parking areas off Fifth Avenue or at Marathon Park. We enjoyed both the views of the lake and surroundings, watching large numbers of families enjoying picnics, and seeing many individuals out for runs, jogs or walks around the lake.
 I-248-1 With the managed lake alternative, or possibly the hybrid alternative, we would have enjoyed visiting Capitol Lake. But I cannot imagine us, or many of the others we observed, stopping to visit or picnic at an estuary near the Capitol and downtown Olympia.
 For a visit to an outstanding estuary, one merely needs to visit the Billy Frank Jr. Nisqually National Wildlife Refuge. An estuary where our Capitol Lake is located would be a sickly “relative”.
 Our Capitol Lake is an asset that many people throughout our country would be thrilled to be able to enjoy an equivalent, beautiful lake readily accessible in their community. It would be a shame to completely destroy our wonderful, enjoyable Capitol Lake with the estuary alternative.
 Has anyone conducted a survey of how the general public would respond to each of the three proposed Capitol Lake alternatives? More specifically, what would be expected as the extent of public usage for each alternative? After all, Capitol Lake belongs to the public.
 I-248-2 My vote would be, and undoubtedly my wife’s vote would have been, for the managed lake alternative. While the hybrid alternative would probably be marginally acceptable, our votes would be a huge “thumbs down” for the estuary alternative.
 Respectively,
 Edward S. Perry

I-248-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
 I-248-2 Thank you for your comment. Enterprise Services worked with a Community Sounding Board, a group of 25 members of the community selected through an application process to represent a range of views, to understand the potential recreational use and interest for each project alternative.
 A survey beyond that focus group discussion has not been conducted, nor is one required under SEPA. Commenting on a SEPA EIS is not a "vote" for one alternative over another. Nonetheless, information provided in the comments can influence the final decision because SEPA does require the decision-maker (Enterprise Services) be informed of the environmental impacts (and benefits) of their decisions. Potential impacts and anticipated changes in community and recreational use are described in EIS Supporting Chapter 4.0, Section 4.8. See also EIS Supporting Chapter 8.0 that describes how the Community Sounding Board has been involved with the EIS process.

I-249

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail : Draft EIS Comment

Subject: **Draft EIS Comment**
From: Jerry <jerryfsh@comcast.net>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-27 09:44
Priority: Normal



I-249-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-249-1

Managed Lake

Sent from [Mail](#) for Windows 10


I-250

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: capitol lake draft eis comments

Subject: **capitol lake draft eis comments**
 From: <hwbranch@aol.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-27 10:17



The Capitol Lake Deschutes Estuary Long Term Management Project Draft Environmental Impact Statement is an impressive document. Unfortunately a previous step was omitted. The study leans heavily toward engineering. Engineering is not science. Science tells us what we need to do. Engineering tells us how to do it.

Science should come first. We base informed decisions on science. Science is objective. Scientific inquiry can lead to undesired yet true conclusions. Vested Interests typically prefer to not follow established methods of scientific inquiry. Science on the other hand can bring people together.

I-250-1

1. The study area is defined as including what is now Capitol Lake and West Bay out to the end of the Port Peninsula because this is the area directly impacted by work. This is an engineering perspective. It's what's defined in the restoration option as the estuary.

River estuaries in Puget Sound often have a companion stream that defines and expands the area - Hylebos for the Puyallup, Medicine Creek for the Nisqually, and Moxie Creek for the Deschutes. Moxie Creek flows into East Bay which is a significant part of the structure of the Deschutes River estuary.

If we look at oceanographic physical, chemical and biological parameters we see that East Bay should be included. East Bay has the poorest water quality in South Puget Sound. Not including the impacts of East Bay could lead to omissions and erroneous conclusions.

2. The EIS states that sediment quality in West Bay has not met quality criteria. Ecology has identified four sites around Budd Inlet that will require future cleanups. Others remain unidentified. There is no doubt that contamination continues to flow into Budd Inlet.

I-250-2

The study states: "The Port of Olympia has been working on cleaning up the Cascade Pole site from creosote contamination for many years". Actually nothing has been cleaned up. Material has been capped in place in a temporary containment cell and used as fill along the East Bay shoreline. The report continues "The most recent sediment monitoring in 2012 and 2013 showed decreasing dioxin/furan concentrations." What location does this refer to? In front of the containment cell? Where did the toxins go? Did they degrade or disperse? A critical statement like this needs clarification. If East Bay is included, the numbers I've seen do not show decreasing concentrations.

A science based effort would begin with observation. We observe contamination in surface sediments, an indication of uncontrolled sources. We also observe through chemical analysis that this contamination is in the form of Cascade Pole creosote. One logical hypothesis would be that this is the source.

The order in which assessment would proceed should be science driven not development driven and it should be complete. If we don't identify and control sources of contamination prior to removing the dam, clean soil will enter the bay from the upper watershed and we'll have a larger volume of contaminated material.

I-250-3

3. The Deschutes Parkway which borders the entire western shoreline is only briefly mentioned. The roadbed liquefied in places during the Nisqually earthquake and is known to be unstable. What would

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=4&_inbox=NBOX%2FDEIS_Processed_3&_action=print&_extwin=1

1/2

I-250-1 See the Global Response for Water Quality regarding the study area for the water quality analysis. The study area for the water quality analysis includes Capitol Lake and its major inflow sources of the Deschutes River and Percival Creek, as well as West Bay and East Bay of Budd Inlet, as defined in Section 3.1 of the Water Quality Discipline Report and Section 1.4 of EIS Supporting Chapter 1.0.

I-250-2 It is acknowledged that continued contamination will occur if source control of contaminated sediments in West Bay is not implemented. Source control is expected to be a primary component of the Port of Olympia-led remediation in Budd Inlet.

Section 4.2 of the Environmental Health Discipline Report has been revised to include the following information in response to this comment.

Clean-up actions taken by the Port of Olympia from 1990 to 2008 at the Cascade Pole site included dredging approximately 40,000 cubic yards of contaminated sediments from the area to the north-northeast, placing the dredged sediments in a confined disposal facility in an adjacent upland area that is covered with pavement, and backfilling the dredge area with clean materials. Two steel sheet pile walls were installed to stop the flow of contamination into Budd Inlet. In addition, a slurry wall was installed to prevent off-site movement of contamination, and a groundwater treatment system was installed to remove some contamination.

Sediment samples were collected within and outside of the backfill area during the 2017 compliance monitoring event (Landau Associates 2017). Concentrations of PAHs and dioxins were below the project cleanup action levels in both areas, and concentrations had decreased since previous sediment monitoring events in 2002, 2007, and 2012, showing that source control actions have been effective.

I-250-3 The Hybrid and Estuary Alternatives include stabilization of the slope on Deschutes Parkway to resist erosive forces and additional pressure that would occur during tidal cycles. During the design phase, a geotechnical analysis would be conducted to determine the extent of the shoreline stabilization that would be required and whether additional or alternate measures are more appropriate/cost effective to avoid potential adverse impacts and to increase seismic resistance of Deschutes Parkway.

I-250

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: capitol lake draft eis comments

be the effect of tidal flow and flux on the Deschutes Parkway? Can the parkway survive any of the options indefinitely? Should it be elevated, eliminated or armored?

I-250-4

4. There's an artesian spring underlying the center of downtown Olympia that flows 60 gallons per minute. Artesian water contains no sediments so the primary effect is scouring. A marine chart from the 1850s shows a wedge of deep water heading from the spring to East Bay. The spring was later diverted via a storm drain to Percival Landing. A 1936 aerial photo plainly indicates that the tidal channel followed one created by artesian water, bending to the east, scouring deep water where the yacht club is located. We could utilize the effects of artesian outflow to help maintain deep water where we want it, perhaps with some minimal maintenance dredging. This possibility changes the dynamic.

If we had followed methods of scientific inquiry, this EIS would read much differently. We would have a clearer idea of what scope and parameters should be included and what advantages and disadvantages are represented in each option.

I-250-5

There is a lot of money available for the cleanup and restoration of estuaries at the federal and state level and from non-profit and private organizations. These grants are highly competitive. Budd Inlet being in such a degraded state would be an ideal candidate. To qualify the work must be comprehensive and science based. We can't propose to do half the job. Cleanup must precede restoration.

I-250-6

Natural marine ecosystems are productive, resilient and maintenance free. There's little doubt that a restored estuary is the best option. But if we aren't going to do the job right, I would vote for option number 4 the no action alternative. Those favoring the lake and those favoring the estuary agree on the basics. Bringing in outside money and doing the job right would put the debate to rest.

Harry Branch
239 Cushing St NW
Olympia WA 98502
360-943-8508

I-250-4

It is acknowledged that some water sources such as the artesian spring will have some impact on the sedimentation in the East Bay area but would not substantially change the sediment deposition due to the relatively low discharge (around 0.13 cfs). This discharge amount is multiple orders of magnitude smaller than Deschutes River (with a 1-year return period daily discharge around 2,119 cfs, per Table 2-6 of the Hydrodynamics and Sediment Transport Discipline Report) and Percival Creek discharge (with a 1-year return period daily discharge around 93.2 cfs, calculated using a scaling factor approach).

I-250-5

Based on coordination with Ecology, the Port of Olympia, and USACE, remediation of known contaminated sediment is expected to occur in the 2020s, and would occur before removal of the 5th Avenue Dam.

In summer 2022, after identification of the Estuary Alternative as the likely Preferred Alternative, Enterprise Services began researching funding opportunities for project construction. Construction funding is likely to include funds from a variety of sources, including federal, state, and potentially philanthropic.

I-250-6

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-251

COMMENT

RESPONSE

8/3/2021

Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
From: Jason Montgomery <jasonmontgomery29@gmail.com>
To: <comment@capitolakedeschutesestuaryeis.org>
Date: 2021-07-27 07:00



I-251-1

I don't see any information about cost or impact differences between the three options.

Respectfully
Jason Montgomery

I-251-1

Please see EIS Supporting Chapter 7.0 for planning-level cost estimates for the Managed Lake, Estuary, and Hybrid Alternatives. Please see EIS Supporting Chapter 4.0 for a broad range of analyses describing the potential long-term impacts and benefits of the project alternatives.

I-252

COMMENT

RESPONSE

8/3/2021

Roundcube Webmail :: Comments on Deschutes Estuary DEIS

Subject: **Comments on Deschutes Estuary DEIS**
From: John Rosenberg <rosenbergjohn@comcast.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-27 09:20



- Comment on DEIS for Deschutes Estuary.pdf(~192 KB)

Attached are my comments in PDF form.
jpr

I-252

	COMMENT	RESPONSE
<p>Comments on the Draft Environmental Impact Statement for Deschutes Estuary</p>		
<p>Using the language of the Draft Environmental impact Statement (DEIS), there are compelling reasons to choose the estuary alternative and reject the managed lake and hybrid alternatives.</p>		
<p>1. Environmental Benefits of Estuary Alternatives</p>		
<p>The environmental benefits, in addition to trapping carbon, would be substantial.</p>		
<p>I-252-1 Estuarine wetlands provide water quality, hydrologic, and habitat functions that are particular to their position in the landscape. The mixing of freshwater and saltwater in estuarine environments creates some of the most productive and valuable habitat on earth. The reestablishment of estuarine conditions by reintroducing saltwater and tidal influences to the Capitol Lake Basin would substantially improve ecological functions in the Project Area. In addition to supporting key ecological processes, estuarine conditions would provide productive habitat for shellfish, salmon, other anadromous species, and marine fish in the area, potentially including Endangered Species Act-listed Chinook salmon (non-hatchery) and steelhead trout. Shallow water habitats with salt marsh vegetation along the shoreline would provide preferred forage and rearing habitat for juvenile salmon. The freshwater aquatic plants that dominate the basin today would not persist.</p>	<p>I-252-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>	
<p>I-252-2 Removal of the dam would provide a natural freshwater to saltwater salinity gradient that is physiologically favorable to salmon and is not available under the Managed Lake Alternative. Prior to construction of the 5th Avenue Dam, salmon and other anadromous fish species spawned in the Deschutes River downstream of Tumwater Falls. (Historically, Tumwater Falls was a natural barrier to anadromous fish, meaning that there is no naturally reproducing native salmon population in the Deschutes River because migrating adults were not able to pass Tumwater Falls.) (Page 17 DEIS Executive Summary)</p>	<p>I-252-2 Comment noted.</p>	
<p>2. Benefits to Indigenous Citizens of the region</p>		
<p>Dam removal and estuary restoration are a matter of justice for the Nisqually and Squaxin Island tribes who were never consulted when the dam was built. As the DEIS clearly states,</p>		
<p>I-252-3 Tribal populations would experience disproportionately adverse impacts from the Managed Lake Alternative, raising environmental justice concerns. The Managed Lake Alternative would have a continued impact on Usual and Accustomed Fishing Grounds and Stations, and on the Deschutes Estuary, both of which have cultural, religious, and economic significance. The Managed Lake Alternative would also perpetuate historic and continued loss of tribes' and tribal members' connection to the natural environment.</p>		
<p>Removal of the 5th Avenue Dam under the Estuary Alternative (and the Hybrid Alternative, to a lesser extent) would have beneficial effects for ecological, cultural, heritage, spiritual, and educational value for tribes. Tribal populations would likely experience the beneficial effects of</p>		<p>I-252-3 Thank you for your comments. For information on how tribal values were considered in the EIS, please see the Global Response for Cultural Resources.</p>

I-252

COMMENT

RESPONSE

restoration of the Capitol Lake Basin to an estuarine system most significantly. (Page 19 DEIS Executive Summary)

3. An erroneous assumption

Based on initial recommendations from the Funding and Governance Work Group, it is assumed that the State of Washington would be responsible for the construction costs associated with any alternative. The approaches to funding long-term maintenance are expected to vary by alternative and are included. (Page 21 DEIS Executive Summary)

I-252-4

On the contrary, I think there is every reason to assume that dam removal and estuary restoration would receive federal funds. Having worked in salmon restoration efforts over the past 20 years, I regularly witness the funding of restoration efforts by various branches of the federal government. This project would be no exception. The benefits of restoration would be substantial for Olympia and Tumwater as well as the entire region.

I-252-4

In summer 2022, after the Estuary Alternative was identified as the likely Preferred Alternative, Enterprise Services began exploring opportunities for construction funding to reduce funds that would be required from the Washington State Legislature. Construction funding is likely to rely on funds from a variety of sources, including federal, state, and potentially philanthropic funds, including funding that is available for estuary restoration projects. The Final EIS has been updated as needed with the clarification that the State of Washington would be responsible for construction funding, but that funding would likely be diversified and would reduce the state contribution.

4. Benefits to Downtown Olympia

The economic analysis found that there is no clear evidence that implementing any action alternative would reduce demand for residential or commercial development in downtown Olympia. The City of Olympia's plans for the redevelopment of downtown are long-range, and investment in residential and commercial development is projected to increase in intensity over the next decade. Effects of any of the action alternatives on development in downtown Olympia would be beneficial, as long as the Preferred Alternative is implemented in a way that is both attractive and accessible. This was a key finding in a series of project-specific interviews with municipal planners, economic development officials, private developers, and real estate experts. Overall, the economic analysis concludes that economic factors other than Capitol Lake – Deschutes Estuary Long-Term Management Project would have more influence on market conditions for development. (Page 21 DEIS Executive Summary)

I-252-5

I-252-5

Comment noted. Thank you for summarizing this finding.

I-252-6

The objective of the Draft EIS and Final EIS is to provide a comparative evaluation of the different alternatives and to provide that evaluation in a context that is meaningful and understandable to a public audience. For this reason, the EIS makes comparisons using lake, river, and estuarine reference points. Note that the Estuary Alternative has been identified as the Preferred Alternative.

Please also see the Global Responses for Water Quality and for Cultural Resources.

Based on my notes from several presentations by the Department of Enterprise Services that I attended, one of the initial problems I have with the DEIS is that the document consistently refers to the Deschutes estuary as "Capitol Lake" when *it's not really a lake at all*. It's a river that's been cut off from its estuary by a plan for the capitol grounds devised by two architects (Wilder and White) in an office in New York City. The DEIS lists the dam, built in 1951, as being as much a "cultural resource" as the history of centuries of native inhabitation in this place. This is a travesty and should be corrected.

I-252-6

"Capitol Lake" is not a lake at all. By continuing to treat it as such and failing to consider it as part of the Deschutes watershed system, the DEIS has bought into the view of a minority of people in this region who want to return us to the 1960's. In the era of climate change, a managed lake would be irresponsible. The hybrid option is simply an expedient cover for a lack of leadership at the state and regional level. At some point civic leaders and politicians in this area need to develop some backbone and do the responsible thing which is to return the

Deschutes estuary to its natural function as, in the words of the DEIS "some of the most productive and valuable habitat on earth." To do any less is a betrayal of the people of this region including the tribes.

I-252-6

John Rosenberg
Tumwater, WA

I-253

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
From: Paula Holroyde <hapapafarm@gmail.com>
To: <info@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-27 18:44



To whom it may concern:

I strongly support the return and development of the Deschutes to a thriving estuary. With amazement I have watched all of the benefits to the salmon population in the Nisqually Estuary! The Deschutes Estuary could be a successful environmental and recreational destination without the dam.
Paula Holroyde
Olympia
98502

I-253-1

I-253-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-254

COMMENT

RESPONSE

I-254-1 | I am in favor of the Hybrid Alternative

I-254-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-255

COMMENT

RESPONSE

I-255-1 | Hybrid plan seems to be best solution.

I-255-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-256

COMMENT

RESPONSE

I-256-1 | I support the estuary option. I have lived near the Nisqually estuary before and after the dams and the removal of the man made dams increased the beauty and environment for the people and wildlife of the area. The hybrid and "fake lake" are no long term solution in my mind.

I-256-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-257

COMMENT

RESPONSE

I-257-1 | I believe the estuary option is the most sustainable of the three options offered.

I-257-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-258

COMMENT

RESPONSE

I-258-1 | Revert to estuary. Am old enough to remember when dam was built, and have always liked estuaries better.

I-258-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

Would like to make more comments as time goes on.

I-259

COMMENT

RESPONSE

I-259-1 | It boggles my mind that you people are concerned about the lake now. Maybe if you dealt with the homeless people dumping their trash and sewage into the lake there wouldn't be a problem? As much as I would love to see the lake restored to where it was in my childhood, it is blatantly obvious that there are much more serious issues for Olympia to deal with. On one hand, I wish I lived in that voting area, so I could help vote out everyone currently in office- on the other hand I am blessed and grateful to live well away from that area. Pull your heads out and do the right thing by your community.

I-259-1 Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-260

COMMENT

RESPONSE

I-260-1 | I have reviewed the options carefully and think the Hybrid solution would satisfy the most people and be environmentally sound and still provide for recreation.
thank you for the opportunity to comment. Karen Bray

I-260-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-261

COMMENT

RESPONSE

I-261-1 The issue isn't the lake, it's the surrounding area. Clean up the disgusting homelessness , trash, feces, and needles so we can actually enjoy the damn lake!!!! That is the priority, not snails. Pay attention to your constituents and what is really going on in your community. Rampant drug use and homelessness needs to be addressed as a first priority. Come on!!!! Even if you fix the lake, nobody can enjoy or because they have to walk through homeless camps.

I-261-1 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-262

COMMENT

RESPONSE

I-262-1 I support the Managed Lake Alternative, and I agree that the current situation is not sustainable. I've lived here since 1993 and this argument has been going on for most of the time I have been here. Not only is the Managed Lake Alternative consistent with the historical vision for Olympia and the Capitol Campus, but streets, parks and walking trails have all been designed around the North Basin being a managed lake. A managed lake is more esthetically pleasing, and given that there have been homeless communities on Deschutes Parkway in recent years, there is an added safety element. Allowing the North Basin to revert to an estuary could mean more overgrowth where people could lurk or illegally camp out. Finally having a managed lake would lesson the likelihood of foul odors, insects (like mosquitoes) and rodents. Please support Capitol Lake in the manner it should be—as a managed lake. Thank you!

I-262-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-263

COMMENT

RESPONSE

I-263-1 Please maintain the lake as a fresh water lake with increased community usability. If this idea has the least amount of support, I could also get behind the hybrid option.

I-263-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-264

COMMENT

RESPONSE

I-264-1 | As a long-time Olympia resident with some background in environmental science, I prefer either the Hybrid Alternative with saltwater basin (#1) or the Estuary option.
Many thanks for the in-depth explanatory material, and the ease of providing comment.

I-264-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-265

COMMENT

RESPONSE

I-265-1 | We need an estuary. For the health and preservation of the Sound and the river, we must get rid of the dam. We certainly have the expertise and imaginative resources to restore a functioning estuary, with sea water reaching to the old brewery as nature intended. Human interference created the sludge pond we have now. We must do our best to return it to a natural state, within the tolerance of those who wish to maintain an aesthetic. Personally, I think it's much more interesting to see the constant changing with the tide than to look at a putrid lake covered with toxic algae.

I-265-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-266

COMMENT

RESPONSE

I-266-1 | It looks like the Estuary Alternative is best. Natural Environment control is best as the lake is unusable.
Thanks bob Ramone Seeley

I-266-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-267

COMMENT

RESPONSE

I-267-1 | Allowing the estuary to return to its native state seems the most healthy and logical option. I assume it would also be the most economical, especially in terms of long-term maintenance. I favor the estuary alternative.

I-267-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-268

COMMENT

RESPONSE

I-268-1 Please seriously consider the hybrid plan. We must give natural systems space and people also need lovely places for recreation. Please find a way to deliver both.
While we don't need or want a swampy estuary breeding undesirable creatures, we also don't need to invest in maintaining a large, lifeless reflecting pool with high maintenance costs. Please find and take the middle path.

I-268-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-269

COMMENT

RESPONSE

I-269-1 Maintain it as a lake for all to enjoy

I-269-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-270

COMMENT

RESPONSE

I-270-1 The lake was part of the original state capitol design. the lake is very much part of what makes the capitol city beautiful.. Wife and I have enjoyed walking around the lake for the past forty some years we have lived in Olympia. The lake is very poorly managed; e.g. every June the lake should be drained, kills the algae, then about July 1, raise the dam and fill the lake for Lakefair. Don't dredge the lake, too costly. Drain the lake and excavate, the silt would be welcome by farmers for the rich, fertile soil. Dump the silt on state-owned forested areas . The snails will die without moisture.

I-270-1 This response acknowledges the commenter's position. This comment is a statement and does not affect the environmental analysis in the EIS

I-271

COMMENT

RESPONSE

I-271-1 This seems like a good solution to a long-standing dilemma of how best to protect the health of the river/estuary and meet some desires of the community for recreation. While some will be disappointed at the smaller sized lake, it will be wonderful to have a clean body of water for swimming. Balancing the competing needs is not easy, and this proposal appears to do that nicely.

I-271-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-272

COMMENT

RESPONSE

Please keep the reflecting pond/pool as it is today (or something very close to what we have today). I think that is the heart and image that we the Olympia residents think of when we visualize the City of Olympia. It has been a part of our city for many years and it is beautiful. Keep it.

I-272-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-272-1

I don't care about the rest of area covered by the plan. Do what makes best sense and costs the least amount in the long term.

Just keep the reflecting pool.

I-273

COMMENT

RESPONSE

July 24, 2021

Capitol Lake Options,

I am fortunate to live within easy walking distance to Capitol Lake. I use the trail around the lake nearly every week for pleasure and exercise. I would prefer either Option One or Two. The view of clear, sparkling water is important to me. I would also greatly appreciate and use the new trail proposal on the Tumwater end of the lake. I agree that this is a resource shared by the entire community as well as visitors. I feel that the two options that do not include an estuary are the best for everyone. If you need me to clarify or provide more detail, please contact me key phone 360 943 8521 or email gawben@gmail.com.

Sincerely,



Gayle Newsom

I-273-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-273-1

I-274

	COMMENT	RESPONSE
I-274-1	<p>Unless I missed these things, I didn't see much concern about:</p> <ol style="list-style-type: none"> 1. Global Warming (climate change) and the increased water level. Cost of raising the dam and spillway though mentioned it seemed thinking was of the same level as now. 2. Earth Quakes, damage to hill sides or lowering of ground near the park. 	I-274-1 As described in the Draft EIS and Final EIS, the numerical model that was used to illustrate water levels used historical and current bathymetry (underwater topography) data; streamflow, tide, weather, and stream measurements both upstream and downstream of the dam; historical records of dam operations; flooding and climate change projections related to sea level rise; and sediment measurements. See Sections 3.1 and 4.1 of EIS Supporting Chapters 3.0 and 4.0 for more information.
I-274-2	<ol style="list-style-type: none"> 3. Tsunami risk. All could be for naught if buildings, etc. moved up the stream and wiped out everything under the level the scientist are predicting. . 	I-274-2 As described in EIS Supporting Chapter 1.0, Section 1.11, seismic and geotechnical hazards (including ground shaking, liquefaction, landslides, and other hazards) are present throughout the area; however, impacts under all action alternatives would be less than significant with regulatory compliance, and with implementation of industry standards, geotechnical recommendations, and best management practices (BMPs).
I-274-3	<ol style="list-style-type: none"> 4. Opening the lake to empty would raise the silt level in the port and require even more dredging. 	
I-274-4	<ol style="list-style-type: none"> 5. The smell for digging this up and making "islands". The city would have the worse PR than if we had a pulp mill! <p>If I am wrong, and I missed these points, I apologize. This message is not to be negative, but stuff happens and needs discussion.</p> <p>Thank You.</p>	<p>I-274-3 This comment correctly describes the increased sediment deposition that would occur in West Bay under the Estuary and Hybrid Alternatives. Please see the Navigation Discipline Report provided as Attachment 6 of the Final EIS for a detailed analysis of the increased sediment deposition, potential impacts to the private marinas and Port of Olympia, and the proposed approach to avoiding significant impacts.</p> <p>I-274-4 Please see the Global Response for Air Quality & Odor.</p>

I-275

	COMMENT	RESPONSE
I-275-1	<p>Due to the declining bird population over the last ten years, my suggestion is to create the estuary plan, but make it also a migratory bird sanctuary, and salmon friendly. It will still need dredging periodically, but with DNR supervision.</p> <p>I hope whatever course the Washington legislature pursues, the main concern will be for wildlife preservation.</p> <p>Thanks for this opportunity to comment.</p>	<p>I-275-1 The Draft EIS and Final EIS evaluate long-term management alternatives that were developed to meet project goals. The alternatives incorporate several components put forward in comments received during EIS scoping that were found to have regulatory and technical feasibility.</p> <p>Following the EIS evaluation, and in consideration of other factors important to decision-making (see Attachment 21), Enterprise Services has identified the Estuary Alternative as the Preferred Alternative.</p> <p>The Washington State Department of Fish and Wildlife, the state agency with authority to designate habitat areas, could consider special designation of the Estuary Alternative in the future. Related to this, the Estuary Alternative would include dredging, but that dredging would occur in deep waters of West Bay used for navigation, rather than in the tidal flats that would be restored during project construction.</p>

I-276

COMMENT

RESPONSE

I-276-1 After listening to more knowledgeable speakers tonight it seems as if this project has not been thoroughly researched, nor investigated and looks more like a solution looking for a problem. As someone concerned about homeless issues, which happen to exist right on the very banks of this "pond", I have to wonder & agree with Mr Threatt that everyone continues to ignore the elephant in the room. Much easier to fix than a fresh water/salt water lake/estuary/pond. Any government that Allows-Forces actually since they have no options, its citizens to live on the streets, fails to provide assistance needed to bring them back to functional society. should be ashamed & embarrassed to bring multi-million \$ projects ahead of such projects. It's no secret that what's needed are local drug rehab clinics, mental health clinics and transitional, or permanent housing. It starts to look like "hand washing" when obvious projects like addressing homeless issues (ignored for decades & only getting worse) are being overshadowed by unnecessary, ill-advised lake building. For that, and the more specific & informed issues raised in the open forum I'm opposed to this project.

I-276-1 Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-277

COMMENT

RESPONSE

I-277-1 I believe that the area should return to it's natural state as an estuary. This would require the least amount of future upkeep and would provide a beautiful and necessary habitat for wildlife, all while honoring our native peoples and their cultural connection to the area as an estuary.

I-277-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-278

COMMENT

RESPONSE

I-278-1 A reflecting pond was an idealistic desire, but what a problem it created. Now, no good choices and we certainly have spent too much money studying it without action. There seems to be one choice that was not explored, and that is to create a true river all the way to Budd Inlet. Fill everything behind the defined river course and create a great park space for everyone to use. What a great place for Lakefair that would be. And what are the maintenance cost? Well, you would have to mow the grass. And, there would be the occasional flooding from a King tide or from exceptional river flow. An adequate dike that would be reasonable for any river should be adequate until global warming causes much more than just the lake study area be under water at high tide.

I-278-1 The Draft EIS and Final EIS evaluate long-term management alternatives that were developed to meet project goals. The alternatives incorporate several components put forward in comments received during EIS scoping that were found to have regulatory and technical feasibility. The alternative suggested in this comment has been considered, but would not achieve project goals at a lower environmental cost as directed under SEPA rules (WAC 197-11-440). Additionally, this concept was considered but eliminated during the process used to optimize alternatives as described in Attachment 19: Concepts Screened through the Measurable Evaluation Process.

I-279

COMMENT

RESPONSE

I-279-1 I strongly urge that we remove the damn and let the river return to its natural state as an estuary. The source of most all of the problems involving the lake are due to it being false and unnatural. Let nature return to its natural healthy state. If this results in the waters surrounding the Port not being deep enough then so be it. I don't understand why we need to support deepwater shipping anymore. We aren't a resource-based economy like we were half a century ago. Nor do I believe it's important to commit to expensive dredging to keep the water deep enough for a few boat owners to store their crafts in unsightly sheds at the yacht club. It's time to rethink the whole interface between downtown and our waterfront.

I-279-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-280

COMMENT

RESPONSE

I-280-1 I strongly support the Estuary option for the remediation of Capitol Lake and associated waters. Returning the area to a more natural condition is good environmental practice.

I-280-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-281

COMMENT

RESPONSE

I-281-1 I would like the lake to be returned to an estuary. While at low tides it will look like a mud flat in some ways, the rest of the time it will look much like a lake, but requiring much less maintenance and allow better passage for whatever fish and other wildlife might use it for passage up or down stream.

I-281-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-282

COMMENT

RESPONSE

I-282-1 I am in support of restoring the natural estuary as a way to help recover and maintain the health of Puget Sound; nurture the return and/or survival of native species; and serve as a reminder to the urban community of our deep connection with the natural world we live in.

I-282-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-283

COMMENT

RESPONSE

I-283-1 I am greatly in favor of the 'Estuary Alternative'. Removing the dam is keen to returning our environment closer to natural and reducing the problems that have ensued since the dam construction. It is the best alternative currently suggested. Please endorse this plan for me.
Thanks, John

I-283-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-284

COMMENT

RESPONSE

8/3/2021

Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
From: <dhlughans@aol.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-07-29 12:24



I-284-1

I strongly support the estuary option. It is, in my opinion, the best ecological approach as well as the most practical financially.

Denis H Langhans
2908 Country Club Rd NW
Olympia, WA 98502

I-284-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-285

COMMENT

RESPONSE

I-285-1

To whom it May Concern,
I am very impressed with the work & research that went into the DEIS
It seems critical that the Estuary be restored. This would help eliminate the invasive species & make the entire area healthier for the birds, fish and humans to use. It is less expensive than the alternative & still allows for reflection pond. Thank you.
Karen Merrill

I-285-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-286

COMMENT

RESPONSE

I-286-1

About the lake/estuary,
Making the river ready for an estuary will cost millions that are needed elsewhere. An estuary is a want, not a need.
It will require tearing down the new bridge and then building a new one with supports that can withstand the ebb and flow of the tides.
The construction of the bridge would mean cutting off traffic during construction to/from the West side which will harm the business economy.

I-286-2

An estuary would create an unsightly mudflat which would make the entire area, and more importantly, the downtown shopping and dining area - stink. Our family has lived on Water Street, overlooking this water since 1978. We remember when the tide was out that it smelled of rot and that only a small channel of water passed from the Deschutes River into the bay, I mean small!
It is debatable whether an estuary would meaningfully increase the salmon run. The water coming down the Deschutes from Mt. Rainier is often like a small creek. Mud and debris from the river and trash from people traveling past the area, will add to the messy tangle of things needed to be cleaned up regularly by city crews.
Containing the mud snail must also be a priority.
The lake enhances Olympia. People enjoy walking the length of the parkway. The lake is often featured for its beauty by tv news channels covering Olympia, tourism brochure photos show the beauty of the lake when showcasing the State Capitol.
A lake will allow tourists and local families a place to spend leisure time and shop in the nearby area. Do you really think people will move into upscale condos and apartments if the site and smell distract from their home?
Property prices will go down.
To really find out what the majority wants, put it to a straight up vote!
Mike and Linda Sullivan with first hand knowledge of what it was like before the lake.

Mike and Linda Sullivan

10/03/2021 10:46:00 AM

- I-286-1 Comment noted. See Final EIS Supporting Chapter 2.0 for an updated description of the Estuary and Hybrid Alternatives, which includes a new design for the 5th Avenue Bridge that avoids a long-term closure during construction. See also the Global Response for the Preferred Alternative Identification Process.
- I-286-2 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-287

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: Budd Bay Estuary Restoration Comment

Subject: **Budd Bay Estuary Restoration Comment**
 From: Kathryn Townsend <kath.townsend@gmail.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Cc: <patrick.townsend@townsendsecurity.com>
 Date: 2021-07-29 08:55



Hello,

We strongly encourage you to re-establish the Budd Bay estuary. A natural system is not only best for the planet, Puget Sound and all the critters who thrive in an estuary environment, but also best for educational purposes--the simple and profound lessons of mother nature. We live on a muddy/sandy estuary out here in Boston Harbor and it is a wondrous thing. Every day, we are reminded of the rhythms of the waters and the days, the tides that vary based on the moon. So many do not understand these tides--that they are lowest and highest during the summer days and winter nights, that they vary daily by a particular amount of time, that they change from winter to summer just as the solstice changes. The children of Olympia deserve an estuary and to live daily with this tidal system and know it by watching and seeing how the tides change--not just from a book. We hope the parks in the estuary plan include beaches for children.

There is no point in going half-way! Please restore the Budd Bay estuary from Capitol Lake.

Kathryn and Patrick Townsend
Boston Harbor

I-287-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-287-1


I-288

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Stacie Lerchie <ronnamercury@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-07-29 04:48



Please accept this as my submission and vote for the Estuary/Tidal flat option for the future plans for Capitol Lake Olympia WA.

Thank you,
 Stacie Lerch
 2009 8th Ct SW, Olympia, WA 98502

I-288-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-288-1

I-289

COMMENT

RESPONSE

I agree with many commentators who said:

This EIS does not accurately reflect a basic scientific foundation in regards to an understanding of water ecology, nor a grasp of the importance of, or impacts on, both river and marine ecology.

The State of Washington ought not be in the business of preserving an orientation to Capitol Lake which is based in settler/invader history and continues the lie that white people have a right to fashion the land in, literally, their image.

I-289-1

If it were possible, which I believe evidence has been given that shows that it is not, to have a hybrid solution, I might agree with one commentator who suggested that 85% restoration was better than none.

BUT since it is clear that the hybrid solution is doomed to the realities of biology and the clear climate trajectory of our region, please do not make the mistake of applying a badly made bandage to a festering wound. Support a realistic and swift restoration to a natural estuary for what we have been calling Capitol Lake.

Sincerely,

Valerie Krull

1627 Dickinson Ave NW

Olympia WA 98502

I-289-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-290

COMMENT

RESPONSE

I-290-1 This has been an issue for a long time and each time it comes up NOTHING is done. I would like the lake be cleaned up and useable to the citizens for swimming and boating.
I-290-1 FIRST, the homeless camp across the street from the lake needs to go away. The RAT problem is only getting worse.
Citizens do NOT feel safe being down there.
Quit spending money on studies and get something done!!!!!!

I-290-1 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-291

COMMENT

RESPONSE

I-291-1 While turning it back into a natural fresh/salt water estuary may be the most ecological solution, it is only fair if the proponents of that solution explain/admit that when the tide is out, there will be a mud flat and all the associated smells, and temptations to walk into it that go along with it. The photo of course shows what it would look like when the tide is in. There should be a photo of what it would look like when the tide is out and the garbage that everyone will throw into it will look like.

I-291-1 Comment noted. Low and high tide simulations were included in Draft EIS Supporting Chapter 4.0, Section 4.10 and in the Visual Resources Discipline Report (Attachment 14). Low tide simulations have been added to the Final EIS Summary.
Please refer to Final EIS Supporting Chapter 4.0, Section 4.7, for a summary of the Air Quality & Odor analysis, which concluded that any increase in odors under the Estuary and Hybrid Alternatives, even though naturally occurring from tideflats, may be considered a significant impact by a portion of the population with low tolerance for odor. For other portions of the population, naturally occurring odor from tideflats may not be objectionable, as is evidenced by the vibrant waterfront community along West Bay where tide flats are also exposed daily.

I-292

COMMENT

RESPONSE

I-292-1 The North & Middle Basin need to be drained. It smells really bad in that area.

I-292-1 This response acknowledges the commenter’s position. The comment does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS. See EIS Supporting Chapter 3.0, Section 3.7.1, for a discussion of the existing odor conditions in the Project Area.

I-293

COMMENT

RESPONSE

I-293-1 | I favor the estuary option. It's less expensive, now and forever, and will not look bad at all. Estuaries are interesting.
David Bellefeuille-Rice

I-293-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-294

COMMENT

RESPONSE

I-294-1 | I support an honest study of the DELI plan. I think it gives us a chance to gain a place for swimming and recreation. Regaining a functioning estuary also offers us a chance to improve our local salmonid fisheries. Native salmon need all the help we can give them. Let's face it, the mud snails have won. There is no way to regain the lake as it was. The DELI will be a win/win for our economy. Recreation brings in money to local businesses. I think we all like that. Continuing the endless committees and "planning" is getting us nowhere. Let's have a compromise. Keeping Capitol Lake as a pretty thing to look at, but you musn't ever touch is ridiculous.

I-294-1 | Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-295

COMMENT

RESPONSE

I-295-1 | Been here all my life, retired state employee. 6 years at Enterprise Services. I'd prefer to see a combination of both a managed lake and hybrid alternative. The lake was designed as it is to be a visually appealing adjunct to the Capital Campus. and for that reason should remain as such. I believe the hybrid alternative would support this criterion as well.
The las thing downtown needs is a mud filled, mosquito infested estuary that plagued the citizens prior to the lakes construction.
Just my two cents....

I-295-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-296

	COMMENT	RESPONSE
I-296-1	<p>The EIS document said the water quality in the North Basin is actually pretty good. It would help me to understand the value of the different alternatives if I understood the conditions this summer that led to lots of dead small silver fish.</p>	I-296-1 It is likely that you observed an annual die-off of minnow-sized stickleback. This type of mortality, which particularly effects male fish naturally occurs following spawning activities of the species in the spring of the year. The life span of many sticklebacks is only a single year.
I-296-2	<p>I notice lots of garbage ends up in Capitol Lake. If the estuary alternative is selected, which is my favorite, will garbage be revealed each low tide? And if so, what is the plan for managing that?</p> <p>Thank you.</p>	I-296-2 Enterprise Services actively manages trash in and around the lake. Active management will continue under any future management option.

I-297

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Sharon FASNACHT <fasnacht@comcast.net>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-30 12:33
 Priority: Normal



Reps. Baleman & Dolan,
 Thank you so much for all your work related to the future of Capitol Lake! My husband, Gary Fasnacht, and I have enjoyed the Lake since moving here in 1983, and have considered the Lake & its parks & walks, integral to our 77 yr. old physical and mental health.

We would like to see "a" Capitol Lake survive, but with as much respect for Mother Nature's input as possible. We looked for a "compromise" that would honor Her, and allow we humans to preserve our Capitol Lake.

Both of us have read most of the material you've made available and, after consulting with each other, are speaking in support of the HYBRID ALTERNATIVE, which:

1. Removes the Dam.
2. Creates an Estuary.
3. Creates a "lake".
4. Supports redesign of local roads and bridges.

1. It removes the dam, allowing the natural, and original, "exchange" between the salt water and the river water.

2. A natural "Estuary", destroyed when the dam was constructed, would be re-established. We are honoring what is natural, which will benefit us for centuries to come.

3. A "LAKE" is established that will be fed by both river water and salt water, which is a more "nature" lake. And yes, that requires a barrier be constructed that will contain the lake, but will also permit the exchange of sea/salt water and river water within the lake. Again, we honor Mother Nature.

4. And, the planned changes to 4th Ave. and 5th Ave. make all the sense in today's world.

With appreciation for all your work!

Sharon & Gary Fasnacht
 4006 113th Ave. S.W.
 Olympia, WA. 98512
 (360) 753 8009
fasnacht@comcast.net

- I-297-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
- I-297-2 This comment is a statement and does not affect the environmental analysis in the Draft EIS. Please also see the Global Response for Transportation.

I-297-1

I-297-2

I-298

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail : Draft EIS Comment

Subject: **Draft EIS Comment**
 From: joyandjerry <joyandjerry@comcast.net>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-07-30 14:22
 Priority: Normal



I-298-1

Managed Lake
 Sent from [Mail](#) for Windows 10

I-298-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-299

COMMENT

RESPONSE

I-299-1

I support keeping Capitol Lake as a scenic place for all people and as a something to support wildlife and marine animals.

I-299-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-300

COMMENT

RESPONSE

I-300-1

Please restore the area to the estuary it is supposed to be. Capitol Lake has been a cesspool my entire life and is causing more problems than it is worth. I have lived above the "lake" for over 40 years. My favorite time for the "lake" was after the earthquake in 2001. Due to construction to repair the road and bridge, Capitol Lake was kept low and it was fascinating seeing what grasses a wildlife moved in during that time. Restoring the estuary would help provide an additional filter for pollutants entering the southern end of Puget Sound. The early 20th century vision for Capitol Lake was for it to be a reflecting pool for the dome. The 21st century ideal should be a return to a natural process which an estuary would provide.

I-300-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-301

COMMENT

RESPONSE

Re: Preferred Option: Estuary Alternative

Hello,

I am writing to you in support of the Estuary Alternative option. I believe the estuary alternative is the best option for several reasons, which includes the following points:

1. It will restore habitat and have long lasting ecological benefits.
2. It is a cost effective option compared to the other two.
3. It will improve water quality.
4. It will help to eliminate invasive species.

It is time to restore the river to it's natural state. Please remove the dam and let the system heal itself.

Best,

Valerie Lange

I-301-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-301-1

I-302

COMMENT

RESPONSE

8/3/2021

Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
 From: Alex Kistler <alexkistler@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-01 08:49



I vote for either the estuary or hybrid models. The current lake while scenic has big problems with water quality and invasive species that can not be easily mitigated. Returning to a more natural estuary seems like the best choice to me.

Sincerely,
 Alex Kistler

I-302-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-302-1

I-303

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: Capitol Lake Options

Subject: **Capital Lake Options**
 From: <jaypaulson@wespeakmedicare.org>
 To: comment@capitollakedeschutesestuaryeis.org
 <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-01 15:15



I-303-1 | Hello, I am stating my support for returning the Capitol lake area to an estuary. Studies have shown just how important estuaries are for searun fish species.

Thank you,
 Jay Paulson

Get [Outlook for Android](#)

I-303-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-304

COMMENT

RESPONSE

8/3/2021 Roundcube Webmail :: Capitol Lake Comments

Subject: **Capitol Lake Comments**
 From: Valerie Estes <val.e@att.net>
 To: <info@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-01 10:55



I-304-1 | Of course I would love to see the managed lake option to bring back the lake to what it was when I was a kid. Many good memories were made swimming and boating in the lake, and the ski competition and boat races during Lakefair. Our kids and future generations should have those same experiences. But I do understand this option will cost the most money so, with reluctance, I would vote for the hybrid alternative.

Valerie Estes

I-304-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-305

COMMENT

RESPONSE

I-305-1 | please return the area to an estuary.

I-305-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-306

COMMENT

RESPONSE

I-306-1 I was raised here but spent 27 years in the Bay Area and am back and I would love to see a return to estuary, which is best for everyone and the planet. Places that have been returned to the estuaries they once were help cleanse the planet and provide homes for many species. Capitol Lake is a dead, embarrassing legacy of a mentality that believes unnatural changes to our environment are pleasant to the eye. Too many bad effects from these kind of choices. Our Capitol city deserves better, we deserve better and the planet deserves better.

I-306-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-307

COMMENT

RESPONSE

I-307-1 The area should be returned to an estuary equivalent to reestablish the ecosystem services that the creation of the lake eliminated. The need for a reflecting pool is a man-made construct that does not benefit the elimination of invasive species or enhances biodiversity.

If one considers the work done with Nisqually as a guide, the Deschutes would best benefit from the total removal of the dam & allow for unhindered intertidal flow.

Thank you for considering my opinion.
Alicia Boisvert

Olympian, mother, science teacher

I-307-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-308

COMMENT

RESPONSE

I-308-1 | My first preference would be the full estuary restoration option,. The second choice would be for the hybrid option.

I-308-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-309

COMMENT

RESPONSE

I-309-1 | I will love to see the hybrid model. Having a vibrant capital lake for the community with exercise would be a significant positive impact. Including a white water surfing wave in the Plan like Reno or Bend would be a great plus as well.

I-309-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-310

COMMENT

RESPONSE

I-310-1 | I'll keep this comment short and sweet. I think the hybrid alternative would be the best overall. It would maintain a small lake to serve as a reflecting pool for our state capitol building, as originally intended, while restoring the majority of the area to an estuary which would be better for the environment overall.

I-310-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-311

COMMENT

RESPONSE

I-311-1

I write in strong support of the estuary option for the future of Capitol Lake. I moved to Olympia in 2017, and it is clear that the dam, the current lake, and the current landscape is not environmentally sustainable. In contrast, the estuary created at the Nisqually Wildlife preserve has been a huge success, both for the community and for the environment. The EIS report makes clear that only an estuary—not the managed lake or the hybrid alternative—would reduce adverse impacts on tribal communities that the current degradation of the environment has created. It is also clear that only the estuary—neither the managed lake nor the hybrid model—will have actual beneficial impacts to the ecology and wildlife of the region. I am certain that only the estuary (and neither of the alternatives) will improve not only the quality of my physical life as a resident of Olympia—healthier waterways, greater ecological resilience, better impacts on climate—but also my positive sense of living in a town that has not only physical beauty but strong community values. I thus strongly urge the adoption of the plan to restore the estuary.

I-311-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-312

COMMENT

RESPONSE

8/5/2021 Roundcube Webmail :: Remove dam; restore estuary

Subject: **Remove dam; restore estuary**
 From: Phyllis Farrell <phyllisfarrell681@hotmail.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-02 11:17



Greetings, thank you for the opportunity to comment on this important issue.

The most environmentally and fiscally responsible alternative is to **remove the dam and restore the estuary**. Budd Bay and south Puget Sound water quality issues depend on a free-flowing river.

Salmon recovery efforts require estuaries for juvenile salmon. The success of the Nisqually River estuary restoration illustrates the benefits of habitat for Nisqually River and other watershed salmon populations. Every effort should be made to provide more habitat for south Puget Sound juvenile salmon and forage fish.

Estuaries are carbon sinks. Given climate change effects, every effort should be made to achieve the sequestration benefits of restoring the estuary.

Respectfully,

Phyllis Farrell

I-312-1

I-312-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-313

COMMENT

RESPONSE

7/29/21

Ty Karney
413 Sawyer ST NE
Olympia, WA 98506

WA State Dept Enterprise Services
Capitol Lake EIS Study
PO Box 41476
Olympia, WA 98504-1476

Subject: My view on the proposed plan — 1st choice - Managed Lake Option.

I-313-1 Born in Old St Peters (1962) just on the hill above the lake and growing up a few blocks away, Capitol Lake has always been and should be a lake. Enclosed is a picture of small outboard race boats that were invited to race during Lakefair. (pic 1961) They raced from about 1958 until 2009. This is my culture and heritage. Need to keep the lake a lake.

I-313-2 Look, if you are not from around here, in the 70's all three water basins had boat racing on them. Outboards on the North lake, skiing and drag boats on the South Lake and R/C boats in the Percival creek fish pond during Lakefair. It was hard to decide which was more fun to watch.

I-313-3 O.K. times have changed, the North Lake should be used for stand up paddle boards, and kayaks need to be allowed to paddle up to Tumwater falls. Once a year the outboards should be invited to race again.

I-313-3 Killing the mudsnails is so easy — no one wants to do it. Burn them with propane brush burners. Lower the lake enough to expose them and work your way around. Leave the lake level down a bit and let them bake in the summer sun. Then saltwater flush and repeat as needed. Fire is nature's way. Dept. of Ecology can go read a book.

I-313-4 Enclosed is couple of lake maps that prioritize trapping the sediment in the South end preserving the North Lake and Port shipping basin operations. More than anything else you need to build a new restroom at Legion and Water. Provide a West facing covered area for weddings and a storage room for 100 chairs. Include additional changing rooms for the wedding party.

Sincerely,
Ty Karney 

Youtube: slowstartfast channel 1999 racing

Hydros On The Lake Outboard Racing
<https://www.youtube.com/watch?v=bkJdQqvXufY>

I-313-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-313-2 Comment noted. Although the project goals are to support non-motorized boating access, other specific uses and management could be considered in the future. Note that in Olympia, Shoreline Management Plan (SMP) policies for the Waterfront Recreation Environment support low-intensity and non-motorized boating (Policy 2.8.B).

I-313-3 Management approaches are described in Section 4.2.1.1 of the Aquatic Invasive Species (AIS) discipline report, and it is acknowledged that freezing, heat and desiccation, saltwater backflush, depth and water temperature, presence of structures, substrate grain size, calcium concentration and water hardness, and introduced chemical agents are potential management approaches that could be used to control for New Zealand mudsnail density and distribution. A range of management approaches, potentially including burning exposed New Zealand mudsnail, could be considered as part of a future AIS Adaptive Management Plan. Despite these approaches, New Zealand mudsnails are incredibly resilient to extreme stress and can repopulate from a single individual making complete eradication extremely difficult, if not impossible. For example, some mudsnails may survive brush burning if a small area is missed in the burning or they are buried deep in the sediment by walking across the exposed soft sediments. Also, some organisms may be present in the residual waters left in the lake after it is lowered, under thick mats of submersed plants, or among emergent plants growing along the shoreline. Saltwater backflush is not likely to kill every organism because it is likely that some organisms will be in freshwater inputs from the Deschutes River, Percival Creek, and storm drains that will provide sufficient freshwater flow to minimize exposure to saline waters.

I-313-4 Annual sediment monitoring and maintenance dredging is proposed to avoid significant impacts to navigational uses in West Bay. See Final EIS Supporting Chapter 4.0, Section 4.2, for additional information. Please also see the Hydrodynamics and Sediment Transport Discipline Report, provided as Attachment 5, for additional information on potential mitigation measures that were evaluated and eliminated from further review, such as a settling trap in the Capitol Lake basin.

The other improvements recommended in this comment are not related to long-term management of the Capitol Lake - Deschutes Estuary, and have not been included in any alternative because they would not help to achieve project goals.

I-313

COMMENT

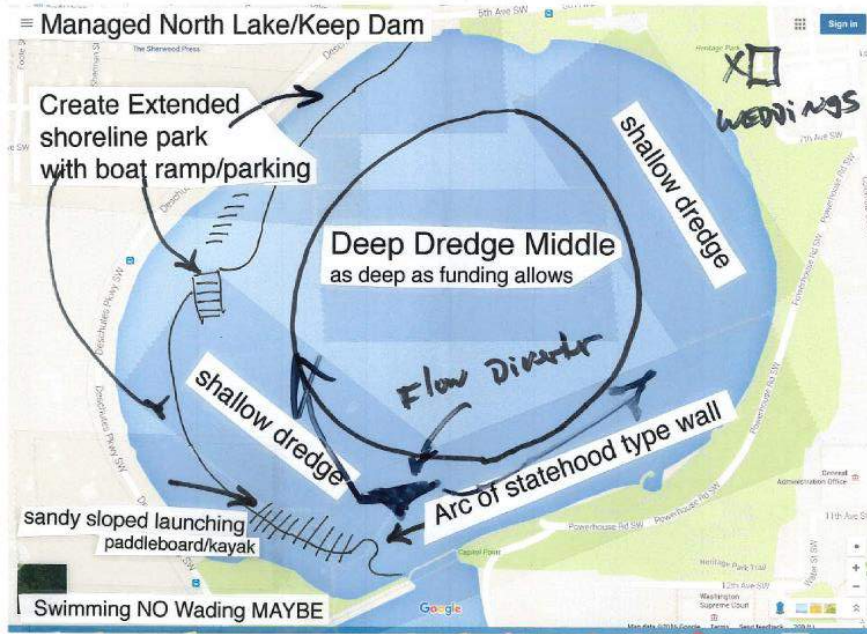
RESPONSE



I-313

COMMENT

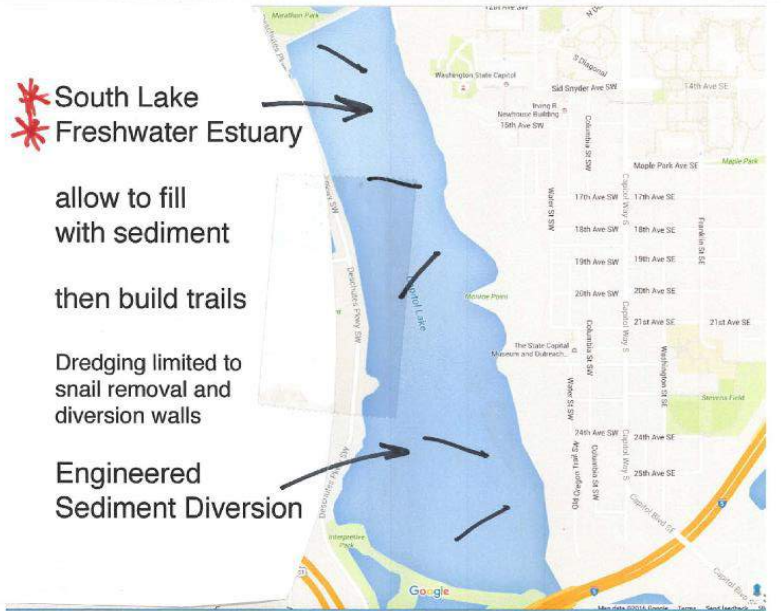
RESPONSE



I-313

COMMENT

RESPONSE



I-314

COMMENT

RESPONSE

8/9/2021 Roundcube Webmail :: EIS comment

Subject: **EIS comment**
 From: WILSON HANCOCK <24marymac@comcast.net>
 To: <info@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-02 18:35
 Priority: Normal



I-314-3

Back at the beginning of the 21st Century the Washington Department of General Administration, having failed in their duty to properly maintain Capital Lake, created the CLAMP (Capital Lake Adaptive Management Plan) committee. After spending well over a million tax dollars on "studies", it was observed that three things could be done about Capital Lake. They are essentially the same things covered in the present EIS except that they didn't formalize the current "Do Nothing" option. After buying all these studies, they did nothing about the worsening condition of the Lake. However they had spent a huge amount of tax money to create a "scientific" web of possible Lake solutions. And until those "possible solutions" got resolved the Department of General Administration just walked away from any maintenance work on the Lake at all. They subsequently changed the name of the department and here we have the rebranded Department of Enterprise Services continuing to spend tax money on studies which incredibly duplicate the studies that have already been done. No decisions have been made, No maintenance dredging of the Lake has been done. The can has just been kicked down the road in classic and very disappointing style.

I-314-1

My comment is about dredging. The unchanging reality that must be dealt with is that the Deschutes River will continue to deliver an annual silt load to it's mouth where it will be deposited right in the heart of the City of Olympia's marine waters. It will *never* stop. The original North Capital Lake at a depth of some 60' was expected to collect that sediment for several years after which the Department of General Administration was charged with maintenance dredging. They failed and here we are today. My only concern is the fate of the 5th Avenue Dam. And I'm concerned because very little is said about the sedimentation that will occur in the first 3 years after the Dam is removed. Here's the only comment I could find in the current EIS that deals with this issue:
 "To avoid or minimize impacts to navigation in West Bay, both alternatives (Estuary and Hybrid) would include an adaptable long-term maintenance dredging plan (part of the alternative), with the frequency of dredging established by a sediment monitoring plan (mitigation measure). Impacts to navigation are considered *significant*, but could be reduced to less than significant, *if consistent funding is available* for the long-term maintenance dredging program." (italics are mine)

I-314-2

The EIS makes the correct observation that during the first 3 years after Dam removal between 200% to more than 300% of the silt will flush up onto the east shore of lower Budd Inlet. It will silt in The Olympia Yacht Club, the entire costly and delightful infrastructure we call Percival Landing, the Mom and Pop marinas south of the Port and to a somewhat lesser extent the Port of Olympia's marine turning basin. The EIS does NOT mention the actual cost of such dredging and that huge cost underpins my comment. Normal dredging involves sucking up the sediment and depositing it in a very deep part of Puget sound near Ketron Island. That sensible option is no longer available. There is a group in Olympia who has gone to court and succeeded in forcing the Port of Olympia to take the dredging spoils that are generated by maintaining their turning basin and haul them away by truck, one truck load at a time. The group bases their objection to normal spoils removal by claiming that lower Budd Inlet spoils contain diazinon (a naturally occurring toxin) and that to re-distribute it to other parts of the Sound violates the law. So the current EIS observes that navigation in southern Budd Inlet could be maintained "if consistent funding is available" for long term maintenance dredging. *Nobody* has calculated what such funding would amount to when dredging spoils must be *trucked* away. It's hugely more expensive than "normal" dredging. And ... it's ongoing, year after year after year. In my view the answer is clear and obvious. If you remove the 5th Avenue Dam, in very short order it spells the *end* of the Yacht Club, the small private marinas and much more significantly Percival Landing because the hit on The City of Olympia's budget will never sustain the cost of long-term maintenance dredging of lower Budd Inlet. Don't do it! Don't remove the 5th Avenue Dam.

Regards,

Wilson Hancock
 4632 Bush Mtn. Dr. SW
 Tumwater, WA 98512

I-314-3 This comment is a statement and does not affect the environmental analysis in the Draft EIS. See also the Global Response for the Preferred Alternative Identification Process.

I-314-1 As described in EIS Supporting Chapter 2.0, Section 2.3.1.1, both the Estuary and Hybrid Alternatives would include initial dredging in the Middle and North Basins to minimize the amount of sediment that would otherwise be transported into West Bay after the 5th Avenue Dam is removed. See also EIS Supporting Chapter 4.0, Section 4.2.5.2, for more information.

I-314-2 Please refer to EIS Supporting Chapter 7.0, which includes cost estimates for in-water and upland disposal of dredged sediment for each action alternative. Both in-water and upland disposal options were estimated given the inherent uncertainty in the quality of dredged sediment, and whether state standards can be achieved for a determination of suitability for in-water disposal. Chapter 7.0 also describes an agreement that has been developed with the Funding and Governance Work Group for shared funding to dredge the increased sediment in West Bay under the Estuary Alternative, in order to avoid significant impacts to the private marinas and the Port of Olympia. The agreement duration is expected through 2050, with opportunity for extension.

I-315

COMMENT

RESPONSE

I-315-1 | I agree with the state wide Fish Passage Barrier Removal strategy that emphasizes the need to restore passages by removing large and more complex barrier structures like dams. ESA-listed salmon and steelhead restoration of ocean and freshwater conditions. These factors are in addition to the existing and potential connectivity (barrier-free areas) of the system. It is worth defining what is meant by habitat quality, quantity, and connectivity in relation to fish passage restoration for ESA-listed salmon and steelhead.

I-315-1 | The analysis of fish impacts and benefits considered expected changes in habitat condition, extent, and availability, as described in Section 3.3 of the Fish and Wildlife Discipline Report (Attachment 9). For fish, the analysis considered changes in wetted area, bathymetry, salinity, tidal inundation, freshwater inputs, migratory conditions, water quality, and sediment distribution.

I-316

COMMENT

RESPONSE

I-316-1 | I very strongly urge that Capitol Lake be maintained as it currently is. It is an iconic part of our landscape and an important natural area in our city. I used to work near the lake and even when I worked on the Capitol Campus, I almost every day ran around the lake or at least part way around. The lake, as it is, is a very important part of our Capitol City landscape. Turning the lake into a tidal river would destroy that landscape. I am very environmentally focused but in this case we have made an environment change that if reversed would be very detrimental to our city landscape. Please keep our Capitol Lake .

I-316-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-317

COMMENT

RESPONSE

I-317-1 | Please remove the dam and reopen the estuary.

I-317-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-318

COMMENT

RESPONSE

I-318-1 | One of the reasons we moved to Olympia 26 years ago was its inherent beauty. We were awe struck by the splendor of the reflection of the capitol building on the lake.
Please keep the lake as is and maintain it!
Sincerely,
Michael K Thompson, MD

I-318-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-319

COMMENT

RESPONSE

I-319-1 | Please leave the lake as it is. It was designed to enhance the Capital City and not become a stinking tidal ground. People enjoy walking around the lake and Marathon park and the ambiance of the area,(except for the ugly homeless encampment). It is Olympia. Please don't ruin it.

I-319-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-320

	COMMENT	RESPONSE
I-320-1	<p>Any plan should include a mandate for a Deschutes Watershed Council, in accordance with the recommendations of the Water Restoration and Enhancement Committee, comprised of representatives from local jurisdictions: Thurston County, Lewis County, Olympia, Lacey, Tumwater, The TCD, the Squaxin Island Tribe, and other organizations. Water quality and quantity are affected by Thurston County's growing population, climate change and the management of the Deschutes River and its 15 watersheds. So, watershed protection is important for sustainable ecosystems.</p> <p>Alignment with the Thurston County Mitigation Plan, specifically carbon reduction and the positive effects of the estuary to absorb carbon from the atmosphere (carbon sequestration), must be part of any plan as we contend with the impacts of climate change.</p>	<p>I-320-1 The commenter does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIS. Mandating the formation of a Deschutes Watershed Council is beyond the scope of this EIS. However, Enterprise Services recognizes the importance of a watershed scale approach to improving the health of the larger Deschutes River Watershed.</p> <p>Each of the alternatives were considered relative to climate resiliency, and this was a component of the Preferred Alternative identification process, as described further in Attachment 21.</p>
I-320-2	<p>Recognition and restoration to the Squaxin Tribe of traditional cultural uses and legal rights to Steh-Chass (the traditional name of the Deschutes Estuary) is imperative.</p> <p>The salmon that would use the estuary are from all over Puget Sound. Commission more detailed studies of the use by and impacts on the survival of various species of salmon in the estuary. This is critical given that salmon and the species that depend on them, such as orca whales, are imperiled.</p>	<p>I-320-2 The characterization of fish use provided in the Draft EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts (and likely benefits), feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives.</p>
I-320-3	<p>Collaboration with the State Department of Transportation to mitigate toxins in runoff from I-5 and the 101 that pollute the Deschutes Estuary is important.</p>	<p>I-320-3 During future I-5 bridge upgrades, WSDOT would be required to meet all current stormwater requirements. This would be a WSDOT led effort.</p>

I-321

COMMENT

RESPONSE

Having lived in Thurston County since my parents moved here in 1974, and until very recently having lived at 134 W Bay Drive where the lake and the dam were a part of my daily walk, I consider the failure to maintain Capitol Lake to be one of the true tragedies of our community. The fact that the centerpiece of our community and capitol city was allowed to degrade to such a level is appalling. This degradation was a result of conscious decisions by legislative capital budget writers who were opposed to the existence of the dam and therefore wanted the lake to fall into disrepair in order to generate support for the dam's removal.

I-321-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

With proper care, the lake can be both a hub of community activity and a vibrant ecological habitat. Water quality concerns in Budd Inlet will always be significant given the low exchange of water at this far end of the Puget Sound. Opening up Capitol Lake to saltwater exchange will not improve this situation. The removal of sediment is also necessary for vessel traffic in Budd Inlet, and can be handled in a more controlled fashion in a freshwater lake with a constant waterline.

I would like my children to have the opportunity to enjoy Capitol Lake as I did growing up here before it's closure to swimming in the mid 1980's, or at least be able to use non-powered watercraft on the lake. It would be a tremendous waste to allow this central feature of our unique city to be eliminated due to frustration at the lack of maintenance.

I-321-1

I-322

COMMENT

RESPONSE

Having studied several documents and heard reports from the committee, I believe the best option is the hybrid. It takes into account several key factors- e.g. rising sea water, algae control, maintenance costs, water temperatures. Keeping a portion of the freshwater lake for recreation, reflecting pond, and a freshwater reservoir are very important to me and my family. We live above Percival Cove and ok with a partial estuary as we enjoy the wildlife.

I-322-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-322-1

I-323

COMMENT

RESPONSE

I-323-1 Dear Enterprise Services:

Eleven years ago I worked with other Olympia residents to show that the public comment period for the proposed management of Capitol Lake had been manipulated to make it appear that the majority of area residents wanted the lake turned into an estuary when the opposite was true—our research showed that 80% of the public wants Capitol Lake to remain a lake.

The latest EIS comment period is no more statistical representative of the wishes of the public than the last (it is still easily manipulated) and no one should claim broad public support for their preferences based simply on the number of people who voluntarily submitted comments.

While the latest Environmental Impact Statement (EIS) includes an option for keeping and maintaining the lake, the Hybrid Alternative option (however it was decided) is so disproportionate it is a non-starter. That option proposes keeping only 45 acres of the original 260 acre lake as a reflection pool –17% of the original lake. No one looking at that option can pretend it legitimately addresses the preferences of our community.

I-323-2 Eleven years ago the public stated clearly we wanted a lake. And, if we were going to accept a hybrid option than a significant portion needed to remain a lake—my, and others expectation was that the entire north basin to remain a lake with the remaining middle and south basin being allowed to return to a mudflat—a reasonable compromise.

It is my preference that we honor the public’s wishes by going forward with the managed lake option and that we commence as quickly as possible with dredging and fixing the dam to ensure the lakes long-term viability. The hybrid lake option needs to be changed to include the entire north basin as a reflection pool or be completely abandoned—anything less is does a disservice to the public process. Thank you for considering my comments.

Sincerely,

Scott McLain

I-323-1 Comment noted. See also Global Response for the Preferred Alternative Identification Process.

I-323-2 This response acknowledges the commenter’s position.

I-324

COMMENT

RESPONSE

I-324-1

Dear Enterprise Services:

Eleven years ago I worked with other Olympia residents to show that the public comment period for the proposed management of Capitol Lake had been manipulated to make it appear that the majority of area residents wanted the lake turned into an estuary when the opposite was true—our research showed that 80% of the public wants Capitol Lake to remain a lake.

I-324-2

The latest EIS comment period is no more statistical representative of the wishes of the public than the last (it is still easily manipulated) and no one should claim broad public support for their preferences based simply on the number of people who voluntarily submitted comments.

I-324-3

While the latest Environmental Impact Statement (EIS) includes an option for keeping and maintaining the lake, the Hybrid Alternative option (however it was decided) is so disproportionate it is a non-starter. That option proposes keeping only 45 acres of the original 260 acre lake as a reflection pool –17% of the original lake. No one looking at that option can pretend it legitimately addresses the preferences of our community.

I-324-4

Eleven years ago the public stated clearly we wanted a lake. And, if we were going to accept a hybrid option than a significant portion needed to remain a lake—my, and others expectation was that the entire north basin to remain a lake with the remaining middle and south basin being allowed to return to a mudflat—a reasonable compromise.

I-324-5

It is my preference that we honor the public’s wishes by going forward with the managed lake option and that we commence as quickly as possible with dredging and fixing the dam to ensure the lakes long-term viability. The hybrid lake option needs to be changed to include the entire north basin as a reflection pool or be completely abandoned—anything less is does a disservice to the public process.

Thank you for considering my comments.

Sincerely,

Scott McLain

I-324-1 See response to I-323-1.
I-324-2 This response acknowledges the commenter’s position.

I-325

COMMENT

RESPONSE

I-325-1 | why would so few persons would want to destroy such a beautiful part of Olympia
| please leave the lake alone

I-325-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-326

COMMENT

RESPONSE

I-326-1 | If this is like every other situation/problem in Olympia/Thurston county, state
| legislatures . county council members, and city council officials will talk until the
| cows come in and do nothing until it is too late. It has become apparent to me that
| nothing ever gets accomplished because of the politics of every situation.
| Democrats are unwilling to listen of alternate solutions, thus deadlock. Please put
| politics aside and accomplish something!

I-326-1 The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-327

COMMENT

RESPONSE

I-327-1 | I prefer the Estuary alternative because it is the most environmentally sound and
| because it is better for the native tribes who should have first say over land and
| water that was stolen from them.
| Thanks for all the work you have put into this.

I-327-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-328

COMMENT

RESPONSE

8/5/2021 Roundcube Webmail :: CLDE Draft EIS Comment

Subject: **CLDE Draft EIS Comment**
 From: Linda Lamb <lwlamb1@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-03 02:11



I-328-1

We tried to participate in the hearing on July 27 and was electronically told by the website, that the meeting would be "tomorrow", to my surprise? Then, it was discovered that the meeting was the original night! But, it was recorded. Thank you for recording it; but, I wonder how many of the prospective speakers were turned away, as was I?

I-328-1 We're sorry you experienced difficulty accessing the public meeting. A recording of the meeting and multiple avenues for providing comment were provided during the comment period.

I-328-2

We know there are ecological effects for keeping the dam and Capitol Lake as well as effects on removal. Any choice will have some adverse effects.

I-328-2 Comment noted. See Final EIS Supporting Chapter 3.0, Section 3.5.1.2, for information on fish migration through the dam and fish ladder.

I-328-3

We believe that managed flow through Capitol Lake is essential to any choice. We do not desire low tide problems from the estuary choice. Is it necessary to have no dam in order to have fish traverse safely?

I-328-3 Comment noted. Also, see the Global Response for Fish and Wildlife for more information on how bats were addressed in the Final EIS.

We prefer that Capitol Lake be maintained in a way that will allow fish to be unobstructed; yet, remain a Lake. This does require the dam to be in place in such a way that fish may come through and it does require ongoing maintenance of the river flow through the lake.

Bats and other creatures that have adapted over the decades of the lake's existence are a significant part of our ecology, too.

Yours,

Linda W. and George O. Lamb
lamb85@comcast.net
 3809 Boulevard Rd. SE
 Olympia, WA 98501 - 4347
 360-357-5068

I-329

COMMENT

RESPONSE

8/5/2021 Roundcube Webmail :: CLDE Draft EIS Comment

Subject: **CLDE Draft EIS Comment**
 From: George O. & Linda W. Lamb <lamb58@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-03 02:20



I-329-1

We tried to participate in the hearing on July 27 and was electronically told by the website, that the meeting would be "tomorrow", to my surprise? Then, it was discovered that the meeting was the original night! But, it was recorded. Thank you for recording it; but, I wonder how many of the prospective speakers were turned away, as was I?

I-329-1 We're sorry you experienced difficulty accessing the meeting. A recording of the meeting and multiple avenues for providing comment were provided during the comment period.

I-329-2

We know there are ecological effects for keeping the dam and Capitol Lake as well as effects on removal. Any choice will have some adverse effects.

I-329-2 See response to Comment I-328-2.

I-329-3

We believe that managed flow through Capitol Lake is essential to any choice. We do not desire low tide problems from the estuary choice. Is it necessary to have no dam in order to have fish traverse safely?

I-329-3 Comment noted. Also, see the Global Response for Fish and Wildlife for more information on how bats were addressed in the Final EIS.

We prefer that Capitol Lake be maintained in a way that will allow fish to be unobstructed; yet, remain a Lake. This does require the dam to be in place in such a way that fish may come through and it does require ongoing maintenance of the river flow through the lake.

Bats and other creatures that have adapted over the decades of the lake's existence are a significant part of our ecology, too.

Yours,

Linda W. and George O. Lamb
lamb58@comcast.net
 3809 Boulevard Rd. SE
 Olympia, WA 98501 - 4347
 360-357-5068

I-330

COMMENT

RESPONSE

I-330-1

Dear EIS,

The Fish barrier is a man-made structure or human caused impediment that fish cannot adequately migrate through. Remove the dam!

Prioritize the barrier reduction to improve the estuary for the fish! We need the Chinook and they need us!

Jody A. Disney

I-330-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-331

COMMENT

RESPONSE

Return this to an estuary. The benefits to the planet spread far beyond the relatively few who benefit from the existing park.

I-331-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-331-1 You can still keep you park and trails.

Good Luck
Chris

I-332

COMMENT

RESPONSE

I-332-1 | I would first like to say that I appreciate the thorough analysis conducted by the Washington State Department of Enterprise Services in this draft EIS. In the hybrid alternative proposal, there are options for either a saltwater or freshwater reflecting pool, both of which seem to be viable alternatives to Capitol Lake as it currently exists. In Attachment 7 of the EIS under Appendix E: Freshwater Pool Analysis, there is ample information about necessary management strategies and how a freshwater reflecting pool would affect overall water quality. There isn't, however, information regarding projected maintenance costs specific to this option. While water quality data is vitally important in consideration of the freshwater hybrid option, it would be helpful to include projected maintenance costs because one of the many benefits of the freshwater option is as a recreational swimming opportunity.

In Chapter 2 of the EIS, there is a small sidebar which states that the projected costs of swimming facilities is outside the scope of this document and would have to be determined at a future date. Considering the expense of this project, it may be helpful to provide at least some additional information regarding projected maintenance and swimming facilities costs for the freshwater option to help taxpayers understand how their money would be spent and so they could determine whether the benefits of having a freshwater lake to swim in would outweigh the costs of maintenance and facilities construction. While the saltwater pool option is still a reasonable alternative, a freshwater pool and the opportunity to swim would likely attract many more people, which would, in turn, increase tourism and help to support downtown businesses.

I-332-2

I-332-1 | As described in Attachment E of the Water Quality Discipline Report, an adaptive water quality management plan would need to be developed to maintain water quality in a freshwater reflecting pool of the Hybrid Alternative. Consultant costs to develop an adaptive management plan and to obtain permits for the recommended treatments typically range from \$50,000 to \$100,000. The total annual cost for a whole-lake buffered alum treatment would be approximately \$5,000 for one annual dose to inactivate 50 ug/L TP for the best-case scenario, and would cost approximately \$20,000 for two doses per year to inactivate 330 ug/L TP for the worst-cast scenario. Whole-lake Phoslock treatments would likely cost approximately 25% more than buffered alum treatments.

If the Hybrid Alternative was selected for long-term management, these maintenance costs would be further refined during design and permitting, but are not likely to result in an order of magnitude change to the existing planning level cost estimates.

Please note that the Estuary Alternative has been identified as the Preferred Alternative for long-term management.

I-332-2 | Please see response to Comment I-332-1. Also, as described in EIS Supporting Chapter 2.0, swimming and swimming facilities are not a project component and therefore are not analyzed in the EIS.

I-333

COMMENT

RESPONSE

My wife and I enthusiastically support the DELI option for Capitol Lake with a sectioned-off area for freshwater swimming.. The freshwater DELI option should replace or at least be considered along with the saltwater Hybrid Alternative.

I-333-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

DELI would enhance our community with the following::

* Help alleviate Olympia's shortage of public freshwater swimming areas.. Capitol Lake at Heritage Park used to be the most popular swimming place in Olympia, and it is sorely missed.

I-333-1 * The pedestrian parkway path would add quality and length to what has been voted the best walk in Olympia..

* It would not significantly limit area of the estuary plan.

* It would promote fish and wildlife habitat as many prefer the fresh water environment.

* The rock wall separating the lake would be long-term, low maintenance.

* Stormwater and detention options are covered in the DELI plan including cleanup efforts currently in progress. An advantage of this plan is that the continuous flow of freshwater into the lake is the best way to keep the water fresh and clean.

I-334

COMMENT

RESPONSE

I-334-1 | Although it's probably the more expensive option, please move forward with the managed lake alternative. Use the middle basin as a silt gathering estuary, and please by all means restore the swimming area that was there so many years ago. Our city needs a public swimming area and doesn't need a swamp in the the shadow of the capitol building. WA govt. spends money on far less fruitful endeavors, dredge the lake and restore it to its original glory. Please don't rob Olympia of the last beautiful open space we have.
Thank you

I-334-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-335

COMMENT

RESPONSE

I-335-1 | I don't know if you got my previous comment. In it, I thought Options 3 and 4 were both good. Upon further review, I understood that the estuary/reflecting pool option would cost three times what the estuary-alone project, and would need an ugly wall visible from the lake until vegetation hides it. On this basis I would choose the estuary-alone option. I also think the "reflecting pool" is somewhat a misnomer, since the existing lake gets enough wind to block the reflection a good part of the time.

I-335-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-336

COMMENT

RESPONSE

I-336-1

Please remove the dam from the Deschutes Estuary.

- * Prioritize spawning + rearing habitat
- * Restore the health of salmon + steelhead
- * Help chinook in tributaries

Annabel Kurshauer

I-336-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-337

COMMENT

RESPONSE

I-337-1

The fish barrier is a man-made structure or human caused impediment that fish cannot adequately migrate through. Remove the dam. Prioritize barrier reduction to improve spawning + rearing habitat. Restore health + harvestable levels salmon + steelhead. Estuary habitat is critical for chinook transition to tidal waters.

Judy Cutley
League Women's Votes

I-337-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-338

COMMENT

RESPONSE

8/2/2021 Sent - Mail - 2fmarymac@coomoss.net - Xfinity Connect

I-338-3

Back at the beginning of the 21st Century the Washington Department of General Administration, having failed in their duty to properly maintain Capital Lake, created the CLAMP (Capital Lake Adaptive Management Plan) committee. After spending well over a million tax dollars on "studies", it was observed that three things could be done about Capital Lake. They are essentially the same things covered in the present EIS except that they didn't formalize the current "Do Nothing" option. After buying all these studies, they did nothing about the worsening condition of the Lake. However they had spent a huge amount of tax money to create a "scientific" web of possible Lake solutions. And until those "possible solutions" got resolved the Department of General Administration just walked away from any maintenance work on the Lake at all. They subsequently changed the name of the department and here we have the rebranded Department of Enterprise Services continuing to spend tax money on studies which incredibly duplicate the studies that have already been done. No decisions have been made. No maintenance dredging of the Lake has been done. The can has just been kicked down the road in classic and very disappointing style.

I-338-1

My comment is about dredging. The unchanging reality that must be dealt with is that the Deschutes River will continue to deliver an annual silt load to it's mouth where it will be deposited right in the heart of the City of Olympia's marine waters. It will *never* stop. The original North Capital Lake at a depth of some 60' was expected to collect that sediment for several years after which the Department of General Administration was charged with maintenance dredging. They failed and here we are today. My only concern is the fate of the 5th Avenue Dam. And I'm concerned because very little is said about the sedimentation that will occur in the first 3 years after the Dam is removed. Here's the only comment I could find in the current EIS that deals with this issue:

"To avoid or minimize impacts to navigation in West Bay, both alternatives (Estuary and Hybrid) would include an adaptable long-term maintenance dredging plan (part of the alternative), with the frequency of dredging established by a sediment monitoring plan (mitigation measure). Impacts to navigation are considered *significant*, but could be reduced to less than significant, *if consistent funding is available* for the long-term maintenance dredging program." (italics are mine)

I-338-2

The EIS makes the correct observation that during the first 3 years after Dam removal between 200% to more than 300% of the silt will flush up onto the east shore of lower Budd Inlet. It will silt in The Olympia Yacht Club, the entire costly and delightful infrastructure we call Percival Landing, the Mom and Pop marinas south of the Port and to a somewhat lesser extent the Port of Olympia's marine turning basin. The EIS does NOT mention the actual cost of such dredging and that huge cost underpins my comment. Normal dredging involves sucking up the sediment and depositing it in a very deep part of Puget sound near Ketron Island. That sensible option is no longer available. There is a group in Olympia who has gone to court and succeeded in forcing the Port of Olympia to take the dredging spoils that are generated by maintaining their turning basin and haul them away by truck, one truck load at a time. The group bases their objection to normal spoils removal by claiming that lower Budd Inlet spoils contain diazinon (a naturally occurring toxin) and that to re-distribute it to other parts of the Sound violates the law. So the current EIS observes that navigation in southern Budd Inlet could be maintained "if consistent funding is available" for long term maintenance dredging. *Nobody* has calculated what such funding would amount to when dredging spoils must be *trucked* away. It's hugely more expensive than "normal" dredging. And ... it's ongoing, year after year after year. In my view the answer is clear and obvious. If you remove the 5th Avenue Dam, in very short order it spells the *end* of the Yacht Club, the small private marinas and much more significantly Percival Landing because the hit on The City of Olympia's budget will never sustain the cost of long-term maintenance dredging of lower Budd Inlet. Don't do it! Don't remove the 5th Avenue Dam.

Regards,
Wilson Hancock
4632 Bush Mtn. Dr. SW
Tumwater, WA 98512

- I-338-3 See response to Comment I-314-3.
- I-338-1 Refer to see response to Comment I-314-1.
- I-338-2 Please see response to Comment I-314-2.

I-338

COMMENT

RESPONSE

Regarding comment on the Capital Lake EIS; my intention was to comment by email. The Olympian provided the proper email address as:


comment@CapitalLakeDeschutesEstuaryEIS.org

That email address does not work. I went to the Capital Lake – Deschutes Estuary website and found this email address:

info@CapitalLakeDeschutesEstuaryEIS.org

and that's where I emailed my comment. I don't know if that's an address that is able to process my email as a comment and so I'm using this postal mail address as a backup to the email.

Regards,


Wilson Hancock
4632 Bush Mtn. Dr. SW
Tumwater, WA 98512

I-339

COMMENT

RESPONSE

I-339-1

I prefer the estuary option. In my opinion, it will provide the most environmental benefits, and the best balance of up-front investment versus long-term maintenance costs.

I-339-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-340

COMMENT

RESPONSE

I-340-1

My family wholeheartedly supports reverting Capitol Lake to a natural estuary. The pedestrian and scenic magnetism it already holds would only get more powerful. The lake, currently covered in yellow slime and closed to all recreation, is so obviously ill and needs a change. Letting Budd Bay and the Deschutes River exchange their waters more freely is the healing this delta needs. Thank you.

I-340-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-341

COMMENT

RESPONSE

I-341-1 | Thanks for the opportunity to review. I support the estuary alternative because it works toward water quality, ecological function, and recreation goals while having the lowest estimated cost to taxpayers.

I-341-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-342

COMMENT

RESPONSE


8/10/2021 Roundcube Webmail - Estuary Alternative

Subject: **Estuary Alternative**
From: Marcy Anholt <mmanholt@yahoo.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-06 12:32

Please support the Estuary Alternative to help our fish and other marine regain sustainability.

Thank you

Marcy Anholt
Stained Glass Art since 1977
www.stainedglassbymarcy.com



I-342-1 |

I-342-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-343

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Subject: Estuary Alternative

Subject: **Subject: Estuary Alternative**
 From: Joyce Baldwin <joyceb_44@yahoo.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-06 10:17



Deschutes River Estuary and Capitol Lake
 Attn Sierra Club public inquiry:
 RE: Estuary Alternative

I-343-1

Yes, I am in favor of the 'Estuary Alternative' to return the lake to natural estuary conditions.
 Salt water doses regularly keep it cleaner and freer from the diseases of Capitol Lake. i.e. noxious poison aquatic weeds and organisms. Cleaner is better.

I-343-2

I am a fisheries biology journalist for about forty years. The state hatchery on the river also blocks fish from migrating upriver. The state has been releasing coho or silver salmon to the upriver environment for several years, trying to reseed the river. Also, it is the practice of the hatchery to block all upstream migration until they get their quota. Their practice takes eggs and distributes them to other hatcheries. Both the upriver shotgun releases and the hatchery distribution has not been a success. The state claims failures are due to the Deschutes River floods almost yearly, and the warming of the planet water works. Hatcheries are like a state sacred cow.

I am in favor of returning the whole river to its natural environment free from the degrading effects of hatchery systems. Wild is wonderful.

Jay L. Baldwin

and

Joyce C. Baldwin

I-343-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
 I-343-2 Comment noted. The issue raised is outside the scope of the EIS.

I-344

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: ESTUARY ALTERNATIVE

Subject: **ESTUARY ALTERNATIVE**
 From: JON BENNETT <bennettjon@comcast.net>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>, George Watland
 <george.watland@gmail.com>
 Date: 2021-08-06 20:01
 Priority: Normal



Dear Sirs: I fully support the Estuary Alternative as a solution to the problem with Capital Lake. I was with the Dept. of Ecology for 23 years and co-authored a definitive report on the use of copper algicide in freshwater lakes. The effect of using these chemicals was devastating to the benthic organisms. More and more we are learning that nature can repair the damage that humans have caused. Such will be true when the dams are removed and the estuary recovers. Please move to put the Estuary Alternative into effect. Thank You. Jon L. Bennett, MSc., Geochemistry

I-344-1

I-344-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-345

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Estuary Alternative

Subject: **Estuary Alternative**
 From: Infinity Beach <infinitybeach@yahoo.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Reply-To: infinitybeach@yahoo.com <infinitybeach@yahoo.com>
 Date: 2021-08-06 08:25



Hello!

An email today from the Sierra Club explained why they support the Estuary Alternative, and I agree with them. Capitol Lake needs to be cleaned up and environmentally safe.

Please go with the Estuary Alternative.

Charlotte Brame
 Olympia WA

[Sent from Yahoo Mail on Android](#)

I-345-1

I-345-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-346

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Estuary

Subject: **Capitol Estuary**
 From: Geoff Browning <browninggeoff@gmail.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-06 08:37



**Hello,
 I support the restoration of the Capitol Estuary Restoration for these reasons:**

- The current Capitol Lake is toxic to the local ecosystem, our people and our community.
- A restored estuary will bring economic, recreational and environmental benefits into the heart of Olympia.
- Restoring the estuary in full is the least costly option to improving water quality and will restore healthy marine wildlife habitats to the Deschutes River, the Budd Inlet, and West Bay areas of the Puget Sound.

Thank you,
 Geoff Browning
 4601 Blueberry Ct, SE
 Lacey, WA

I-346-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-346-1

I-347

COMMENT

RESPONSE

*The fish barrier is a man made structure
 or human caused impediment that fish
 cannot migrate thru. Remove the
 DAM. Prioritize barrier reduction
 to improve spawning & rearing
 habitats. Restore the health &
 sustainable levels of salmon & steelhead
 Estuarine habitat is critical
 for Chinook transition to fresh waters
 Arlan Auckan*

I-347-1 Comment noted.

I-347-1

I-348

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake prefer estuary

Subject: **Capitol Lake prefer estuary**
 From: Felicia Carroll <criterredlisa@comcast.net>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-06 19:34
 Priority: Normal



I-348-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-348-1

As much as I have enjoyed the lake over the years, the fact is that nature needs us to step up and become more responsible. It seems the estuary would be more beneficial for nature and I urge you effect the change back to estuary.
Thank you.

I-349

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake Project

Subject: **Capitol Lake Project**
 From: Art Costantino <artcostantino@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Cc: Lauren Pitman <lauren.pitman@gmail.com>, Sasha Cavanagh
 <sashacavanagh@gmail.com>, Jo-Ann Costantino
 <costantinojace48@gmail.com>
 Date: 2021-08-06 11:55



I-349-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-349-1

I have reviewed the options for addressing the problems at Capitol Lake.
 I think the Estuary Alternative is the best alternative. It appears to be the most natural and least costly. Such an approach seems to have worked well at Nisqually.
 The other approaches seem less proven. They also require more engineering. Such complexity is unnecessary and only adds long term risk.
 Some folks may find other options more attractive looking. I think people have become hooked on more artificial looking environments. I think natural systems are more interesting and beautiful in their own right.
 I also think the natural approach is more likely to stable. A more natural estuary may take a while to become established ,but the process of watching the transition is interesting in it's own right. Once established it will attract and sustain more wildlife, which we should all value.
 Sent from my iPad


I-350

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail - Estuary Alternative

Subject: **Estuary Alternative**
From: Peter J. Crowley <lifeinphotographicart@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-06 08:56



I support this plan to return the Capitol Lake Estuary to its natural state. Let the waters flow. peace Peter J. Crowley Olympia Wa.

--
"A photograph is a secret about a secret the more it tells you the less you know."
Diane Arbus
Photographic Art
www.peterjcrowley.com

I-350-1

I-350-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-351

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail - Capitol Lake - Deschutes Estuary Long Term Management Project.

Subject: **Capitol Lake - Deschutes Estuary Long Term Management Project.**
From: Stephen Curry <scurry42@comcast.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-06 11:42



I want the **Estuary Alternative** for all the benefits it provides for salmon and other marine wildlife.
It is the best long term alternative considering global warming.

Sincerely,
Stephen Curry
Olympia, WA 98502

I-351-1

I-351-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-352

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: We should restore the estuary

Subject: **We should restore the estuary**
 From: Thad Curtz <curtzt@nuprometheus.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-06 08:48



I-352-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-352-1

Dear DES -

I live in the South Capitol neighborhood, and frequently walk around what's now the lake. What I enjoy most about it is the birds. I've lived in Olympia for almost fifty years, so I've witnessed the gradual disappearance of the large and varied flocks of ducks that used to be on Budd Inlet and the lake. I'd like to see us restore the estuary to help improve the water quality in the inlet and the river, and I'd be happier walking around a functioning estuary, mud and birds and salmon and all, than looking at the algae building up in the lake every summer.

Best wishes,

Thad Curtz
 113 17th Ave SE
 Olympia


I-353

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Deshutes and, Capital lake

Subject: **Deshutes and, Capital lake**
 From: Gloria Davis <nchsclasses@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-06 19:36



I-353-1 This comment is a statement and does not affect the environmental analysis in the Draft EIS.

I-353-1

I agree.

I don't want the area to keep corroding or creating unhealthy waters for our habitats.

Please allow this to pass...

--
 Gloria E.L. Davis


I-354

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: support of the Estuary Alternative

Subject: **support of the Estuary Alternative**
 From: Brenda Rose <brenrose08@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-06 08:54



I-354-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-354-1

Hello, I would like to say that I would vote for the Estuary alternative for Capitol Lake.
 Brenda Duncheon

I-355

COMMENT

RESPONSE

I-355-1 | I have looked at the proposed modifications to the Capitol Lake area and I would support the hybrid solution which would create an estuary and a reflection pool. I'm just wondering how you are going to fund it....

I-355-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-356

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
From: Michael Grieb <mmeberg@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-06 21:47



I-356-1 | In light of climate change the health of this Lake and surrounding shore area is need of restoration that well support the wild life that continues to struggle with man's over development and pollution runoff. There is Otter,Muskrat,Ducks of all kinds,fresh and saltwater fish and amphibians large and small. Now with Salmon of all types now threatened or on the endangered list or should be on the endangered list the water itself is polluted and contaminated with several invasives. The Capitol Lake itself is nothing more than a retention pond for runoff on all sides. It is high time to renew as much as we can the resource that is beneficial for its recreational purposes and for the natural beauty we all enjoy. Also by restoring the lake visitors from all over the country that visit our Capitol city are treated to a treasure in our backyard to complement the Deschutes falls and the fish hatchery on the Deschutes river. Thank you

Michael Grieb

I-356-1 | This response acknowledges the commenter's position.

I-357

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: EIS

Subject: **EIS**
From: <wolfnbear@aol.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-06 08:11



I-357-1 | I support returning tidal flow to Capital Lake. It will probably increase the need for dredging in the marina in the long term, but leaving the dam in place will eventually allow the present lake to fill with silt which is also a bad outcome as increasing water temps will become septic. (More so than they already are on a hot day - more of which can be expected in our future.)

Thomas Hargrove
Shelton, Wa

I-357-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-358

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: my choice

Subject: **my choice**
From: Carol Horner <chorner99@comcast.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-06 11:28



I fully support the return to the natural estuary. I moved here in 1978 and have gone through several discussions and proposals. I have friends who are experts on both sides, however I always have leaned to the "keep it natural" side. Now I'm certain and we must make a lasting decision!

Carol Horner 360-438-5230 chorner99@comcast.net

I-358-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-358-1

I-359

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: We support the Estuary Alternative

Subject: **We support the Estuary Alternative**
From: Coriolus <coriolus_effect@earthlink.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Reply-To: <coriolus_effect@earthlink.net>
Date: 2021-08-06 23:54



To Whom It May Concern:

We strongly support the Estuary Alternative to fully restore the Deschutes Estuary and reintroduce tidal flows to the Capitol Lake Basin. We believe it is imperative to return the area to estuarine conditions, allowing salt water from Budd Inlet to mix with fresh water from the Deschutes River.

The Estuary Alternative supports a healthy environment for the near future and long term. It is the only alternative that does so, as well as being the least costly option. The current Capitol Lake is clearly toxic to the local ecosystem and inhabitants, and therefore unsustainable. We want to see the return of good water quality and healthy marine wildlife habitats to the Deschutes River, Budd Inlet, and West Bay areas of Puget Sound.

Thank you,

Bonnie and Marc Jones
1121 Brawne Ave NW
Olympia, WA 98502

I-359-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-359-1

I-360

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Estuary Support

Subject: **Estuary Support**
 From: <lkutz44405@aol.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-06 22:28

As a resident of Thurston County, I fully support the removal of the 5th Ave dam and the return of Capitol Lake to an estuary. I believe that option is the best for the environment and the cheapest and easiest to maintain.
 Thank you,
 Robin Kramer
 1414 33rd Ave NE
 Olympia, WA 98506



I-360-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-360-1

I-361

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake Dam and Estuary

Subject: **Capitol Lake Dam and Estuary**
 From: TK Gmail <tjinwa@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-06 10:33

Hello,

Please remove the dam and let nature resume the care of the estuary. My children learned to swim in the lake in the '70's but the lake was not maintained, another misstep by humans in mother nature's domain. Hopefully the toxic dump the lake has become can be repaired in time naturally.

Thank you,
 Terry Krebs
 Tenino



I-361-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-361-1

I-362

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
 From: Julia McLaughlin <sherlocksmom@outlook.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-06 10:21

Remove the dam. It is not natural and it's creating an unnatural, unhealthy environment. Let it go back to being the way it's supposed to be. Natural. Healthy. Beautiful. Thriving. ~

Julia McLaughlin
 16740 Dodds Ln SW
 Rochester, WA 98579



I-362-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-362-1


I-363

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Support the Estuary Alternative

Subject: **Support the Estuary Alternative!**
From: Karen Mensinger <karbob91@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-06 23:02



Please support the Estuary Alternative for Capitol Lake to restore the health of the Deschutes Estuary environment! This choice will bring recreational, economic and environmental health to Olympia! This is also the least expensive plan to pursue!

Please support the Estuary Alternative to restore Capitol Lake and the DeschutesEstuary!

Thank you,
Karen Mensinger
PO Box 329
Grapeview, WA 98546-0329
karbob91@gmail.com

I-363-1

I-363-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-364

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Estuary option

Subject: **Estuary option**
From: Ed Molash <edricom58@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-06 09:30



I support that option, except - how can the low tide stench be mitigated for local homeowners?

Sent from my iPad

I-364-1

I-364-1 See the Global Response for Air Quality & Odor.

I-365

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Managed lake alternative

Subject: **Managed lake alternative**
 From: Allen Mote <allenmote@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-06 09:40

To whom it may concern,

My vote is for the "Managed Lake Alternative."
 The lake currently provides a unique and world class aesthetically beautiful State Capital Campus.
 It is a destination for locals and travelers from all over the world.
 It enhances the economy of Olympia and Washington State.
 Fish already use the existing waterways.
 Increasing the recreational opportunities will again put downtown Olympia on the map. We can remember kayaking on the lake, for instance.
 The fresh water lake provides habitat for birds and wildlife that will be lost with saltwater.
 It will take decades, if ever, for the mud tidal flats to grow vegetation. Why have mud flats instead of a usable and beautiful, nature-filled habitat and recreational environment.

Currently: it would be most welcome if the many potholes in the gravel trail would be filled. Please help prevent unnecessary sprained ankles and injuries, from this most-used public destination.

Thank you for allowing comments.

Dr. Allen Mote



I-365-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-365-2 The issue raised is outside the scope of an EIS which is to evaluate potential environmental impacts (and benefits) of the project alternatives and to inform decision-makers and the public of reasonable alternatives, including mitigation measures that would avoid or minimize adverse impacts or enhance environmental quality. However, this response acknowledges the commenter's concern, which has been shared with Enterprise Service's grounds staff who actively work to keep the parks safe and clean for public use as part of regular operations.

I-365-1

I-365-2

I-366

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Estuary Alternative

Subject: **Estuary Alternative**
 From: kerri neathery <skerrineathery@gmail.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-06 20:36

To Department of Enterprise Services:

I live in Montesano, WA and strongly support the Estuary Alternative. Estuaries are vital to a healthy ecosystem.

Thank you for the opportunity to express my support.

Kerri Neathery



I-366-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-366-1

I-367

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: comment

Subject: **comment**
 From: peterplumley <peterplumley@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-06 15:58



I-367-1

Return the Capitol Lake area to an estuary (no hybrid). Capitol Lake was never a good idea and yet another environmental disaster made by previous generations. This can be fixed. Make it natural again.
 Thank you.
 Sincerely,
 Pete Plumley

I-367-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-368

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Estuary Alternative is the way to go!

Subject: **Estuary Alternative is the way to go!**
 From: Tina Ramsey <tina.ramsey87@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-06 15:03



I-368-1

Of the proposed solutions for the environmental issues suffered by the Capital Lake, restoring the estuary in full to its natural state is the best option we have. Since building the dam led to all of the current issues, removing it should, over time, lead to their reversal. It should as well be the healthiest option for the native wildlife we all cherish and want to create the best habitat for. Why create a managed lake or any sort of dam or pool when we can simply remove the dam that is causing so many problems and let nature handle it best?

Thank you for your time,
 Tina Ramsey

I-368-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

 Virus-free. www.avast.com

I-369

COMMENT

RESPONSE

I-369-1 All three action alternatives create additional habitat for homeless persons to camp around Capitol Lake. However, the Estuary Alternative provides far greater social justice by creating more additional homeless camping space than the other options. In the Estuary Alternative, camping spots for homeless habitat will be created in areas which are currently flooded full-time, but will only be flooded by king tides after construction of the Estuary Alternative. In fact, the homeless will even have their own private islands to camp on. Plus, the saltwater will suppress mosquitos which always makes camping more enjoyable. These are good social justice reasons to select the Estuary Alternative. Please be sure to add this to Table 4.14.4 as a Major Beneficial Effect for the Estuary Alternative.

I-369-1 Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-370

COMMENT

RESPONSE

I-370-1 Homeless persons have already dismantled portions of wooden walkways at Capitol Lake for the lumber and firewood. These current proposals will provide more building materials (wooden walkways), more firewood, plus copper wiring (for the lighting) which the homeless can definitely use considering their bad planning skills. Please add this as a major benefit for all action alternatives.

I-370-1 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-371

COMMENT

RESPONSE

I-371-1 The project will result in some very attractive campsites for homeless persons to move into. However, the cost of providing the required additional homeless services do not appear to be included in the Estuary operating budget. Who is going to feed the new residents and provide free bathrooms, free needles, free garbage collection, social services, and rat control? These are cost items which should be addressed in advance of construction.

I-371-1 Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-372

COMMENT

RESPONSE

I-372-1 All Washington State Agencies have been directed by E2SHB 1109 (Section 221, Subsection 9), HB 1783, and the WA State Equity Task Force to “embed equity into every action”. The EIS fails to fully-consider the equity impact to insure that required equity goals are realized for wokeness and social justice. The EIS also fails to propose equity mitigation measures. What is being proposed to insure equal outcomes for each race as mandated by the Summary Proposal of the Washington State Office of Equity? (refer to their website for this requirement). For example, if more whites use the trails than “persons of color”, this by definition makes those walkways systemically racist according to the Washington State Legislature and the Equity Task Force. Since this project is a state-run project, what steps are proposed to bring this project into mandated racial alignment with all other state-run projects and processes? How does this project insure social justice, equity, and wokeness as part of the CORE PROJECT GOALS as directed by the Washington State Legislature in E2SHB 1783, and the Office of Equity? It appears that the entire EIS will need to be re-written from the beginning.

I-372-1 The purpose of the EIS, as defined by SEPA, is to provides decision-makers and the public with a complete and impartial discussion of the proposed project, existing site conditions, probable significant adverse environmental impacts, and reasonable alternatives and mitigation measures that would avoid or minimize adverse impacts. Attachment 21 describes the process and evaluation criteria used to identify the Preferred Alternative, which included equity considerations. Future actions by the state would comply with federal, state, and local laws.

I-373

COMMENT

RESPONSE

I-373-1 Exposing mudflats to oxygen and solar heating accelerates the rate of organic decomposition which results in the production and release of additional methane and carbon dioxide gases which are identified as greenhouse pollutants by the USEPA. However, on Page 4-37, the EIS makes the statement that "...none of the action alternatives would affect the magnitude or extent of climate change impacts". Since this is an environmental impact statement, the resulting devastating planet-wide impacts on climate change crises, global warming, melting ice, greenhouse effects, and overall scary weather panic must be fully-considered. Calling the impact absolute zero is clearly a false statement. The entire EIS will need to be re-written from the beginning so that it addresses the Governor's mandated war on carbon.

I-373-1 As described in Section 4.4 of the Air Quality & Odor Discipline Report (Attachment 11), methane emissions are produced in all marsh systems where anaerobic conditions allow microbes to decompose organic matter. However, studies have shown that freshwater systems produce more methane than brackish systems, and saline wetland systems produce negligible amounts of methane. It is recognized that the net effect of these systems on greenhouse gases can vary widely from a net negative to a net positive, depending on the salinity and biomass of the system. As described in the Text Box on Page 4-94 of the Draft EIS and in Section 5.5.4 of the Air Quality & Odor Discipline Report, the increased salinities under the Estuary Alternative suggest that less methane would be released compared to the No Action or Managed Lake Alternatives.

Regarding the statement that "...none of the action alternatives would affect the magnitude or extent of climate change impacts," this was intended to explain that none of the action alternatives would cause the magnitude of climate change effects (e.g., temperature increases, sea level rise) to increase in the Project Area. This sentence in Section 4.3.3 of Final EIS Supporting Chapter 4.0 has been revised to state that the GHG emissions associated with construction and operation of the action alternatives *contribute to climate change* but would not measurably change the magnitude of climate change effects in the Project Area. It is also true that the impacts from one project, such as this project, would have no discernable effect on increasing or decreasing global climate change. However, any project contributes cumulatively to GHG emissions. See also EIS Supporting Chapter 6.0, Section 6.6.6.2 (Cumulative Effects).

I-374

COMMENT

RESPONSE

I-374-1 Table 2.3.8 makes the claim that the disposal location of sediment dredged from West Bay (every 6 years) in the Estuary Alternative is “in-water”. Has the supposed disposal site been permitted? Is that going to be someone else’s problem? There must be some type of written response from the DMMP to make a commitment for future dredging prior to making this unsubstantiated claim. The West Bay does not have the luxury of merely pushing the sediment aside to create new islands, and calling it “removal”.

I-374-1 Planning-level cost estimates were prepared for both in-water and upland disposal due to the inherent uncertainty in the quality of dredged material. These cost estimates are provided for each alternative and included in EIS Supporting Chapter 7.0.

A determination is made in coordination with the Dredged Material Management Program before dredging begins, to determine whether sediment is suitable for in-water disposal or not. This determination is based on sediment sampling in the proposed dredging area and the sampling must occur relatively close to the proposed dredging. Because maintenance dredging would not occur in West Bay until the late 2030s or early 2040s, a suitability determination cannot be made during the EIS process. However, sediment was sampled for the EIS and that sediment, which is representative of the sediment that would be dredged in the future, does meet chemical quality criteria for in-water disposal.

The EIS assumes that in-water disposal would occur at the permitted Anderson/Ketron non-dispersive disposal site.

I-375

COMMENT

RESPONSE

I-375-1 From Page 4-57 regarding the restoration of tidal influence (which spreads the New Zealand Mudsnaill in greater amounts than ever): "It is assumed that the resource agencies would consider this impact to be outweighed by the overall substantial beneficial improvements that the Estuary (and Hybrid) Alternative would otherwise provide". Since resource agencies are not qualified to weigh social justice benefits (if any), it can be assumed that this statement refers solely to environmental benefits, of which there apparently are very few. Certainly the EIS does not support the conclusion that removing the dam will improve the water quality of Capitol Lake, which is already proven to be cleaner than West Bay. Perhaps this statement was made because of the reduction of invasive species. In fact, every species on the planet today is an invasive species because there was a time when every location on the planet had no such species. In order to believe in "substantial beneficial improvements" for any alternative, you would need to believe there would be substantial degradation of the environment if the opposite was done. In order to believe that reducing (but never eliminating) New Zealand Mudsnaills results in "substantial beneficial improvements", you must therefore believe that their introduction into Capitol Lake resulted in substantial degradation of the environment. Mudsnaills are apparently killing everything for miles around, so please clarify exactly what is so devastating about New Zealand Mudsnaills?

I-375-1 Please refer to Section 3.3.2 of the Aquatic Invasive Species (AIS) Discipline Report (Attachment 8), which defines substantial beneficial effects for this analysis to occur if there would be decreases in AIS abundance inside or outside of the Project Area. Under the Estuary and Hybrid Alternatives, the reintroduction of tidal water to the basin would significantly reduce the number of AIS and their abundance in the Project Area, as described in Sections 5.5.2.2 and 5.6.2. WDFW is the state agency that classifies species as invasive, nuisances, or other; and the AIS Discipline Report follows those classifications.

I-376

COMMENT

RESPONSE

I-376-1 Dumping organic-rich sediments into the Puget Sound in the Estuary Alternative will deplete oxygen in an already oxygen-deficient environment. If the Puget Sound has not already been declared to be oxygen-deficient, then dumping oxygen-depleting sediments insures that it soon will be. The effects of the Estuary and Hybrid Alternatives have been falsified in the EIS and it will need to be entirely re-written.

I-376-1 As described in Section 4.2.3 of the Water Quality Discipline Report (Attachment 7), the sediments in Budd Inlet currently have the highest organic content of all of the sediment monitoring stations in Puget Sound, and the existing sediments are already largely derived from the river/lake. Therefore, the quality of the incoming sediment under the Estuary Alternative is expected to be similar to what currently exists.

I-377

COMMENT

RESPONSE

I-377-1

The last paragraph of Page 4-61 says: “Transportation of AIS [Aquatic Invasive Species] outside of Capitol Lake is prohibited by state law”. Yet, removal of the dam will result in the defacto transportation of such invasive species outside of Capitol Lake. In addition, Page 4-62 states: “...eradication is generally considered not to be feasible given the extent of the New Zealand Mudsnaill infestation and their resiliency”. Furthermore, Page 4-62 also discusses: “...the likely persistence of New Zealand Mudsnaills in the upstream portions of the Estuary and Hybrid Alternatives”. Yet, other statements in the EIS reveal the plan to transport sediment containing these invasive species and dump them a deepwater disposal area, which requires testing to insure that aquatic invasive species are not included in the material being dumped. It seems as if these sections were all written by different people who were not communicating. Please explain these contradictory statements or re-write them so they do not contain false or unproven assumptions about long-term sediment disposal permitting. Upon making the required corrections, you must then go back and revise your cost estimates which falsely claim that you know something which you do not know, which is that private and quasi-public entities will be able to get permits to dump their AIS-infested sediment at deepwater disposal sites in the long-term. You have absolutely no basis for that statement.

I-377-1

These statements have been reviewed by the EIS Project Team; they are correct and remain as written.

Transportation of aquatic invasive species (AIS) by aquatic conveyance is prohibited by state law RCW 77.135 and may require an AIS prevention permit. Aquatic conveyance means transportable personal property having the potential to move an aquatic invasive species from one aquatic environment to another. Aquatic conveyances include, but are not limited to, vessels and associated equipment, float planes, construction equipment, fish tanker trucks, hydroelectric and irrigation equipment, personal fishing and hunting gear, and materials used for aquatic habitat mitigation or restoration.

Migration of AIS occurs through the 5th Avenue Dam under existing conditions during high flow events. These discharges of AIS or the potential movement of AIS under an estuarine environment is not prohibited by law and does not require a permit. Aquatic conveyance of New Zealand mudsnail would be addressed through mitigation or minimization measures that include construction equipment decontamination and monitoring, treatment and monitoring of dredged sediments prior to off-site transport, and installing educational signage and decontamination stations to reduce the potential spread of AIS during operations.

The AIS Discipline Report addresses the potential impacts associated with each alternative and the effect of construction and operation on the density and distribution of AIS. Included in the Estuary and Hybrid Alternatives is the removal of the 5th Avenue Dam, which is not an existing barrier to New Zealand mudsnail movement, and the dredging and disposal of sediment material in open water. Under these alternatives, the sediment dredged during operation for maintenance dredging would be from deeper water areas in West Bay (not in the Capitol Lake Basin). Those sediments would be sampled for New Zealand mudsnails and purple loosestrife seeds, and if there are no AIS present, as would be expected from this deep, saltwater environment, the sediment would be considered suitable for placement at an open-water disposal site in Puget Sound in accordance with RCW 77.135 and the AIS prevention permit. The environmental agencies with jurisdiction would have to approve the disposal location prior to transport. Because there is inherent uncertainty in dredged material management, planning level costs were provided for both in-water and upland disposal for the Estuary and Hybrid Alternatives.

I-377

COMMENT

RESPONSE

In response to comments on the Draft EIS, the sediment management costs for the Managed Lake Alternative have also been updated to include in-water disposal. Although environmental conditions and environmental regulations prohibit in-water disposal of dredged material with New Zealand mudsnails, in-water disposal costs have been prepared in case environmental regulations change in the future or environmental conditions change as a result of new management practices.

I-378

COMMENT

RESPONSE

I-378-1

Page 4-63 claims that: "...the conversion of freshwater lake habitat to tidally influenced brackish estuary would substantially benefit anadromous fish..." as if there is a vast habitat which opens up when the dam is removed. So where is this habitat? The Deschutes River is already accessible by fish ladder, and there never was a significant Salmon run up the Deschutes River, so what natural condition is supposed to be magically restored by removing the dam?

I-378-1

As described in the EIS Supporting Chapter 4.0, Section 4.5.5, removing the dam would improve migration conditions and re-establish estuarine habitat in the basin (approximately 275 acres) where none currently exists, including sub-tidal, intertidal tidelflat, and marsh habitats. Additional information is included in Section 4.5.5 and in Section 5.5.1.2 of the Fish and Wildlife Discipline Report (Attachment 9) on the habitat functions provided by estuaries, such as providing natural salinity gradients that facilitate osmoregulation of smolts and protection from predators, as well as anticipated benefits for salmon. In addition, removal of the dam would improve habitat for Chinook salmon and other salmon species that were spawned in other watersheds around Puget Sound, as described in Section 5.5.1.2 of the Fish and Wildlife Discipline Report.

I-379

COMMENT

RESPONSE

I-379-1

The EIS predicts “substantial beneficial effects” to the environment as a result of removing the dam, such as on Page 4-77. The EIS predicts “substantial benefits” on Page 4-109. The EIS also uses the phrase “substantial ecological benefits” on Page ES 17 and 4-85. Yet the EIS states the exact opposite as soon as the details are revealed, such as in the lower half of Page 4-63 where it is revealed that the loss of freshwater habitat will kill off the bats and all freshwater fish (bass and bullhead are subsequently identified). On Page 4-68 it states that some species: “...would not be able to persist in a saltwater environment”. On Page 4-68 it is also revealed that for salmon: “...migration occurs under existing conditions and is not precluded...” In fact, there never was a significant salmon run up the Deschutes River because it has been blocked by the falls for 10,000 years. The writers of the EIS provide no evidence that there was any significant salmon run there. The entire EIS may need to be re-written to eliminate these untruths and more fully-explain what the substantial benefits are for removing the dam.

I-379-1

Regarding the use of the term "substantial beneficial effects" on page 4-77 of the Draft EIS and "substantial ecological benefits" on page ES-17 and 4-85 of the Draft EIS, these terms were used in reference to the discussion of estuarine habitats. As described in Section 4.6.5 of EIS Supporting Chapter 4.0, estuarine wetlands provide additional functions that are not available in freshwater deepwater habitats. Compared to freshwater wetlands, estuarine wetlands are considered relatively rare in the region. In addition to supporting key ecological processes, estuarine conditions would provide productive habitat for shellfish, salmon, other anadromous species, and marine fish in the area, potentially including Endangered Species Act-listed Chinook salmon (non-hatchery) and steelhead trout.

It is also acknowledged in the EIS, as the comment points out, that there would be potentially significant impacts on certain species or species groups that currently use Capitol Lake (such as the Woodard Bay trestle bat populations and freshwater fish). Many of these freshwater fish species currently in the lake are introduced, with some known to prey upon salmonids (e.g., bass and northern pikeminnow). While under historical conditions Tumwater Falls served as a fish passage barrier to anadromous species (as discussed in Section 4.1 of the Fish and Wildlife Discipline Report), the current Tumwater Falls Hatchery releases substantial numbers of Chinook salmon and naturally spawned coho salmon that also utilize the Project Area during outmigration. The multiple benefits of estuarine habitat to juvenile salmon outmigrants is discussed in Section 5.5.1.1 of the Fish and Wildlife Discipline Report. In addition, estuarine habitats are frequently utilized by juvenile salmon, both native and hatchery stock, that originate in other watersheds in Puget Sound.

I-380

COMMENT

RESPONSE

I-380-1 Note that the EIS discriminates against the Managed Lake Alternative throughout the document. Two such examples are Table 4.5.2 on Page 4-71 and Table 4.5.3 on Page 4-73. In these tables wherever the beneficial impacts of the Estuary and Hybrid Alternatives are claimed, the EIS uses the phrase “Substantial Beneficial Effect” or “Moderate Beneficial Effect”. However, each adverse effect is only called a “significant impact” as if adverse effects do not matter. Instead, every substantial or moderate adverse effect of the Estuary and Hybrid Alternatives should have been identified as a “substantial adverse effect” or “moderate adverse effect”. Killing the bats, bass and bullhead (as revealed by the EIS) qualifies as substantial adverse impacts and therefore MUST be labeled as such. Later on Page 4-77, these killings are called “significant unavoidable impacts” instead of “substantial adverse impacts”. The EIS has stacked the deck against the Managed Lake Alternative, and should be entirely re-written.

I-380-1 The commenter is correct that the relative magnitude of adverse impacts is categorized as "less than significant" or "significant" in the EIS. While the identification of "significant" adverse impacts, including those that cannot be mitigated, is the focus of SEPA, the analysis also evaluated the potential magnitude of beneficial effects. SEPA allows, but does not require, that beneficial effects be described in an EIS. However, for this EIS, Enterprise Services determined that both adverse and beneficial effects would be helpful information in evaluating the alternatives. Long-term beneficial effects were described as "minor" "moderate" or "substantial" in order to differentiate from the adverse environmental impacts described in the EIS, and to avoid potential confusion between the identification of an adverse impact versus a beneficial effect. The criteria used to define these impact findings are provided in detail in each discipline report, and are summarized in the side bars throughout EIS Supporting Chapter 4.0.

I-381

COMMENT

RESPONSE

I-381-1 Page 4-77 of the EIS states that tidelflat habitats are “...now rare in the region”. That is a false statement. Page 4-81 states: “...estuarine wetlands...are considered rare in the region”. That is also a false statement. Page 4-91 then correctly claims that “Within 15 miles of the project site there are many estuaries”. It seems as if there were too many writers of the EIS and they got all their lies mixed up. The entire EIS must be re-written from the beginning. Please include the truth this time.

I-381-1 The different statements about mud flat estuary habitats being rare in the region and also being common within close proximity to the Project Area are both correct in as far as they are using different space and time scales as their benchmarks. The wetland statements (page 4-77 of the Draft EIS) are reflecting broad historical trends at a regional scale and the odor statements (page 4-91 of the Draft EIS) are looking at proximal sources of odor present today.

As described in Section 5.5.2.1 of the Wetlands Discipline Report (Attachment 10), Puget Sound has experienced a dramatic loss of tidal wetlands *across the Puget Sound region compared to historic conditions* (Simenstad et al. 2011). It has been estimated that for the Puget Sound region overall, 56% of all estuarine wetlands historically present in the 16 large deltas studied have been eliminated. The South Puget Sound basin, which includes the Project Area, has experienced similar levels of wetland losses, including 40% of emergent marshes, 81% of low salinity marshes, and 84% of tidal freshwater wetlands. At the same time, as noted in the Odor section, there are several remnant estuaries near the project that may provide some context for understanding potential odor levels and odor tolerances in the study area.

I-382

COMMENT

RESPONSE

I-382-1 Page 4-86 of the EIS states that carbon is a greenhouse gas. That is a false statement. Carbon is not a gas under normal atmospheric conditions. Carbon dioxide however may be a very weak greenhouse gas. Both carbon and carbon dioxide are absolutely critical for life on this planet. I recommend that some actual scientists should be added to the EIS team, so that the EIS can be re-written from the beginning.

I-382-1 This has been corrected in the Final EIS from "carbon" to "carbon dioxide" where appropriate.

I-383

COMMENT

RESPONSE

I-383-1 Page 4-86 refers to the Estuary and Hybrid Alternatives when it states: "...the vegetated marshes established under those alternatives would sequester more soil carbon..." but a vegetated marsh will not be the result. A far more accurate analog would be Mud Bay or Nisqually Reach. At low tide there will be more mud than marsh. The entire EIS may need to be re-written so that it fully justifies turning Capitol Lake back into the beautiful smelly mud pit that it used to be.

I-383-1 In response to this comment, a few clarifications have been made in the Final EIS. Sections 4.7.5.3 and 4.7.6.3 of Final EIS Supporting Chapter 4.0 have been clarified to explain that the primary GHG reduction benefit of the Estuary and Hybrid Alternatives is related to reduced methane production from the increased salinity in the system. The commenter is correct that the carbon sequestration potential is related to the vegetated marsh areas, which are expected to be along the fringe only. The description has been revised accordingly.

I-384

COMMENT

RESPONSE

I-384-1 My first choice among the options is a managed lake, and my second choice is the hybrid solution.

I-384-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-385

	COMMENT	RESPONSE
I-385-1	<p>The EIS completely fails to mention that the proposed elevated walkways and lighting in all action alternatives will be good sources of wood and copper for the adjacent homeless camp residents. The homeless have already removed numerous wooden planks from the walkways near Marathon Park and stolen wiring from many locations in Olympia. They would certainly appreciate a closer supply of free lumber and copper. The Capitol Lake homeless would just like to thank DES in advance for the free stuff. Housing and homelessness in Thurston County is a major consideration, but the EIS hardly addresses it. The entire EIS will need to be re-written to disclose the actual impacts of the additional homeless habitat and homeless services which will thereby be created, and propose full mitigation to be paid for by DES and the City of Olympia.</p>	<p>I-385-1 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.</p>

I-386

	COMMENT	RESPONSE
I-386-1	<p>According to Page 4-107, the Estuary Alternative would result in additional flooding in Olympia during extreme tides as compared to the other alternatives. Does it really make sense to construct anything which increases flooding in Olympia considering that scary sea level rises are just around the corner? The entire EIS may need to be re-written to propose additional mitigation for the Estuary Alternative.</p>	<p>I-386-1 As described in Sections 4.1 and 4.8 of EIS Supporting Chapter 4.0, and in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5), all alternatives will experience periodic flooding during extreme river flows and extreme high tides. Maximum overland flooding under the No Action and Managed Lake Alternatives is driven by extreme river flooding, and maximum overland flooding under the Estuary and Hybrid Alternatives is driven by extreme tide conditions (with sea level rise). Importantly, many of the areas that are susceptible to flooding adjacent to the basin are the same areas of Olympia that will experience flooding regardless of the alternative implemented for this project. These areas include portions of downtown Olympia and Heritage Park east of the 5th Avenue Dam that are flooded from Budd Inlet. The flooding extents are described in Section 4.1 of EIS Supporting Chapter 4.0, and maps of the maximum water levels for all alternatives are shown in Figures 4.1.1 and 4.1.2. Additional information is included in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5).</p>

I-387

COMMENT

RESPONSE

I-387-1

After Page 4-107 claims that the Estuary Alternative results in higher water elevations during high tide, Page 4-114 turns right around and claims that the Managed Lake alternative includes higher water elevations (at the end of the first paragraph). It seems as if the writers of the EIS cannot decide which story to tell. The entire EIS may need to be re-written to provide uniformity between the various writers and their estuary fantasies.

I-387-1 See response to Comment I-386-1.

I-388

COMMENT

RESPONSE

I-388-1

How can maintenance dredging disturb cultural resources (if any still exist) as described on Pages 4-114 through 117 when the dredging is only removing sediment which was deposited above the level at which the cultural resources were previously buried? The dredging would re-establish pre-sedimentation bottoms. Dredging permits contain plenty of restrictions, including the prohibition on gouging out new flood control channels. There are so many unsupported statements in the EIS that it may need to be entirely re-written from the beginning.

I-388-1 Sections 4.9.4 and 5.9.4 of Final EIS Supporting Chapters 4.0 and 5.0 have been revised to clarify that dredging would target recently accumulated sediments and are not expected to disturb intact native sediments that may be found at greater depths than the dredging limits, and therefore, no effects to pre-contact archaeological resources are likely during maintenance dredging.

I-389

COMMENT

RESPONSE

I-389-1 Much of Downtown Olympia was constructed on top of decomposing (shrinking) organic fill materials similar to Seattle, San Francisco, Boston, New Orleans and hundreds of cities worldwide. In Olympia, soils are consolidating over time causing Downtown Olympia to sink down almost as fast as ocean levels are rising up. This information is found in the October 2017 AECOM Report to the City of Olympia and several other independent sources. In fact, according to local land surveyors, some areas in Olympia are sinking much faster than sea levels are rising. They check into sinking benchmarks all the time. The EIS uses the phrases “rising sea levels” and “sea level rise” over forty (40) times, and never once mentions land subsidence, sinking, or soil consolidation. Perhaps the EIS Team is unaware that water levels going up and land going down are two different things. In fact, when land goes down it actually provides more flooded storage volume for the rising waters, which decreases sea level rise. Capturing some irrelevant amount of carbon is not going to stop occasional flooding in Downtown Olympia, which was already happening before and after 1952. If this effect even happens, then it would be so minor that it is too trivial to merit consideration. The EIS denies this science and therefore MUST be entirely re-written to reflect the science.

I-389-1 As described in Section 2.16.1 of the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5), sea level rise projections were developed for the State of Washington by the Washington Coastal Resilience Project (Miller et al. 2018). These projections incorporated new science, accounting for local dynamics (such as subsidence and uplift).

I-390

COMMENT

RESPONSE

I-390-1 The EIS uses the phrases “invasive species” and “AIS (aquatic invasive species)” more than five hundred (500) times. In fact, since Capitol Lake was completely frozen over 18,000 years ago, every species has invaded since then. The writers of the EIS and unelected bureaucrats are an invasive species and therefore have no right to determine which species get to live and which must die. For example, why would a few fish be more valuable than thousands of bats? The writers of the EIS have no right to use the phrase “invasive species” and therefore the entire EIS must be re-written.

I-390-1 The definition of invasive species and other terminology are provided in Section 2.1 of the Aquatic Invasive Species (AIS) Discipline Report. The presence or spread of species outside their natal range, often through human interaction and intervention, may increase competition with native species for resources, and their prolific growth often cause economic impacts. Invasive species presence and spread are regulated through Washington State legislature by WDFW and the Washington State Department of Agriculture. The AIS analysis reflects characterization and other regulations set by those state agencies with jurisdiction.

I-391

COMMENT

RESPONSE

I-391-1 If there are 15 invasive species listed by the EIS for the Estuary and Hybrid Alternatives which must now die by DES directive, and only a few salmon and shellfish are added back, does this make sense environmentally? The entire EIS may need to be re-written to disclose the full and actual environmental impacts and propose realistic and hopefully successful mitigation measures for these deaths.

I-391-1 Substantial environmental analysis was provided on Aquatic Invasive Species and Fish & Wildlife as included in the Draft EIS and Final EIS and in the Aquatic Invasive Species Discipline Report (Attachment 8) and the Fish & Wildlife Discipline Report (Attachment 9). Enterprise Services has determined that the analysis in the Draft EIS and Final EIS, together with additional information and analysis provided in the Final EIS, meet the requirements of SEPA and are sufficient to make a reasoned decision. Please refer to Attachment 21 for additional detail on how the overall ecological function of each alternative was considered in the Preferred Alternative identification process.

I-392

COMMENT

RESPONSE

I-392-1 If there are 15 invasive species listed by the EIS for the Estuary and Hybrid Alternatives which must now die by DES directive, and only a few salmon and shellfish are added back, does this make sense environmentally? The entire EIS may need to be re-written to disclose the full and actual environmental impacts and propose realistic and hopefully successful mitigation measures for these deaths.

I-392-1 The overall ecological function of the alternatives was considered during the Preferred Alternative identification process. Refer to Attachment 21 of the Final EIS for more detail.

I-393

COMMENT

RESPONSE

I-393-1 54. Page 4-108 of the EIS Notes that “The Olympia SMP Restoration Plan addresses the Budd Inlet Estuary in two of its priorities. Section 6.5 of the SMP, Priority 5 – Reconnect Fish Passage to Budd Inlet, and Restore Mouths of Tributary Streams” However, there are three major flaws in this logic WHICH WILL REQUIRE THAT THE EIS MUST BE ENTIRELY RE-WRITTEN TO ELIMINATE OBVIOUS BIAS:
 a. The will of the citizens of Washington State was already fully-expressed in the 1911 Wilder & White Plan which called for construction of the dam (finally constructed in 1951-52).
 b. There has been no vote by the citizens to rescind that plan and tear the dam out, so how can unelected bureaucrats make this decision?
 c. There is already a fish ladder connecting the Lake with Budd Inlet. That which is already connected cannot be re-connected.

I-393-1 Since the issuance of the Draft EIS, the Washington Department of Archaeology and Historic Preservation (DAHP) has issued a formal determination of eligibility and has determined that Capitol Lake is not eligible for listing in the National Register of Historic Properties. There is also no preference articulated in local land and shoreline use policies toward maintaining Capitol Lake as an impounded lake. In fact, restoration, including removal of dams and other impoundments or barriers, is a common policy objective. The paragraph described by the commenter is in Section 4.8.5.3 of EIS Supporting Chapter 4.0, and documents how the Estuary Alternative is considered consistent with established local plans and policies.

 It should be noted that it is not uncommon for agencies to update plans or develop new plans for previously developed areas.

I-394

COMMENT

RESPONSE

Keeping rocks and soil confined behind the dam until it is collected would be far more efficient and economical. When the dam is removed, the same sediment will be spewed out over a mile of West Bay. It defies common sense to think that the cost of dredging will go down by spreading the sediment over a larger area. However, the EIS completes this magic trick by cheating on the cost estimates. The EIS artificially reduces the cost of sediment removal for the Estuary and Hybrid Alternatives by assuming perpetual in-water disposal. The EIS writers say that Managed Lake sediment must be hauled to an expensive upland disposal area (due to the New Zealand Mudsnaill) while Estuary sediment can be cheaply dumped directly into the Puget Sound (probably between Anderson and Ketron Islands). The EIS writers assume that sediment spewed from the Estuary Alternative will be certified free of the mudsnaill. However, the mudsnaill is euryhaline and adapts well to brackish environments. The mudsnaill can survive in Capitol Lake and at the Yacht Club. In fact, neither sediment will be free of the mudsnaill. The mudsnaill can also survive in some areas of the Nisqually Reach near the in-water dump site. Salinity levels as low as zero (0) have been measured at Nisqually by salinity surveys, thus ensuring invasive mudsnails would thrive after spreading. The mudsnaill can trap an air bubble with its shell and float anywhere the tides go. Releasing it by removing the dam may not be the most intelligent action. If the writers of the EIS want to contradict this, then they should obtain letters from ECY, DNR, EPA, and USACE committing to allowing perpetual future dumping of West Bay sediment directly into the Puget Sound (Anderson-Ketron). Since the entire EIS is based on this single assumption, the writers of the EIS should already have obtained such letters. Even if this assumption was true for now, the writers of the EIS have no idea what restrictive rules these regulatory agencies will invent in the future. Environmental regulations are progressively more restrictive all the time. Since the cost estimates have been falsified, the EIS will need to be re-written.

I-394-1

I-394-1

Detailed information on the planning-level cost estimates was posted to the project website during the Draft EIS comment period, in response to comments received on the Draft EIS and to provide opportunity for closer review by engaged stakeholders.

It is assumed that the sediment removed during maintenance dredging in the Estuary and Hybrid Alternatives would be disposed at an allowable in-water location within the Puget Sound. This assumption is based on the suitable chemical quality of the Deschutes River sediment, which was sampled as part of the EIS analysis to get a representative understanding of sediment quality. The Deschutes River sediment would be naturally deposited in West Bay under the Estuary and Hybrid Alternatives and removed during recurring dredge events to avoid significant impacts to navigation and to maintain a working waterfront and recreational boating. Because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for freshwater aquatic invasive species persistence in deeper waters where dredging would occur. To evaluate the validity of this assumption, a survey was conducted for the Final EIS to determine whether New Zealand mudsnaill have established in Budd Inlet, given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnaill were found during this survey. See the Aquatic Invasive Species Discipline Report (Attachment 8) for additional analysis and rationale that support the assumption that in-water disposal of dredged material from the Estuary and Hybrid Alternatives would not pose a risk relative to spreading invasive species.

Before future dredge events, sampling for chemical quality and invasive species would occur, in coordination with the DMMP, to confirm suitability of the dredged material for in-water disposal. Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events.

I-395

COMMENT

RESPONSE

I-395-1 The option which makes the most sense was completely omitted from the EIS document. The most sensible option is: 1. Repair the dam, then 2. Dredge the middle basin once every 15-20 years, and 3. Kill the “invasive species”, and call this project done. The Department of Enterprise Services is typical of most Washington State Agencies in how they insist on wasting millions of dollars (so far) of money stolen from the hard-working taxpaying residents of Washington State. The EIS document is typical bureaucratic bungling over the politics of dredging and is therefore a complete waste of public funds. In what way does this EIS enable the long-term maintenance which is required in order to implement the various options? Dredging would happen once and then the politicians and unelected bureaucrats would conveniently forget about it. After that, the material which was supposed to be dredged will just flow out into West Bay and become somebody else’s problem. The entire EIS may need to be re-written to reflect this political reality, or include the fifth alternative described above. The fifth alternative will be called the “Sensible Alternative”.

I-395-1 The Draft EIS and Final EIS evaluate long-term management alternatives that were developed to meet project goals. The alternatives incorporate several components put forward in comments received during EIS scoping that were found to have regulatory and technical feasibility. The alternative suggested in this comment has been considered, but would not achieve project goals (as described in Section 4.4 of EIS Supporting Chapter 4.0, eradication of the New Zealand mudsnail in the Project Area is not expected to be feasible).

Enterprise Services began the process of seeking necessary permits to dredge accumulated sediment in 2013, following the passage of ESHB 5035. During that process Enterprise Services learned that permitting agencies and tribes would not authorize any maintenance dredging or other work until a plan for maintenance was established. In addition, dredging and disposal, rather than reuse in the waterbody, would substantially increase costs because all sediment would require upland disposal.

Regarding the question in this comment on the authority of this EIS, maintenance is not "enabled" until permits are obtained from the agencies with jurisdiction for the proposed actions, in the next project phase. Please see Final EIS Supporting Chapter 7.0 for additional detail on the plan for shared funding of maintenance dredging in West Bay, and see EIS Supporting Chapter 9.0 for the list of permits and approvals that are needed before construction and long-term maintenance of the Preferred Alternative.

I-396

COMMENT

RESPONSE

I-396-1 All three options create thousands of feet of new walking paths and boardwalks which are partially hidden from Deschutes Parkway. However, the report contains no evidence that the City of Olympia and/or Washington State Patrol is ready to dedicate additional resources for public safety to add patrols to these proposed rape trails. The Washington State Patrol and City of Olympia Police which currently provide security in that vicinity must be contacted for their official responses prior to obligating them with additional unfunded mandates.

I-396-1 Regarding concerns about public safety, see the Global Response for Land Management.

I-397

COMMENT

RESPONSE

I-397-1 The Draft Environmental Impact Statement issued by the Department of Enterprise Services raises concerns for those of us concerned about the degradation of the environment both by the dam and future impacts due to climate change. The Estuary option is clearly the best (and least expensive), but important points were either left out or not emphasized.

The estuary habitat reestablished by dam removal would have substantial beneficial effects for salmon, other anadromous species, and marine fish. Due to declines over many decades, estuary habitat is an increasingly valued habitat as compared to freshwater lakes, which are more abundant.

The DEIS has too little discussion of the impacts of climate change on the area and the promise of climate change mitigation for each alternative. It should be emphasized that estuaries are quite effective at sequestering carbon and this should be quantified in the statement.

I-397-1 Comment noted. The characterization of climate change impacts, and the characterization of carbon sequestration potential under the project alternatives in the Draft EIS and Final EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives. Please see Attachment 21 for additional detail on how the alternatives were evaluated relative to overall environmental sustainability, which considered climate resiliency, during the Preferred Alternative identification process.

I-398

COMMENT

RESPONSE

I-398-1 The dam-removal options appear to be a scheme to transfer the cost and the politics of dredging from the Department of Enterprise Services to other entities. The other stakeholder entities should provide written responses regarding whether they accept this cost and responsibility. In the absence of such written documentation, can Washington State Taxpayers assume that the City of Olympia, Port of Olympia, Department of Natural Resources, and the Squaxin Tribe accept the future costs of dredging for the dam removal scenarios? Are the writers of the EIS proposing something which the EIS Work Group Members already know is never going to happen? The entire EIS may need to be re-written to disclose the financial impact on other entities and propose mitigation for when DES fails to dredge, which we already know is going to happen based on the documented history of this agency.

I-398-1 Please refer to Attachment 23 of the Final EIS for a Memorandum of Understanding for shared funding to be provided by the Funding and Governance Work Group for increased maintenance dredging costs, through 2050. Final EIS Supporting Chapter 7.0 also provides a summary of the proposed funding strategy for the long-term management project.

I-399

COMMENT

RESPONSE

I-399-1 Removal of the dam cannot possibly improve the water quality in the area currently occupied by Capitol Lake, because the brackish water in Budd Bay is already more contaminated than Capitol Lake (per the EIS), and the water quality in Capitol Lake is already stated to be “good” (per the EIS) and has even been improving in recent years (per the EIS). The EIS may need to be re-written to reflect this significant oversight. These various sections of the EIS seem to have been written by different people who were not communicating with each other. Instead of talking to each other, they may have been in different offices or out walking their dogs during the Covid lockdown.

I-399-1 Please refer to Section 4.3.5 of Final EIS Supporting Chapter 4.0 and Section 5.5.2.2 of the Water Quality Discipline Report, which states that the Estuary Alternative would have significant impacts on water quality in the lake basin compared to existing conditions. However, although these impacts would be significant compared to existing conditions, they would reflect conditions that are similar to what is experienced in other inlets in South Puget Sound and reflect typical estuary conditions.

I-400

COMMENT

RESPONSE

I-400-1 The Funding and Governance Work Group does not include any stakeholders from private industry or the Federal Government. Were those stakeholders excluded so they would be unaware of the proposed transfer of the financial, environmental, and political burdens of dredging West Bay?

I-400-1 Enterprise Services convened the Funding and Governance Work Group following direction from the Washington State Legislature to evaluate and identify an option for shared funding and governance for long-term management of the Capitol Lake – Deschutes Estuary. The Funding and Governance Work Group is made up of tribes and governmental partners with jurisdiction and/or taxing authority in the Project Area. These entities would provide shared funding for increased maintenance dredging under the Estuary Alternative.

The current approach to shared funding for maintenance dredging does not require the marinas or other entities to provide funding beyond what would be needed for dredging under the No Action Alternative. And, Enterprise Services is actively engaged with the private marinas on this topic.

The US Army Corps of Engineers has statutory responsibility to maintain navigation in Budd Inlet. Funding would be requested from the USACE for maintenance dredging. The maintenance dredging would be relatively consistent with historic dredging that was conducted by the USACE in the Federal Navigation Channel to support commercial navigation in the Deschutes Estuary before the 5th Avenue Dam was built.

I-401

COMMENT

RESPONSE

I-401-1

According to the Long-Term Hydrodynamic and Sediment Transport Model, a single large flooding event on the Deschutes River without the dam would move over 250% more tons of sediment into West Bay. This would significantly reduce the depth of draft for all vessels and it would take a long time to clean up the resulting underwater disaster. After that event is everyone supposed to wait several years for the dredging approvals before they can operate large boats again? Future dredging will be required to jump through the hoops of future regulations, not today's. The noose is slowly tightening on the Olympia Waterfront.

I-401-1

Annual sediment monitoring is proposed under the Estuary and Hybrid Alternatives to increase certainty that maintenance dredging is responsive to actual environmental conditions. It is assumed that maintenance dredging may be needed at an average frequency of 6 years under the Estuary Alternative and 5 years under the Hybrid Alternative.

Please see Final EIS Supporting Chapter 7.0 for a description of a Memorandum of Understanding among members of the Funding and Governance Work Group for shared funding to dredge the increased sediment above existing conditions under the Estuary and Hybrid Alternatives. The term of this agreement is anticipated through 2050, with opportunity for extension. This agreement also assumes governance for the Dredging Program, to include oversight of the design, permitting, and contract management for sediment management and maintenance dredging throughout West Bay. Often, federal permits for maintenance dredging programs can be obtained for a 10-year duration.

The Navigation analysis included in Section 4.2 of the EIS Supporting Chapter 4.0 and in Attachment 6 describes that implementation of this Dredging Program could avoid chronic shallowing that occurs in West Bay, and this could be a beneficial effect.

I-402

COMMENT

RESPONSE

I-402-1

The EIS appears to neglect the full effects of global warming. Global warming alarmists have determined that the City of Olympia will soon be entirely underwater due to anthropogenic carbon. As the hydrodynamic model shows, deeper water results from global warming melting the ice caps. It is also well understood that deeper water always flows more slowly for a given volumetric flow rate. Does this slower velocity result in less sediment transported into West Bay? Will the additional water from melting glaciers allow vessels of deeper draft to enter West Bay and Downtown Olympia, thereby eliminating the need for dredging? One global warming scenario was demonstrated in the model but does not appear to have been correctly-interpreted by the writers of the EIS. Perhaps this section of the EIS will need to be re-written.

I-402-1

Climate change including global warming and Relative Sea Level Rise (RSLR) is considered in the EIS. Section 3.1.7 of EIS Supporting Chapter 3.0 discussed the effects of climate change on Capitol Lake in terms of RSLR, rainfall patterns, and river flow rate. Section 3.2.2.3 mentioned the potential impacts from RSLR on water levels, current velocities, and sedimentation rate. It is noted that there are several climate change model projections, and the analysis of impacts focused on the worst-case scenarios such as the sedimentation rates without RSLR. It should also be noted that RSLR is occurring gradually over multiple decades and the EIS needs to consider the short-term impacts before extensive RSLR has occurred.

I-403

COMMENT

RESPONSE

I-403-1 According to the tribal principal of “Gwitsawdit” (sidebar on page 3-99) the filling of Budd Inlet to create the City of Olympia was a skookum violation of the “teachings of the land”. So why would just the dam need to be removed? Actual respect for the “... balance of life and respect for nature...” requires the removal of approximately half of Downtown Olympia in order to restore full gwitsawdit tidal flow and “emphasize the interconnectedness of all aspects of the environment”. By what process was the extent of removals determined? Who arbitrarily determined that removing just the dam would provide complete gwitsawdit? Clearly, more removals are required in order to restore the “... balance of life and respect for nature..” to the Olympia waterfront. Perhaps removing Downtown Olympia can also be included in a future phased approach for the project.

I-403-1 The Draft EIS and Final EIS provide analysis and disclosure of potential environmental impacts associated with the Capitol Lake – Deschutes Estuary Long-Term Management Project, as described in Section 1.4 of EIS Supporting Chapter 1.0. Analysis of other issues, including those listed by the commenter, is beyond the scope of analysis for this EIS.

I-404

COMMENT

RESPONSE

I-404-1 Sections 3.10 and 3.14.5 of the EIS fail to fully-appreciate the impressive visual resource which will be restored when the blue-sky-reflective lake surface is replaced by natural organic mud pit vistas. This will be similar to Mud Bay which is well known by locals to offer aesthetically-superior views at low tide. The EIS fails to include the substantial benefits of mud. The City of Olympia can generate significant revenue from hosting mud wrestling competitions.

I-404-1 The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-405

COMMENT

RESPONSE

I-405-1 | It is common knowledge that sediment in water prefers to settle out at the lowest points. If a marble is dropped into the YMCA swimming pool, it does not stick to the sides of the pool or remain in the shallows. It rolls on down the slope to the deep end. The deepest spot in the West Bay pool is close to where the Port of Olympia ties up the big ships. In addition, multiple tidal cycles repeatedly wash sediment around in circles until it sinks down into the deepest areas and stays there until dredged. Figure 4.1.3 on Page 4-13 does not show the Port of Olympia pier and turning basin being filled up by sediment any deeper than just outside the basin. Therefore, the graphic is wrong. Please make the appropriate corrections which show the turning basin filled up with sediment.

I-405-1 | Figure 4.1.3 on Page 4-13 of the Draft EIS demonstrates larger sedimentation rate in locations closer to the 5th Avenue Dam such as the Olympia Yacht Club than the Port of Olympia. That is because large amount of sediment from Capitol Lake and upstream Deschutes River will be deposited in those locations immediately downstream of the 5th Avenue Dam due to a sudden reduction of current velocities and a relatively deep area. It is acknowledged that the Navigation Channel and Turning Basins in the Port of Olympia are deeper than those locations. However, sediments will fill up locations such as Olympia Yacht Club in a larger rate before they reach equilibrium state. Afterwards, sedimentation rate in the Port of Olympia will be increased significantly.

The numerical modeling software package used in the Hydrodynamics and Sediment Transport Discipline Report is a state-of-the-art process-based model that captures physics of the underlying processes (tides, waves, river flow, and salinity) resulting in sediment transport for a complex system such as the Deschutes River. A swimming pool (no significant currents with relatively uniform water depth) is not analogous to a river system where river flow/tidal currents and variable bathymetry control fate of sediments.

I-406

COMMENT

RESPONSE

I-406-1 | The first paragraph of Page 4-16 contains a fundamental misunderstanding of the Federal Navigational Servitude Doctrine. The Doctrine gives the Federal Government the right (but not the obligation) to regulate, enable (or obstruct) the navigation of navigable waterways. In what way does the doctrine require the USACE to dredge sediment from West Bay every 5-6 years as required by the Estuary and Hybrid Alternatives? Perhaps the writer of that statement could check with an Attorney specializing in waterway navigation rights. Alternatively, perhaps 5-6 years is not the correct interval for dredging. The EIS writer should enlighten us on that subject.

I-406-1 | Please refer to the response to Comment I-677-1.

I-407

COMMENT

RESPONSE

Page 4-20 contains a technical error. It refers to a “1-year river flow event”. Note that the 100-year flood event by definition has a (1/100) 1% chance of being equaled or exceeded in any given year, and the 50-year event has a (1/50) 2% chance of being equaled or exceeded in any given year. This means that the 1-year event would have a (1/1) 100% chance of being equaled or exceeded in any given year.

I-407-1 There is no flood event above zero flow which has a 100% chance of being equaled or exceeded in any given year. Therefore, the 1-year event is a statistical impossibility. Some hydrologists in the Puget Sound area do not appear to comprehend elementary statistics. However, all references to a “1-year river flow event” are pure fiction and should be removed from the EIS at the same time the entire document is being re-written.

I-407-1 A 100-year event does not mean the event will occur exactly once every 100 years, or that it will not happen again for another 100 years. For meteorologists, the one in 100-year event is an event of a size that will be equaled or exceeded ‘on average’ once every 100 years. This means that over a period of 1,000 years you would expect the one in 100-year event would be equaled or exceeded ten times. But several of those ten times might happen within a few years of each other, and then none for a long time afterward. The 1-year river flow is the largest flow that would be equaled or exceeded ‘on average’ once a year. In other words, the 1-year flow event describes the largest flow event that will occur with 100% likelihood in any given year.

I-408

COMMENT

RESPONSE

Table 4.2.3. on Page #4-20 shows that the Estuary Alternative will dump over 6 inches of AIS-infested sediment onto the Olympia Yacht Club every year on average.

I-408-1 Table 4.2.6 on Page 4-28 shows that the Hybrid Alternative will dump almost 8 inches of AIS-infested sediment onto the Olympia Yacht Club every year on average. No business can survive the cost of receiving that much waste material except perhaps a landfill. Has the Department of Enterprise Services reclassified the Olympia Yacht Club as an underwater landfill?

I-408-1 The 5th Avenue Dam does not currently provide a barrier for movement of aquatic invasive species (AIS) into Budd Inlet; debris and sediment with AIS are discharged through the 5th Avenue Dam during high flow events. In response to comments on the Draft EIS, a survey was conducted in Budd Inlet to evaluate whether New Zealand mudsnails have colonized as a result of this discharge for more than a decade. No New Zealand mudsnails were found during the survey.

AIS are not expected to be present in the Deschutes River sediment that accumulates under the marinas. The sediment would be tested prior to dredging and disposal.

Please refer to Final EIS Supporting Chapter 7.0 for a discussion of the joint funding that is proposed for the maintenance dredging under the Estuary Alternative. The maintenance dredging would avoid significant adverse impacts to the marinas.

I-409

COMMENT

RESPONSE

I-409-1 Page 4-26 states that piles at the Olympia Yacht club may need to be removed and reinstalled to allow for dredging. The EIS writers imply that this must be an easy task which means they obviously have never done it before. Pile removing and installing is not easy to get a permit for. Just waiting for a response to the application can take weeks or months.

I-409-1 Correct. Pile removal and installation does require a suite of environmental permits and approvals. This activity, however, would be a function of the proposed maintenance dredging and therefore, would be a component of the design and permit applications for the proposed maintenance dredging. It would not be a separate project on its own.

As described throughout EIS Supporting Chapter 4.0 and in the Navigation Discipline Report, a Dredging Program could result in a minor beneficial effect given that the design and permitting effort could be coordinated across the entities in West Bay, which would alleviate any single entity having to complete the design and permitting for a single dredge event.

I-410

COMMENT

RESPONSE

I-410-1 You should eliminate all discussions of economics related to the various alternatives in Section 4.14 of the EIS. First of all, the law does not require an EIS to include economic analyses. Secondly, your writers know very little about economics and are not qualified to discuss it. For example, on pages 4-180 and 4-181 it appears that the writers of the EIS counted spending on dredging as an economic benefit (it creates employment!) . In economics, this is called Frederic Bastiat's Broken Window Fallacy, which explains how money spent to recover from DELIBERATELY-CAUSED damage (breaking windows or spreading sediment all over Budd Bay) is not actually a net benefit to society. Please remove all such economic nonsense. Sediment is less expensive to remove when contained, and the writers have made other questionable assumptions about the disposal of dredged material in the Estuary Alternative which has been explained in other comments.

I-410-1 The commenter is correct that economic analysis is not a required element of SEPA. This EIS includes an economic analysis based on direction from the Washington State Legislature. See Section 1.10 of EIS Supporting Chapter 1.0 for more information.

Regarding the qualifications of the team to complete the economics analysis, the lead analyst for economics is a professional in her field and the Economics Discipline Report and its methodology were reviewed by an independent third-party expert. Third party review is not required under SEPA but was considered an opportunity to provide independent review of the technical analyses conducted by the EIS project team that is also made up of members with expertise in the disciplines that are being studied.

Regarding the remainder of the comments, the Economic Analysis does not characterize construction or dredge-related spending as an economic benefit, because the commenter is correct—it is not. Pages 4-180 and 4-181 make a distinction between economic impacts and benefits or beneficial effects, taking care to acknowledge separately "economic activity and changes in economic value" whenever discussing project-related impacts. The Economics Discipline Report provides a detailed methodology which explicitly describes the difference between economic contributions of spending and economic benefits: Section 3.3.1, for example, states "Economic Impacts are not benefits or costs because they only measure levels of spending, not changes in social welfare."

I-411

COMMENT

RESPONSE

I-411-1 According to Page 4-177 of the EIS, in the middle of the page, the anticipated flood levels included in the City of Olympia’s Sea Level Rise Response Plan are less than those predicted with the dam in place. In other words, the plan from several years ago assumes dam removal. Therefore, Olympia’s Plan must have already previously assumed that the dam was going to be removed. This statement has accidentally revealed that as far as the City of Olympia is concerned, dam removal is already predetermined. That would make this entire EIS exercise a complete fraud. Is this a complete fraud?

I-411-1 The EIS analysis utilized hydrologic modeling of extreme river flood events and sea level rise projections to determine maximum flood elevations. The sea level rise projections used for the EIS are consistent with those included in the Olympia Sea Level Rise Response Plan. It is unknown if and how extreme river flood events were considered in the Olympia Sea Level Rise Response Plan. Responding to questions about the Olympia Sea Level Rise Response Plan is outside the scope of this EIS.

I-412

COMMENT

RESPONSE

I-412-1 Page 4-177 of the EIS states that both the No-Action and Managed Lake Alternatives will cause flooding which damages utilities. However, the shallow type of flooding which is anticipated is not even close to that which would damage properly-designed utilities. Then on Page 4-178 it is revealed that there would only be less than one more foot of flooding as compared to the Estuary Alternative. Please ask an actual utility expert to provide a valid opinion about an additional foot of flooding and all the utility damage it will cause, or else remove the statement from the EIS. Revise the EIS to identify which specific utility which will be damaged by the shallow flooding of the type which is anticipated. Since you made the statement, you must now tell the tax-paying public which specific utility is going to be damaged. There are two types of utilities around Capitol Lake, as follows: There are those which have been there since before the Dam was constructed, and have therefore made it through 70 years of utility-destroying floods which you are claiming. Alternatively, there are utilities which were installed after the dam was in place, which means they must have been defectively-designed if they do not fully-account for the dam being there. Which one of these utility defects does your statement refer to?

I-412-1 As clarification, Section 4.13.4 on page 4-177 of the Draft EIS stated that overland flooding of low-lying areas around the Capitol Lake Basin could damage utilities or interrupt service. The methodology used to describe potential impacts on utilities from flooding was based on the maximum flooding elevations identified in numerical modeling conducted for the project. It is acknowledged that this represents a high degree of simplification, as the area of overland flooding will be influenced by site topography. This degree of simplification is consistent with the overall resolution of a utilities analysis in support of a SEPA EIS, and informs decision makers of potential impacts on utilities and utility service. To clarify a point made by the commenter, the EIS acknowledges the potential for damage or interruption to utility service (based on these predicted flood elevations), but does not purport to identify impacts on specific utilities. Identifying specific utility impacts would commonly occur during design of the selected alternative. In response to this comment, Section 4.13.4 of Final EIS Supporting Chapter 4.0 has been revised to clarify that stormwater utilities and above-ground utility structures would be the utilities most at risk.

I-413

COMMENT

RESPONSE

I-413-1 90. Page 4-177 of the EIS states that both the No-Action and Managed Lake Alternatives will cause flooding which damages utilities. However, the shallow type of flooding which is anticipated is not even close to that which would damage properly-designed utilities. Then on Page 4-178 it is revealed that there would only be less than one more foot of flooding as compared to the Estuary Alternative. Please ask an actual utility expert to provide a valid opinion about an additional foot of flooding and all the utility damage it will cause, or else remove the statement from the EIS. Revise the EIS to identify which specific utility which will be damaged by the shallow flooding of the type which is anticipated. Since you made the statement, you must now tell the tax-paying public which specific utility is going to be damaged. There are two types of utilities around Capitol Lake, as follows: There are those which have been there since before the Dam was constructed, and have therefore made it through 70 years of utility-destroying floods which you are claiming. Alternatively, there are utilities which were installed after the dam was in place, which means they must have been defectively-designed if they do not fully-account for the dam being there. Which one of these utility defects does your statement refer to?

I-413-1 See response to Comment I-412-1.

I-414

COMMENT

RESPONSE

I-414-1 Pages 4-132 and 4-133 refer to Deschutes Parkway as a “scenic drive”. As anyone who has driven there recently knows, it is a very scenic tour of blue tarps, homeless camping, inoperable vehicles, garbage piles, and swamp weeds. The writers of the EIS may want to perform an actual site inspection to review how scenic this corridor really is. At least the writers have a sense of humor. Referring to Deschutes Parkway as a “scenic drive” is a complete joke. Please remove all such opinions from the EIS.

I-414-1 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-415	COMMENT	RESPONSE
I-415-1	<p>The barrier / retaining wall which is proposed to be constructed to enclose the reflective pool in the Hybrid Alternative is perhaps the ugliest aspect after the unreflective mud pit. We could call it the rusty sheet pile look. The EIS pretends to address visual aesthetics but fails to discuss the three uglies which blows the whole EIS out of the water: Homeless garbage camps, non-reflective mud pit, and rust-streaked brown steel sheet pile or black-stained concrete walls. Nothing else is worth debating about aesthetics without disclosing those impacts.</p>	<p>I-415-1 Comment noted. Visual impacts of the barrier wall under the Hybrid Alternative were discussed in Section 4.10.6 of the Draft EIS and were found to be significant. As described in Section 4.10.5 for the Estuary Alternative, tidal fluctuations, a defined river channel, exposed tideflats, and habitat areas would change the appearance of the basin, but the landscape would remain unified and harmonious with the natural setting, and impacts were found to be less than significant.</p>
I-416	COMMENT	RESPONSE
I-416-1	<p>The City of Olympia has more than 30 artesian wells as reported by the March 26, 1999 Technical Memorandum 1204 by Robinson & Noble and Brown and Caldwell. Some of those wells are still flowing. What will be the effects on wells which results from a lowering of groundwater levels in the vicinity of Capitol Lake. There was reported to be 96 known wellsites in Downtown Olympia, many of which have not been capped and are still in use.</p>	<p>I-416-1 While reintroduction of tidal flow into the basin would change the dynamics of the fresh/salt groundwater interface underlying the basin, that change is not expected to propagate any significant distance inland. The deep, artesian aquifers in the area would not be expected to be affected as these aquifers are well below tide level and, being artesian, they have a positive pressure that would resist intrusion of saltwater. Prior to 5th Avenue Dam construction, and starting in the mid-1800s when the basin was an estuary, artesian wells were used as the primary source of drinking water for Olympia.</p>
I-417	COMMENT	RESPONSE
I-417-1	<p>The City of Olympia has more than 30 artesian wells as reported by the March 26, 1999 Technical Memorandum 1204 by Robinson & Noble and Brown and Caldwell. Some of those wells are still flowing. What will be the effects on wells which results from a lowering of groundwater levels in the vicinity of Capitol Lake. There was reported to be 96 known wellsites in Downtown Olympia, many of which have not been capped and are still in use.</p>	<p>I-417-1 Please see response to I-416-1.</p>

I-418

COMMENT

RESPONSE

I-418-1 62. The EIS fails to consider the potential effects of dam removal on the depth of groundwater and drinking water wells in the City of Olympia. Wells in the vicinity of Capitol Lake will be subject to saltwater intrusion in the same way that many wells around Puget Sound have been affected by saltwater intrusion. Saltwater would back-up into an area currently inundated by freshwater. Wells in the vicinity of Capitol Lake would become tidally-influenced, and would be pumping from a lowered water level in the casing. Many wells in the Puget Sound area have been ruined by saltwater intrusion. When the exact cause is known it usually results in lawsuits. Contact the officials at the Southwest Drinking Water Office of the WA State Department of Health to verify these facts. Include their response when the entire EIS is re-written.

I-418-1 While reintroduction of tidal flow into the basin would change the dynamics of the fresh/salt groundwater interface underlying the basin, that change is not expected to propagate any significant distance inland under the upland areas where municipal wells are located. The surficial aquifers capable of delivering saltwater from the Project Area are generally not connected over the distance to the nearest well (Allison Springs - 3+ miles away).

The deeper aquifers in the area would not be expected to be affected as these aquifers are well below tide level and, being artesian, they have a positive pressure that would resist intrusion of saltwater.

I-419

COMMENT

RESPONSE

I-419-1 I prefer the managed lake option.

I-419-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-420

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake Alternatives

Subject: **Capitol Lake Alternatives**
From: Dwight Max DeNise <dwright.max.denise@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-07 10:49



To DES:

Dear Friends,

I'm in favor of the Estuary Alternative. Get rid of the dam.

Let the tides come in and go out..

Respectfully offered,

Max DeNise
Tumwater WA

I-420-1

I-420-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-421

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Estuary Alternative

Subject: **Estuary Alternative**
 From: Frances Lench <fcblench@hotmail.com>
 To: comment@capitollakedeschutesestuaryeis.org
 <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-07 15:28



I-421-1 This comment is a statement and does not affect the environmental analysis in the Draft EIS.

I-421-1

I am looking forward to your implementing this carefully thought-out plan. I will be watching and evaluating your actions. Thank you.

Fcblench@hotmail.com

I-422

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
 From: LINDA NICHOLAS <lnicholas1008@comcast.net>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-07 08:12
 Priority: Normal



I-422-1 Comment noted. See also Global Response for the Preferred Alternative Identification Process.

I-422-1

The alternative seems to be the cheapest long term solution to the snail infested algae blooming stinking Capitol Lake current condition.

I-423

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Please support Estuary Alternative

Subject: **Please support Estuary Alternative**
 From: Penny Witt <Penny_Witt@outlook.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-09 10:02



I-423-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-423-1

As a voting resident of Olympia, I support the Estuary Alternative for both the health and monetary well-being of our community.

I-424

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake Deschutes Estuary

Subject: **Capitol Lake Deschutes Estuary**
 From: nancy young <nyarnp@msn.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-07 10:06



I-424-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-424-1

Originally, I had submitted support for the hybrid plan for creating an estuary and a reflecting pool at Capitol Lake.

After further research and discussion, I have changed my mind to support the Estuary Plan, which is the more affordable plan and will help promote the healthy growth of salmon. I encourage you to follow through with this plan which will be the best outcome for our community and the health of our salmon population.

Thank you.

Nancy Young
 1616 12th Ave. SW
 Olympia, WA 98502

I-425

COMMENT

RESPONSE

I would like to see the lake cleaned and turned back to recreational use. People used to water ski on that lake. How much fun would that be to actually have a park where you can do more than just walk around and look at things? I would LOVE to be able to throw my raft in the lake and row around for a few hours.

I-425-1 See the Global Response for Land Use, Shorelines, and Recreation regarding differences in water-based recreation opportunities amongst the alternatives, and regarding future recreational opportunities, such as swimming.

I-425-1

Small towns are notorious for having nothing to do. Parks with paths are nice, but some of us would rather have a more intense experience than a meandering stroll. Especially considering how long and hot our summers have become, it would be wonderful to have a swimmable body of water in the core of our capital city.

I-426

COMMENT

RESPONSE

I-426-1

Constructing additional homeless habitat is difficult to justify when the taxpaying public will be unable to use those areas due to safety concerns. This has already happened in Seattle, Portland, and right here at Capitol Lake. The Estuary Alternative creates the most additional camping space, though this represents the future for all three options. Please stop pretending as if any of the action alternatives are going to create a nice place to bring your family. The truth is that the entire area is disgusting and you would know that if you have been there recently.

I-426-1

Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-427

COMMENT

RESPONSE

I-427-1

Page 4-26 states that the assumed disposal location for dredge spoils is at an approved open-water disposal location in the Puget Sound. The EIS writers have no idea how much longer the assumed disposal site will be allowed to receive additional crab-killing, AIS-infested sediment. Environmental regulations are getting more difficult to comply with over time. Obtaining future permits will be accomplished under tighter future regulations which have not even been invented yet. The Deschutes River will undoubtedly wash contaminated sediment and invasive species into the Yacht Club, which may or may not meet the criteria for open-water disposal. In addition, the EIS writers do not have any appreciation for the cost and difficulty of getting an upland disposal site permitted.

I-427-1

Before future dredge events, sampling for chemical quality and invasive species would occur, in coordination with the DMMP, to confirm suitability of the dredged material for in-water disposal. Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events.

Representative sediment sampling was conducted as part of the EIS process and was found to be suitable for in-water disposal. Additionally, a survey was conducted for the Final EIS to determine whether New Zealand mudsnail have established in Budd Inlet, given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnail were found during this survey. Please see Final EIS Supporting Chapter 7.0 for further discussion.

I-428

COMMENT

RESPONSE

I-428-1 Page 4-26 states that maintenance dredging in West Bay would be required every 6 years under the Estuary Alternative. Page 4-31 states that the dredging interval would be only 5 years for the Hybrid Alternative. Page 4-27 (sidebar) notes that estuary and hybrid dredging would be completed if consistent funding was available. This is a significant issue because the Department of Enterprise Services has already demonstrated their inability to provide maintenance funding due to political issues. Maintenance dredging may happen initially, but long-term maintenance is unlikely because there is no funding mechanism which cannot be defeated by the politicians. Since consistent long-term funding of lake maintenance is not realistic, please remove that assumption from the EIS when it is re-written, and propose mitigation for what happens when the sediment which should have been dredged just passes downstream and plugs up West Bay.

I-428-1 Please see Final EIS Supporting Chapter 7.0 for a description the proposed approach to funding maintenance dredging under the Estuary Alternative. Members of the Funding and Governance Work Group would provide shared funding for dredging of the increased sediment that would be deposited along the eastern shoreline of West Bay, as outlined in a Memorandum of Understanding that is provided as Attachment 23 of the Final EIS. Maintenance dredging and annual sediment monitoring are proposed to avoid significant impacts to the private marinas and to the Port of Olympia. Please also see an updated analysis in Section 4.2 of Final EIS Supporting Chapter 4.0 and the Navigation Discipline Report (Attachment 6), which describes potential impacts to the private marinas and to the Port of Olympia if funding lapses or maintenance dredging is delayed.

I-429

COMMENT

RESPONSE

I-429-1 The EIS writers apparently believe that using the word “equity” 20 times is the equivalent of actually disclosing and mitigating the equity impacts of the project. In addition, the entire EIS only mentions equity relative to tribal populations, as if black citizens do not exist. According to the EIS writers, equity only applies to tribal populations, and apparently not to any other persons of color. This is a gross violation of WA State Law. This project cannot be allowed to continue because all the options benefit whites or tribal populations more than blacks. The EIS will need to be re-written from the beginning to end, or else the project must be cancelled.

I-429-1 See response to I-372-1.

I-430

COMMENT

RESPONSE

I-430-1 | In Thurston County, housing is considered by all public officials to be a major consideration in all decisions. Considering the number of live-aboard boats at the Olympia Yacht club, there should be some accommodation for not making these people homeless by displacing their boats and/or raising their rates to pay for private dredging. The EIS must disclose the impacts of making live-aboards homeless, and propose mitigation for their near-certain dislocation. The most reasonable mitigation scenario is for the City of Olympia to take over the Yacht club when it goes bankrupt and turn it into a floating homeless camp. The EIS should propose this mitigation when it is entirely re-written.

I-430-1 | Maintenance dredging and monitoring of impacted areas of West Bay are included as part of the Estuary Alternative (and Hybrid Alternative) to avoid potential impacts on private marinas and the Port of Olympia. Land use impacts, such as those raised by the commenter, would be less than significant with assumed maintenance dredging and monitoring. See Section 4.8.5.1 of EIS Supporting Chapter 4.0 for more information, including mitigation measures available to reduce impacts.

I-431

COMMENT

RESPONSE

I-431-1 | The Hybrid Alternative with freshwater pool represents a chance to demonstrate to all citizens that thoughtful and timely win-win government is still possible. If this plan is allowed to become a one or the other proposal then I have little faith that anything will be done until the dam fails or the water is so foul that it becomes an EPA site. The Hybrid Alternative is a chance to do the right thing in a controlled manner.

I-431-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-432

COMMENT

RESPONSE

I-432-1 The three action alternatives were apparently invented and dictated by politicians. The politicians apparently thought that two extreme proposals could be made, and then a “Hybrid Alternative” in between the two extreme positions would save the day as their pre-planned tactical compromise position. This EIS reads just like Goldilocks and The Three Bears. The Hybrid Alternative is “juuuust Riiiiight”. Little did the politicians know that the Hybrid Alternative would actually end up with the absolute worst impacts of the three action alternatives. The EIS buries the fact that the Hybrid Alternative has the worst impacts of all three action alternatives. Please clarify that fact in the executive summary because most taxpaying Washington State citizens have real jobs and don’t have time to read the entire document. Nor do they have the luxury of writing fiction like some others. The following statement must appear in the Executive summary when the EIS is re-written: “The Hybrid Alternative has the worst impacts of the three action alternatives”.

I-432-1 Please refer to Tables 2 and 3 in the Final EIS Summary for a summary of potential impacts and benefits of the project alternatives, including the Hybrid Alternative.

Please see Attachment 19 of the Final EIS for a description of the process used to develop the action alternatives.

I-433

COMMENT

RESPONSE

I-433-1 All members of the Funding and Governing Work Group have long histories of hiring the most expensive consultants and paying them much more than they are worth, including paying them to fix their own mistakes. Can the hard-working taxpaying residents of Washington State look forward to more of the same waste of public funds on this project?

I-433-1 The Draft EIS comment period provides an opportunity for engaged stakeholders and regulatory agencies to comment on the accuracy and completeness of the environmental analysis, the methodology used in the analysis, and the need for additional information and/or mitigation measures, so that improvements to the EIS can be made before it is finalized. The EIS Project Team and Enterprise Services have reviewed all comments received on the Draft EIS and have made changes throughout the analyses, as needed, for the Final EIS.

I-434

COMMENT

RESPONSE

I-434-1 Page 21 of the Executive Summary states that "...dredged material would be trucked to an upland disposal site under the Managed Lake Alternative and would be taken by barge to an in-water disposal site under the Estuary and Hybrid Alternatives". This has the effect of making the Managed Lake Alternative falsely appear to have much higher long-term maintenance costs as shown in Table ES.4. In fact, the writers of the EIS have no idea whether private entities such as the Olympia Yacht Club will be permitted to transport the additional sediment (with or without contamination and invasive species) by barge and dump it somewhere else in Puget Sound waters (Anderson-Ketron) under FUTURE environmental regulations which are currently unknown by anyone and getting stricter every year. The EIS writers are apparently making the unsupported assumption that sediment from the Estuary and Hybrid Alternatives containing invasive species will be permitted to suffocate crabs at Nisqually, but not for the Managed Lake Alternative. Page 4-37 makes the claim that "dredged sediment quality in both the lake basins and West Bay is expected to be uncontaminated". That sediment is already contaminated. The cost estimates in the EIS must be revised to show that each action alternative has an equivalent cost per unit of material dredged.

I-434-1 Please refer to response to Comment I-618-2. Sediment sampling was conducted during the EIS to get a representative understanding of the quality of sediment that would move into West Bay under the Estuary and Hybrid Alternatives. Based on these data, chemical quality of this Deschutes River sediment would be suitable for in-water disposal; it is not contaminated like the sediment that currently exists within West Bay. The known contaminated sediment in Budd Inlet is expected to be remediated in the next 10 years, before removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives, based on coordination with the Port of Olympia. Please refer to Final EIS Supporting Chapter 7.0 for additional detail.

I-435

COMMENT

RESPONSE

I-435-1 Why is LOTT a separate partner for funding and governance when LOTT is already controlled by local governments? Is LOTT only a member because they have deep pockets? This project is not related to the collection, treatment, and discharge of wastewater in East Bay. In fact, statements about future TMDL restrictions based on LAKE discharges are speculative at best, and probably altogether false. Can the hard-working taxpaying residents of Washington State look forward to even higher sewer rates in the future to pay for this waste of money? LOTT already pays for numerous things which are not necessary for the collection and treatment of wastewater.

I-435-1 Enterprise Services expanded the Funding and Governance Work Group to include LOTT, following written request from LOTT. As documented in the Final EIS, potential avoided, delayed, or deferred regulatory compliance costs for LOTT and its ratepayers could potentially be avoided or minimized (compared to the No Action and Managed Lake Alternatives), associated with improved water quality in Budd Inlet under the Estuary Alternative, which has been identified as the Preferred Alternative for long-term management.

I-436

COMMENT

RESPONSE

Page 4-58 says “The New Zealand Mudsail is not expected to be within the sediment that would be dredged under the Estuary Alternative because of the salinity levels within West Bay and because maintenance dredging would occur in deeper water used for navigation”. Both of those claims are misleading. First of all, the New Zealand Mudsail can and will adapt to higher salinity conditions. It is already adapted to lower salinity levels such as in the Nisqually Reach where salinity levels as low as zero have been measured. Secondly, the maintenance dredging at the Olympia Yacht Club will include some sediments from shallow water habitat preferred by mudsnails. The reason why this is significant is because it is likely to eventually result in greatly-increased costs for long-term sediment disposal in the Estuary Alternative when it is determined that West Bay sediments cannot be transported by barge and dumped into the Puget Sound (Anderson-Ketron) due to the presence of the New Zealand Mudsail. The fact that the populations would be greatly-reduced by brackish water still leaves some of them surviving in the sediment. The sediment from West Bay would need to be transported to an upland disposal site which is far more expensive. The EIS has already resulted in people claiming that the Managed Lake Alternative is much more expensive in the long-term than the Estuary or Hybrid Alternatives. The future will prove such statements to be false. Alternatively, perhaps the writers of the EIS can procure letters from all the permitting agencies (ECY, DNR, USACE, etc) which guarantee disposal rights in perpetuity. The probability of that happening is exactly zero of course, so stop making the false claims.

I-436-1

I-436-1

The Draft (and Final) EIS included cost estimates for both in-water and upland disposal of dredged sediment for the Estuary and Hybrid Alternatives given the inherent uncertainty in sediment quality (chemical quality and potential AIS presence). Both cost estimates were considered in the Preferred Alternative identification process, documented in Attachment 21, and have been evaluated by the Funding and Governance Work Group, which is negotiating a Memorandum of Understanding for joint funding of the maintenance dredging under the Estuary Alternative.

In response to comments on the Draft EIS, the EIS Project Team has developed cost estimates for in-water disposal of dredged material under the Managed Lake Alternative. Existing environmental conditions and environmental regulations would prohibit material from the Managed Lake from being disposed at an in-water disposal site; but cost estimates were prepared because these conditions and regulations could change.

I-437

COMMENT

RESPONSE

I-437-1 Dredging Capitol Lake would not disturb any recreational or commercial activities of any type because there are none. However, dredging West Bay is significantly disruptive to both commercial and recreational activities. The EIS writers failed to mention this. In fact, they claim there will be no significant impact to West Bay regardless of the fact that pilings may need to be moved, boat berths will be temporarily unavailable, and millions of dollars will be wasted on permits and dredging which should never have been required in the first place. They fail to compare this to the absolute zero impact on recreational and commercial activities from dredging Capitol Lake. This should be corrected in the re-writing of the EIS.

I-437-1 Under the Estuary and Hybrid Alternatives, dredging in Capitol Lake is not assumed because it would have an impact on the proposed habitat elements that are planned for the Middle and North Basins, and would affect ecological function of the restored estuary. Additionally, dredging downstream of West Bay is more cost effective due to the presence of deep-water areas and ability to bring dredge equipment into the site.

The most frequent location for maintenance dredging in West Bay would be the Olympia Yacht Club, where the frequency of dredging is estimated at approximately once every 6 years (or 5 years under the Hybrid Alternative), up from once every 23 years as assumed under the No Action Alternative. Dredging could affect about 20% of the slips and take approximately 2 months to complete, as described in Section 4.2 of the Draft EIS. In other locations, maintenance dredging would occur approximately every 12 years. This type of dredging has occurred in the past in these areas, and with proper coordination, is not unusually disruptive to these operations. It is recognized that maintenance dredging could result in a temporary disruption to recreational use and navigation if careful scheduling and phasing is not incorporated (i.e., dredge only impacted areas and phase dredging of different areas of the marina so that a smaller percentage of vessels and boathouses would need to be temporarily relocated at any one time). Marinas often include this type of scheduling and phasing as part of their maintenance activities and plan for temporary vessel/boathouse relocation as part of their efforts to minimize disruptions and slip vacancies. This is further described in the Navigation Discipline Report (Attachment 6) and the Land Use, Shorelines, and Recreation Discipline Report (Attachment 12). As described in Section 4.2, of the Draft EIS, this maintenance dredging in West Bay is proposed to avoid or minimize impacts to navigation and would ensure that each entity is able to maintain operations and continue to generate economic value for the local and regional population and economy.

The Navigation Discipline Report does describe that dredging consistent with existing conditions would continue to occur under the Managed Lake Alternative. That dredging, which does not constitute zero impact as suggested in the comment, would be the responsibility of the marinas, Port of Olympia, and USACE, and there would not be involvement from other entities as would occur under the Estuary Alternative. See Final EIS Supporting Chapter 7.0 for planning level costs for these activities and a description of how maintenance dredging would be funded.

I-438

COMMENT

RESPONSE

I-438-1 | Statement on Page 4-57: "...New Zealand Mudsnaills can become acclimatized to the saline environment". Since the entire EIS must now be re-written anyways, this statement must be revised everywhere it appears to read: "New Zealand Mudsnaills have become acclimatized to numerous brackish environments throughout the world". It seems as if the EIS was written by numerous people who were not sharing their text, not communicating, or perhaps out walking their dogs during Covid lockdown.

I-438-1 | This statement has been updated in the Final EIS to say that New Zealand mudsnaills have become acclimatized to saline environments in other locations, such as the Columbia River estuary.

I-439

COMMENT

RESPONSE

I-439-1

On Pages #4-150 and 4-154, the last sentences make the claim that dam removal alternatives will wash higher-quality or clean sediment into West Bay, resulting in “substantial beneficial effects” to the quality of sediment at West Bay. Those pages further imply that this has significant environmental benefits by covering or capping contaminated sediments. There are several flaws with this logic, as follows:

a. This supposed high-quality sediment is the same sediment which the Yacht Club and Port of Olympia are then supposed to remove by dredging, which results in its removal. So the sediment will not remain in place as a cover or cap in those areas as the EIS claims. In fact, it will be repeatedly uncapped and uncovered over the years, which will repeatedly disturb the sediment below, and for some distance to the sides as well.

b. The EIS identifies this supposedly high-quality sediment as a cover over the top of contaminated sediments which provides environmental benefits. However, once contaminated sediments are capped, it is against EPA policy to uncap them, re-expose them, and spread contaminated sediments all over Budd Bay. At EPA sites, there are highly-enforced regulations in place to insure the cap is never disturbed again. Thus any of the cleaner soils over the top would need to remain undisturbed – undredged. If both the ECY and EPA plan to perpetually allow for the uncapping of sediments contaminated with “...existing high concentrations of...dioxins/furans and carcinogenic PAH’s...” then the writers of the EIS should request letters to that effect. Of course they will never obtain such letters.

c. This supposed high-quality soil is the same soil which has been infused with the New Zealand Mudsail, which means that it no longer matters how pure it is, it may not be accepted for disposal by dumping directly into the Puget Sound. This supposedly clean sediment may need to be disposed of at an upland disposal site under future regulations, just like it would if the dam remained in place. Anyone who claims that future environmental regulations will stay the same as they are today is obviously not familiar with environmental regulations. On average, they only get more difficult, complicated, and expensive over time.

The EIS must be re-written to remove all references to the supposed “substantial beneficial effects” which would accrue in the Estuary and Hybrid Alternatives when contaminated soils are capped by clean soils then repeatedly uncapped, disturbed, and exposed by subsequent dredging. The claim of “substantial beneficial effects” is provably false.

I-439-1 Please refer to the Global Responses for Sediment Quality.

Also note that cost estimates for in-water and upland disposal of dredged sediment have been developed for all alternatives given the inherent uncertainty in sediment quality in the future. The cost estimates in the Draft EIS included escalation to account for the maintenance dredging occurring in the future.

I-440

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol lake

Subject: **Capitol lake**
 From: Abdi Fatemi <abdifatemi@gmail.com>
 To: <info@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-08 14:36



I-440-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-440-1

I would like to recommend the following for capitol lake improvement:
 Hybrid alternative "decision Durability " I am talking about freshwater pool
 option not the saltwater also like to do some swimming.
 Sent from my iPhone

I-441

COMMENT

RESPONSE

I-441-1

Section 4.13.2.2 is supposed to be discussing impacts on actual utilities, not on the speculative future financial conditions of the utility providers themselves. Was this information hidden under the wrong label to reduce the probability of anyone discovering the true reason why DES wants to remove the dam?

I-441-1 See response to Comment I-541-1.

I-442

COMMENT

RESPONSE

I-442-1

In Section 4.13.2.2, The EIS launches into speculative future TMDLs from the Department of Ecology. Why are the writers so eager to reveal how the Department of Ecology proposes to use TMDLs to tighten the noose for DES and LOTT in the future, yet they ignore the same future in which the Olympia Yacht Club and Port of Olympia must apply for dredging permits under ever-tightening regulations? The EIS must assume a level playing field for each option. Assume today's regulations or tomorrow's, but don't change the rules in the middle of the game just to make the other team lose. The EIS contains this type of bias in nearly every section. Therefore it must be entirely re-written.

I-442-1 See the Global Response for Water Quality regarding TMDL allocations. Draft Budd Inlet TMDL allocations have been issued by Ecology since release of the Draft EIS. Ecology has stated that the Managed Lake Alternative "may not deplete dissolved oxygen levels in Budd Inlet at any time or location beyond the impact of the natural estuary condition." Ecology has also stated that the determination of the amount of dissolved oxygen depletion under the Managed Lake Alternative would need to be made using a mechanistic model using the same assumptions as the TMDL, unless another approach is approved through administrative order. This key determination by Ecology has also been included as part of the regulatory compliance discussion in Section 4.3.4.3 of Final EIS Supporting Chapter 4.0. The EIS project team is not aware of any proposed changes to regulations or agency policies that indicate permits under USACE and state or local permitting authorities would not be obtainable for maintenance dredging in West Bay. Please also note that under the proposed governance structure, which is outlined in Attachment 23 of the Final EIS, the state would obtain permits for the future maintenance dredging at the marinas under the Estuary Alternative, rather than the Olympia Yacht Club as suggested here.

I-443

COMMENT

RESPONSE

I-443-1 WAC 197-11-875 exempts the Department of Enterprise Services from SEPA when nothing is being constructed. Is this why all the alternatives propose to construct some items, to eliminate the exemption and make it appear as if the dam needs to be removed? Why is it necessary to construct anything at Capitol Lake? All of the problems at Capitol Lake can be addressed by maintaining the dam properly, killing invasive species, and dredging. No portion of that requires any construction. The DES could have been entirely exempted. The EIS must be re-written to include the COMMON SENSE OPTION, which is: Maintain the dam properly, kill invasive species, and dredge. Done. In this option, do not propose mitigation (none required).

I-443-1 As described in EIS Supporting Chapter 1.0, during past efforts to obtain environmental permits required to dredge accumulated sediments from Capitol Lake, it was understood by Enterprise Services that permits would not be issued by the governmental and agency partners until a preferred long-term management approach was identified and selected through an EIS process. This was further reinforced by the Washington State Legislature in Engrossed Substitute Senate Bill (ESSB) 6095 and 6248, and because there could be significant impacts as a result of project implementation. See Chapter 1.0 for further information.

I-444

COMMENT

RESPONSE

I-444-1 The sidebar on Page 4-175 is deliberately misleading. It discusses significant impacts on utilities, then over-extends the the definition to include speculative impacts on the finances of public service agencies themselves. For SEPA/EIS/GMA processes, the impact on utilities refers to the physical infrastructure and its capacity to serve, not the public agencies willingness or financial means to serve. Theorizing about how the Department of Ecology’s theoretical TMDL actions might cause higher wastewater or stormwater rates for residents at some unknown time in the future is a thinly-veiled threat of retaliation by ECY if the dam remains. If this is a real threat, then let ECY state its threat to Thurston County rate-payers in writing (hint: they won’t). The problem of TMDLs should be dealt with at its source(s), which is either the (future) TMDL action or the pollutants being discharged within the entire Deschutes River Watershed (such as the locations where cattle, other livestock, and pets routinely defecate directly into the water). Pollutants are not magically generated within the waters of Capitol Lake.

I-444-1 See response to Comment I-541-1 for information on why the draft Budd Inlet TMDL allocations are applicable to the analysis of utility impacts in the EIS. Please note that the draft TMDL for Budd Inlet was issued by Ecology in June 2022 and was available for a 30-day public comment period. The Ecology website provides additional information to describe results of their modeling, which show Capitol Lake as contributing to dissolved oxygen depletion in Budd Inlet. The TMDL for Deschutes River, which includes actions upstream to address water quality impairments, was approved in 2020 and is available on Ecology’s website.

I-445

COMMENT

RESPONSE

I-445-1

I'm writing in support of the estuary or hybrid alternatives. I encourage the state to avoid the Managed Lake alternative simply because the Managed Lake requires the most management, which would need to be consistent and ongoing. I don't feel that I can trust future state stewards to maintain the Managed Lake as proposed in this EIS. The estuary or hybrid alternatives are more likely to serve the community in the longer-term.

I-445-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-446

COMMENT

RESPONSE

I-446-1

8/10/2021 Roundcube Webmail :: RESTORE CAPITOL LAKE ESTUARY

Subject: **RESTORE CAPITOL LAKE ESTUARY**

From: Linda <l_dahmen@comcast.net>

To: <comment@capitolakedeschutesestuaryeis.org>

Date: 2021-08-08 06:37



I believe restoring the estuary to its natural state is the most beneficial for a healthy environment, for fish and wildlife to thrive and for our community. Thank you for your consideration.

A concerned citizen, Linda Dahmen

Sent from my iPad

I-446-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-447

COMMENT

RESPONSE

I-447-1 | I support returning Capitol Lake to an estuary. Thank you.

I-447-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-448

COMMENT

RESPONSE

I-448-1 | I would like to see capital lake restored into the the deschutes estuary. Returning the tidal conditions by removing the lake, will offer the waters a natural opportunity to rebalance the harm that has come from the damming of the river to form the lake.
 My main concern about this is how are we going to mitigate the invasive species impact if they are released into the sound? Will they be unable to survive in salt water?
 I-448-2 | Thank you so much, I am grateful to see us supporting the movement of our waters, and honoring the council and stewardship of the Squaxin tribe. I do think that opening this up will help decrease some of the stagnation we have been experiencing in Olympia on many levels.

I-448-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
 I-448-2 | Please refer to the Global Responses on Aquatic Invasive Species.

I-449

COMMENT

RESPONSE

I-449-1 | I am in favor of returning this area to the estuary and natural state of this area. I would appreciate you consulting with the squaxin tribe and their stewardship of this land.
 Thank you for looking at how to handle this situation.

I-449-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-450

COMMENT

RESPONSE

I-450-1 | Enough studies. Put the area back to an estuary. A hybrid model or lake is an expensive, unattractive option. Stop spending money on study after study and restore tidal action, remove the dam, and build a new bridge.

I-450-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-451

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
 From: Laura Hurtado-Webb <laurahw@earthlink.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-09 10:44
 Priority: Normal



My preference is for the Estuary for the following reasons:

- Improve environment for salmon leaving and returning to the river
- Improve ecosystem and coastal wetland area to sequester carbon
- Reduce invasive species in Capitol Lake
- Cost is least expensive of the 3 options

Thank you for reading. My input is based partially on the Washington 2016 Deschutes River Watershed Guide.

Laura Hurtado-Webb
Olympia resident

I-451-1

I-451-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-452

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail :: Estuary Alternative

Subject: **Estuary Alternative**
 From: John Nispel <chiefofcontrols@outlook.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Cc: gailnispel@gmail.com <gailnispel@gmail.com>
 Date: 2021-08-09 16:54



Both my wife and I believe allowing Capitol lake return to it's original estuary condition is the preferable alternative for the area.

John R. & Gail J. Nispel
7226 20th Ave. SE
Lacey, WA 98503

I-452-1

I-452-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-453

COMMENT

RESPONSE

8/10/2021 Roundcube Webmail - Estuary Alternative - Budd Inlet

Subject: **Estuary Alternative - Budd Inlet**
 From: Leanne Whitesell <leannewhitesell@hotmail.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-09 10:37



Hello,

As a member of the Sierra Club, I am writing in support of the Estuary Alternative as described in the Draft Environmental Impact Statement for the Capitol Lake - Deschutes Estuary Long Term Management Project. I support the Estuary Alternative because it is the only option that supports a healthy environment for all and encourages preservation and responsible growth for future generations for the following reasons:

- The current Capitol Lake is toxic to the local ecosystem, our people and our community.
- A restored estuary will bring economic, recreational and environmental benefits into the heart of Olympia.
- Restoring the estuary in full is the least costly option to improving water quality and will restore healthy marine wildlife habitats to the Deschutes River, the Budd Inlet, and West Bay areas of the Puget Sound.

Leanne S. Whitesell
 835 Steele Street NE Apt A
 Olympia, WA 98506
 317-848-2676

I-453-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-453-1

I-454

COMMENT

RESPONSE

I-454-1 | Support of estuary restoration

I-454-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-455

COMMENT

RESPONSE

According to the EIS, both the Estuary and Hybrid Alternatives are dam-removal scenarios which will require dredging of West Bay with a 5-6 year interval between dredging. However, the EIS fails to address the following issues for this dredging:

- a. What is the stable and sustainable funding source being proposed for the additional dredging of West Bay with the dam removed? Dredging on a 5-6 year interval does not appear to be funded. Will the Department of Enterprise Services volunteer to pay the additional cost of dredging West Bay, or attempt to transfer the additional costs to private industry or the Federal government?

I-455-1 a. Please see Final EIS Supporting Chapter 7.0 for a description the proposed approach to funding maintenance dredging under the Estuary Alternative. Members of the Funding and Governance Work Group would provide shared funding for dredging of the increased sediment that would be deposited along the eastern shoreline of West Bay. The agreement for funding and governance of the maintenance dredging is expected to be through 2050, with opportunity for extension. The initial duration through 2050 aligns this agreement with the longest existing lease term of the private marinas. Please refer to the Memorandum of Understanding, provided as Attachment 23 of the Final EIS for more detail on the shared funding approach.

I-455-1

I-455

COMMENT

RESPONSE

- b. Table 2.3.8 makes the mistake of only mentioning “West Bay dredging conducted by others” in the No-Action Alternative, as if the Estuary Alternative does not include any dredging by others. That is false.
- c. Has the US Army Corps of Engineers been contacted for comment? They must be specifically asked how permitting and dredging West Bay on a 5-6 year interval fits into their schedule and budget. Alternatively, if this effort is neither scheduled nor budgeted, then the entire process should be put on hold until the funding sources are identified.
- d. In addition to the cost of dredging West Bay, there will be significant recurring costs just to obtain environmental permits for dredging which are not shown in any line item. Who pays those future costs?
- e. Dam-removal options use the term “dredging” while mostly proposing to push or pump Capitol Lake silt a short distance to create an immediately adjacent island. No actual removal of soil is being proposed for island construction. It can be safely assumed that this is due to the cost of hauling and permitting which is thereby saved. However, the businesses in Bud Bay will not have this luxury for the dredge spoils they need to remove. Someone will need to pay for hauling (and permitting for hauling) to the disposal location as well as dredging the navigable channel. The islands take up volume which could be used for storage of sediment. The islands will then become sources of sediment themselves when they get washed into West Bay
- f. Future dredging permits will be obtained under future environmental regulations, not current regulations. The EIS contains 30-year dredging scenarios without any consideration of the fact that compliance with environmental regulations becomes more difficult with every change. In the future, new regulations will be invented which ECY, DNR, WDFW, USEPA, DOH, USACE, USCG, and the Squaxin Tribe have not even thought of yet. The process will continue to get more difficult and expensive over time, similar to all other types of environmental permits. Just obtaining timely comments from all those agencies is already a months-long process. Over time, permitting has reached the point where the requirements from one agency directly contradict the requirements from other agencies, which prohibits obtaining permits.

- b. This notation is correct because under the No Action Alternative, dredging would be conducted by others and not a project-action.
- c. During development of the Draft EIS, Enterprise Services engaged the USACE as part of the Technical Work Group to review regulatory feasibility of the action alternatives. In these meetings, the change to sediment conditions in West Bay was described; maintenance dredging was proposed to avoid significant impacts to navigation; and historic dredging in the Budd Inlet Federal Navigation Channel to support commercial navigation in the Deschutes Estuary was acknowledged. Under the Estuary Alternative, maintenance dredging is estimated to occur at an approximately 6-year frequency, though dredging in the Federal Navigation Channel and turning basin is only estimated to be needed at an approximately 12-year frequency. It should be noted that the average dredge frequency of the Federal Navigation Channel and turning basin in the Deschutes Estuary, before construction of the 5th Avenue Dam, was approximately 11-years. Additional coordination would occur with the USACE as part of the federal permitting process, and in the future, when federal funding is needed for dredging in the federal navigation channel.
- d. The State of Washington or Port of Olympia would obtain permits for needed dredging in West Bay, at least through 2050 as per the areas of agreement outlined in the Memorandum of Understanding, provided as Attachment 23 of the Final EIS. A coordinated permitting effort for needed dredging in West Bay would result in a beneficial effect given the complexity of the process that is now completed by each individual entity as dredging is needed.
- e. The beneficial reuse of sediment onsite during construction to create the habitat areas would avoid construction costs associated with hauling the material off-site and disposing of it upland. This is assumed for all action alternatives, though, there would be some export and upland disposal of construction-dredged material under the Estuary and Hybrid Alternatives. The habitat areas would be designed to withstand certain river flows and could be armored as needed to improve stability.
- f. The agency backlog and permitting duration would need to be accounted for in future efforts to obtain authorizations for maintenance dredging under all action alternatives. This has become a multi-year process. Note that some federal authorizations can be issued programmatically to provide authorization for multiple dredge events.

I-455-1

I-455

COMMENT

RESPONSE

I-455-1

g. Environmental rules are already sufficiently-complex that obtaining permits could require a 6-year time frame. In other words, each subsequent permit cycle may need to start before the previous dredging is complete. Dredging West Bay would then become a never-ending money-spending process.

g. Please see the response above about pursuing programmatic authorizations for maintenance dredging. Please see the updated analysis in Section 4.2 of Final EIS Supporting Chapter 4.0 and the Navigation Discipline Report (Attachment 6) for potential impacts if maintenance dredging is delayed or funding lapses.

The EIS presents future dam-removal scenarios which are impractical, unlikely, unworkable, unsustainable, and therefore guaranteed failures. The EIS must therefore proposed mitigation for what happens when these scenarios fail.

I-456

COMMENT

RESPONSE

I-456-1

Are the predictions for sediment deposition rates in West Bay for the Estuary and Hybrid Alternatives based on initial conditions of sediment in the Middle and North Basins, or are they based on the actual sediment conditions which will exist in the Middle and North Basins after dredging deferrals by DES? Sediment will only continue to accumulate in the North Basin which will increase sediment pass-through into West Bay over time. Limiting the sediment pass-through to West Bay will be dependent on timely dredging in the North Channel/North Basin which has already proven to be politically impossible. The IES proposes no mitigation for this anticipated condition.

I-456-1

As described in EIS Supporting Chapter 2.0, the Estuary and Hybrid Alternatives would be dredged during construction. This dredging would reduce sediment deposition by up to 49% in some areas of West Bay.

After construction, dredging would only occur in impacted areas of West Bay that are used for navigation. Please see Final EIS Supporting Chapter 7.0 for a description of a Memorandum of Understanding among members of the Funding and Governance Work Group for shared funding of maintenance dredging of the increased sediment under the Estuary Alternative. Maintenance dredging is proposed to avoid significant impacts to navigation and to maintain a working waterfront and recreational boating in West Bay. The agreement for shared funding and governance is anticipated through 2050, with opportunity for extension.

Please see the updated analysis in Section 4.2 of Final EIS Supporting Chapter 4.0 and the Navigation Discipline Report (Attachment 6) for potential impacts if maintenance dredging is delayed or funding lapses.

I-457

COMMENT

RESPONSE

To All Concerned:

I have been searching for the right words and I realize the recent resolution of the Olympia City Council says it all. I quote them here. The Estuary Alternative will:

- provide the rare opportunity to restore scarce tidelands and estuarian habitat,
- be the most beneficial to tribal populations,
- address social justice and equity impacts associated with the No Action and Managed Lake Alternatives,
- substantially benefit anadromous fish and marine fish,
- be the most beneficial for controlling invasive species,
- be beneficial for reducing downtown Olympia flooding,
- be the most beneficial to Budd Inlet water quality,
- be better aligned with local climate adaptation goals than the Managed Lake Alternative,
- be the least impactful to regional LOTT Clean Water Alliance and --be the most natural and environmentally sustainable, and
- be the least cost alternative over the 30-year planning horizon.

On top of this, the visual image of our beautiful Capitol dome and a restored estuary will powerfully communicate our 21st century awareness that we are part of - and not the center of -- a profound and miraculous ecosystem.

Thank you very.

Sincerely,
Becky Liebman

I-457-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-457-1

I-458

COMMENT

RESPONSE

I-458-1

Progressive Washington State politicians failed to authorize funding for Capitol Lake Maintenance in order to create a man-made disaster so they could then be environmental saviours and solve the problem by removing the dam. Progressives never let a disaster go to waste. However, after the dam is removed, what incentives do the politicians have to authorize any funding for maintenance? It won't happen. Please include a plan for full mitigation from this impact when funding is not approved and the future dredging is not authorized.

I-458-1

Please see Attachment 23 of the Final EIS for a Memorandum of Understanding between the Funding and Governance Work Group for shared funding of increased maintenance dredging under the Estuary Alternative.

I-459

COMMENT

RESPONSE

I-459-1

The sidebar on Page 4-157 of the EIS makes the claim that sediment quality in West Bay would improve in the Estuary and Hybrid Alternatives by washing cleaner sediment on top of it. Presumably this would happen by one of the following mechanisms:

- a. The contaminates are still there, but they are diluted by mixing with cleaner sediments ? (dilution makes them more difficult to clean up in the future).
- b. The contaminates are still there but they are safe because they are capped by cleaner sediment ? (which is then repeatedly uncapped by dredging, sloughing, and tidal action over the years).
- c. Future dredging re-suspends contaminated sediments and spreads them all over West Bay, which decreases the concentrations of contaminates ? (but improves sediment quality).
- d. Future dredging results in transferring contaminated sediment to some other site such as the in-water disposal site ? (try getting a permit for that).

The EIS must clarify and explain the mechanism by which sediment quality is supposed to improve, and where the contaminates will go, or remove such unsupported statements.

I-459-1

Please see the Global Responses for Sediment Quality.

I-460

COMMENT

RESPONSE

I-460-1 I guess this whole project isn't a priority with me, but I think I would like to see the hybrid version. If that option is too expensive, my second choice would be the estuary version. I know most people like the lake, but it's not a natural option and I would think it would be hard to maintain. I think making things the way nature intended might be the best option (estuary), but the hybrid option might suit more people. Sometimes I think humans do too many things to suit themselves with not a lot of regard for the planet.

I-460-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-461

COMMENT

RESPONSE

I-461-1 Housing and homelessness are very important issues in Thurston County which the EIS fails to adequately consider. Since the Estuary and Hybrid Alternatives propose to increase the cost of sediment removal at the Olympia Yacht Club by four times the current rate, where will the live-aboard residents go when the Yacht Club goes bankrupt? The proposed mitigation should include providing equivalent moorage elsewhere, because bankruptcy is the most probable scenario. Perhaps this can be included when the EIS is re-written.

I-461-1 See Section 7.2 of Final EIS Supporting Chapter 4.0 for recommendations for funding construction and long-term management. The Funding and Governance Work Group, made up of state, local and tribal government stakeholders, has pledged support for long-term management, including maintenance dredging in Budd Inlet under the Estuary Alternative. Specifics of future management and operations will be considered further during design and permitting of the long-term management project.

I-462

COMMENT

RESPONSE

I-462-1 The improvements proposed by all action alternatives will include significant upgrades to what the Capitol Lake homeless have at present. Boardwalks will offer additional area with good drainage, elevated tent sites, and excellent attachment points for blue tarps. The EIS must be re-written to include these improvements as SUBSTANTIAL BENEFITS when the dam is removed. Housing and homelessness are very important issues in Thurston County which the EIS fails to adequately consider.

I-462-1 This response acknowledges the commenter's position. The comment is a statement and does not affect the environmental analysis in the EIS.

I-463

COMMENT

RESPONSE

I-463-1

An estuary is the best option for fish and wildlife which should be the first priority. Human convenience should be the 2nd priority but animals and fish first. The estuary will restore the area to what it was decades ago and what it should be for a healthy environment. The current lake serves no useful purpose at all as no one can fish, swim, row a boat plus it usually gets scummy during the summer. Definitely no on the lake. Thank you

I-463-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-464

COMMENT

RESPONSE

I-464-1

I prefer the Estuary alternative for several reasons:
1. It replaces the 5th Ave. (vehicle) bridge, which is currently in "fair" condition. Failing to replace this bridge now, will only mean having to do so in the future.
2. The reconfiguration of the 5th Ave/bridge and Deschutes Parkway intersection will be safer for drivers and pedestrians.
3. The estuary gives the best opportunity for educational experiences. For example, I can imagine school field trips to the estuary boardwalk.
4. The Estuary Alternative gets us as close as possible to the natural state of the environment, without artificial dams, or other man-made structures.
5. The reflecting pool in the Hybrid Alternative doesn't make sense to me, as the pool wall will be exposed a significant amount of the time, whenever the tide is too low. This doesn't connect us to nature. It is a literal wall to separate the artificial from the natural.

I-464-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-465

COMMENT

RESPONSE

I-465-1 The Washington State Department of Ecology (ECY) is apparently threatening to implement drastic TMDLs for Capitol Lake discharges. One of the specific issues mentioned is nutrient loading. In the sidebar on Page 4-176 of the EIS, ECY is reportedly expected to issue load allocations to Capitol Lake IF IT REMAINS A LAKE. In other words, ECY is threatening to regulate a lake as a point source (which it is not) if the Department of Enterprise Services (DES) makes the “wrong” decision. The EIS should comment on the legality of this retaliation by regulation. Has ECY retaliation been specifically authorized by the Washington State Legislature? If not, then the EIS should name the unelected bureaucrat who is exceeding their authority by making this threat.

I-465-1 For more information on the authority delegated to Ecology relative to water quality improvement, and the process to develop a water quality improvement project for impaired water, please see Ecology's website, here: <https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process>.

More information on Ecology's Budd Inlet Dissolved Oxygen Draft TMDL can be found here: <https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process/Directory-of-improvement-projects/Deschutes-River-watershed-area-Budd-Inlet>.

The TMDL identifies several specific sources of pollution that result in Budd Inlet’s DO impairment, the largest of which is Capitol Lake; this is the reason why Capitol Lake receives a wasteload allocation.

I-466

COMMENT

RESPONSE

I-466-1 Page 4-36 contains the statement: “The lake basin is currently overwhelmed with aquatic plant growth, and further loss of open-water areas is expected to result in a SIGNIFICANT IMPACT on water quality” This statement must be rewritten to reflect the truth as follows: “Due to the failure by DES to properly manage aquatic weeds and algae, the lake basin is currently overwhelmed with aquatic plant growth. Continued failures by DES to provide this basic maintenance is expected to result in SIGNIFICANT IMPACT on water quality”.

I-466-1 This statement has been revised as follows: the lake basin currently has extensive aquatic plant growth, and further loss of open-water areas, in the absence of active lake management, is expected to result in a significant impact on water quality.

I-467

COMMENT

RESPONSE

I-467-1 The effects of ever-tightening regulatory restrictions are relevant to the Yacht Club and the Port of Olympia, because their maintenance dredging in the future will be done under future regulations which will undoubtedly be more restrictive than current regulations. The writers of the EIS look into their crystal ball and see future TMDLs which the Department of Ecology is supposedly going to use to force removal of the dam, or somehow regulate Capitol Lake as a point source. Then, the EIS writers look the other way when dam-removal forces West Bay users to get their dredging and other permits under the same type of ever-tightening environmental restrictions. This is an example of bias which the EIS pretends does not exist. The deck appears to have been stacked. The entire EIS must be re-written to eliminate this bias.

I-467-1 Please see response to Comment I-442-1.

I-468

COMMENT

RESPONSE

I-468-1 According to the EIS, if DES can manage Capitol Lake poorly enough, and dischargers to the Deschutes river can pollute the river sufficiently, then Ecology will do its part to force removal of the dam. Otherwise, ECY will at least use TMDLs to over-regulate point source permittees to compensate. Since the nutrients are in the Deschutes River, can ECY provide written guarantees that nutrient loading will go down when the dam is removed? Perhaps the Deschutes River can be freed from such bondage and inject those nutrients directly into West Bay with no polluting dam in the way. The EIS should provide the necessary guarantees that phosphorus, nitrogen, and TOC nutrients will go down, or else dam removal would be a waste of tax dollars paid by hard-working citizens of Washington State. Perhaps the writers of the EIS can request written assurances from ECY on that subject.

I-468-1 Sections 4.3.5 and 4.3.6 of EIS Supporting Chapter 4.0 describe that under the Estuary and Hybrid Alternatives, concentrations of nitrogen will increase with dam removal, but concentrations of TOC and phosphorus will decrease. These changes reflect the existing differences between water quality in the Deschutes River as compared to the lake. If the dam is removed, future changes in nutrients will be driven by changes in the river. The EIS mentions the potential improvements to river water quality if the Deschutes River TMDL is successfully implemented. However, this watershed-scale management effort will be implemented regardless of which alternative is selected for implementation in the Capitol Lake basin, and implementation activities are not directly or indirectly impacted by the project alternatives. Therefore, while they are mentioned they are not evaluated as part of the impact or benefits resulting from implementation of the project.

I-469

COMMENT

RESPONSE

I-469-1

According to the EIS, Capitol Lake water is already cleaner than Budd Bay, and getting cleaner. It seems that the proposed estuary would be contaminated by the brackish water from Budd Bay. Who can provide a guarantee that the water quality within the new estuary will be cleaner when mixed with Budd Bay water under tidal influence once the dam has been removed? Such claims should be regarded with suspicion until they are provided in writing with some type of scientific evidence.

I-469-1

Please refer to Section 5.5 of the Water Quality Discipline Report (Attachment 7) for a detailed analysis of potential changes to water quality under the Estuary Alternative; this is also summarized in Section 4.3 of Final EIS Supporting Chapter 4.0. Please also see response to Comment O14-1-18.

I-470

COMMENT

RESPONSE

I-470-1

The sidebar on Page 4-176 states that the Department of Ecology may assign TMDL allocations to Capitol Lake, then use them as a hammer to force unrelated dischargers at other locations to reduce their discharges if Capitol Lake does not behave according to the Department of Ecology's wishes. This may be a violation of the Nolan-Dolan principal or another legal principal which requires that conditions imposed on an entity must have a direct connection to that entity's impact. It is not legal for a law enforcement agency to issue a speeding ticket to someone riding in the back seat of the bus. Please check with legal counsel and remove the sidebar on Page 4-176 from the EIS.

I-470-1

Please see response to Comment I-465-1.

I-471

COMMENT

RESPONSE

I-471-1 The sidebar on page 4-175 of the EIS, states that that ECY will use TMDL load allocations to regulate Capitol Lake discharges. By what process does ECY assign enforceable TMDL's to Capitol Lake? In the future ecological disaster scenario in which the dam remains in place, is the ECY threat to regulate lake discharges on Page 4-175 of the EIS actually just a threat from the writers of the EIS? Are the proposed regulations actually for point sources whereas dams are defined as non-point sources? As the writers of the EIS are aware, ECY cannot regulate that which is not provided for by the appropriate RCW/WAC's such as 173-201A WAC and 173-226 WAC. Which permit is being violated? When the EIS is entirely re-written to eliminate such confusion, please be sure to cite the code reference which enables ECY to regulate nutrients discharged from a Lake.

I-471-1 Please see response to Comment I-465-1.

I-472

COMMENT

RESPONSE

I-472-1 19. The supposedly poor water quality in Capitol Lake was cited in The Daily Olympian on July 28th, 2021 as the reason why the dam should be removed. Yet the EIS states that the lake has: "...good water quality in terms of physical and chemical properties important to aquatic life" on the lower half of page 3-26. Since someone is not being truthful here, perhaps the EIS writers can clarify exactly who that is. It appears that those representing the EIS team have spread verbal mis-information about the water quality in Capitol Lake, while providing the truth in writing, knowing that most people don't have time to read over a thousand pages. That way, the EIS team will not get caught lying, but the word about needing to remove the dam still gets out there. The EIS team and DES could easily correct the public's mis-perception, but they won't.

I-472-1 Please see the Global Responses to water quality comments regarding the characterization of Capitol Lake water quality as good, and the additional analysis of the ability of the alternatives to meet water quality standards and TMDL allocations.

I-473

COMMENT

RESPONSE

I-473-1 Page 4-175 of the EIS states that the Department of Ecology (ECY) blames the dam for depleting dissolved oxygen levels in Budd Inlet. Instead of making unsupported statements, it would be preferable for the EIS to identify the report title and page number where ECY blames the dam for low water quality in Budd Inlet. If the Department of Ecology has issued such a written statement, then they also must be willing to provide a written guarantee that water quality in Budd Bay will improve when the dam is removed. Please also identify the reference where ECY provides this guarantee. Otherwise, the hardworking taxpayers of Washington State might spend hundreds of millions of dollars to create an odorous mud pit which provides few benefits. This clarification will be relatively minor considering that the entire EIS needs to be re-written anyways.

I-473-1 Please see response to Comment I-465-1. Please also see Section 4.13.2.2 of Final EIS Supporting Chapter 4.0 (page 4-175 of the Draft EIS, as referenced in this comment), which has been updated to reflect the Draft TMDL for Budd Inlet, which was issued by Ecology in June 2022.

I-474

COMMENT

RESPONSE

I-474-1 The EIS does not appear to have any beautifully-rendered illustrations which depict how the Washington State Capitol Dome will appear when reflected in the estuary mud pit. Please add one of these to the EIS.

I-474-1 The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-475

COMMENT

RESPONSE

I-475-1 LOTT set outrageously high sewer rates so they could pay for expansion of their wastewater empire (and million-dollar employee lawsuits) regardless of the timing of future connections. LOTT wanted to construct their “highly-managed” Taj Mahal wastewater alternative ASAP regardless of the timing of future connections. LOTT went way beyond what the Department of Ecology was requiring. There was a letter to this effect which the Department of Ecology provided to LOTT about 25 years ago (which nobody can seem to locate now). Since current sewer rates are partly based on the poor water quality in Budd Bay with the dam remaining in place, does that mean LOTT will reduce their rates once ECY agrees that water quality has dramatically-improved after dam removal? Is LOTT willing to commit to such a rate reduction, or are they just threatening higher rates for the Managed Lake Alternative? Please identify who is actually making this threat? Is it LOTT, ECY, or just the writers of the EIS?

I-475-1 Under the Managed Lake Alternative, there is a high likelihood that new TMDL allocations (provided by Ecology in the Draft Budd Inlet TMDL, released in June 2022) could shift additional responsibilities for nutrient reduction to wastewater and stormwater dischargers. LOTT would almost certainly need to invest in treatment capacity, with increased costs for ratepayers. There is also a potential small increased risk and cost associated with reduced capacity to regulate floods for Deschutes River flows.

Under the Estuary Alternative, regulatory compliance costs for LOTT and its ratepayers could potentially be avoided or minimized (compared to the No Action and Managed Lake Alternatives), because of improved water quality in Budd Inlet.

I-476

COMMENT

RESPONSE

I-476-1 Section 3.3 of the EIS cites nutrient loading and resulting low oxygen levels as the main problems created by the dam. Lake aeration has been used in the past to solve that problem. There are several different configurations to consider, which vary from fine-bubble diffusers to in-lake fountains. The aeration would only need to operate during times of the year when dissolved oxygen levels are too low. There are numerous types of rotary and floating aerators which could be temporarily installed to assess the effectiveness of aeration before spending millions of dollars on a dam removal project which only serves to pass nutrient-loaded sediment (and dredging costs) onto someone else downstream. Aeration is guaranteed to have at least some effect on nutrients. DES has no right to waste the taxpayer’s money from the hard-working citizens of Washington State until they have at least tried some lower-cost options.

I-476-1 Please see the Global Response to water quality comments regarding adaptive management methods, including chemical applications.

I-477

COMMENT

RESPONSE

I support the Deschutes Estuary Restoration Team in its efforts to restore the Deschutes Estuary. Their position is based on best available science and reflects the urgency we face as a nation and a planet in stopping the dramatic decline in ecosystem health and biodiversity we have witnessed in a few decades.

As a member of the League of Women Voters' Water Study team, I also am acutely aware of the ongoing damage to our water resources. This is clear in the reduced water quality, increased sediment and invasive species that have plagued Capitol lake and are getting worse, making any use by the public impossible.

Our society needs to acknowledge the wisdom of the indigenous peoples who correctly view the land and its resources as relations. Current science in biology, physics and chemistry amply demonstrate the interconnectedness of all living beings and the inherent wisdom of nature.

Our current world view that views resources as commodities and individuals as separate has clearly run its course, and continuing in this perspective is threatening our very existence. Our legal system needs to change to reflect REALITY - that all parts of our living system have rights and need to be respected or we will perish.

I urge you to follow the recommendations of DERT and let the river assume its rightful place in our ecosystem, free of human interference.

Thank you.

Esther and Warren Kronenberg

I-477-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-477-1

I-478

COMMENT

RESPONSE

I-478-1 The WQ Improvement Report (ECY Publication 12-03-008, June 2012) identifies that the sources of the water quality issues on the Deschutes River are septic systems, agricultural operations, Ayer/Elwanger Creek, Tempo Lake, Chambers Creek, Lake Lawrence, Reichel Creek, and Spurgeon Creek. These are listed as contributing to excess nutrient loads and numerous other water quality problems. Refer to Page 178 of the WQ Improvement Report for this information, including cattle defecating directly into the River. Perhaps these contributions of nutrients and therefore low oxygen levels can be addressed at their sources instead of requiring Budd Bay point-source dischargers to make up the difference? This EIS process appears to have already advanced beyond the point where the truth makes any difference, but this should still be explored if it is not too late.

I-478-1 As described in the Draft EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes TMDL and other efforts are expected to improve water quality in the Deschutes River over the long term, which should result in improvements to water quality in the Project Area. Please also see response to Comment I-465-1.

I-479

COMMENT

RESPONSE

I-479-1 Every fourth of July, thousands of waterfront land owners launch tons of fireworks over (and therefore into) Thurston County Lakes. The active ingredients in these fireworks are metals and metallic salts. There are dozens of color-rendering combinations of sodium, potassium, copper, sulfur, magnesium, phosphates, nitrates, chlorides, etc. When these polluting nutrients come down the Deschutes River, will removing the dam make the nutrients disappear?

I-479-1 This is an existing condition that would not change as a result of the action alternatives.

The water quality analysis provided in Sections 3.3 and 4.3 of EIS Supporting Chapters 3.0 and 4.0, and in the Water Quality Discipline Report (Attachment 7) include data from water quality samples collected from the Deschutes River. The analysis describes changes to water quality as it moves into and through Capitol Lake, following review of several years of data.

With full implementation of the Deschutes River TMDL, led by Ecology, there would be a continuing trend in water quality improvement in the Project Area.

I-480

COMMENT

RESPONSE

I-480-1 Section 3.3 of the EIS cites nutrient loading and resulting low oxygen levels as the main problems created by the dam. In that case, perhaps harvest the invasive plant species and algae before they can decompose and add to the nutrients which result in oxygen depletion. Aquatic plants create good compost for gardens. Perhaps also try adding low doses of alum which is done at other lakes to control nutrient loading. These are both cheaper than removing the dam.

I-480-1 Please see the see the Global Responses to water quality comments regarding lake management methods.

Please also see Section 4.3.4.1 of EIS Supporting Chapter 4.0, which describes that under a Managed Lake Alternative, an adaptive lake management plan would be developed to achieve water quality objectives and enhance beneficial uses. These management actions would include development of an action threshold for the summer mean concentration of total phosphorus. This threshold would be used to identify when management actions are needed to reduce the frequency and extent of recreation impacts from algae, aquatic life impacts from high pH and dissolved gas in shallow waters, and low dissolved oxygen in deeper waters. An aquatic plant management plan would be developed to maintain a healthy aquatic plant community that does not impair recreation or aquatic life uses. The adaptive lake management plan would specify water quality and aquatic plant monitoring procedures for evaluating whether the objectives are being met or need to be modified based on changes in water quality conditions or lake uses.

I-481

COMMENT

RESPONSE

I-481-1 Section 3.3 of the EIS cites nutrient loading and resulting low oxygen levels as the main problems created by the dam. In that case, perhaps harvest the invasive plant species and algae before they can decompose and add to the nutrients which result in oxygen depletion. Aquatic plants create good compost for gardens. Perhaps also try adding low doses of alum which is done at other lakes to control nutrient loading. These are both cheaper than removing the dam.

I-481-1 Please refer to response to Comment I-480-1.

I-482

COMMENT

RESPONSE

I-482-1

Table 3.3.6 and Figure 3.3.5 show the results of the ECY modeling and reporting dissolved oxygen levels and depicts steadily improving oxygen levels in Budd Bay through 2006-2008-2014. Since water quality has been steadily improving, why would DES push the panic button now and rip the dam out? Perhaps the EIS could include a graphic which more-clearly shows how dissolved oxygen levels have been improving over time. This would communicate the truth about oxygen levels. Please don't cheat on this graphic by doing something like comparing October of one year to May of another.

I-482-1

Please see Table 3.3.6. of the Draft EIS and Final EIS, which summarizes the water quality characteristics of Budd Inlet, including dissolved oxygen levels, from 2010 to 2014. Please also refer to Figure 3.3.7 of the Final EIS which shows Ecology-modeling of dissolved oxygen depletion in 2006, 2008 and 2014.

Please also note that Enterprise Services developed a decision-making process for identifying the Preferred Alternative that considered a wide range of information, including performance against project goals, other environmental impacts and benefits, environmental and economic sustainability, construction impacts, and feedback from engaged stakeholders (referred to as Decision Durability). The decision-making process goes beyond findings from the water quality analysis. Please refer to Attachment 21 which provides more detail on the Preferred Alternative identification process and the findings from this evaluation.

I-483

COMMENT

RESPONSE

I-483-1

There are numerous statements all throughout the EIS which mention good water quality in Capitol Lake. For example, the sidebar on page 3-28 states: "...Capitol Lake exhibits relatively good water quality when compared to other lakes in the area. Ecologically, the low temperatures and high dissolved oxygen are more supportive to cold water fish than other local lakes." However, the supposedly poor quality of water in Capitol Lake was cited in The Daily Olympian on July 28th, 2021 as the reason why the dam should be removed. The hard-working, tax-paying citizens of Washington State have a right to know who is lying here.

I-483-1

Please see response to Comment I-472-1. Please also note that Enterprise Services does not have authority or oversight over articles published in The Olympian.

I-484

COMMENT



RESPONSE

8/10/2021 Roundcube Webmail - Estuary Alternative

Subject: **Estuary Alternative**
 From: Jeb Maki <Jeb@TreasureRiver.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-10 07:05

I support the Estuary Alternative because it is the only one that supports a healthy environment for all and encourages preservation and responsible growth for future generations

Jeb Maki
 Treasure River Construction,
 Inc.
 www.TreasureRiver.net

I-484-1

I-484-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-485

COMMENT

RESPONSE

I favor the original architects plan and vision..

I have watched this process drag on for an interminable number of years as those who want a swamp (aka estuary) obstructed and stalled and stalled.

In the end they have managed to seriously increase costs of taking any actions.

I further feel that length of the report and the many many many years of stalling could to the skeptical indicate there was a predetermined answer searching desperately for justification.

Be bold, preserve the vision of our beautiful Capitol Campus

I-485-1

I-485-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-486

COMMENT

RESPONSE

I-486-1

Please return Capitol Lake to an estuary. While the emissions and impact to recreation are high in the short term, this solution allows the area to return to its natural state and best support our natural wildlife and wetlands. In a time of climate crisis, I urge the city to prioritize conversation and select the estuary solution.

I-486-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-487

COMMENT

RESPONSE

I-487-1

8/10/2021

Roundcube Webmail :: Please remove the dam.

Subject: **Please remove the dam.**
 From: Michael Berger <lbinspace@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-10 14:14



I support the Sierra Club Deschutes Estuary Alternative and think the Capital lake dam should be removed to restore the Deschutes Estuary. It is time to think about natural environments and not the view for a privileged few.

Michael R Berger

I-487-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-488

COMMENT

RESPONSE

8/16/2021 Roundcube Webmail :: Capitol Lake - Deschutes Estuary Long Term Management Project

Subject: **Capitol Lake - Deschutes Estuary Long Term Management Project**
From: Shilo D <shilodelacruz@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-10 17:03



I-488-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS

After reviewing all 3 alternative plans I am writing to let you know I strongly support the **Estuary Alternative**. It is the only one that supports a healthy environment for all and encourages preservation and responsible growth for future generations for the following reasons:

- The current Capitol Lake is toxic to the local ecosystem, our people and our community.
- A restored estuary will bring economic, recreational and environmental benefits into the heart of Olympia.
- Restoring the estuary in full is the least costly option to improving water quality and will restore healthy marine wildlife habitats to the Deschutes River, the Budd Inlet, and West Bay areas of the Puget Sound.

I-488-1

Personally I wouldn't want to maintain an environment that's prone to become toxic every few years. Nor would I want to maintain a smaller toxic area just for a reflection (look but don't touch) like the hybrid alternative provides. I think the best thing about Washington State is our natural environment and the best option for Capitol Lake is the **Estuary Alternative**.

We will be amazed at how beautiful this area will become (naturally) over a very short period of time. We are in the Evergreen state and I believe the wild nature of the **Estuary Alternative** will represent the heart of Washington as it restores this sacred land.

If nothing else, do it for the Salmon. -**Estuary Alternative**

Thank you for accepting my comments on such an important environmental project.

Shilo De La Cruz

I-489

COMMENT

RESPONSE

I have made a comment before, this is a supplement from information I read in The Olympian newspaper. This is a link to projected Scientist reports on tidal increase:

I-489-1

See the Global Response for Hydrodynamics and Sediment Transport regarding seal level rise projections used in the analysis.

I-489-1 <https://www.theolympian.com/news/nation-world/national/article252736353.html#storyline>

Highly suggest someone at least read this report.

Sincerely, Ken Estes

I-490

	COMMENT	RESPONSE
I-490-1	1) What is the future of the 5th Avenue Bridge to be? If the 5th Avenue Bridge is removed along with the dam, what impact will it have on travel time between the West Side of town and downtown? How will impact on travel be mitigated, and by whom?	I-490-1 As described in EIS Supporting Chapter 2.0, a new 5th Avenue Bridge would be constructed under the Estuary and Hybrid Alternatives. The Final EIS includes a construction approach that would allow the new 5th Avenue Bridge to be constructed to the south of the existing 5th Avenue Bridge, which would avoid long-term closure of the corridor and associated transportation delays that were anticipated during the Draft EIS.
I-490-2	2) Under the hybrid alternative, will the 60 acre lake be salt or fresh water?	
I-490-3	3) What is the accounting period for the long term costs of maintenance under the alternatives in the executive summary. Will the displayed figures be spread over a year, 10 years, or some other period?	I-490-2 The design and configuration of the bridge and new connections between 4th and 5th Avenues and Deschutes Parkway would be refined during the design and permitting phase. Also see the Global Response for Transportation.
I-490-4	4) Please be more specific about the effect of sea level rise over the next century. How will this be managed under different scenarios	I-490-2 In response to public comments received on the Draft EIS, the Hybrid Alternative was revised to include a freshwater reflecting pool. Please see the Global Response for the Hybrid Alternative.
I-490-5	5) Will aeration fountains be needed for improved oxygenation?	I-490-3 Costs associated with maintenance dredging were estimated for a 30-year duration after construction, consistent with the 30-year project time horizon. See Final EIS Supporting Chapter 7.0, Planning-Level Costs, Funding Recommendations, & Other Considerations, for more information.
		I-490-4 The EIS analysis included numerical modeling to identify future water levels, flooding extents, and sediment deposition under the alternatives. This modeling incorporated relative sea level rise projections used in the Olympia Sea Level Rise Response Plan. See Section 4.1 of EIS Supporting Chapter 4.0, and the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5) for more information. See also the Global Response for Hydrodynamics & Sediment Transport for more information on how sea level rise was considered in the analysis.
		I-490-5 Please see response to Comment I-476-1.

I-491

	COMMENT	RESPONSE
	My comment is this: Retain the lake as is under the Managed Lake alternative.	I-491-1 Visualizations at low-tide are depicted in the Draft EIS and Final EIS (see Figures 4.10.5, 4.10.8, 4.10.11, and 4.10.13).
I-491-1	There are several reasons for this opinion. First, the visual experience with the lake is far superior to a view that is all or partly a mud flat twice a day at low tide. I noticed in the draft EIS that the pictorial representations were not designed to clearly show any alternative that included a mud flat. I submit that this is clearly a bit of fakery designed to mask the ugly reality of the proposed estuary (mud flat.)	I-491-2 Section 4.11.10 of EIS Supporting Chapter 4.0 includes a discussion of potential impact of each alternative on nuisance mosquito populations. The conclusion is that the Estuary and Hybrid Alternatives could result in a species replacement of freshwater-breeding mosquitos (primarily <i>Culex pipiens</i>) in some areas by saltwater breeding mosquitoes (<i>Ochlerotatus dorsalis</i>) or freshwater species that have some tolerance for salinity (<i>C. tarsalis</i>). There is no evidence that the potential shift in mosquito species would pose an increase in human disease risk.
I-491-2	Secondly, I did not read anything in the presentation describing the infestation of mosquitoes that would arrive with the mud flat. Nor was any mention made of the	I-491-3 See the Global Response for Air Quality & Odor.
I-491-3	smell of the mud flat. One only has to visit the East Bay Marina at low tide to revel in the smell.	I-491-4 All opportunities to reduce cost would be explored during construction, by the governing body before and during future maintenance dredging. If the sediment is determined to be suitable for beneficial reuse, this could result in meaningful cost savings under all alternatives, as suggested in this comment. Notably, beneficial reuse of dredged sediment would require stockpiling on land for drying and chemical testing, and associated costs.
I-491-4	Thirdly, there did not seem to be any thought given to the possibility of marketing the dredged materials as sand, gravel or topsoil with the routine dredging depending on the character of the material encountered. Certainly the material in the lake now looks like mud because it hasn't been dredged for many years. Fresh regular river deposits are quite marketable as aggregates, however. That would reduce the cost of the Managed Lake alternative.	Cost reduction opportunities vary widely and are not evaluated in the EIS because of the duration between the first potential maintenance dredging event, which would not occur before the late 2030s or early 2040s. Projecting cost saving measures this far into the future would be speculative.
	Dana Madsen, P.E.	

I-492

COMMENT

RESPONSE

I-492-1 Please see the Global Response for the Preferred Alternative Identification Process.

8/16/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: Jeanette Dickison <jeanette5@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-11 10:00



August 11, 2021

Dear Ms/Sir,

I would like to express my support for the restoration of the Deschutes Estuary in response to the Draft EIS. The restoration of the Estuary is essential to water quality, fish habitat and Olympia's community values of sustainability and environmental stewardship.

As a former Olympia City Council member, 1994 – 2003, I participated in many council work meetings to evaluate the three proposals. At that time, I supported the Hybrid option that I thought would balance the existence of the Reflecting Pool with habitat restoration. I no longer support that position. The King Solomon compromise of splitting the baby in two is no longer viable. Outside of the Capitol Lake process, the baby has been split many times since the 90's – locally, nationally and globally. It's been compromised by all of us in the belief that there is *room* to compromise. Informed citizens know the peril we face if we continue to whittle away our planet in the name of aesthetics, false economics and small constituencies.

The Estuary alternative is not the most expensive alternative because expense only increases with habitat destruction, degraded water quality, and, especially in this instance, our ability for the LOTT facility's continuation to serve our UGA while we promote smart growth in our cities. The Estuary is not OPTIONAL if we embrace our environmental goals as a region and honor our agreements with Tribes.

Many small steps toward restoring Budd Inlet and Puget Sound have been taken but collectively are not nearly enough. We must begin moving very deliberately on a large scale, showing real leadership to accomplish our environmental goals. Restoring the Deschutes Estuary is the BIG STEP within our grasp.

Jeanette Dickison

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=28_nbox=INBOX%2FDEIS_Processed_7&_action=print&_extwin=1

1/2

I-492-1

I-493

COMMENT

RESPONSE

I-493-1

Capitol Lake is essentially dead. I can remember swimming and canoeing. No more. The New Zealand mud snail has put the water off limits. While I like the idea of a small reflecting pool, I believe that the healing power of an estuary is more important, and less expensive. I understand that the Olympia Yacht Club and Port of Olympia would prefer to see dredging, but Olympia was never designed to be a deep water port. Estuaries take time to re-establish, but the Nisqually Refuge shows what can be done. Let's help our salmon, alleviate some of the higher tides, and work to heal our planet.

I-493-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-494

COMMENT

RESPONSE

I-494-1

Born and raised in Olympia since 1945. Capital Lake has transitioned into a area just like our unsafe, Nonfunctional area. Downtown merchants have time and time again tried to revitalize their stores to attract business. Just like capital lake a huge amount of work and money went into a walk and functional areas for use by our public. As I walk around capital lake I see no activity except for weeds, ducks and water is condemned because of snails. Last warm weekend tourists and locals were roaming and trying to patronize walks and downtown area. What additional activity would they have enjoyed if the lake was accessible to cool their feet, rent a row boat, waterski, swim, picnic, watch or learn sailing, etc etc. years ago it was a destination now it's a smothering nonfunctional swamp not even considered a lake. Revenue could be brought into the city instead of revenue for weed upkeep. Sorry but am bitter thinking of what it was and what it could be. For the enjoyment of ALL.

I-494-1

The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-495

COMMENT

RESPONSE

8/16/2021 Roundcube Webmail :: Capitol Lake Deschutes Estuary

Subject: **Capitol Lake Deschutes Estuary**
From: Judith Cichowicz <earthographer2014@icloud.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-11 16:05



I-495-1

While this household supports the estuary reversion, as residents of West Olympia, the destruction of the 5th avenue bridge without first installing some temporary replacement would create major traffic problems, congestion for West Olympia residents. Increased trip distance, and traffic congestion slow downs result in additional negative environmental impacts.

Judith A Cichowicz M.S.
Olympia WA

I-495-1 See the Global Response for the Estuary and Hybrid Alternatives.

I-496

COMMENT

RESPONSE

8/16/2021 Roundcube Webmail :: Mail

From: Bill Cogswell <willcee@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-11 19:04



I-496-1

I support the Estuary Alternative, which would fully restore the Deschutes Estuary by reintroducing tidal flows to the Capitol Lake Basin. This would return the area to estuarine conditions where saltwater from Budd Inlet would mix with freshwater from the Deschutes River.

respectfully,
Bill Cogswell

Bill Cogswell
360-984-7667
Founder of Olympia Woodworkers Guild

I-496-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-497

COMMENT

RESPONSE

8/16/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**
From: Judy <joloone@comcast.net>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-11 18:44



I-497-1

I support the Estuary Alternative.

Thank you,
Judy O'Looney

I-497-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-498

COMMENT

RESPONSE

8/16/2021 Roundcube Webmail - Capitol Lake draft EIS

Subject: **Capitol Lake draft EIS**
 From: Gary Wiles <wilesharkey@yahoo.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-11 10:50



Dear Department of Enterprise Services,

I'm emailing to voice my support for converting Capitol Lake in Olympia back into an estuary. This option will produce important environmental benefits and will be less costly to maintain than keeping the site as a lake. Thank you.

Gary Wiles
 521 Rogers St SW
 Olympia, WA 98502

I-498-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-498-1

I-499

COMMENT

RESPONSE

I-499-1 I believe the lake should be returned to an estuary as prior to any dam.

I-499-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-500

COMMENT

RESPONSE

I-500-1 I would just like to be able to legally fish for Bass and other species of fish within Capitol lake. I would like to be able to at the very least fish from shore ASAP :-)

I-500-1 Comment noted. Boating and fishing would be restored in the basin under all action alternatives.

I-501	COMMENT	RESPONSE
I-501-1	<p>I strongly support the proposed Estuary option. Having reviewed the excellent study materials I believe this option will improve salmon habitat by allowing more natural flow of the river and mixing with the Sound. The estuary option will also result in a stunningly beautiful tidal area at the heart of our city, reinforcing our connection to the ocean.</p> <p>Thank you very much for the hard work that went into this study. It was clearly presented.</p>	<p>I-501-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>
I-502	COMMENT	RESPONSE
I-502-1	<p>I hope swimming can be restored. Thank you for all of your work</p>	<p>I-502-1 See the Global Response for Land Use, Shorelines, and Recreation regarding future recreational opportunities, such as swimming.</p>
I-503	COMMENT	RESPONSE
I-503-1	<p>Have you any concerns about the pbc spill and sediment contamination in the lake?</p>	<p>I-503-1 Refer to the Sediment Quality Discipline Report for discussion of existing sediment quality in the Project Area. Section 3.2 of the Sediment Quality Discipline Report describes cleanup that was conducted by Ecology to remediate PCBs that were released into Capitol Lake from the Olympia Brewery transformer oil spill. Section 4.1 of the Sediment Quality Discipline Report describes that sediment in Capitol Lake meets nearly all applicable sediment quality standards, and sediment chemical concentrations are low.</p>
I-504	COMMENT	RESPONSE
I-504-1	<p>I love the 'deli' idea! That makes perfect sense and a reasonable compromise.</p>	<p>I-504-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.</p>

I-505

COMMENT

RESPONSE

I-505-1 | I vote for the Managed Lake option.

I-505-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-506

COMMENT

RESPONSE

I-506-1 | I'm happy to see the federal funds allocated for this decision making process are being utilized. As with most government projects it takes a few years to decide and another decade to implement. However; in this case, 10 years is merely a drop in the bucket compared to the next million plus years that this estuary will provide cool, nutrient rich sanctuary for our Salmon.
Just imagine being able to harvest Olympia Oysters in Olympia! The oyster that brought us the Capitol status in the first place.
Every year I see the same people trimming the same hedges, clearing the same moss, washing off the same mildew along with all the other perennial chores we have. Blow the dam and let Mother Nature get to work on this money pit formerly known as Capital Lake.
If you guys throw anymore names on the tide flats other than Deschutes Estuary please make it something we don't have a hard time spelling or pronouncing.

I-506-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-506

COMMENT

RESPONSE



I-507

COMMENT

RESPONSE

8/16/2021 Roundcube Webmail :: A vote in support of an estuary.

Subject: **A vote in support of an estuary,**
 From: Lois Ward <loisward@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-12 20:45

Please remove the dam and allow and support the plan to return the Deschutes River to a natural estuary. This is the least expensive option but more importantly it is the best alternative for the environment, the river and Puget Sound. The current lake is toxic and it is time to return this area to it's natural formation. Thanks Lois Ward



I-507-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-507-1

I-508

COMMENT

RESPONSE

I-508-1 Re-establishment of the estuary is the less expensive method of dealing with the problem. The fresh water settling pond idea works but the cost/benefits do not work out as planned.
 Agree with SSFF recommendations.

I-508-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-509	COMMENT	RESPONSE
I-509-1 The Hybrid concept would be my preference	I-509-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.	
I-510	COMMENT	RESPONSE
I-510-1 I prefer the Estuary option and my 2nd choice would be the Hybrid. Regardless of the choice made, it's time to take action to end this sick lake and make a move to improve the quality of this water. Also I want the State to commit to ongoing maintenance.	I-510-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.	
I-511	COMMENT	RESPONSE
I-511-1 As an Olympia native of over 60 years and local business person with a CPA firm on Percival Landing I whole heartedly support the maintaining the Capitol Lake as a navigable fresh water lake that attracts the members of our community as well as tourists. As a child growing up in West Olympia I would ride my bike downtown and swim in the lake and have memories of waterski competitions and small hydroplane races during Capital Lakefair. Thank you..	I-511-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.	
I-512	COMMENT	RESPONSE
I-512-1 I feel that nature should take it's course and subverting nature will only cost more and more. The Estuary plan is the only way to go and, because of the nature of tides, will make a more natural reflecting pool.	I-512-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.	

I-513

COMMENT

RESPONSE

I am writing in favor of the removal of the 5th Avenue Dam and returning the area to an estuary.

As stated in the Draft EIS, estuary habitat is some of the most important habitat for supporting young fish, especially salmon. The cool water and aquatic plants provide both food and shelter for many species.

According to an article at OPB (<https://www.opb.org/news/article/estuaries-disappear-american-west-coast/>), "Estuaries are also among the most endangered habitats on the planet. The study found that, at one point, salt marshes covered roughly 2,800 square miles of the West Coast. That's an area larger than the state of Delaware. But today, that number has been reduced by more than 85%"

I-513-1 According to NOAA (<https://www.fisheries.noaa.gov/feature-story/new-mapping-reveals-lost-west-coast-estuary-85.2%-%20of-Salish-Sea-Estuary-habitat-has-been-lost>).

We have a once-in-a-generation chance to begin restoring some of this vital habitat.

The naysayers complain that the view will be ugly and the smell unpleasant. According to the Draft EIS, the estuary will be covered with water 80% of the time. Low tides on East Bay and near Priest Point don't impact the community's use of the areas. The ugly argument just doesn't hold up.

I love that the South Basin will be allowed to return to freshwater or brackish wetland. This will create additional habitat for migrating birds.

I am wholeheartedly in favor of the Estuary Alternative

I-513-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-514

COMMENT

RESPONSE

I-514-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-514-1

The Estuary Alternative would fully restore the Deschutes Estuary by introducing tidal flows to the Capitol Lake Basin, allowing Bould Bay to alternate to mix with River fresh water, making the conditions necessary for juvenile salmon to survive.
The current Cap. Lake situation is toxic to the local ecosystem & limits its use by the community. This Alternative when removed is the best cost & most effective to restore healthy stream wildlife habitats.
Barbara Bredas

I-515

COMMENT

RESPONSE

I-515-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-515-1

I vote for the Hybrid Alternative's "Decision Durability", freshwater option.

I was watching children at the beach and thinking about how ridiculously hard it would be to tell them not to touch the water. I think swimmable waters are important

I-516

	COMMENT	RESPONSE
I-516-1	<p>Using 30 year cost estimates from The Daily Olympian, August 12, 2021, we would spend annually 6 million-11 million for the Estuary; 8.3 million- 15 million for the Hybrid; 11 million- 20 million for the lake as is. With the estimated difference between Estuary/Tide flat choice and Hybrid choice being only 2.3 to 4 million per year, I hope we could choose to save the 5th street bridge (for very real traffic needs), eliminate the damn, and create a smaller, viable public park, pond space as an aesthetic boon to our suffering downtown, while still opening a large area for an estuary.</p> <p>So much has been lost in Olympia over the years that it breaks my heart to see more public space and walkable beauty taken from us. In addition to the desire to preserve a bridge and some readily accessible area to visitors and citizens, climate science is making clear the very real issues of the rise of ocean levels, so doesn't an open tide flat create a very real threat to downtown businesses, (not to mention the smell of a town built on a large tide flat) I think a sound argument can be made for the hybrid plan. I would vote to pay for that.</p>	<p>I-516-1 A new 5th Avenue Bridge would be constructed under the Estuary and Hybrid Alternatives, and a construction approach has been developed to avoid the long-term closure that was evaluated in the Draft EIS during construction. Please see Final EIS Supporting Chapter 2.0 for more information.</p> <p>Please see Section 4.1 of EIS Supporting Chapter 4.0, which describes water level elevations that would occur under relative sea-level rise and describes that the highest maximum water levels and greatest extent of flooding would occur under the Managed Lake Alternative during extreme river floods.</p> <p>See also the Global Response for the Preferred Alternative Identification Process.</p>

I-517

	COMMENT	RESPONSE
I-517-1	<p>Estuary is the best option. It has the benefit of habit, tribal significance and has the lowest ongoing maintenance costs.</p>	<p>I-517-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>

I-518

COMMENT

RESPONSE

FORN BY EARS 00212 121 12101

Capitol Lake Alternative Options
Dept of Enterprise Services Capitol Lake-Deschutes Estuary EIS

Attached is a letter written by Don Freeman on behalf of the 67 members of the South Sound Flyfishers to include myself.

I fully agree and support the preference to re-establish the Deschutes estuary for the reason stated in the letter.



Howard Nanto
6014 6th Ave SE
Lacey Wa 98503

Email howardnanto@comcast.net

I-518

COMMENT

RESPONSE

South Sound Fly Fishers
 Capitol Lake Alternative Opinion
 Department of Enterprise Services Capitol Lake – Deschutes Estuary EIS

For your consideration the members, board and particularly the Conservation Committee of South Sound Fly Fishers has thoroughly studied the published alternatives, consulted with WDFW biologists, entomologists and most importantly resident and community members who will be affected by the future of this proposal. We have considered the impacts of the decision on the costs of the alternatives, the recreational and community values provided, environmental health of the area and the wildlife impacts the several options would incur.

As citizens and taxpayers, we are concerned with the costs of any construction and maintenance. Ignoring these obligations has precluded the dredging and disposal of spill for decades which has brought us to the current status. We have an unhealthy body of water contaminated by invasive species which prevent the activities the lake was supposed to provide, including swimming, boating and fishing. Our study has led us to prefer an alternative which re-establishes the recreational use of the area, provides a healthy environment for residents, both human and wildlife, at a cost that is most likely to be supported by community resources.

South Sound Fly Fishers is a local organization that has promoted conservation projects in our area for more than 50 years. Our primary interest is, of course, fishing but this activity is dependent on a healthy environment that nurtures waterways, riparian zones and saltwater ecologies. It is also a recreational activity which means that we are committed to providing healthy outdoor opportunities for ourselves and also for our families and the non-angling community that we are no less a part of. We include this insight to illustrate that our preferred alternative is certainly the best option for fish and wildlife, but is tempered by our support for the community we share and for which we are creating a legacy that will affect our community for decades to come. We choose not to kick the can of worms our predecessors left us down the road for our children and grandchildren to correct and pay for.

***Our preference is for the re-establishment of the Deschutes estuary.** We can explain this decision by addressing each of the four stated objectives of the project: Improving Water Quality, Managing Sediment Accumulation and Future Deposits, Improving Ecological Functions and Enhancing Community Resources in turn. We will also address the likelihood of success of each alternative both of being chosen and long-term results.

1. Improving Water Quality

- A. **Estuary. Initial estimated cost \$179 million to \$336 million. Maintenance costs are minimized.** The alternatives document states "water quality will be self-managing as a brackish estuary". This means that the constant flow of the river meeting with tidal influx of saltwater will create a semi-saltwater mix that continuously replenishes itself preventing stagnation and eliminating the New Zealand Mud snails and Purple Loosestrife plants. These are the invasive freshwater species whose presence has closed the lake to swimming and boating.
- B. **Managed Lake. Estimated initial cost \$337 million to \$607million.** "Water quality plans to be developed". This vague statement underlies the root of the current problems. Regular

- I-518-1 Enterprise Services appreciates commenter's detailed review of the Draft EIS. See Final EIS Supporting Chapter 7.0, which describes the planning-level cost estimates for the project alternatives and the project funding approach based on ongoing negotiations with the Funding and Governance Work Group.
- I-518-2 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
- I-518-3 Comment noted

I-518-1

I-518-2

I-518-3

I-518

COMMENT

RESPONSE

I-518-3

dredging will be required to maintain a depth and quantity that would allow healthier conditions. Aquatic vegetation may have to be controlled by using herbicides and/or mechanical removal. Most importantly, maintaining a freshwater habitat allows the survival of the most troublesome invasive species. Managing acceptable water quality would be expensive and uncertain.

- C. **Hybrid Alternative.** **Estimated initial cost \$249 million to \$463 million.** This option reduces the size of the freshwater lake but furthers the need to control weeds and water quality and to manage the chemical content of the water since the lake would be groundwater fed. Groundwater contains high levels of phosphorus which promotes algal growth and higher density of aquatic plants. Mud snails and loosestrife could persist.

2. **Manage Sediment Accumulation and Future Deposits**

I-518-4

- A. **Estuary.** Sediment from dredging the large basin would be deposited upriver in the middle and upper basins creating tideland habitat for plants and animals. *Subsequent accumulation will be minimal* as deposits terminate in West Bay as would have occurred naturally. Dredging in these areas such as Olympia Yacht Club will be required on a six-to-twelve-year schedule. Less accumulation will occur in federal navigation channel to be the responsibility of Army Corps of Engineers and possibly Port of Olympia.

- B. **Managed Lake.** Construction sediment will be dumped in the middle basin and will establish a freshwater wetland community. *Subsequent dredging will be required on what is assumed to be a 20-year schedule. The amount removed will be greater each instance and the interval will likely decrease. This passes the expense and responsibility to future generations in perpetuity.*

- C. **Hybrid.** Construction sediment will be deposited upstream to create tidelands, *subsequent dredging will be required at assumed 15-year intervals. A saltwater marsh will develop in middle basin.*

3. **Improve Ecological Function**

I-518-5

- A. **Estuary.** *This alternative will restore the original estuary ecology to the area.* Tidelands support populations of crustaceans, shellfish, aquatic plants and birds and provide a nursery for outgoing smolt of anadromous fish such as salmon and sea run cutthroat trout. The current sad condition of the lake is detrimental to the smolt released by the Tumwater salmon hatchery reducing the success of these fish in escaping to Puget Sound and eventually the Pacific where they grow and feed aquatic species such as Orca whales.

- B. **Managed Lake.** *A freshwater lake does not provide substantial ecological function to our region.* The benefits of the freshwater habitat includes providing a generous chironomid larvae population in the shallow muddy waters. These larvae hatch in clouds of midges that are a primary food source for the Mexican Brown Bats that roost in Woodard Bay. The freshwater lake itself attracts a rich diversity of water birds including ducks, brandts, geese and swans that provide excellent bird watching for local enthusiasts.

- C. **Hybrid.** *This mixed environment provides the same benefits as both the freshwater lake and estuary, though each to a lesser extent due to the reduced scale of each.*

I-518-4 The comment does not present any specific issues to address.

I-518-5 Comment noted. No additional analysis has been identified as being warranted for the purpose of evaluating the ability of the alternatives to improve ecological functions.

I-518

COMMENT

RESPONSE

4. Enhance Community Resource

All three alternatives provide enhanced community recreational facilities and opportunities. A pedestrian bridge will allow access along fifth avenue regardless of the width of the opening to be established. Boardwalks would meander through the tidelands or wetlands to allow up close experience of the habitats and wild life. Boat ramps and docks are projected to provide access to the waters freed of invasive species.

A. **Estuary.** One has only to experience the popularity of the estuary boardwalks at the Miskully Wildlife Sanctuary to appreciate the value and appeal of our natural tidal ecology, unique to Puget Sound. Opening the basin to boating would benefit local anglers who could access the glut of unharvested hatchery salmon that congregate beneath the falls of the Deschutes. This fishery is produced at great cost but are not optimally harvested since access is restricted.

B. **Managed Lake.** Swimming and boating will be part of the mix available only so long as water quality is maintained and invasive species are controlled. Visitors will continue to enjoy the reflective pool that graces our capitol landscape and observe the myriad waterfowl species that stop over on their migrations.

C. **Hybrid Alternative.** The community will enjoy the benefits of both the other alternatives, though with a lesser impact due to the smaller reflective pool and estuary tide flats.

- A concluding statement. The opinions and observations expressed here are based primarily on the information included in the published materials presented in the submission for public input. We point out two glaring omissions which could substantially affect the success of each project and therefor the support for each. To wit:
- **Sea level rise.** No mention or projection was made concerning the very real prospect of sea level rise. One might assume that for instance under the estuary option the tide flats would be covered for a longer period than illustrated in the study, but what effect does this have on the need for armoring the perimeters? Under the managed lake or hybrid alternative, are the projected dams and barriers adequate? There remain a number of unanswered possibilities.
- **Flood water management.** Very little attention has been given to the function of the lake and the dam in controlling unusually high flows in the Deschutes due to storm conditions. No references are found regarding historical downtown flooding prior to or following the construction of the 4th Street dam. Neither are there projections as to the future effects of the three alternatives regarding this issue. For this reason, it is germane to note that the preference of the estuary alternative is predicated on the information provided but we do wish to identify these caveats.

The Board and 67 Members of South Sound Fly Fishers
 PO Box 2792
 Olympia, WA 98507

I-518-6 Comment noted.

I-518-7 See the Global Response for Hydrodynamics & Sediment Transport.

I-518-8 Section 4.1.2.1 of EIS Supporting Chapter 4.0 as well as Section 4.3.3 of the Hydrodynamics and Sediment Transport Discipline Report describe in detail the role of 5th Avenue Dam operations during storm events such as extreme (100-year) river flow and extreme (100-year) tide events. Model results in terms of flooding for all four alternatives with and without future RSLR are presented and discussed in Section 4.1 of EIS Supporting Chapter 4.0 and Section 4.6 of Hydrodynamics and Sediment Transport Discipline Report.

An EIS analysis intends to describe changes that would result from implementation of the alternatives, against existing conditions and against the other alternatives, rather than compared to historical conditions.

I-518-6

I-518-7

I-518-8

I-519

COMMENT

RESPONSE

I-519-1 | Please return it to the estuary it once was and make a permanent change.
Lets make Olympia a destination, just like in Elwah river...no one sees this as a mistake...the salmon are back! Take a look at Nisqually estuary...we could have something similar in the middle of an urban environment. the dam was a mistake, hatched and constructed during a period of political graft where construction dollars got spent anywhere convenient for profit. Let;s set the way for forward thinking by being forward thinking.....what will be here in 50 years if we return it to its natural state? What will be here in 50 years if we don't...another problem that has to be fixed.

I-519-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-520

COMMENT

RESPONSE

I-520-1 | I wholeheartedly favor full estuary restoration for the Deschutes River. I look forward to the day when I can look at a healthy estuary that is home for birds and salmon than a choked, snail-infested failed experiment. It should never have been built.

I-520-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-521

COMMENT

RESPONSE

I-521-1 | Allow the area to return to full estuary.

I-521-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-522

COMMENT

RESPONSE

I-522-1

From all that I have read it seems obvious to me that restoring the estuary to it's natural state is the best option ecologically and also the most financially feasible. Since I did not grow up in this area and only moved here in 2014 , I am not emotionally connected to the view that Capitol Lake presents. I appreciate the wildlife that an estuary supports and would hope that this natural state can be restored.
Thank you for the opportunity to share my opinion.
Lee Ann Gekas, M.D.

I-522-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-523

COMMENT

RESPONSE

I-523-1

As active members of the Olympia community and property owners and tax payers, we strongly favor the hybrid option for the future of Capitol Lake. We run and walk around Capitol lake frequently, and would appreciate the smaller fresh water Lake which would show off the clear artesian waters which Olympia has been known for. Surrounding the Lake with the natural estuary would support the natural wildlife. The hybrid model is the only option we support.
Turning the entire space into an estuary would be an ugly option for Olympia. We live off of West Bay Drive and experience the daily smell of the mud flats during low tide. To have the entire space look and smell like mudflats most of the day would be detrimental for Olympia.
We want to draw people to downtown, not repel them further, as already businesses are struggling downtown. Maintaining at least a small lake would contribute to a vibrant downtown Olympia.
The smaller Lake size would be more manageable long term, easier to keep clean. Although there would be more structural changes needed up front, this will be worth it long term. Please go for the hybrid plan for Capitol Lake, and everyone will be happy!!

I-523-1 Please see the Global Response for the Preferred Alternative Identification Process.

I-524

COMMENT

RESPONSE

I-524-1

I would like the Hybrid option to be selected. That is the best option for people to still be able to enjoy the Capitol Park and have a Lake to recreate in while at the same time improving the habitat for fish with the reconstructed Estuary leading to Budd Inlet. I have seen the cost estimates for the options and even though the Hybrid option is more expensive than the single Estuary option, I believe the money would be well spent for future generations to enjoy both the lake and the estuary having the best of both to enjoy. Please Select the Hybrid Lake/Estuary option as the project. Thank you.

I-524-1

Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-525

COMMENT

RESPONSE

I-525-1

Having lived and attended school in Olympia from KG through high school (OHS), I fondly recall the fine swimming area on the east side of the lake where Lakeshore Park is now. As a WA licensed Family Physician, I recommend the reestablishment of a swimming park there that will provide physical exercise opportunities especially for youth. At least 30 minutes daily of physical activity is recommended for all adults and even more for children. I strongly support the Dual Estuary Lake Idea (DELI) proposal and recommend it be properly and objectively studied. DELI provides a win-win for Capitol Lake and the people of the South Sound area.

I-525-1

Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-526

COMMENT

RESPONSE

I-526-1 I'm a resident of Thurston County and I frequently walk the path around Capitol Lake.
I support the estuary option. At this time of climate change and degradation to the natural environment, I believe we need to take every step we can to support the ecosystem and reverse the damage we have done.

I-526-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-527

COMMENT

RESPONSE

I-527-1 I strongly support the Estuary option for the future of Capitol Lake and Deschutes.
The Estuary option clearly would provide the best relief for water quality issues for both southern Salish Sea and the Deschutes. It will also provide the best support for our salmon and other wildlife.
A distant second choice would be the Managed Lake option. This is nowhere near as good for the environment and would cost far too much money. But it would provide a pretty lake for local residents to enjoy.
The Hybrid approach fails to excel on any criteria other than offering an attempt to compromise. Compromise can be a good goal, but this is just about as bad as the current situation.
Please move quickly -- actually do something.

I-527-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-528

COMMENT

RESPONSE

I-528-1

Resident of Olympia since 2015.
I was very grateful to the LWV-TC for holding a forum where we heard from the experts on the EIS regarding the Capitol Lake.
I learned much from them.
Personally, I prefer the DELI solution, called the hybrid.
I look forward to a future where Olympia has a swimming beach in the middle of our city. A future where the tides will flow freely again.
I know this DELI solution requires periodic dredging, and I have learned that the long shore workers who work for the Port of Olympia could be called upon to perform this function when needed.

I-528-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-529

COMMENT

RESPONSE

I-529-1

8/16/2021 Roundcuba Webmail :: Comment for Capitol Lake

Subject: **Comment for Capitol Lake**
From: Katy Pratt <kcpratt@gmail.com>
To: <comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-15 20:19



Hello,

Thank you for accepting public comments.

I am actually open to all of the options but would it be possible to keep the pedestrian bridge at the south end closes to the Capitol and next to the train tracks? It is fantastic having a loop for young kiddos and wonderful that you can add on more for distance toward Tumwater Falls.

Thank you!
Katy Pratt
801-910-5521

I-529-1 Comment noted. Regarding the trail at the railway trestle along the southern end of the North Basin, this trail would remain under all alternatives.

I-530

COMMENT

RESPONSE

8/16/2021 Roundcube Webmail :: Do the DELI

Subject: **Do the DELI**
 From: Joslyn Rose Trivett <joslynrose2@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-15 09:31



Hi,
 I support the Dual Estuary Lake Idea plan for Capitol Lake.

Generally, I believe that a hybrid approach will make the most people happy -- it will be the win-win that we need. Just as important, a *fresh-water, swimmable* lake will be an enormous benefit to the community. We will embrace and celebrate it so quickly and completely that the multi-decade struggle will disappear from collective memory.

Please make that happen!

Thanks very much,
 Joslyn

Joslyn Rose Trivett
 West Olympia
 Masters in Human Development (I like people)

I-530-1

I-530-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-531

COMMENT

RESPONSE

I-531-1 DELI all the way! Keep the reflecting pool with fresh water. I don't want to see Mud Bay downtown below the capitol. Yes to the benefits of an estuary, no to Mudfair!

I-531-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-532

COMMENT

RESPONSE

I-532-1 I support the estuary plan, we should pursue the solution that is best for the environment.

I-532-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-533

COMMENT

RESPONSE

8/23/2021 Roundcube Webmail - Hybrid EIS

Subject: **Hybrid EIS**
 From: Steve Russell <russeldds@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-16 14:26



I-533-1

The hybrid option with a freshwater "pool" should be strongly considered and is a solid compromise, which I believe is necessary to accomplish anything. We want a healthy estuary and would love to be able to swim and enjoy the beauty and reflection of a small lake Thanks,

Steve Russell, DDS, Diplomate, American Board of Dental Sleep Medicine Russell & Bode Family Dentistry

I-533-1 Comment noted. See also the Global Responses for the Hybrid Alternative and Preferred Alternative Identification Process.

I-534

COMMENT

RESPONSE

As a native Olympian I would say that most of us support the the estuary option. The estuary option really supports the vision and culture that represents Olympia. We want a healthy environment with little human impacts. Restoring this ecosystem close to it's natural state would benefit all parties involved, including the wildlife. The estuary idea is also the cheapest of the options which could leave other fund available to pursue other issues in the area. Having lower maintenance costs and time is also a reason to pursue the estuary option. Man kind doesn't need to create more work for ourselves by micromanaging environments that existed for thousands of years before us. Let's do the right thing here and restore this ecosystem to it's original form. Let's make a legacy for ourselves that we can feel confident about.

I-534-1

I-534-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-535

COMMENT

RESPONSE

I-535-1 I support the dual lake/estuary idea. Olympia lacks a public swimming area, and in the age of climate change, having a swimmable freshwater lake in downtown Olympia would be an amazing asset to the community. In addition restoring the estuary would help keep Budd inlet healthy and provide needed habitat. Let's get it done!!

I-535-1 Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-536

COMMENT

RESPONSE

I-536-1 Keep Capitol Lake!
Capitol Lake was designed to reflect our beautiful capitol building, should remain true to that vision, and be kept that way. As the state capital, we should be a shining star. We should be proud to welcome visitors to enjoy our unique reflecting lake. The lake should be a diamond in our state capital crown.
We do not need our capitol building overlooking a downtown smelly muddy eyesore. There are other mudflats around Olympia: do we need one downtown? A beautiful reflecting lake would attract walkers, park-goers & others downtown, who also might explore shops.
And yes, "Lake Fair" would have to be replaced by "Stinky Mud Fair" which might prove to be unpopular.

I-536-1 Comment noted. See also the Global Responses for Air Quality and Odor and the Preferred Alternative Identification Process.

I-537

COMMENT

RESPONSE

I-537-1

Having watched and evaluated Capitol Lake as a teacher since 1969, it is encouraging to see the possibility of action being taken. I would be great to see a useable recreational lake as well as a functioning ecosystem but the commitment to maintain whatever decision is made is paramount. My preference would be to see a hybrid system, especially one as inventive as DELI that has been proposed. Using fresh water input to a recreational lake and allowing a natural flow seems to be a unique solution. Though costly, its time to commit to and fund for a long term and attractive solution hopefully a lure to residents and tourists.

I-537-1 Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-538

COMMENT

RESPONSE

8/23/2021 Roundcube Webmail - Capitol Lake DEIS Neglects Groundwater Impacts

Subject: **Capitol Lake DEIS Neglects Groundwater Impacts**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Andy.Anderson@doh.wa.gov <Andy.Anderson@doh.wa.gov>, Kay.Rottell@doh.wa.gov <Kay.Rottell@doh.wa.gov>
 Date: 2021-08-19 09:41



All:

The Capitol Lake DEIS dated June 2021 fails to fully-disclose the impacts of removing the Capitol Lake Dam. Specifically, the DEIS is silent regarding the depth to groundwater and the effects on drinking water wells in the City of Olympia. Dam removal will result in saltwater flooding underground into areas which are currently recharged by the freshwater in Capitol Lake. Salt is not removed by filtering through soil. Saltwater does not meet the drinking water requirements of the EPA or the WA State Department of Health.

Wells in the vicinity of Capitol Lake may be subject to saltwater intrusion, local wells will become tidally-influenced, and will be pumping from a lower level when the lake is drained, which increases energy consumption and carbon footprint. Many wells around Puget Sound have been rendered unusable by saltwater intrusion. This can result in lawsuits in cases where the cause is obvious. Contact the officials at the Southwest Drinking Water Office of the WA State Department of Health to verify the importance of water source protection.

There was reported to be 96 known well sites in Downtown Olympia, many of which have not been capped and are still in use. In addition, the City of Olympia has more than 30 artesian wells as reported by the March 26, 1999 Technical Memorandum 1204 by Robinson & Noble and Brown and Caldwell. Some of those wells are still flowing and in use without the need for any pumping. Lowering groundwater levels could cause these wells to cease their current artesian operation. Injecting saltwater into the ground could cause these wells to increase in TDS.

What will be the effects on these wells after lowering groundwater levels in the vicinity of Capitol Lake? The DEIS is silent on this issue.

- William R. Workman

I-538-1

I-538-1 See response to Comment I-418-1. The artesian wells in downtown Olympia would not be expected to be influenced by saltwater from the Project Area. Artesian aquifers have positive pressure, which generally resists intrusion of seawater. Prior to 5th Avenue Dam construction, and starting in the mid-1800s when the basin was an estuary, artesian wells were used as the primary source of drinking water for Olympia.

I-539

COMMENT

RESPONSE

I-539-1 See response to Comment I-418-1.

8/23/2021 Roundcube Webmail :: Fw: Capitol Lake DEIS Neglects Groundwater Impacts

Subject: **Fw: Capitol Lake DEIS Neglects Groundwater Impacts**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org
 <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>, CCarlson@ci.tumwater.wa.us <CCarlson@d.tumwater.wa.us>, Carrie.Martin@des.wa.gov <Carrie.Martin@des.wa.gov>, Commodore@theolympiayachtclub.com <Commodore@theolympiayachtclub.com>
 Date: 2021-08-19 09:43



All:

The Capitol Lake DEIS dated June 2021 fails to fully-disclose the impacts of removing the Capitol Lake Dam. Specifically, the DEIS is silent regarding the depth to groundwater and the effects on drinking water wells in the City of Olympia. Dam removal will result in saltwater flooding underground into areas which are currently recharged by the freshwater in Capitol Lake. Salt is not removed by filtering through soil. Saltwater does not meet the drinking water requirements of the EPA or the WA State Department of Health.

Wells in the vicinity of Capitol Lake may be subject to saltwater intrusion, local wells will become tidally-influenced, and will be pumping from a lower level when the lake is drained, which increases energy consumption and carbon footprint. Many wells around Puget Sound have been rendered unusable by saltwater intrusion. This can result in lawsuits in cases where the cause is obvious. Contact the officials at the Southwest Drinking Water Office of the WA State Department of Health to verify the importance of water source protection.

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What will be the effects on these wells after lowering groundwater levels in the vicinity of Capitol Lake? The DEIS is silent on this issue.

- William R. Workman

I-539-1

I-540

COMMENT

RESPONSE

I-540-1 See response to Comment I-418-1.

8/23/2021 Roundcube Webmail :: Capitol Lake DEIS Neglects Groundwater Impacts

Subject: **Capitol Lake DEIS Neglects Groundwater Impacts**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org
 <Comment@CapitolLakeDeschutesEstuaryEIS.org>;
 Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>;
 DESPPDmail@des.wa.gov <DESPPDmail@des.wa.gov>;
 DGinther@ci.tumwater.wa.us <DGinther@ci.tumwater.wa.us>;
 Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org>;
 JBurney@ci.olympia.wa.us <JBurney@ci.olympia.wa.us>;
 Janet.Jansen@des.wa.gov <Janet.Jansen@des.wa.gov>
 Date: 2021-08-19 09:46



All:

The Capitol Lake DEIS dated June 2021 fails to fully-disclose the impacts of removing the Capitol Lake Dam. Specifically, the DEIS is silent regarding the depth to groundwater and the effects on drinking water wells in the City of Olympia. Dam removal will result in saltwater flooding underground into areas which are currently recharged by the freshwater in Capitol Lake. Salt is not removed by filtering through soil. Saltwater does not meet the drinking water requirements of the EPA or the WA State Department of Health.

Wells in the vicinity of Capitol Lake may be subject to saltwater intrusion, local wells will become tidally-influenced, and will be pumping from a lower level when the lake is drained, which increases energy consumption and carbon footprint. Many wells around Puget Sound have been rendered unusable by saltwater intrusion. This can result in lawsuits in cases where the cause is obvious. Contact the officials at the Southwest Drinking Water Office of the WA State Department of Health to verify the importance of water source protection.

There was reported to be 96 known well sites in Downtown Olympia, many of which have not been capped and are still in use. In addition, the City of Olympia has more than 30 artesian wells as reported by the March 26, 1999 Technical Memorandum 1204 by Robinson & Noble and Brown and Caldwell. Some of those wells are still flowing and in use without the need for any pumping. Lowering groundwater levels could cause these wells to cease their current artesian operation. Injecting saltwater into the ground could cause these wells to increase in TDS.

What will be the effects on these wells after lowering groundwater levels in the vicinity of Capitol Lake? The DEIS is silent on this issue.

- William R. Workman

I-540-1

I-541

COMMENT

RESPONSE

8/23/2021 Roundcube Webmail :: Capitol Lake DEIS misleads on utility impacts

Subject: **Capitol Lake DEIS misleads on utility impacts**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org
 <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>, SEPAregister@ecy.wa.gov <SEPAregister@ecy.wa.gov>, Carey.Cholski@ecy.wa.gov <Carey.Cholski@ecy.wa.gov>, James.Hovis@ecy.wa.gov <James.Hovis@ecy.wa.gov>, Lucienne.Banning@ecy.wa.gov <Lucienne.Banning@ecy.wa.gov>, Noosheen.Pouya@ecy.wa.gov <Noosheen.Pouya@ecy.wa.gov>
 Date: 2021-08-19 12:38



All:

The Capitol Lake DEIS dated June 2021 uses a discussion about utilities to issue a threat regarding higher wastewater treatment costs if the dam remains in place, but then fails to fully explain the linkage between the two.

I-541-1

Section 4.13.2.2 is supposed to be disclosing the impacts on physical utility infrastructure. Instead, it speculates about future regulations and financial conditions for the serving agencies themselves. This section discusses supposedly-significant impacts on utilities, then over-extends the definition to include impacts on the treatment costs for serving agencies such as LOTT. For SEPA/EIS/GMA processes, the impacts on utilities refer to the physical infrastructure and its capacity to serve, not the agency's financial means to serve.

In addition, the TMDL sidebars on Pages 4-175 and 4-176 are deliberately misleading. Theorizing about how the Department of Ecology's future TMDL actions might cause higher wastewater or stormwater rates for residents at some unknown time in the future is a thinly-veiled threat of retaliation by ECY if the dam remains in place. If this is a real threat, then let ECY state its threat to South Sound rate-payers in writing. The problem of TMDLs for dissolved oxygen, nitrogen, or other pollution should be dealt with at the sources of pollution, which are within the entire Deschutes River Watershed (such as the locations where cattle, other livestock, and pets defecate directly into the water). Those and other pollutants are from non-point sources throughout the Deschutes Watershed. They do not suddenly appear behind the Capitol Lake Dam. They are going to enter West Bay and deplete oxygen levels whether or not the dam remains in place. Is dam removal guaranteed to reduce nutrients and improve oxygen levels or is this only an experiment paid for by hard-working Washington State citizens?

I-541-2

Since current high wastewater treatment costs are apparently driven by the poor water quality in Budd Bay with the dam remaining in place, does that mean LOTT will reduce their rates once ECY agrees that water quality has dramatically-improved after dam removal? Is ECY willing to provide a guarantee of water quality improvement when the dam is removed, or is ECY only threatening more regulations if the dam remains in place? The EIS should identify who is actually making this threat. Is it LOTT, ECY, DES, or was it invented by the writers of the EIS?

William R. Workman.

I-541-1

SEPA requires the consideration of both direct and indirect impacts. SEPA WAC 197-11 does not limit the evaluation of impacts to physical infrastructure only. Based on information received from Ecology and LOTT on this issue, the potential impacts were not merely "speculative". Since release of the Draft EIS, Ecology has issued the draft TMDL with proposed allocations. It has described that Enterprise Services may not deplete dissolved oxygen levels in Budd Inlet at any time or location beyond the impact of the natural estuary conditions. If these conditions are not met, LOTT would be required to construct additional significant treatment to reduce the contribution of human actions that are resulting in dissolved oxygen depletion in Budd Inlet much sooner than would otherwise be needed. This would result in incurred costs and therefore increased rates to rate payers.

In response to this comment, it has been clarified in Section 4.13.2.2 of Final EIS Supporting Chapter 4.0 that the increased costs associated with meeting future waste load allocations could be an impediment to accessing sewer utility service for some people due to those costs being passed down to ratepayers. See also the Global Response for Economics.

I-541-2

See response to Comment I-541-1 for information on why TMDL allocations are applicable to the analysis of utility impacts. Please note that the draft TMDL for Budd Inlet was issued by Ecology in June 2022 and was available for a 30-day public comment period. The Ecology website provides additional information to describe results of their modeling, which show Capitol Lake as contributing to dissolved oxygen depletion in Budd Inlet. The TMDL for Deschutes River, which includes actions upstream to address water quality impairments, was approved in 2020 and is available on Ecology's website.

I-542

COMMENT

RESPONSE

8/23/2021 Roundcube Webmail :: comment on Capitol Lake Deschutes Estuary draft EIS

Subject: **comment on Capitol Lake Deschutes Estuary draft EIS**

From: Linda Kunze <lmkunze@comcast.net>

To: <comment@CapitolLakeDeschutesEstuaryEIS.org>

Date: 2021-08-19 20:09

To Whom it May Concern:

Thank you for the opportunity to comment on the Draft EIS for the proposed alternatives to manage the Capitol Lake - Deschutes Estuary area. I appreciate the thought and work that went into developing and analyzing the alternatives.

Based on the materials provided and my knowledge as a wetland ecologist I support the Estuary Alternative for the following reasons:

- Estuarine wetlands and aquatic systems are critical ecosystems and have been degraded or destroyed to a large extent throughout the Puget Trough region. Restoring the Deschutes estuary is not only important for the Deschutes but also Budd Inlet and the southern Puget Sound.
- Although freshwater systems have important values, estuarine systems have very high value and are far less abundant regionally so the need to restore them is greater.
- The Estuary Alternative does the most for salmonids and other estuarine species.
- It will allow the restoration of estuarine wetlands which have very high productivity and habitat for a range of invertebrate species which are the base of the estuarine food chain.
- It should better improve water quality in the estuary and Budd Inlet.
- It will do the most for controlling invasive wetland and aquatic plant and animal species and reducing the need for on-going invasive species control including the potential need to use bioicides.
- It will reduce the potential of invasive species being spread to other areas.
- Brackish marshes are more likely to be restored to native plant species as opposed to freshwater wetlands which are more likely to be dominated by non-native plant species with limited ecological value.
- Long-term construction and maintenance costs are lowest for the Estuary Alternative.
- The Estuary Alternative has the highest value for native people, helping to make amends for their lost lands, traditional uses, cultural values and salmonid resources.

The greatest downside to the Estuary Alternative is reduced feeding habitat for the bats. I hope ways to mitigate for lost bat habitat can be identified and implemented.

I do not support boardwalks being developed within either the freshwater or estuarine wetlands. Although they can provide an amazing educational opportunity, they also fragment habitat and impact wildlife using the wetlands. Also, boardwalk maintenance is expensive and with sea level rise could be vulnerable. Instead I would suggest building viewing platforms along the shoreline.

Again, thank you for the opportunity to comment.

Sincerely,

Linda Kunze
lmkunze@comcast.net



I-542-1 This comment is a statement and does not affect the environmental analysis in the Draft EIS.

I-542-2 See the Global Response for Fish and Wildlife.

I-542-3 Implementation of any of the action alternatives is a substantial public investment toward meeting the project goals, which includes enhancing community use of the resource. It is common for projects with a large restoration component to provide access for educational and recreational benefits.

The EIS Project Team solicited input from the Work Groups and Community Sounding Board (CSB) on the potential components of the alternatives and understood through that coordination that the type of access that a boardwalk would provide was very important to the success of the project. Similar to the boardwalk that was constructed in the estuary at the Billy Frank Jr. Nisqually National Wildlife Refuge, the boardwalk would be designed to minimize site disturbance and fill in the aquatic environment, while providing public access. The boardwalks would be designed to accommodate changes in water elevation across the alternatives, and would be approved by the regulatory agencies during permitting. As described in Section 4.6 of EIS Supporting Chapter 4.0, the boardwalks would have some shading impacts along its length, and would introduce benthic fill to the aquatic environment, but effects on fish and wildlife habitat from these boardwalks would be localized and offset by the other project improvements.

I-542-1

I-542-2

I-542-3

I-543

COMMENT

RESPONSE

The fish barrier is a human-caused impediment that just cannot adequately migrate thru. Remove the dam, tide locks & restore scarce tide lands & improve estuarine habitat. Most beneficial for improving the Budd Inlet water quality.

Barlan Bascha

I-543-1 Please see the Global Response for the Preferred Alternative Identification Process.

I-543-1

I-544

COMMENT

RESPONSE

8/24/2021 Roundcube Webmail : comments on EIS

Subject: **comments on EIS**
 From: Kathy Leitch <leitckj@comcast.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-20 08:44
 Priority: Highest



I-544-1

The range in each of the cost estimates is very broad. Anyone seriously considering making a decision on which one to choose would need to make sure that all potential costs are included. Large projects like this often produce cost overruns and delays that should also be considered.

Some questions I have about costs include are there any eminent domain costs?, e.g. Will the Bayview parking lot and building remain intact with the Estuary or Hybrid alternatives? If there is a risk of needing this property the cost of purchasing it should be estimated and included in the report. Also, will the Yacht Club be effected in any way? If so, that cost should also be included.

I-544-2

The different fiscal options presented also suggest which entity or entities would fund the proposal. Even with the City of Olympia endorsing the estuary proposal there does not appear to be any commitment from the governmental entities that would be involved. The Port of Olympia doesn't appear to be in the best financial position and often the City of Olympia has budget problems--seems risky to rely on them for substantial funding. It would be useful to include in the document that these discussions have not happened and there is no guarantee that anyone but the state will fund the project.

I-544-3

Is the cost of replacing the 5th Avenue bridge included in your estimates and how long will the construction take to complete the project? Also, the City of Olympia has asked that there be a temporary bridge supplied so that cost should be added to your estimates for the Estuary or Hybrid options.

I-544-4

You mention that the Port of Olympia would need to dredge in Budd Bay before the Estuary or Hybrid option is allowed to go forward with the removal of the dam. Even though you mention that the Port of Olympia needs to do this it still would be helpful to include the cost and how long it will take to dredge so that the public can understand the full cost of this project. When the Port has money to do this will also effect the timing of the project--any information from the Port would be helpful to include in the report as it effects the timeline.

I-544-5

Footnotes to pg. 6 Chapter 7 indicate the potential for significant increases to costs on chart especially if the material dredged from the north basin cannot be dumped in the bay. This issue should be more prominently displayed on pg. 6 in the chart and not hidden in small print in the Footnotes. Has any state agency with regulatory authority over where this material can be dumped provided any input into this part of the plan?

I-544-6

7.1.3 pg. 3 Include a documented source for the statement in the report that states on pg. 3, paragraph 2 that sediment dredged under the Estuary or Hybrid option would be in a saltwater environment and there is low potential for aquatic species persistence. Making statements without documentation on issues as significant as this are not helpful.

I-544-7

Page 8 --Saying sediment deposition from the project is not expected to significantly impact the Port of Olympia because navigation is already impaired does not appear to be a satisfactory response. Do you have a source that you can provide that documents this statement?

I-544-8

Have state agencies responsible for improving the quality of Puget Sound reviewed your report? If they have their comments should be considered and documented in the final report.

I-544-9

The picture in the Olympian that suggested that the estuary/hybrid options would look like Mud Bay at low tide was not very appealing. This picture should be included in your final report. Have you also considered mentioning the smell that could occur?

I-544-10

Any information you have about the smell should be included in the report.

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=1&_inbox=INBOX%2FDEIS_Processed_0&_action=print&_extwin=1

1/2

I-544-1

The planning-level costs were developed by civil, environmental, and coastal engineers on the EIS Project Team and are considered a Class 4 estimate, by standards established by the Association for the Advancement of Cost Engineering based on the preliminary nature of the design elements in this EIS process. They reflect an accuracy variation of -25% and +35%.

The planning-level costs include estimates for:

1. Design, permitting, and construction; and
2. Maintenance dredging after construction (estimated for 30-years, consistent with the project time horizon).

Cost estimates would be refined during design and permitting, as design advances.

Costs have been assumed for potential eminent domain that would be needed as a result of the Deschutes Parkway reconfiguration. Property acquisition is not expected to be required on 5th Avenue, at Bayview parking lot or adjacent properties.

The maintenance dredging costs assume work at the Olympia Yacht Club and other private marinas to temporarily remove piles and floats for the dredging that will be needed to maintain navigation. Those costs have been estimated.

I-544-2

Please refer to the Global Response for Cost Estimates and Shared Funding related to Maintenance Dredging under the Estuary Alternative.

I-544-3

The estimated cost to construct a new 5th Avenue Bridge has been included in the cost estimates for the Estuary and Hybrid Alternatives. The Estuary and Hybrid Alternatives were modified in the Final EIS to construct the new 5th Avenue Bridge south of the existing 5th Avenue Bridge and dam. This allows the new bridge to be constructed and connected to the transportation system before demolition of the existing 5th Avenue Bridge and dam, and therefore avoids a long-term closure to the 5th Avenue corridor. A temporary bridge is no longer needed.

I-544-4

Remediation in lower Budd Inlet is a critical part of the ongoing effort to improve health of the Deschutes River Watershed; but it is a separate project from the management planning for Capitol Lake – Deschutes Estuary. The Port's remediation project is required by the Model Toxics Control Act to restore the health of the marine environment, and to protect the health of consumers of fish and shellfish; whereas, the Capitol Lake – Deschutes Estuary long-term management project is being implemented to improve

I-544

COMMENT

RESPONSE

- water quality and ecological functions, to restore active community use, and to manage future sediment deposition.
- Based on coordination with the Port of Olympia through the EIS process, it is assumed that dredging to remediate known contaminated sediment and restore authorized dredge depths in navigational areas of West Bay will occur within the next 10 years. This timing would ensure that those actions were taken before removal of the 5th Avenue Dam. Costs for that separate project are not included in the planning-level cost estimates for this project.
- Please see Final EIS Supporting Chapter 7.0 for a figure that generally describes when the work will occur and the anticipated durations.
- I-544-5 The Table in Final EIS Supporting Chapter 7.0 outlines the most likely cost estimates based on data collected and surveys conducted for the EIS. And because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal.
- Before future dredge events, sampling for chemical quality and invasive species would occur to confirm suitability of the dredged material for in-water disposal. This would occur in coordination with the Dredged Material Management Program (DMMP). The DMMP is an interagency approach to managing dredged material. The U.S. Army Corps of Engineers is the lead agency, working in coordination with the U.S. Environmental Protection Agency, Ecology, and the Washington State Department of Natural Resources. These agencies evaluate the suitability of dredged material to be placed at open-water disposal sites in Puget Sound, and authorization must be obtained from the DMMP agencies prior to any in-water placement of dredged material. Primary factors in a suitability determination include chemical quality of the dredged material, potential presence of invasive species, and sediment characteristics (i.e., grain size). Please see Final EIS Supporting Chapters 2.0 and 7.0 for more detail.
- I-544-6 This statement has been updated in the Final EIS to include a reference to the Aquatic Invasive Species Discipline Report (Attachment 8) which provides the analysis and rationale that support this conclusion.
- I-544-7 Please refer to the Global Responses for Navigation, which includes a description of coordination with the Port of Olympia and U.S. Army Corps of Engineers, and rationale for the assumption that navigational depths would

I-544

COMMENT

RESPONSE

be restored within West Bay before removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives.

Please see also the DAMP navigation analysis, which is provided in Section 4.2 of Final EIS Supporting Chapter 4.0 and the associated discipline report (Attachment 6) with the full analysis. This includes further discussion on potential impacts to the Port of Olympia if initial or planned maintenance dredging does not occur.

- I-544-8 The Draft EIS was issued and circulated to federal, state, and local agencies, affected tribes, and the public for review according to SEPA requirements (see WAC 197-11-455 for specific requirements). Several state agencies provided comments on the Draft EIS. In accordance with SEPA, these comments were considered in the development of the Final EIS, and responses to these comments are included in the Final EIS. See Attachment 22.
- I-544-9 Visual simulations were developed for the alternatives, including the Estuary and Hybrid Alternatives at low tide levels, to provide representative views that illustrate what the basin could look like. These simulations were prepared using both Mud Bay and Nisqually as examples for depicting tideflats. The visual simulations are included in Section 4.10 of EIS Supporting Chapter 4.0.
- I-544-10 See the Global Response for Air Quality & Odor.

I-545

COMMENT

RESPONSE

I-545-1

I support Removing the dam + restoring the estuary to restore tidelands + improve habitats mudraucus fish + mania fish. It would lower flooding in downtown Olympia, improve water quality. It is clearly the most cost effective choice.

Annika Colby

- I-545-1 Please see the Global Response for the Preferred Alternative Identification Process.

I-546

COMMENT

RESPONSE

I-546-1 The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS. Potential impacts to salmon are described in Section 4.5.2 and visual impacts are described in Section 4.10 of EIS Supporting Chapter 4.0.

2020 BY UNIVERSITY OF WA

Department of Enterprise Services
Capitol Lake-Deschutes Estuary EIS
P.O. Box 41476
Olympia, WA 98504-1476
Subject: Capitol Lake

August 16, 2021

Hello! I'm 90 years old and question the efforts to change Capitol Lake.


I lived on the west side of Olympia. I recall the hundreds of times, walking, biking and driving over the west side bridge. I watched the big trucks hauling dirt from the hill at the entrance of Percival Creek and the building of the dam.

I remember standing on the railroad trestle with a friend watching all the "trash" floating under the trestle on its way with the current tide.

I remember watching salmon going up Percival Creek and the Deschutte Falls.

Is that environment going to return after the demolition of the dam?

Sincerely yours,
E. Metcalf

 Edwin Metcalf
700 Black Lake Blvd. SW Apt. 140
Olympia, WA 98502-8608

I-546-1

I-547

COMMENT

RESPONSE

8/24/2021

Roundcube Webmail :: Response to draft EIS

Subject: **Response to draft EIS**
From: <osoule@comcast.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-20 13:23



I strongly support the **managed lake** option presented in the draft EIS. The managed lake provides a unique amenity for the City of Olympia and the region. It is used by hundreds of people daily and thousands of people annually. They get more physical, educational, psychological, and emotional value from the lake than from a mudflat. This was described in one of the charret exercises in which I took part during the CLAMP process. The loss of any natural ecosystem should not be taken lightly. However in this case, the permanent loss of a mudflat similar to Mud Bay for the ecosystem that is currently in place does is worthwhile in my opinion.

The managed lake option is the most expensive. However, there are significant costs associated with any choice. The overall benefits to the area makes the extra cost worthwhile in my opinion.

I believe I am qualified to speak on the subject having taught ecology and natural history at The Evergreen State College for more than three decades. I have had undergraduate and graduate students do work in and around Capitol Lake. I have lived a block from the upper bluffs overlooking the lake for more than forty years and served on the City of Olympia Environmental Commission when it existed.

I feel the hybrid option will eventually be fraught with problems that will lead to either a default choice of a managed lake or estuary. I also feel the managed lake option provides a greater number of options in dealing with sea level rise the will challenge the waterfront in the near and foreseeable future.

It is a good idea for return the Capitol Lake Basin to its former status as a mudflat; however, it is a much better idea to maintain and enhance it as a lake/reflecting basin.

Oscar H. Soule, Ph. D.
Member of the Faculty (Emeritus)
The Evergreen State College

I-547-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-547-1

I-548

COMMENT

RESPONSE

8/24/2021 Roundcube Webmail :: DES Failure to Manage Capitol Lake

Subject: **DES Failure to Manage Capitol Lake**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org
 <Comment@CapitolLakeDeschutesEstuaryEIS.org>;
 Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>; SCC-
 CCDACPublicComments@des.wa.gov <SCC-
 CCDACPublicComments@des.wa.gov>; Carrie.Martin@des.wa.gov
 <Carrie.Martin@des.wa.gov>
 Date: 2021-08-20 14:05



All:

The Capitol Lake DEIS dated June 2021 contains numerous misleading statements which are intended to result in dam removal. One of many examples is on Page 4-36 where it states: "The lake basin is currently overwhelmed with aquatic plant growth, and further loss of open-water areas is expected to result in a SIGNIFICANT IMPACT on water quality".

This statement should be rewritten to reflect the truth as follows: "Due to the failure by DES to properly manage aquatic weeds and algae, the lake basin is currently overwhelmed with aquatic plant growth. Continued failures by DES to provide this basic maintenance has resulted in a SIGNIFICANT IMPACT on water quality".

According to the DEIS, if DES can manage Capitol Lake poorly enough, and dischargers to the Deschutes river can pollute the river sufficiently, then Ecology will do its part to force removal of the dam. Otherwise, ECY will at least use TMDLs to over-regulate point source permittees to compensate. Since the nutrients are in the Deschutes River, can ECY provide written guarantees that nutrient loading will go down when the dam is removed? Perhaps the Deschutes River can be freed from such bondage and inject those nutrients directly into West Bay with no polluting dam in the way. Perhaps the writers of the EIS can request written assurances from ECY on that subject. The EIS should provide the necessary guarantees that phosphorus, nitrogen, and TOC nutrients will go down, and oxygen levels will go up, or else dam removal will be a waste of tax dollars paid by hard-working citizens of Washington State.

- William R. Workman

I-548-1 Please see response to I-466-1.

Please also note that based on the Draft TMDL for Budd Inlet, issued by Ecology in June 2022, it would be very difficult to maintain any lake under any management scenario and achieve compliance with the TMDL and water quality standards.

Please refer to Final EIS Supporting Chapter 4.0, Section 4.3, for a summary description of the potential changes to water quality in the Project Area as a result of the long-term management alternatives.

The EIS analysis, which was conducted independent to the 2015 Ecology Water Quality Improvement Report, concludes that under the Estuary Alternative any changes in dissolved oxygen concentrations are expected to result in a no change to minor or moderate benefit to dissolved oxygen concentrations in Budd Inlet and no change in water quality conditions related to algal blooms and aquatic plants.

I-548-1

I-549

COMMENT

RESPONSE

8/24/2021 Roundcube Webmail :: The Hybrid choice for Capitol Lake

Subject: **The Hybrid choice for Capitol Lake**
From: Eido Frances Carney <eidosan@comcast.net>
To: <info@capitolakedeschutesestuaryeis.org>
Date: 2021-08-20 14:21



Thank you for the opportunity to comment on the future of Capitol Lake.

I am opposed to the estuary only idea, and support the dual estuary and lake plan to fix Capitol Lake. I understand we must care for the salmon and I favor that, but Capitol Lake serves as a central function of identity for the Capitol dome itself and the growing numbers of people who have used and enjoyed the beauty and nature of open water in the downtown area. I believe that the freshwater lake option to allow recreational use of a lake for swimming and perhaps small paddle boat and row boat rentals along with an estuary would be the best option in the long run. These activities would greatly enhance the vitality of our downtown area and give recreational options to our visitors during the tourist season.

A decision to remove the existing lake entirely based upon cost is shortsighted. Let's use our imagination. The downtown in its current beautification process deserves that a freshwater lake and estuary be the best option. We are the capitol city of the State of Washington and our dome should be emphasized in the waterfront area as it overlooks the city while we also care for the ongoing health of the salmon.

A hybrid option is the best option.

Mary Frances Carney
Olympia, WA
360-786-0912

Eido
映道

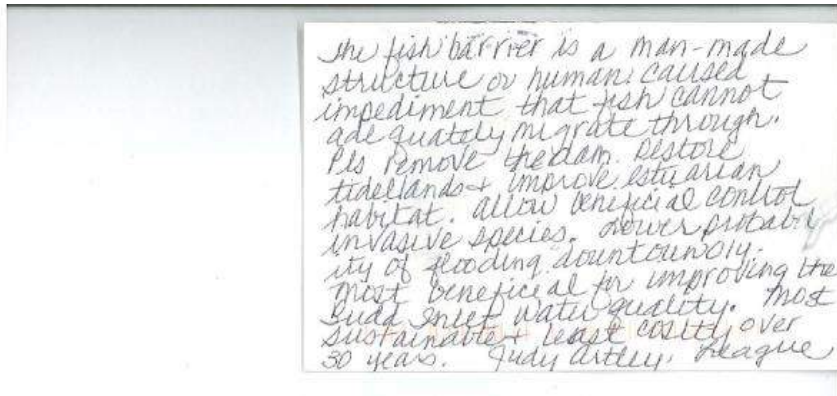
I-549-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-549-1

I-550

COMMENT

RESPONSE



I-550-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-550-1

I-551

COMMENT

RESPONSE

I-551-1 | I support the Decision Durability of DELI over any other alternative! It sure would be wonderful to have swimming in the lake. I really do not want another smelly tidal flat like in the past - people matter too!

I-551-1 | Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-552

COMMENT

RESPONSE

I-552-1 | I think a hybrid model like the group Do the DELI have proposed is the best idea! A swimmable lake, and a full functioning estuary would make it a great place to be. Please consider the option from the Do the DELI folks. It make both sides VERY happy and restores a treasure downtown to a usable swimming area.

I-552-1 | Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-553

COMMENT

RESPONSE

I-553-1 | I have been studying this issue for a good number of years.

"Capitol Lake" is actually fraudulent. It VIOLATES MOTHER NATURE. Mother Nature created an estuary. An estuary lets nature do its work correctly. "Capitol Lake" VIOLATES the natural processes.

"Capitol Lake" is an environmental disaster.
It also wastes taxpayers' money.

RESTORE THE ESTUARY, as Mother Nature intended!

I-553-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.


I-554

COMMENT

RESPONSE

8/24/2021 Roundcube Webmail :: Public Comment

Subject: **Public Comment**
 From: Desdra Dawning <desdradawning@yahoo.com>
 To: <Info@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-22 11:08



Greetings,
 I am a citizen of Olympia Washington, and often use the Capitol Lake for walks. I have watched it become what appears to be a sometimes stagnant dead lake. Friends tell me that at one time, it had a place for people to come and swim. Now we are told not to touch the water, for fear of a tiny snail!

The argument over what to do with this area which once was a flourishing estuary ecosystem, has gone on long enough. I truly hope a decision is made soon and action can move forward!

I am in favor of the DELI option, rather than the All Lake or All Estuary options, which, based on Decision Durability in the DEIS, could most likely bring an end to the argument on both sides of this long-belabored issue. It is the most reasonable compromise being offered, and could satisfy the desire for the community to have a lovely **fresh-water** place to swim (we have NO PUBLIC SWIMMING POOL IN OLYMPIA), and the need for our eco-conscious community to see restoration of the estuary.

Please make a final decision soon, and please be open to this option that takes all concerns into account.

Sincerely,
 Desdra Dawning
 434 Cushing St. NW
 Olympia WA 98502
 928-707-1738
 Desdradawning@yahoo.com

I-554-1 Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-554-1

I-555

COMMENT

RESPONSE

I-555-1 I support the lake or the dual estuary and lake ideas. Maybe someday the lake could become swimmable under the dual use idea for the city of Olympia. The lake was formed because the mud flats were very unattractive. Salmon can still swim up the lake to the Tumwater Falls hatchery. The estuary would be very unattractive.

I-555-1 Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-556

	COMMENT	RESPONSE
	To whom it may concern,	I-556-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
	I am a biologist /environmental planner with WDFW. I am impressed with the quality of material presented for review. I am hopeful that the state can finally move forward in resolution of this issue.	I-556-2 See the Global Response for Fish and Wildlife.
I-556-1	I am in favor of an estuary alternative. It will have substantial benefits for wetlands, ESA listed fish, shorebirds, wading birds, and Thurston County. It is also the most cost-effective approach of the alternatives presented. The estuary option will also help mitigate sea level rise over the long-term. The managed lake is not sustainable with 15 aquatic invasive species, regular flooding, poor water quality, and very limited recreation.	I-556-3 See the Global Response for Land Use, Shorelines, and Recreation regarding regional trail linkages.
I-556-2	The one area I would like to see further work in the EIS is on bat mitigation, is there anything that can be done to help mitigate the loss of bat foraging in Capital Lake? Over time could the bats move to another wetland or lake system?	I-556-4 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
I-556-3	Under recreation, I did not see any reference to the connection to the regional trail being proposed in Tumwater along the Deschutes River.	
I-556-4	The estuary alternative would provide environmental benefits similar to the Nisqually restoration project. In order to mitigate for the projected future loss of habitat in the Puget Sound with increased population growth and climate change, the estuary alternative makes the most sense,	
	Thank you for taking my comments.	

I-557

COMMENT

RESPONSE

Subject **Compromise plan**
From Gary Reid <garyreid@comcast.net>
To <info@capitollakedeschutesestuaryeis.org>
Date 2021-08-23 11:00



I-557-1 Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-557-1

The compromise plan, with a small freshwater lake and a large estuary sounds best to me, both from an environmental standpoint and from a political standpoint. Let's end the fighting and move ahead with a plan that protects both interests.

Gary Reid
3992 Holladay Park Loop SE
Lacey WA 98503
(H) 360-438-5374
(M) 360-790-3940

I-558

COMMENT

RESPONSE

Subject **Capitol Lake DEIS - TMDL Bias for Dam Removal**
From William.R.Workman <William.R.Workman@protonmail.com>
To Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>, Carrie.Martin@des.wa.gov <Carrie.Martin@des.wa.gov>, Janet.Jansen@des.wa.gov <Janet.Jansen@des.wa.gov>, DESPPDmail@des.wa.gov <DESPPDmail@des.wa.gov>, SCC-CCDACPublicComments@des.wa.gov <SCC-CCDACPublicComments@des.wa.gov>
Date 2021-08-23 11:34



I-558-1 Please see response to Comment I-442-1 and response to Comment I-465-1.

I-558-1

All:

The Capitol Lake DEIS dated June 2021 makes numerous claims in an attempt to stack the deck in favor of dam removal. For example, Section 4.13.2.2 speculates about theoretical future TMDLs from the Department of Ecology (ECY). The DEIS writers are eager to explain how ECY might use TMDLs to tighten the noose for DES, LOTT, and other dischargers in a theoretical future. Yet they ignore the same future in which the Olympia Yacht Club and Port of Olympia will apply for dredging permits under similar ever-tightening regulations. The DEIS should assume either current or future regulations to establish a level playing field for evaluating each alternative. Instead, the DEIS changes the rules in the middle of the game to make sure the other team loses. The DEIS contains this type of bias in nearly every section.

The effects of ever-tightening regulatory restrictions are relevant to the Yacht Club and the Port of Olympia, because their maintenance dredging will be permitted under future regulations which will undoubtedly be more restrictive than today's regulations. The writers of the DEIS look into their crystal ball and see a future in which ECY is supposedly going to use TMDLs to force removal of the dam, or somehow regulate Capitol Lake as a point source (which it is not). Then, the DEIS writers look the other way when dam-removal forces West Bay users to obtain frequent dredging authorizations and related permits under ever-tightening and more expensive environmental restrictions.

One of the specific issues mentioned is nutrient loading. In the sidebar on Page 4-176 of the EIS, ECY is reportedly expected to issue load allocations to Capitol Lake "...if it remains a lake". In other words, ECY is threatening to regulate the lake as a point source if DES makes the wrong decision about dam removal. The sidebar on Page 4-176 indicates that ECY may assign TMDL allocations to Capitol Lake, then use them as a hammer to force innocent dischargers at other locations to reduce their discharges if DES does not remove the dam in accordance with ECY's wishes. This is similar to the police issuing a speeding ticket to people riding in the back of the bus. Other dischargers have no control over the polluters upstream of Capitol Lake. The DEIS should comment on the legality of ECY retaliation by regulation. Has ECY retaliation been authorized by the Washington State Legislature? This is an example of bias which the DEIS pretends does not exist. The deck appears to have been stacked. The DEIS should be re-written to eliminate this bias.

William R. Workman

I-559

	COMMENT	RESPONSE
I-559-1	<p>I strongly support the Estuary Alternative described under this plan. Restoring the Deschutes estuary is the kind of infrastructure investment we need to be making, relying on ecosystem functions to provide adaptability and resilience. I hope that the final EIS will select the Estuary Alternative and make ecological functions an explicit part of the discussion and ongoing monitoring, because it provides a valuable example for other communities of how to invest in solutions that offer long-term sustainability for cities and natural resources together by allowing natural processes to work. The restoration of the Nisqually Estuary has provided ample science supporting estuary recovery as important for salmon stocks, eelgrass, birds, and wildlife, as well as supporting Squaxin Island treaty rights and creating beloved opportunities for recreation and human engagement with nature. Natural shorelines and estuaries also offer more resilience to climate change and potential</p>	<p>I-559-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>
I-559-2	<p>opportunities for carbon capture. Olympia can be an example of working with natural systems by restoring the Deschutes Estuary, giving us a future where our state government and Olympia residents have a deep and daily connection with the tides, with fish and shorebirds, and with the historic rhythms of South Puget Sound and its rivers. Please choose the Estuary Alternative!</p>	<p>I-559-2 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>

I-560

COMMENT

RESPONSE

I-560-1 Please refer to response to Comment I-439-1.

8/24/2021 Roundcube Webmail :: Capitol Lake DEIS - False Claims About Sediment Quality

Subject: **Capitol Lake DEIS - False Claims About Sediment Quality**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org
 <Comment@CapitolLakeDeschutesEstuaryEIS.org>,
 Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>,
 JBurney@ci.olympia.wa.us <JBurney@ci.olympia.wa.us>,
 Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org>,
 RachaelJ@portolympia.com <RachaelJ@portolympia.com>,
 SamG@portolympia.com <SamG@portolympia.com>,
 Commodore@theolympiayachtclub.com
 <Commodore@theolympiayachtclub.com> , SEPAregister@ecy.wa.gov
 <SEPAregister@ecy.wa.gov> , NFloyd@ci.olympia.wa.us
 <NFloyd@ci.olympia.wa.us> , SCC-CCDACPublicComments@des.wa.gov
 <SCC-CCDACPublicComments@des.wa.gov>
 Date: 2021-08-23 15:17



All:

The Capitol Lake DEIS dated June 2021 makes false claims in an attempt to stack the deck in favor of dam removal. For example, on Page #4-150, the last sentence makes the claim that dam removal will cause deposits of higher-quality or clean sediment in West Bay, resulting in "substantial beneficial effects" to the quality of sediment. The DEIS claims this has significant environmental benefits by covering or capping contaminated sediments. There are several flaws with this logic, as follows:

This high-quality sediment is the same sediment which the Yacht Club and Port of Olympia are then supposed to remove by dredging. Therefore, the sediment will not remain in place as a cap as the DEIS claims. In fact, it will be repeatedly uncapped over the years, which will disturb the sediment below it, and for some distance to the sides by sloughing. Future dredging will re-suspend contaminated sediment and disperse it over West Bay, making it more difficult to clean up in the future. The DEIS cites this as a substantial beneficial improvement in sediment quality.

Once contaminated sediments are capped, it is against EPA policy to uncapp them, re-expose them, and spread the contamination. For example, at EPA CERCLA sites there are rigorously-enforced regulations in place to insure the cap is never disturbed again. Thus any of the cleaner soils over the top would need to remain undisturbed – undredged. If either the ECY or EPA plan to perpetually allow for the uncapping of sediments contaminated with "...existing high concentrations of...dioxins/furans and carcinogenic PAH's...." then the writers of the DEIS should request letters to that effect.

This high-quality soil cap is the same soil which has been infused with the New Zealand Mudsail, which means that it no longer matters how pure it is, it may not be accepted for disposal by dumping directly into the Puget Sound (Anderson-Ketron in-water disposal ?). This sediment may need to be disposed of at an upland disposal site under future regulations, just like it would if it had remained in place behind the dam. Future environmental regulations will not stay the same as they are today, in any case. On average, regulations only get more difficult, complicated, and expensive over time. The need for upland disposal of sediment in the dam-removal alternatives would destroy the integrity of the cost estimates in the DEIS.

The EIS should be re-written to remove all references to the supposed "substantial beneficial effects" which will not accrue in the dam-removal (Estuary and Hybrid) Alternatives when contaminated soils are capped by clean soils then repeatedly uncapped, disturbed, and exposed by subsequent dredging. The claim of "substantial beneficial effects" is provably false.

William R. Workman.

I-560-1

I-561

COMMENT

RESPONSE


8/24/2021 Roundcube Webmail :: Capitol Lake DEIS – Sediment Settles to Deeper Water at the Port

Subject: **Capitol Lake DEIS – Sediment Settles to Deeper Water at the Port**

From: William.R.Workman <William.R.Workman@protonmail.com>

To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>, RachaelJ@portolympia.com <RachaelJ@portolympia.com>, SamG@portolympia.com <SamG@portolympia.com>

Date: 2021-08-23 16:42



All:

The Capitol Lake DEIS dated June 2021 contains misleading information which is intended to justify dam removal. For example, after dam removal, Figure 4.1.3 on Page 4-13 shows the Port of Olympia pier and ship turning basin with equal sediment depth compared to just outside the basin. However, it is common knowledge that sediment is heavier than water and prefers to settle out at the lowest points, such as inside the turning basin. If a marble is dropped into the YMCA swimming pool, it does not stick to the sides of the pool or remain in the shallows. It slowly rolls on down the slope to the deep end.

The first deep end encountered by sediment in West Bay is the turning basin where the Port of Olympia ties up the big ships. After dam removal, floods on the Deschutes River will wash more sediment into West Bay. Then, multiple tidal cycles will repeatedly wash the sediment around in circles until it sinks down into the deepest areas and stays there until dredged. Sediment always seeks the lowest points. The depth of sediment deposited inside the turning basin cannot be equal to the depth just outside the basin. Therefore, the graphic is wrong. Please make the appropriate corrections which will show the ship turning basin filled up with sediment.

William R. Workman.

I-561-1

Figure 4.1.3 on Page 4-13 of the Draft EIS demonstrates larger sedimentation rates in locations closer to the 5th Avenue Dam such as the Olympia Yacht Club than the Port of Olympia. That is because large amounts of sediment from Capitol Lake and upstream Deschutes River will be deposited in those locations immediately downstream of the 5th Avenue Dam due to a sudden reduction of current velocities and a relatively deep area. It is acknowledged that the Navigation Channel and Turning Basins in the Port of Olympia are deeper than those locations. However, sediments will fill up locations such as Olympia Yacht Club in a larger rate before they reach equilibrium state. Afterwards, the sedimentation rate in the Port of Olympia will be increased significantly.

The numerical modeling software package used in the Hydrodynamics and Sediment Transport Discipline Report is a state-of-the-art process-based model that captures the physics of the underlying processes (tides, waves, river flow, and salinity) resulting in sediment transport for a complex system such as the Deschutes River. A swimming pool (no significant currents with relatively uniform water depth) is not analogous to a river system where river flow/tidal currents and variable bathymetry control fate of sediments.

I-561-1

I-562

COMMENT

RESPONSE


8/24/2021 Roundcube Webmail :: Capitol Lake DEIS – Ignoring Geotechnical Impacts

Subject: **Capitol Lake DEIS – Ignoring Geotechnical Impacts**

From: William.R.Workman <William.R.Workman@protonmail.com>

To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>, Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org>, Janet.Jansen@des.wa.gov <Janet.Jansen@des.wa.gov>, DESPPDmail@des.wa.gov <DESPPDmail@des.wa.gov>, Carrie.Martin@des.wa.gov <Carrie.Martin@des.wa.gov>, SCC-CCDACPublicComments@des.wa.gov <SCC-CCDACPublicComments@des.wa.gov>

Date: 2021-08-23 17:34



I-562-1

The Hybrid and Estuary Alternatives include stabilization of the slope on Deschutes Parkway to resist erosive forces and additional pressure that would occur during tidal cycles. During the design phase, a geotechnical analysis would be conducted to determine the extent of the shoreline stabilization that would be required and whether additional or alternate measures are more appropriate/cost effective to avoid potential adverse impacts and to increase seismic resistance of Deschutes Parkway.

All:

The Capitol Lake DEIS dated June 2021 fails to disclose the full impacts of dam removal. For example, when Capitol Lake is drained dry for dam removal, the groundwater pressure on Deschutes Parkway roadway fill materials will be relieved on the east side. This may cause the fill materials which supports Deschutes Parkway to fail and slide downhill. Deschutes Parkway was constructed on very poor and unstable fill materials which was demonstrated during the February 2001 Nisqually Earthquake. Deschutes Parkway was closed for several months while the cracks, slumps, and slides were cosmetically graded over, paved over, and hidden from view. Those slide planes where the earth failed are still there, and can slide again when the groundwater levels drop. In addition, lowering groundwater levels can cause land subsidence, similar to California's Central Valley, which has sunk down over 15 feet due to lowering groundwater levels. Deschutes Parkway can be expected to settle unevenly, and the EIS does not disclose this potential impact, nor does it propose any mitigation.

William R. Workman.

I-562-1

I-563

COMMENT

RESPONSE

8/24/2021 Roundcube Webmail :: capital lake

Subject: **capital lake**

From: Carolyn Samson <carolynsamson@gmail.com>

To: <comment@capitollakedeschutesestuaryeis.org>

Date: 2021-08-23 18:00



I-563-1

Please see the Global Response for the Preferred Alternative Identification Process.

I-563-2

Comment noted. See the Global Response for Land Use, Shorelines, and Recreation regarding future recreational opportunities, such as swimming.

Comment: I think the dam should be removed and the river to run freely. I also think that the state should build a lake on the north part for swimming and water sports. Lucern, Switzerland has a nice walkway over Lake Lucern. Something like this could be added between the 'lake' and the river.

Carolyn Samson Ahlschwede
4208 Amber Ct. SE, Olympia, WA 98501
907-223-7420

I-563-1

I-563-2

The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-564

COMMENT

RESPONSE

I-564-1 Thank you for your work to plan for the future of the Deschutes Estuary. I've lived in Olympia for over 5 years, and I have always loved walking around Capitol Lake. However, I also care deeply about having an ecosystem that supports current and future generations and their ability to live in a community with thriving native fish and wildlife. Process-based restoration and restoring function and resilience of our estuaries is critical to meeting our Puget Sound recovery goals, and Olympia needs to serve as a model- not the exception- of protecting and restoring a functional estuary that confers multiple benefits.

I-564-2 I appreciate the attention to recreation in the plans, particularly walking trails and water access for kayaks. This preserves the recreational opportunities that make the current Capitol Lake an important hub of the Olympia community. I suggest considering placing additional boardwalk trails (like Nisqually) in the upper basin within the full restoration option. I also suggest thinking about the needs of cyclists, even if that just means adding bike racks near the trailheads. Even better would be a loop bike trail around the full basin. Finally, I suggest working with WDFW to develop educational materials and content for signs along the boardwalk.

I-564-3 Also, the EIS does not seem to mention or account for the homeless population that formerly encamped under the bridge and that now encamps along the west side of Capitol Lake. DES should work with the city of Olympia and community to develop alternatives for finding compassionate, supportive ways to mitigate the impact of the houseless population on the estuary (and the other benefits of this project such as recreation) and mitigate the impact of this project on the houseless population.

I-564-4 In sum, I support the Estuary alternative with the addition of more trails (perhaps a loop boardwalk) in the upper basin and with an added component that acknowledges and addresses the houseless population. I would also support the hybrid model, but stress the need for as much estuary process restoration as possible.

Thank you for your consideration of these comments and for your notable effort to give the community extra time, Q&A opportunities, and education to facilitate engagement.

I-564-1 Comment noted.
 I-564-2 Thank you for your comment. The characterization of recreational amenities in the EIS provides enough discernable information for decision-makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives. Refinements to these amenities would occur during the design phase for the selected alternative.
 I-564-3 Regarding concerns with unauthorized camping, see the Global Response for Land Management.
 I-564-4 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-565

COMMENT

RESPONSE

I-565-1 | I would like to see more information and analysis about how the different treatments would be expected to affect biodiversity in the project area. A brief section focusing on this would make comparisons easy.

I-565-1 | Since we are faced with a changing climate for the foreseeable future, it would be interesting to see some analysis on how different options would be expected to promote or affect flora and fauna climate resiliency in the project area.

I-565-1 | Common measures of ecosystem function, in terms of species use, include species abundance and species diversity, which in itself is a measure of biodiversity. While such measures can be useful in assessing the ecological function or "health" of a specific system, they are not as useful in directly comparing the functions and values of two separate and distinct ecosystems (i.e., lake vs. estuary).

For example, estuaries have relatively low species diversity compared to freshwater systems and fully saline systems. However, even though estuaries usually have low species biodiversity, they maintain a highly productive environment for invertebrate fauna, in particular, and provide rich feeding opportunities for a range of anadromous and marine fish. In addition, estuaries provide unique salinity gradients and habitat types and have been impacted and lost at a high rate in Puget Sound.

Environmental sustainability of each of the alternatives, which incorporated ecosystem function, was considered during the Preferred Alternative Identification process, as described in more detail in Attachment 21.

I-566

COMMENT

RESPONSE

I-566-1 | I have lived here my entire life, 58 years. Capitol Lake is one of the key locations to go to in Olympia for families and for exercise. Please keep it a lake, don't go back to the years prior to creating Capitol Lake. It's unattractive and will no longer bring residents and guests to recreate in. Keep it the gem it is and it would be nice to restore it too. Dredging should be an option.

I-566-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-567

COMMENT

RESPONSE

I-567-1 | Please consider the environment in the impact of this decision. Let the Deschutes
run free! An estuary would be a welcome center in our community.

I-567-1 | Comment noted. See also the Global Response for the Preferred Alternative
Identification Process.

I-568

COMMENT

RESPONSE

I-568-1 | I would prefer the hybrid option.

I-568-1 | Comment noted. See also the Global Response for the Preferred Alternative
Identification Process.

I-569

COMMENT

RESPONSE

Let me begin by stating that I favor keeping and improving the Capitol Lake. I'm aware of the problem created by the accumulation of sediment and the difficulties of removing it to another location if the lake is dredged.

I am submitting three proposals which I briefly outline below and am attaching three plans for the proposals.

(1) Use the dredged sediment to create an island which would be landscaped and could be a bird sanctuary. It would be best placed near the western edge of the lake adjacent to Deschutes Parkway.

(2) My second proposal is to create a peninsula with pedestrian access to the newly formed land that would be a park. An option would be an island with a pedestrian bridge.

(3) Option three would be using dredged material to create both land for additional parking adjacent to Deschutes Parkway and pedestrian access to the newly formed peninsula. This proposal would include limited structural development such as a restaurant and coffee shop with decks for outdoor dining overlooking the lake and vista. If boating is allowed in the future a small marina could be added for rental craft. These rentals might include row boats, kayaks, canoes, bicycle boats and small sailboats.

Let me conclude by stating that our Capitol Lake is a wonderful asset to the city and state and it's my opinion that any of these proposals would be an improvement over the present situation or the estuary proposal.

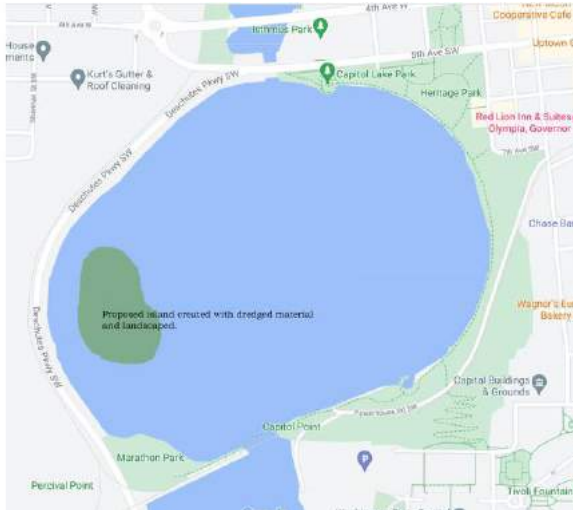
I-569-1 Please see the Global Response for Alternatives Design.

I-569-1

I-569

COMMENT

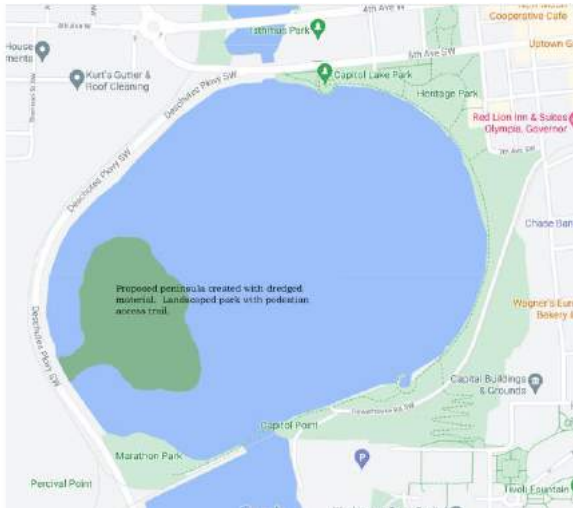
RESPONSE



I-569

COMMENT

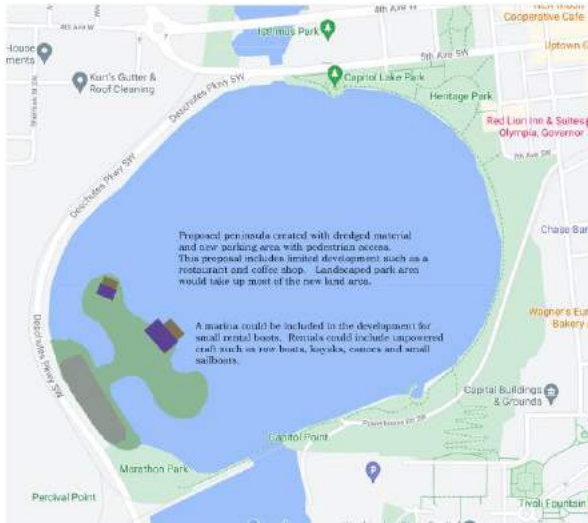
RESPONSE



I-569

COMMENT

RESPONSE



I-570

COMMENT

RESPONSE

8/24/2021 Roundcube Webmail :: Re: Draft EIS Comment Period Ends August 29

Subject: **Re: Draft EIS Comment Period Ends August 29**
 From: Tom Schrader <schraderfour@gmail.com>
 To: Capitol Lake – Deschutes Estuary Long-Term Management Project EIS <info@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-23 10:51



It's a waste of time,...!!!
 You have already made up your mind to make it go to a SMELLY slough!!!
 SAVE THE LAKE!!!!

Tom Schrader
REALTOR | CBA | TCRA Board President
RE/MAX PARKSIDE AFFILIATES
 300 Deschutes Way SW #200
 Olympia, WA 98501
 (360) 480-9387

I-570-1 Please see the Global Responses for Air Quality and Odor and the Preferred Alternative Identification Process.

I-570-1

I-571	COMMENT	RESPONSE
I-571-1	<p>As 79 year old native Olympian, I support returning Capital Lake back into an estuary. I have read the comments about the previous reeking tidelands in The Olympian. The tidelands used to smell because raw sewage was also entering into Budd Bay. East Bay Drive at low tide was to be avoided, and that isn't true anymore. Therefore, I wish the lake become an estuary again.</p>	<p>I-571-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>
I-572	COMMENT	RESPONSE
I-572-1	<p>I like the Dual Estuary/Lake Idea. I think it is a win/win for everyone.</p>	<p>I-572-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.</p>
I-573	COMMENT	RESPONSE
I-573-1	<p>I was disappointed in the three proposals put forward for consideration on the future of the lake. None of them are "clean" or straight forward, containing provisions un-needed or illogical.</p> <p>The so-called Hybrid plan with the fresh water reflection pond is the worst. Remember what happened to the roadway around the lake with the 2002 Nisqually Earth Quake? The same thing, or worse would happen with the retaining dike in the next quake.</p> <p>The Estuary option is totally flawed and would silt up Puget Sound while creating an unsightly and smelly situation. We had that and our wise ancestors found a better solution-the lake.</p>	<p>I-573-1 See Section 2.1 of EIS Supporting Chapter 2.0 for information on how the alternatives were developed. This comment is a statement and does not affect the environmental analysis in the Draft EIS. As described in Section 1.11 of the EIS Supporting Chapter 1.0, project components, including the Hybrid barrier wall, would be designed to meet industry standards, geotechnical recommendations, and best management practices in consideration of seismic and geotechnical hazards present at the site.</p>
I-573-2	<p>My suggestion is--- dredge the lake, leave the dam in place and do maintenance dredging as needed. Nothing has been done in probably 40 years so don't say it's too expensive to maintain a lake.</p> <p>Since none of the proposals make sense throw them all out. Open the Dam and keep it open for one year, letting the tide flow in and out, simulating an estuary. After a year, if the public and planners still want an estuary then OK.</p> <p>If not, dredge clean and maintain the lake we all know and love.</p>	<p>I-573-2 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.</p>

I-574

	COMMENT	RESPONSE
I-574-1	I PERSONALLY SUPPORT THE "MANAGED LAKE ALTERNATIVE" FOR A NUMBER OF REASONS: 1) CAPITOL LAKE DESERVES TO BE... "A LAKE" AGAIN - NOT SOME STINK-HOLE.; 2) WITH THE REMOVAL OF THE DAM, THE AMOUNT OF SILT THAT WILL BE RELEASED INTO LOWER BUDD INLET WILL BE DETRIMENTAL TO ALL WATER RELATED ACTIVITIES AND BUSINESSES. DON'T PUNISH THOSE OF US WHO ENJOY THE CURRENT BUDD INLET WATER CONDITIONS BECAUSE OF 30 YEARS OF NEGLECT WITH REGARD TO CAPITOL "LAKE". PLEASE,...JUST FIX THE DAMN LAKE!!	I-574-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-575

	COMMENT	RESPONSE
I-575-1	Remove the dam and make it a tidal basin	I-575-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-576

	COMMENT	RESPONSE
I-576-1	Keep the dam and clean up the lake.	I-576-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-577

	COMMENT	RESPONSE
I-577-1	Remove the dam and let nature take its course.	I-577-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-578

	COMMENT	RESPONSE
I-578-1	Please, PLEASE.. restore as an estuary!! In the long run, will benefit the whole state as well as the wildlife that will thrive... Thank you!	I-578-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-579	COMMENT	RESPONSE
I-579-1	I vote for as natural an estuary as feasible. Note that natural features in an urban environment require investment in keeping them natural.	I-579-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
I-580	COMMENT	RESPONSE
I-580-1	I think a managed lake would be good; also if possible, a swimming area like there was in the past would be fun.	I-580-1 Comment noted. See also the Global Responses for Land Use, Shorelines, and Recreation and the Preferred Alternative Identification Process.
I-581	COMMENT	RESPONSE
I-581-1	The lake has had problems since I moved there in 1983. The dam should be torn down and let nature take it course. The Nisqually rehabilitation was a huge success.	I-581-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
I-582	COMMENT	RESPONSE
I-582-1	You should put a bunch of ducks on the lake. They'll eat the snails and help solve the issue.	I-582-1 Please refer to the Global Responses for Aquatic Invasive Species.
I-583	COMMENT	RESPONSE
I-583-1	Make the lake accessible for swimming	I-583-1 See the Global Response for Land Use, Shorelines, and Recreation regarding future opportunities, such as swimming.
I-584	COMMENT	RESPONSE
I-584-1	Estuary!!!!	I-584-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-585

COMMENT

RESPONSE

I-585-1 | I believe removing the dam and allowing for a natural saltwater inlet would be more beneficial and maintain a more natural balance while maintaining the original plan for a reflecting pond nestled against the campus.

I-585-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-586

COMMENT

RESPONSE

I-586-1 | Please keep the lake. This is a beautiful public amenity that if cared for properly, will benefit many generations of residents and visitors. Please evaluate the economic impact having this amenity plays for our community. Lunch or dinner and a walk around the lake is a huge draw, plus the number of housing units recently built and to be built relies on the amenity.

I-586-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-586-2 | The potential impacts on downtown economic activity were analyzed and are described in Section 4.14 of EIS Supporting Chapter 4.0, and in the Economics Discipline Report (Attachment 18).

I-587

COMMENT

RESPONSE

I-587-1 | I think Capitol Lake should be returned to its original state as an estuary.

I-587-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-588

COMMENT

RESPONSE

I-588-1 | Return it to an estuary.

I-588-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-589

COMMENT

RESPONSE

I-589-1 Please clean up and improve the existing Capitol Lake as originally designed. This is the Capitol of Washington State that looks horrible everywhere else in the City of Olympia. Making the lake mud flats will only contribute to the terrible ascetic of this area. Review our history. There was a shanty town located on the mud flats in a similar economy. We already have homeless camps. We need some beauty for the public to enjoy. It might even bring people back to downtown Olympia business. I work downtown and would like to enjoy a beautiful lake. It's a positive step in the right direction.
Thank you,
Michele Merrill

I-589-1 This response acknowledges the commenter's position. Section 4.10 of EIS Supporting Chapter 4.0 recognize that the aesthetic value a viewer places on the landscape is subjective; some viewers prefer views of the open water of a lake to that of an estuary, and the reverse is true for other viewers. This is illustrated in the range of opinions expressed on the aesthetics of the project in the comments on the Draft EIS, and in other public processes before the EIS. See also the Global Response for Visual Resources.

I-590

COMMENT

RESPONSE

I-590-1 Please restore the area back to natural estuary to:

Reclaim lost historic estuarine habitat.
Increase natural habitat benefits to salmon and orca.
Eliminate future dam maintenance costs.
Reduce invasive species control costs.
Lead by example by showing others successful Puget Sound habitat restoration is possible. Use this opportunity as a model for others to follow.
Maximize the educational opportunity for others.

Thanks for the opportunity to comment.

I-590-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-591

	COMMENT	RESPONSE
I-591-1	<p>I have live in Olympia since 1968 and spend a lot of time boating. I took sailing lessons on Capitol Lake as a child and then taught those same lessons for Oly parks. I participated in Lakefair sailboat races on the lake also.</p> <p>I work in the Capitol building and continue to sail in Olympia. I am disappointed that the lake has been allowed to become useless and would like to have the state manage the resource. It is a beautiful centerpiece to our city, completing the campus, and providing a nice walking area. I strongly feel that having a mudflat next to the city would be an enormous step backwards. There was a reason that the people of 1950's decided it would be an improvement to create the lake, mudflats are not attractive and they do smell, especially on hot days.</p> <p>Finally, dredging the lake will prevent the necessity for dredging the port by sequestering the silt, there is plenty of market for fill dirt.</p> <p>In summary, get back to managing the lake as a resource for the city as a centerpiece and as an in town recreation location. There could be sailing, canoeing, kayaking and any number of boating opportunities for people. The parks department could be promoting recreation there.</p> <p>thank you</p>	I-591-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-592

	COMMENT	RESPONSE
I-592-1	I support the removal of the 5th. St. dam and restoring the estuary. In addition, I	I-592-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
I-592-2	would like to see a study of the possibility of retaining a separate saltwater pond for recreational uses alongside the restored estuary.	I-592-2 Retaining a separate saltwater pond alongside the restored estuary was part of the Hybrid Alternative described in the Draft EIS. Note that the Hybrid Alternative has been updated since the Draft EIS to include a freshwater, not a saltwater pool. See the revised description of the Hybrid Alternative in Final EIS Supporting Chapter 2.0.

I-593

COMMENT

RESPONSE

I-593-1 | My parents use to tell me that before the dam downtown Olympia smelled like a run a way sewer when the tide was out, twice a day. No one like to go downtown at that time. They said the dam was the best thing to ever happen to Olympia. Don't remove the Dam !!!

I-593-1 As discussed in Sections 3.7.1 and 4.7.5.1 of EIS Supporting Chapters 3.0 and 4.0, historical and anecdotal evidence of pre-dam odors (prior to 1951) is not reliable because they cannot be attributed to specific odor sources given the changes to discharges into the waterbody since that time.
See also the Global Response for Air Quality & Odor.

I-594

COMMENT

RESPONSE

I-594-1 | I strongly recommend that the damn be removed to allow the area to return to the estuary is was originally. If there is to be a mix of estuary and damn I would want to see what the environmental impact would be. Any time a damn is put in to change the natural area it seems to lead to significant issues. I'm also curious as to how the fish are impacted by the damn. Returning the area to its natural state seems logical to improve the environment in the capitol lake area. Thank you

I-594-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-595

COMMENT

RESPONSE

I-595-1 | I like to see the lake gone And returned to its natural state

I-595-1 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-596

COMMENT

RESPONSE

I-596-1 | I vote for the long-term management alternative to convert Capital Lake to an estuary.

I-596-1 | Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-597

COMMENT

RESPONSE

I-597-1 | I'm supporting the estuary option. It makes a nice statement about the state's support for restoring estuary habitat in Puget Sound. Even better it is in the south part of the sound so, it's good for anadromous species and is a good starting point in moving towards restoration of marine and freshwater habitat in Washington.

I-597-1 | Having lived in the state as a youth, and upon my return as an older adult I had never been to the state capital until a few years ago. When I saw the reflecting pond I felt the view to be unnatural and out of place. Now, understanding the history of the pond which seems stagnant and uninviting as a fresh water body. I wondered if others had the same impression.

I-597-1 | Returning the area to its natural state and dynamic will be good for fish, wildlife, canoeists, kayakers, young children and people of all ages who visit the state capital city.

I-597-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-598

COMMENT

RESPONSE

I-598-1 | If you're going to spend the money to clean up the lake and make it nice and useful again, PLEASE clean up and move out the tent city in one entire side of the lake. It's disgusting and unsafe.

I-598-1 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-599

COMMENT

RESPONSE

I-599-1 | Please take out the dam!

I-599-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-600

COMMENT

RESPONSE

I-600-1 | The dam can be used as a hydrodam.

I-600-1 The Draft EIS and Final EIS evaluate long-term management alternatives that were defined based on project goals, and that incorporate several components put forward in comments received during EIS scoping, that were found to be feasible ways to meet the project's goals. The alternative suggested in this comment has been considered but would not achieve project goals at a lower environmental cost as directed under SEPA rules (WAC 197-11-440).

Enterprise Services has identified the Estuary Alternative as the Preferred Alternative. The decision-making process is outlined in more detail in Attachment 21. Construction of the Preferred Alternative would result in removal of the 5th Avenue Dam.

I-601

COMMENT

RESPONSE

I-601-1 | I liked the hybrid model with the saltwater reflecting pool alternative. Thank you for all the hardwork you put into the report and for inviting people to contribute their input! Capitol Lake is a very special place to me, as well as the Olympia Brewery...and if there are future opportunities to volunteer with clean-up, or if you need any artwork to beautify the area, I would love to help. :)

I-601-1 | Comment noted. Also see the Global Responses for the Estuary Alternative and Preferred Alternative Identification Process.

I-601

COMMENT

RESPONSE



I-601

COMMENT

RESPONSE



I-602

COMMENT

RESPONSE

I-602-1 | Remove the dam and restore the estuary.

I-602-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-603

COMMENT

RESPONSE

I-603-1 | Use the hybrid option. Allow for the reflection pond but we need more and larger estuaries FAR more than mad made lakes that are ecologically unstable.
When in doubt allow more natural solutions rather than forced in natural ones.

I-603-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-604

COMMENT

RESPONSE

I-604-1 | the “Hybrid” option, which would allow for the restoration of tidal flow, the removal of the dam along with the creation of a smaller, manmade lake.
I like this one. It’s the Capitol Lake it should be a showcase for our state.

I-604-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-605

COMMENT

RESPONSE

I-605-1 See the text box on Page 4-101 of the Draft EIS for an explanation of why formal swimming facilities are not included under any of the project alternatives. Also, see the Global Response for Land Use, Shorelines, and Recreation for a description of how future opportunities for swimming are discussed in the Final EIS.

SUBJECT: Capitol Lake project - support public swimming area

MESSAGE:

Hello, DES;

My neighbors - and myself- support the combined lake-estuary proposal:

It seems a shame that we're surrounded by so much water, but there's no clean, designated outdoor place to swim.

I-605-1 A clean, fresh-water swimming area would be welcomed by all age-groups.. We really need a clean - and Artesan spring-fed (!) - public swimming area. I'd appreciate your thoughts on this. Thanks for your consideration.

The community- young & old - would really benefit from an outdoor, clean, fresh water, natural, public swimming area at Cap Lake..

I'd appreciate your thoughts.

Thanks.

H. Weinberg (Voter / Resident)

I-606

COMMENT

RESPONSE

Subject: **Draft EIS Comment**
From: olycheers <olycheers@aol.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-24 07:58



We have lived in the city of Olympia for over 30 yrs. We miss the activities and beauty of the lake. We walked it yesterday and already the bugs and smell are horrific..

We support the Managed Lake Alternative.

This Alternative would build upon the Capitol Lake water quality improvements acknowledged in the DEIS.

In terms of construction costs and timelines, this is the least expensive and least disruptive to the community.

If there is a funding lapse after construction, any adverse impacts would be restricted to North Basin recreational opportunities rather than the irreversible, broader adverse impact on West Bay navigation resulting from dam removal and the resultant sediment transport and deposit.

We have substantial concerns about the DEIS assumptions and estimated costs of sediment deposition, erosion, and dredging that would result from the 5th Avenue Dam removal under the Estuary and Hybrid Alternatives.

The DEIS wholly underestimates how much sediment is likely to be deposited and the corresponding West Bay dredging costs under the Hybrid or Estuary Alternatives.

It has been calculated that in the first 15 years after the 5th Avenue Dam is removed, it could cost as much as \$148 million under the Estuary Alternative or as much as \$177 million under the Hybrid Alternative to dredge the West Bay Area (OYC, Fiddlehead, Martin One Tree marinas; Percival Landing; Anthony's Homeport Dock; and the channel up to the Turning Basin).

The DEIS does not identify "who benefits and who pays" under each Alternative. This would not happen until after the Preferred Alternative is selected. This lack of certainty mirrors the failed history of action and funding for Capitol Lake over the past 30 years.

Because of this lack of certainty, we are concerned that once the Dam is, irreversibly removed, responsibility for maintenance dredging would likely fall on the private marinas. None of us is in a financial position to handle multi-million-dollar dredge projects every five or six years.

Should DES move forward with either the Estuary or Hybrid Alternative, the marinas and business must be held harmless from all impacts of future dredging work, permitting etc.

Bryan and Kathleen Davis

I-606-1

I-606-2

I-606-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-606-2 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

I-607

COMMENT

RESPONSE

Subject: **Draft EIS Comment**
From: Glen Hunter <rangerbob_glen@yahoo.com>
To: comment@capitollakedeschutesestuaryeis.org
<comment@capitollakedeschutesestuaryeis.org>
Date: 2021-08-24 08:20



Was there a consideration for the wild life that use the lake? The use of the lake for wildlife will go away. First you change nature then you change what we have mad. When I as a member of OYC have to pay for dredging again and again and again, I will seek compensation from you. What about the dredging that will have to be done more often for the Port. Now which way is more costly?

Glen Hunter

I-607-1

I-607-2

I-607-1 Section 4.5 of EIS Supporting Chapter 4.0 addresses impacts on wildlife. More information on impacts on wildlife is included in the Fish and Wildlife Discipline Report (Attachment 9)

I-607-2 Please refer to the Global Response for Shared Funding and Governance for Maintenance Dredging under the Estuary Alternative.

I-608

COMMENT

RESPONSE

Subject > **KEEP THE LAKE.....!!!!**
From Tom Schrader <schraderfour@gmail.com>
To <comment@capitollakedeschutesestuaryeis.org>
Date 2021-08-24 02:51



I-608-1 Comment noted. Please see the Global Responses for Air Quality and Odor and the Preferred Alternative Identification Process.

I-608-1

KEEP THE LAKE.....!!!!
No SMELL from an estuary!!!!

Tom Schrader
REALTOR | CBA | TCRA Board President
RE/MAX PARKSIDE AFFILIATES
300 Deschutes Way SW #200
Olympia, WA 98501
(360) 480-9387

I-609

COMMENT

RESPONSE

Subject **Draft EIS Comment**
From Matt Kluh <kluhbah@comcast.net>
To <comment@capitollakedeschutesestuaryeis.org>
Date 2021-08-24 10:13



I-609-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-609-1

For 3 generations my family has worked, played, volunteered and supported our community and waterfront. Please keep the dam!!!

I just submitted this regarding the Capitol Lake vote, cut/paste pass along to whomever, if you like.. :)

Capitol Lake used to be a beautiful, usable space in Olympia, what it has become over the past 20-30 years is a mess. I am glad that this community has finally decided to do something about it, and I am submitting my comments today in favor of the Managed Lake Plan for Capitol Lake. As a long time member of the Olympia community, when I was in high school, I used to teach sailing on Capitol Lake for the Olympia Parks & Rec Dept, and on the other side of the dam, at the Olympia Yacht Club. I also happily swam and enjoyed both basins of the lake during many years as a volunteer and participant in the formerly annual Lakefair Waterski Tournament. My wife and I are boat/boathouse owners now at the Olympia Yacht Club, and enjoy Budd Inlet with family and friends now. The Managed Lake is the ONLY plan that actually addresses all the issues that currently plague the mismanagement of this beautiful body of water. The sediment control alone should be a MASSIVE influence on this decision. The sediment (rich in nutrients) should be removed from the lake on a constant basis, and would provide a constant revenue source to at least pay for itself, once the initial removal of the massive amount of sediment currently allowed to accumulate uncontrolled is removed, which is the root of the problem in the first place. Any plan other than the Managed Lake simply puts this massive sediment problem further out into the bay, a problem that will have to be paid for (dredging under ALL marina and Port spaces) by the City of Olympia/State of WA (whomever EXACTLY makes this decision who will be held accountable). Do not pass the buck. Do the right thing for this community and ALL of the aquatic environment effected by this decision. VOTE FOR THE MANAGED LAKE PLAN FOR CAPITOL LAKE.

I-609-2 Enterprise Services has engaged a Funding and Governance Work Group to consider shared funding and governance for maintenance. Under the Estuary Alternative, the Funding and Governance Work Group would provide funding for dredging associated with the increased sediment. Funding provided by the marinas would be consistent with the No Action Alternative.

Please refer to Attachment 23 of the Final EIS for the Memorandum of Understanding that outlines the approach for shared funding and governance.

Enterprise Services also notes the stated preference in this comment for the Managed Lake Alternative, and the suggestion for resale of dredged material.

I-609-2

Sent from my iPhone

I-610

COMMENT

RESPONSE

I-610-1 Estuary please! Take away the dam.

I-610-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-611

	COMMENT	RESPONSE
I-611-1	<p>Going back to an estuary will effectively terminate all boating facilities in the Budd Inlet which would be a devastating loss to not only local Boaters in Olympia but to us who visit and pay into the local Olympia economy. The tax base would also take a</p>	<p>I-611-1 Two key project design features that avoid and minimize impacts to vessel navigation have been incorporated into the project under both the Estuary and Hybrid Alternatives:</p>
I-611-2	<p>hit. Plus who wants to look at the historical tidal mud flats at low tides? Not pretty and also is smelly.</p>	<ul style="list-style-type: none"> • Initial dredging at Capitol Lake before the 5th Avenue Dam is removed is proposed for both the Estuary and Hybrid Alternatives and was shown by the numerical model developed for the EIS to be effective in reducing future sediment deposition in Budd Inlet. Sediment deposition at the Olympia Yacht Club, for example, reduces by approximately 48% when initial dredging is assumed. Both the Estuary and Hybrid Alternatives include initial dredging that would be completed in Capitol Lake. • Annual sediment monitoring would be conducted and maintenance dredging would occur in West Bay under the Estuary and Hybrid Alternatives. The purpose of the maintenance dredging is to avoid significant impacts to Port of Olympia and marina facilities and provide for continued navigation in West Bay. Sediment monitoring would allow the dredging to be responsive to actual environmental conditions.
		<p>As described in Final EIS Supporting Chapter 7.0, shared funding and governance is proposed for maintenance dredging of increased sediment that would deposit in West Bay under the Estuary Alternative. Recurring maintenance dredging would avoid chronic shallowing that occurs under existing conditions, and this may result in a beneficial effect to the private marinas and Port of Olympia.</p>
		<p>I-611-2 This response acknowledges the commenter’s position. EIS Supporting Chapter 4.0, Section 4.10, recognizes that the aesthetic value a viewer places on the landscape is subjective; some viewers prefer views of the open water of a lake to that of an estuary, and the reverse is true for other viewers. This is illustrated in the range of opinions expressed on the aesthetics of the project in the comments on the Draft EIS, and in other public processes before the EIS.</p>

I-612

COMMENT

RESPONSE

I-612-1 | My preference is to let this become a natural estuary for wildlife viewing, animal habitat and as an educational area for local schools. Interpretive center, signs, and walkways, etc. Allow nature to take this area back, much like Nisqually.

I-612-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-613

COMMENT

RESPONSE

I-613-1 | Please work to restore the natural habitat. Please remove the dam and clean up what was created by this dam. Thank you.

I-613-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-614

COMMENT

RESPONSE

I-614-1 | Short and sweet. The LAKE should be dredged once more then the dam should be removed and land area restored to its original state before 1949 allowing nature to take its course once again.

I-614-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-615

COMMENT

RESPONSE

I-615-1

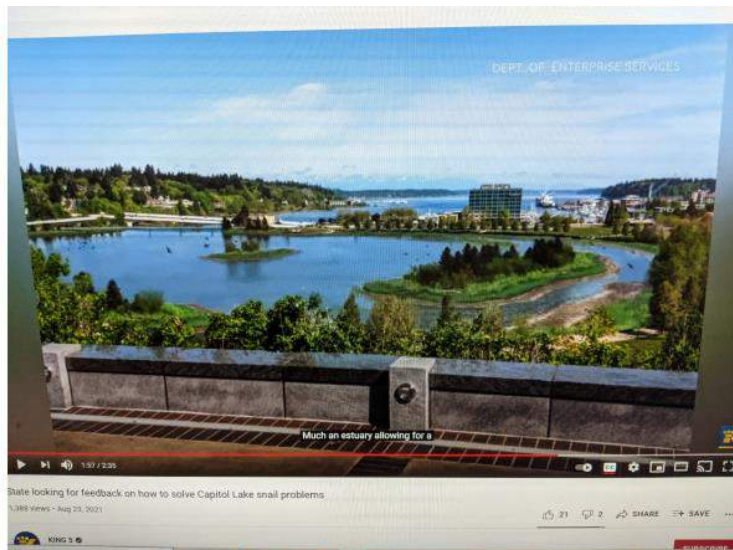
I really like the idea of restoring the land back into an estuary and letting nature take its course. This is not only a cost effective measure requiring less maintenance, but declares Washington's dedication to the environment. This of course began with dam removal on the Olympic Peninsula. It also provides research opportunities for college, state and tribal communities on the outcomes of manmade environments. Thank you for the option to comment on this project.

I-615-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-615

COMMENT

RESPONSE



I-616

	COMMENT	RESPONSE
I-616-1	All lakes and rivers are to be free of toxins	I-616-1 Thank you for your comment; improving water quality is a project goal. Please also see the Final EIS Summary which includes additional information on the nexus of this project with other water quality improvement efforts led by the Washington State Department of Ecology.

I-617

	COMMENT	RESPONSE
I-617-1	<p>The presentation does not mention removal of the dam. Is that feasible? There is not enough information presented here for the public. Why must the lake return to public use? Does "public use" focus on motorboats only and/or is the lake otherwise polluted? Are there businesses using the lake? Other public uses? Any vegetation issues? Fish inhabitants?</p> <p>For example, would dredging or removal of sediment may partially address the snail problem? How much dredging is required otherwise annually and at what cost?</p> <p>Pea puffer fish might help in snail removal as they eat them...Some nuse of or predator might eliminate the snails naturally</p>	<p>I-617-1 Please refer to EIS Supporting Chapter 2.0 for an overview of the project alternatives. As described in Chapter 2.0, the 5th Avenue Dam would be removed under the Estuary and Hybrid Alternatives to restore tidal flow to the basin.</p> <p>Enhancing community use is one of four project goals, as described in Section 1.9 of EIS Supporting Chapter 1.0. The action alternatives include features to restore active community use, including boat launches for hand-carried vessels and fishing docks. There may be incidental use of the Project Area by motorized vessels, but this is not an intended use.</p> <p>Existing conditions are described in EIS Supporting Chapter 3.0, including descriptions of existing environmental impairments, commercial and recreational uses throughout the Project Area, fish and wildlife species that use Capitol Lake and Budd Inlet, and water and sediment quality.</p> <p>Dredging requirements for each alternative are described in Sections 4.1 and 4.2. of EIS Supporting Chapter 4.0. Dredging is not expected to eradicate the New Zealand mudsnail. The approach to manage and control the potential spread of aquatic invasive species under each alternative is described in detail in Attachment 8, though there is no known approach to eradication of the New Zealand Mudsnaill under any alternative.</p> <p>Please see Final EIS Supporting Chapter 7.0 for planning-level costs for construction and maintenance.</p>

I-618

COMMENT

RESPONSE

Subject: **Capitol Lake DEIS – Cost Estimate Magic**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>, Carrie.Martin@des.wa.gov <Carrie.Martin@des.wa.gov>, Janet.Jansen@des.wa.gov <Janet.Jansen@des.wa.gov>, RachaelJ@portolympia.com <RachaelJ@portolympia.com>, SamG@portolympia.com <SamG@portolympia.com>
 Date: 2021-08-24 16:34



All:

I-618-1 The Capitol Lake DEIS dated June 2021 uses misleading cost estimates to justify dam removal. Table ES.4 of the Executive Summary shows construction costs plus long-term maintenance costs for the dam removal alternatives are lower than keeping the dam. The hard-working, tax-paying citizens of Washington State have real jobs and are unlikely to read through the entire DEIS to discover that the actual costs of construction plus long-term dredging for the Estuary and Hybrid Alternatives are hidden in Footnotes #8 and #9 on Page 7-6. Notice that the Estuary and Hybrid costs for construction plus long-term dredging are actually significantly higher than the Managed Lake Alternative (\$660M and \$924M vs. \$607M, respectively), not significantly lower as shown in Table ES.4. [Note: All the footnotes in Table 7.1.1 are numbered incorrectly.]

I-618-2 The DEIS writers are making the unsupported assumption that sediment from the Estuary and Hybrid Alternatives containing invasive species and/or toxins will be permitted to spread the New Zealand Mudsnaill and suffocate crabs at Nisqually (near the Anderson-Ketron in-water disposal site ?), but not for the Managed Lake Alternative. The New Zealand Mudsnaill has already adapted to brackish water such as that found throughout South Sound waters, and sediment from West Bay will not be free of it. Therefore, how can the DEIS writers claim that in-water disposal will be permitted? Page 4-37 also makes the claim that "dredged sediment quality in both the lake basins and West Bay is expected to be uncontaminated". However, that sediment is already contaminated, and any attempt to remove it will stir it up and spread it around.

I-618-2 Page 21 of the Executive Summary states: "...dredged material would be trucked to an upland disposal site under the Managed Lake Alternative and would be taken by barge to an in-water disposal site under the Estuary and Hybrid Alternatives". However, the footnotes for Table 7.1.1 show that upland disposal costs approximately twice as much as in-water disposal for a given amount of dredged material. This has the effect of making the Managed Lake Alternative (keeping the dam) appear to have much higher long-term maintenance costs than the Estuary or Hybrid Alternatives (removing the dam) as shown in Table ES.4.

I-618-3 The DEIS writers have no idea whether West Bay sediment (with or without contamination and invasive species) can be permitted to be dumped somewhere else in Puget Sound waters (Anderson-Ketron ?) under FUTURE environmental regulations which are currently unknown by anyone and getting stricter every year. The majority of long-term dredging costs will be incurred more than fifteen years from now.

I-618-3 The cost estimates in Table ES.4 of the DEIS should be revised to match those in Footnotes #8 and #9 on Page 7-6. The DEIS should show that each action alternative has an equivalent cost per unit of material dredged.

William R. Workman.

Sent with ProtonMail Secure Email.

I-618-1 Footnotes have been added to the table in the Final EIS Summary to describe increase in potential costs if sediment dredged under the Estuary and Hybrid Alternatives must be taken upland rather than disposed of in-water.

All footnotes associated with Table 7.1.1 have been revised and renumbered as needed.

I-618-2 As described in Final EIS Supporting Chapter 7.0, the assumption regarding in-water disposal for dredged sediment under the Estuary and Hybrid Alternatives is based on suitable chemical quality of the Deschutes River sediment, which was sampled as part of the EIS analysis to get a representative understanding of sediment quality. The Deschutes River sediment would be naturally deposited in West Bay under these alternatives. Because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for freshwater aquatic invasive species persistence in deeper waters where dredging would occur. A survey was also conducted for the Final EIS to determine whether New Zealand mudsnail have established in Budd Inlet given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnails were found during this survey.

Before future dredge events, sampling for chemical quality and invasive species would occur to confirm suitability of the dredged materials for in-water disposal. As described in Chapter 7.0 and provided through the range of costs estimated for this project, if the sediment is determined unsuitable for in-water disposal, upland disposal would more than double the disposal costs.

Upland disposal is the only currently feasible disposal option for material dredged under the Managed Lake Alternative because invasive species are expected to persist in the freshwater environment, at high densities similar to existing conditions.

The EIS Project Team has consulted with WDFW on these assumptions and findings.

I-618-3 Please see response to Comment I-618-1.

I-619

	COMMENT	RESPONSE
I-619-1	<p>Capitol Lake used to be a beautiful, usable space in Olympia, what it has become over the past 20-30 years is a mess. I am glad that this community has finally decided to do something about it, and I am submitting my comments today in favor of the Managed Lake Plan for Capitol Lake. As a long time member of the Olympia community, when I was in high school, I used to teach sailing on Capitol Lake for the Olympia Parks & Rec Dept, and on the other side of the dam, at the Olympia Yacht Club. I also happily swam and enjoyed both basins of the lake during many years as a volunteer and participant in the formerly annual Lakefair Waterski Tournament. My wife and I are boat/boathouse owners now at the Olympia Yacht Club, and enjoy Budd Inlet with family and friends now. The Managed Lake is the ONLY plan that actually addresses all the issues that currently plague the mismanagement of this beautiful body of water. The sediment control alone should be a MASSIVE influence on this decision. The sediment (rich in nutrients) should be removed from the lake on a constant basis, and would provide a constant revenue source to at least pay for itself, once the initial removal of the massive amount of sediment currently allowed to accumulate uncontrolled is removed... which is the root of the problem in the first place. Any plan other than the Managed Lake simply puts this massive sediment problem further out into the bay, a problem that will have to be paid for (dredging under ALL marina and Port spaces) by the City of Olympia/State of WA (whomever EXACTLY makes this decision who will be held accountable). Do not pass the buck. Do the right thing for this community and ALL of the aquatic environment effected by this decision. VOTE FOR THE MANAGED LAKE PLAN FOR CAPITOL LAKE.</p>	<p>I-619-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.</p> <p>I-619-2 Please refer to response to Comment I-609-2.</p>

I-620

COMMENT

RESPONSE

I-620-1 | Hi,
My suggestion is to remedy the situation in the most sustainable way. I'm not sure what that is but it's time to clean it up and return the Lake (or estuary) into a healthy habitat that supports the local environment (for native plants/grasses/trees, animals, birds and insects...fish too) My \$02.cents.
Let's do it right this time.
Best Regards,
Jeannine

I-620-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-621

COMMENT

RESPONSE

I-621-1 | Even though I don't live in Olympia anymore I still pass and bike through the area that will be affected by adoption of any of these proposals. I heartily and wholeheartedly implore you to leave the lake as it is. I do not see the scale of disruption foreseen (the elimination of a functioning dam and bridge and the changes of the shoreline) as being worth any and I mean any future benefit. I thank you for taking the time to collect public comments. Again - please leave the lake as it is.

I-621-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-622

COMMENT

RESPONSE

I-622-1 | I would strongly prefer to see a hybrid option pursued for this project where some sort of partition is installed to maintain a small freshwater lake on the east side of the current reflecting pool area. Having this area open to swimming, assuming there are sufficient resources to keep it safe and clean, would be a great benefit for the downtown area.

I-622-1 | Comment noted. Please see the Global Response for the Hybrid Alternative, which has been updated to include a freshwater reflecting pool.

I-623

COMMENT

RESPONSE

I-623-1 | Turn it back into an estuary and make it into a salmon creek restoration project. Make it a showcase project with the local tribes. It would show we are serious about restoring our historical salmon runs. As well as being a yearly reminder for our public representatives of the amazing beauty of our northwest salmon streams and the need to protect them from harm if we want the salmon to return. It would make it a real northwest capital, not a wanna-be replica of Washington DC.

I-623-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-624

COMMENT

RESPONSE

I-624-1 | Return it to its natural state. It will provide salmon habitat and an estuary for migrating birds. Put in natural vegetation that will help decrease Olympia's carbon footprint. Build trails through like Nisqually to attract tourists and give locals another outdoor experience.

I-624-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-625

COMMENT

RESPONSE

I-625-1 | Remove the dam! Return the "lake" to a natural, healthy environment as it was meant to be!

I-625-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-626

COMMENT

RESPONSE

I-626-1 | I think either fully return it to an estuary or partial estuary with a reflecting pond.
Either way I think the dam needs to go. We can see how much damage we've done
to the natural ecosystem in just 70 years by adding this dam. In the name of
restoring this states natural beauty, I damn the dam.

I-626-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-627

COMMENT

RESPONSE

I-627-1 | Maximum effort should be employed to 1. Remove the dam. 2. Reestablish a
functioning estuary. 3. Be a model project for the public, including students of all
ages to learn from- citizen science...

I-627-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-628

COMMENT

RESPONSE

I-628-1 | Remove the dam and restore to original configuration.

I-628-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-629

COMMENT

RESPONSE

I-629-1

I have lived in Olympia for 60 years and would swim in the lake as a child. I would like to see an area that is fresh water fed by the springs that are supposedly in the lake. This could be used for swimming or for water supply in the event of disaster. The rest of land can be used for estuary or tidal influence.

I-629-1

Comment noted. Also see the Global Responses for the Hybrid Alternative and Preferred Alternative Identification Process.

I-630

COMMENT

RESPONSE

I-630-1

I am strongly in favor of the dual lake and river approach because the history of our Capitol included the Lake. With the artisan water source, it might be clean enough for swimming again as it was when we came to Olympia in 1975.

We also need to protect the salmon so they can continue to exist. So having the Deschutes River able to freely flow should be more helpful to the salmon.

Though this is the more costly approach, it is well worth maintaining both our salmon and the historic addition to our Capital City.

Thank you for your consideration.

I-630-1

Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-631

COMMENT

RESPONSE

I-631-1

As much as I've enjoyed walking around the lake, I think the return to the natural estuary could still provide a wonderful water-related experience for humans, and it would be much, much better for the fish, birds and other creatures who have seen too much of their habitat encroached upon. Time to give it back!

I-631-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-632

COMMENT

RESPONSE

I-632-1

Listen to nature and to learn how she wants grow, and then help her. Seems the estuary plan is most aligned to this maxim that has been trying to teach us from our very existence. Will we finally start listening? If we want her to keep sustaining our lives, we will.

I-632-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-633

COMMENT

RESPONSE

I-633-1

I believe Capitol lake should be returned to the natural estuary it was before the dam was put in place.

I-633-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-634

COMMENT

RESPONSE

I-634-1 Channel 5 interviewed WA State Lake Manager where he stated some untrue statements. A private engineering group ran water samples of Capital lake, and found its water to be the cleanest water in all of Thurston County lakes. I am extremely opposed to removing the dam. It saves the harbor and shipping lanes from becoming an unusable water way, because the silt and dirt would fill up the harbor. The lake needs to be dredged back to its original depth ' all the way South to Tumwate Falls Park, creating more shoreline and parks . The fish ladder at the dam needs to be updated, and another one i Added if needed.

I-634-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-635

COMMENT

RESPONSE

I-635-1 The most logical and environmentally sound action for Capitol lake is to remove the dam and restore the estuary. This move would foster sustainable practices putting into play many federal and state goals to restoring habitat of native species. How great would it be for Washingtonians to witness the restoration of our state's valuable natural resource right outside of the Capitol. It would help encourage those with waterfront property both businesses and residences to seek sustainable ways to develop their waterfront.

I-635-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-636

COMMENT

RESPONSE

I-636-1 | I am in favor of removing the dam and restoring the estuary

I-636-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-637

COMMENT

RESPONSE

I think restoring Capitol Lake to as close to its original condition would be the best solution. As we watch everything change around us, having one thing carefully preserved is very attractive.

I-637-1 Keep it fresh water, remove the 15' of silt, restore indigenous flora and fauna. The benefits would pass on to many future generations. What a concept! Natural and indigenous plants and animals.

I-637-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-638

COMMENT

RESPONSE

In reviewing the proposed 3 options based on the latest study, I prefer the hybrid model with the Estuary being a close 2nd. It would be my desire to redesign the entire walkway around the lake to make it more walker friendly, but I understand that is not the goal of this project. The hybrid model, to some degree, addresses that issue. Thank you for the opportunity to provide input.

I-638-1

Willie Rhodes

I-638-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-639	COMMENT	RESPONSE
I-639-1	Estuary! Start now! I can't wait to enjoy it! Thank you!	I-639-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-640	COMMENT	RESPONSE
I-640-1	Prefer to see the natural estuary restored with public use mixed in.	I-640-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-641	COMMENT	RESPONSE
I-641-1	Living literally at the top of the hill from Capitol Lake and as a regular human powered watersport recreation participant, I have been following the progress of this initiative with quite a bit of interest. Based on reading the EIS, I cannot understand any way the Estuary is not the overwhelming preferred alternative. I am ecstatic about the prospect of restoring human powered recreation with the associated ecological benefits.	I-641-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.
I-641-2	One somewhat trivial consideration is ensuring the Marathon Park boat launch has access to the dredged deep water channel at lower tide. I definitely envision people frequently getting stranded downstream if this is not the case, having to exit Budd Bay up the rocks near the grocery store, and having to walk back to Marathon Park.	I-641-2 Given the location of Marathon Park and the alignment of the Deschutes River in the middle of the North Basin, it would be a challenge to provide hand-carried boat launch access across all tidal cycles. Across the Puget Sound, the functionality of many boat ramps is limited due to the tidal cycle. This is not uncommon. During design, the cost/benefit of extending the ramp will be evaluated and Enterprise Services, in coordination with stakeholders, will determine the extent of the boat ramp. If the boat ramp does not provide access to boaters at low tides, proper signage will be placed to inform/educate boaters.
I-641-3	Beyond this, I also am very pleased to see the addition of a bridge along the north side of Capitol Lake paralleling the Fifth Street bridge. As a frequent cyclist, this bridge is somewhat terrifying to cross with the complex intersection and no space for bikes. In summary, consider my comment in strong support of the Estuary alternative and please consider ensuring access during most low tides from the Marathon Park boat launch to the dredged main channel.	I-641-3 As described in Final EIS Supporting Chapter 2.0, the Estuary Alternative has been updated to include a new 5th Avenue Bridge that would be constructed south of the existing 5th Avenue Dam and Bridge. The new bridge would include a vehicle lane, bike lane, and sidewalk in each direction, with the sidewalk on the south side providing a dedicated recreational trail connection. This bridge would be constructed and connected to the transportation system before the existing 5th Avenue Dam and Bridge are removed. The new bridge would provide a connection for pedestrians and bicyclists between the existing pathways at Heritage Park to existing pathways along Deschutes Parkway. Regarding access from the boat launch to the main channel during low tides, see the Global Response for Land Use, Shorelines, and Recreation.

I-642

COMMENT

RESPONSE

I support returning Capitol lake to an estuary. My family visits the lake often, and I want my children to be able to marvel at the push pull of the tides and witness a landscape that changes with each flush from the sound and leaves us with new things to discover on each visit.

I-642-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-642-1 The lake in it's current form just feels so stagnant, out of place and disconnected from the natural beauty of puget sound just a few feet away.
Take out the dam.
Return the lake to an estuary.
Let nature back in.

I-643

COMMENT

RESPONSE

I support returning Capitol lake to an estuary. My family visits the lake often, and I want my children to be able to marvel at the push pull of the tides and witness a landscape that changes with each flush from the sound and leaves us with new things to discover on each visit.

I-643-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-643-1 The lake in it's current form just feels so stagnant, out of place and disconnected from the natural beauty of puget sound just a few feet away.
Take out the dam.
Return the lake to an estuary.
Let nature back in.

I-644

COMMENT

RESPONSE

I like the idea of re-establishing the estuary by breaching the lake to re-connect it. However, if there is any notion that Olympia should become a port that handles large Panamax size ships, this is totally unacceptable. These ships are bad enough in the north part of Puget Sound; we don't need to bring their polluting dirty ways further into the south Sound where the impacts would be even more damaging given the geography of Puget Sound.

I-644-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-644-1
I-644-2

I-644-2 The reference has been fixed to reflect partial Panamax rather than large Panamax ships. Projected vessel type is based on ongoing coordination with the Port of Olympia through the EIS process and their planning documents. The Port of Olympia would have final decision on vessel and vessel types that may call at their facilities.

I-645

COMMENT

RESPONSE

I-645-1 | I was there last night and I was a bit more concerned about the lack of water.
I guess a silver lining is in sight, yeah?
When there's no water we won't need to worry about the snails.

I-645-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-646

COMMENT

RESPONSE

I-646-1

To whom it may concern:
The Estuary Alternative would fully restore the Deschutes Estuary. It would return tidal flow; it is the most cost effective; requires the removal of the dam; restore fishing / fun for the community; honor native Americans.
Please choose the Estuary Alternative.
Thank you,
Brenda Paull

I-646-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-647

COMMENT

RESPONSE

8/26/2021 Roundcube Webmail :: Fwd: Capitol Lake

Subject: **Fwd: Capitol Lake**
 From: Earl Hughes <ehughes416@comcast.net>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-26 10:56
 Priority: Normal



----- Original Message -----
 From: Earl Hughes <ehughes416@comcast.net>
 To:
 Date: 08/26/2021 10:52 AM
 Subject: Capitol Lake

I-647-1

As a member of the Olympia Yacht Club I'm for the Managed Lake Alternative for the following reasons: The managed lake alternative keeps the sediment within the lake as it is now. Both of the estuary alternatives would leave an annual sediment at the Olympia Yacht Club of 6 to 7.5 inch per year. That would mean we would have to dredge at least every 6 to 8 years. This cost would be prohibitive.

I-647-2

I was told on a zoom meeting that a consortium made up of local jurisdiction would be developed to help cover most of the dredging cost. Do you honestly think Lacey or Tumwater are going to budget money for the Olympia water front?

The State which manages the lake has not budged the money to dredge over the past 20+ years as they were suppose to. If they had done their job everything would be fine now.

Earl Hughes
 ehughes416@comcast.net

I-647-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

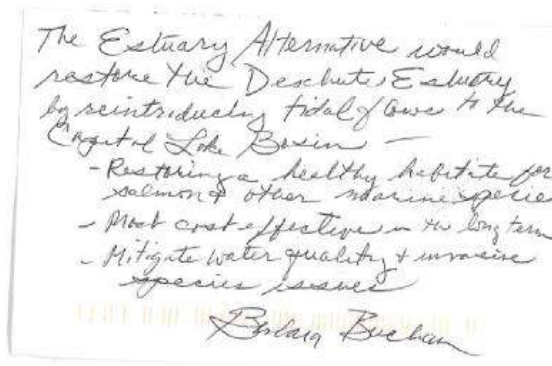
I-647-2 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

I-648

COMMENT

RESPONSE

I-648-1



I-648-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-649

COMMENT

RESPONSE

August 20, 2021
Department of Enterprise Services
Department of Enterprise Services Capitol Lake- Deschutes Estuary EIS
P.O. Box 41476
Olympia, WA 98504-1476

Thank you for the opportunity to comment on the DEIS. The following are my comments and questions.

Executive Summary:

I-649-1

Pg. 3, Four introductory colored pictures seem to set the stage for a rational for doing the EIS by showing the Lake at it's worst. Two of the photos attempt to show that the lake suffers from water quality impairments and that the dense community of aquatic plants affect ecological functions. However the details in the EIS show that water quality in the Lake has improved and is considered relatively good and that the dense community of plants actually improves the water quality of the water flowing through the Lake from the Deschutes River.

I-649-2

The visual simulations on pages 9,10 and 11 are also deceiving. They show the estuary and hybrid only at a higher tide. Other simulations deep in text do show the alternatives at lower tides, however an **executive summary should portray a balanced unbiased approach.**

I-649-3

Pg. 21, Table ES.4 Planning level costs Summary. It should be noted that costs for both the Managed Lake and Estuary alternatives are based in part by unrealistic and unsupported assumptions. The DEIS assumes that under the Lake alternative all future dredge material will have to be trucked, the most costly option, to an upland site 20 years after the initial dredge, due to the assumed continuing presence of the NZ mud snail and Purple loosestrife plants. It fails to evaluate the use of rail transport for moving the dredged material to an upland disposal site. This done in spite of the fact that there is an active rail line running through the project site and an adjacent state owned upland site available for dewatering the dredged material. **The use and cost for rail transport of dredged material should be a part of the decision making process and not considered latter only if the managed lake alternative is chosen.**

Project Alternatives and Construction Approach: 2-0

I-649-4

Pgs. 2.9 Use two illustrations to show that under the estuary and hybrid alternatives tide flats do not emerge until the tide level falls below 0 elevation NAV 88. NAV88 elevations are referenced to a geologic datum that is considered the 0.0 elevation. Tidal water levels, on the other hand, are referenced to the average of the lower low tides in a given geographic location. **In the two illustrations tide flats would begin to emerge with +4 foot tide and the MHHW would be +14 feet tidal elevation.**

Pg. 2.10 is a series of graphics attempting to illustrate the statement on the previous page intended to minimize the adverse visual impacts of exposed mudflats, which states the project tide flats would be covered with water (+ 4' tide) 80% Of the time. **It should also be pointed**

I-649-1 The photos included in the Executive Summary are intended to illustrate the environmental impairments that would be addressed by implementation of the long-term management project. The four project goals that would address these environmental impairments were established in 2016 by a broad group of stakeholders, prior to the EIS analysis (refer to Final EIS Supporting Chapter 1.0 for more information on this process).

Please see Section 4.3.4 of Final EIS Supporting Chapter 4.0, which does describe that aquatic plants would be controlled under a Managed Lake Alternative to improve aesthetics and boating access (beneficial uses), and to reduced fall and winter nutrient release to Budd Inlet. An adaptive lake management plan would maintain a healthy aquatic plant community that does not impair recreation or aquatic life uses. The adaptive lake management plan would include measures such as mechanical harvesting of aquatic plants.

I-649-2 Based on this and other comments, the full set of visual simulations has been added to the Final EIS Summary. See also Global Response for Visual Resources.

I-649-3 Regarding the assumed upland disposal for material dredged under the Managed Lake Alternative in future dredging events, existing environmental conditions and environmental regulations prohibit sediment from the Managed Lake from being disposed of in-water disposal due to the presence of the New Zealand mudsnail. In response to comments, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative. Environmental conditions and/or environmental regulations would have to change for the sediment to be considered suitable for in-water disposal. Dredging would not occur sooner than the 2050s under the Managed Lake Alternative, and conditions could change in that time, although there is no current indication of changes in that direction.

The planning-level costs associated with upland disposal assume transport to the upland site by truck, rather than by rail. However, transport by rail is not precluded. The Draft EIS described that the close proximity of the Olympia & Belmore Railroad offers an opportunity for the dredged material to be hauled by rail instead of truck. This is further described in EIS Supporting Chapters 4.0 (Section 4.12.3) and 7.0. The feasibility of rail transport from the maintenance dredging events would depend on a number of factors, including equipment availability and whether or not the upland disposal location is adequately served by rail. Additionally, transport by rail requires a significant amount of land for temporary storage where dredged material would be placed and then

I-649

COMMENT

RESPONSE

loaded onto rail cars as they are available. Given that maintenance dredging would not occur for several decades, the availability of nearby suitable land could not be assumed, and neither could equipment availability or rail access. Transport by rail would be reevaluated in the future prior to maintenance dredging, where upland disposal is assumed, because it could reduce the estimated costs of sediment transport for disposal.

I-649-4 In response to the comments on tidal elevations on Page 2-9 of the Draft EIS, these figures are intended to help explain the dynamic nature of a tidal environment. The vertical numerical scale used in the figures uses NAVD 88 datum, with the average tidal information (MLLW, MSL, and MHW) represented as dashed lines. These figures are not intended to show all conditions and should not be read to indicate that no tideflats would be visible at tides above 0.0 NAVD 88. The figure has been updated to more clearly indicate that 0.0 NAVD 88 is the "average elevation of mudline in the North Basin under the Estuary Alternative" to help readers in understanding that there would be mudline elevations above and below this. Tideflats would occur at elevations between -4.0 and +6.6 (NAVD 88) (see Figure 2.2.3 in the Draft EIS and Final EIS).

In response to this comment, visual simulations of the Estuary Alternative at high and low tide have been added to Final EIS Supporting Chapter 2.0.

With regard to tides during summer months, when the number of park users is highest, it would be more correct to say that both high and low tides would occur during daylight hours almost every day between the spring and autumn equinoxes. The graphic has been updated to include this statement. Section 4.8 of Final EIS Supporting Chapter 4.0 has also been updated to describe that tides tend to be lower during the summer, when boating is most popular, and that lower tides would limit boat use during certain summer daytime hours.

Regarding the Hybrid barrier wall design, see the Global Response for Visual Resources. Also, the Hybrid Alternative has been updated to include a groundwater-fed freshwater reflecting pool rather than a saltwater reflecting pool, so exposure of the wing walls would not occur with the updated design since there would not be tidal fluctuation in the reflecting pools. The wing walls would only be on the eastern side of the barrier wall and would not be seen from Deschutes Parkway. The exposed height of the barrier wall, as viewed from Deschutes Parkway would range from approximately 18 feet to 28 feet given the variation in bottom elevation of the North Basin.

I-649

COMMENT

RESPONSE

I-649-4 **out that over 90% of the days in the summer months will experience these tides during the daylight hours.**
 Figures 2.24 & 2.23 show the estuary and hybrid alternatives would look like at “their best” at high tide. A more balanced and objective description would also include pictures of these two alternatives at a low tide.
 Pg 2.50 Construction of the Reflecting Pool Wall. This section provides only the length of the wall with approximately 130 wing walls spaced 20 feet apart to prop up the structure. No height is given for either the reflecting pool wall or the wing walls, although the text does state that the wing walls would remain submerged under most tidal elevations. These are serious omissions from a serious visual adverse impact as well as construction integrity. The reflection wall would have to be high enough to prevent being overtopped by the highest “ king tides” plus an allowance for sea level rise. **A picture should be added showing what a 20 foot high reflection pool wall and its’ supporting wing walls would look like at a +4 foot tide as viewed from the Deschutes Parkway.** The Puget Sound region is subject to periodic earthquakes. Earthquakes in the 60’s and 70’s did significant damage on the Capitol Campus and Deschutes Parkway. The proposed Hybrid alternative results in a 20 foot high, half mile long retaining wall holding back 40 plus acres of impounded water. **Would this structure be strong enough to withstand a 6.0-7.0 earthquake? A breach of the retaining wall at a low tide would have disastrous downstream results.**

I-649-5 Yes, a barrier wall can be designed with adequate seismic resistance capacity to withstand a design earthquake of the magnitude provided in this comment. As described in EIS Supporting Chapter 1.0, Section 1.11, future design under any of the alternatives would include consideration of seismic and geotechnical hazards present at the site.

I-649-6 Table 3.3.5 summarizes the difference in nitrogen concentrations between the Deschutes River and Capitol Lake where average summer water quality conditions in the river and lake are compared to each other. The comparison between nitrogen inputs in the Deschutes River and Capitol Lake has been expanded in Section 3.3.3.1 of Final EIS Supporting Chapter 3.0 to include a comparison of nitrogen loading. These results further support the findings of Ecology’s modeling and the EIS team’s analysis that nitrogen inputs to Budd Inlet will increase with dam removal.

I-649-6 Water Quality: 3.0
 Table 3.3.5 does do a good job in showing the effect Capitol Lake has on reducing the concentration of total nitrogen (TN) discharge into Budd Inlet during the critical summer months. The text states“As summarized in the table, (3.3.5) there was a small decrease in average total nitrogen between the river and lake as well as decreases in dissolved inorganic (DIN)”..... The table while showing the yearly average DIN concentrations for the Middle and North Basins, fails to show the DIN concentration of the Deschutes River that flows into the Lake. This should be added for the table to have full meaning, i.e. assuming a DIN concentration of .7mg/l for the Deschutes River would show that there is a 70% reduction in the DIN concentration.
 Table 3.3.2 does an even better job in showing the DIN concentration reduction between the river and North basin. Taking the DIN numbers from the graph for the critical months of July, August and September would show that there is **approximately a 98% reduction in the concentration of DIN in the water flowing from the Lake into Budd Inlet.**
 Ecology’s Puget Sound Nutrient Forum which is currently addressing the excess nitrogen problem from wastewater plants and watershed tributaries in Puget Sound uses DIN Nitrogen

I-649

COMMENT

RESPONSE

I-649-6 “loading (applying the DIN concentration to a watershed or waste water treatment plant’s discharge flow to calculate a nitrogen loading factor in pounds or kilograms) as the main metric in describing amounts of nitrogen. i.e. the LOTT wastewater treatment plant’s discharge permit expresses DIN wastewater discharge limits in in pounds of DIN/day. The information in Table 3.3.5 and Figure 3.3.2 should be expanded to **show the difference in DIN nitrogen loading between the River at Tumwater Falls(585 lbs./day) and the Lakes discharge into Budd Inlet from the North Basin.**

Pg. 3-16— “ Capitol Lake has been listed in Ecology’s 303(d) for impaired waters due to bacteria and phosphorus since 1996.” However, it should be noted that from 2004 thru 2014 the Lake met the bacteria water quality standard during the critical summer months, Water quality sampling was discontinued in 2015.

I-649-7 Pg. 3.3.2 Budd Inlet Vessel Traffic Patterns : **A very misleading diagram** is used to show that Budd Inlet experiences very little vessel traffic (maximum of 200 vessels per year) by showing only vessels equipped with AIS and being tracked by the Coast Guard.. The Olympia harbor is home to over 1,500 recreational vessels and during a summer day the number of vessels on Budd Inlet may be in the hundreds. A quick look at a Google Earth image of the inlet will show over 21 vessels operating on the Inlet as the satellite flew over.

Long Term Impacts: -4.0
Pg. 4.34--- Key Findings under the Estuary and Hybrid alternatives...“Budd Inlet would experience minor to moderate benefits associated with improved oxygen, and algal blooms are expected to be largely the same as current conditions.
Versus
Pg.4-43---“Under the estuary alternative..... compared to the Capitol Lake where DO conditions are generally good throughout the (lake) basin, DO concentrations in this area would be very low under the estuary alternative during certain conditions.”
It should be **explained why under the estuary alternative, which will result in a significant increased DIN loading to Budd Inlet, would result in DO and algae remaining largely the same in the Inlet.**

General Comment / Conclusion.
A proposed project plan of the scope and magnitude of this DEIS should provide the decision makers with detailed information as to: “What will be done—” When it will be done” and “Who will do it “.
The Estuary and Hybrid alternatives are significantly lacking in “Who will do it” with regard to sediment management. The Funding and Governance work group suggests some type of management body created under RCW 39.34 . However there is no mention of any potential entities that would possibly make up this body, even though all the logical state and local governmental entities made up the work group. The legislature directed that the EIS must consider equal funding from non-state entities such as local governments, special purpose districts tribes and not-for profit organizations. However the DEIS makes no mention of possible funding sources .

I-649-7 Please see Section 3.3.3 of Final EIS Supporting Chapter 3.0, which states that Capitol Lake exhibited improving water quality from 2004 to 2014 based on significant improvement in temperature, total phosphorous, chlorophyll-*a*, Secchi depth, and **fecal coliform bacteria** (emphasis added).

The Budd Inlet Vessel Traffic Pattern figure accurately reflects the Port's 2019 cargo vessel call based on AIS data for 2018 to 2019. The AIS data includes other vessels, not calling at the Port, representing a sample of the vessel traffic for vessels where AIS reporting is optional. The figure provides a summary representation of larger vessel use of Budd Inlet into West Bay. The observable patterns reflect areas where larger vessel traffic generally occurs. Areas not shaded may have occasional transits and should not be interpreted as indicating a complete absence of vessel traffic (areas with 5 or fewer vessel passes per year are not shaded and many recreational vessels do not have AIS that can be recorded by the system). Vessel navigation was observed to be highest within the authorized FNC and turning basin and throughout the east side of West Bay closest to the Port, local private marinas, and marina access areas along the east shore of West Bay. The figure also notes the limitations of the vessel data in the bottom legend.

I-649-8 This is explained in additional detail in Final EIS Supporting Chapter 4.0, Section 4.3.5.2.

I-649-9 Please refer to Final EIS Supporting Chapter 7.0 for additional detail on the approach to shared funding for increased maintenance dredging under the Estuary Alternative. As outlined in a Memorandum of Understanding (Attachment 23 of the Final EIS), this funding would be provided by the Funding and Governance Work Group through 2050, with opportunity for extension.

In response to comments on the Draft EIS, Enterprise Services met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, Enterprise Services also described that the Estuary Alternative would restore sediment loading, similar to conditions that existed before the 5th Avenue Dam was constructed. For many decades before 5th Avenue Dam construction, the USACE dredged the federal navigation channel to support commercial navigation at the Port of Olympia.

I-649

COMMENT

RESPONSE

I-649-9

The the federal Army Corp of Engineers (ACOE) represents the Federal interest in maintaining the navigation channels in West Bay and the Inlet. The DEIS assumes the ACOE would be responsible for a significant portion of future dredging. **Was the ACOE consulted in the preparation of the proposed dredge plan? Would they be expected to be part of the future governance body?**
How can a responsible decision maker be expected to make a decision favoring the Estuary or Hybrid alternatives without first knowing "who will do it and how will it be funded?"

I-649-10 Please see Final EIS Supporting Chapter 3.0, Section 3.3.3, which provides a figure to compare total nitrogen and DIN concentrations in the Deschutes River and Capitol Lake. As shown, the concentrations are consistently lower in the lake during the growing season, and they steadily decrease relative to the river as the growing season progresses. This indicates that the lake basin acts as a 'sink' for nitrogen; that is nitrogen is removed and therefore there is less nitrogen entering Budd Inlet. The decrease in TN and DIN over the growing season has been attributed to uptake by plants and algae in the lake (Ecology 2015b).

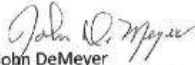
I-649-10

Conclusion:
Water quality in the Lake has improved and is considered good. It is apparent that the aquatic plants in the Lake actually provide a significant water quality benefit by filtering out practically all of the nitrogen(DIN) originating in the Deschutes watershed during the critical summer months, yet the DEIS fails to recognize the importance of this benefit and how it might be part of Ecology's Puget Sound Nutrient Forum effort. The DEIS fails to describe a funding and governance model for the estuary and hybrid alternatives that includes the Federal, State and local entities that would be responsible for the Budd Inlet sediment management. Until these issues are resolved, which could be years, Capitol Lake should be adaptively managed as a lake starting with a dredge of the North Basin.

I-649-11 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

I-649-11

Thank you again for the opportunity to comment on this important issue.


John DeMeyer
4528 Intelco Lp SE # 271
Lacey, WA 98503

I-650

COMMENT

RESPONSE

I-650-1

Feed one invasive creature to the other invasive creature that lives on the other side of Deschutes Parkway

I-650-1 Comment noted.

I-651

COMMENT

RESPONSE

I-651-1 I would like to see the area restored to its natural state, as much as possible.

I-651-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-652

COMMENT

RESPONSE

I-652-1

I am in favor of maintaining Capitol Lake and spending the money necessary for returning it to usable form. I understand that returning the lake to an estuary might be the most environmentally sound thing to do, but as a state and county taxpayer, I would like to see my money spent to restore the lake. Downtown Olympia seems to be evolving into a more user friendly city and one which will soon have many more downtown residents. The lake would add to the beauty of our city whereas the return to an estuary with the resulting tide flats would be detriment to use and growth.

I-652-1

Please see the Global Response for the Preferred Alternative Identification Process.

I-653

COMMENT

RESPONSE

I-653-1

Put the salt water back in the lake.

I-653-1

Please see the Global Response for the Preferred Alternative Identification Process.

I-654

COMMENT

RESPONSE

I-654-1 Capitol Lake is an integral part of downtown Olympia. To allow this area to become just an estuary would have a major detrimental effect on the aesthetics of our city. Gone would be the lovely water aspect of the park and Capitol buildings. The view would be of so-called pioneering vegetation and a mud flat. Concern for the quality of the water in the basin could be addressed without destroying this lovely feature - the lake. The State renovated this area years ago and created a lovely promenade around our lake which is used by all in the area. Attention was also given to the regular flooding of the two streets adjacent to the lake and this seems to have been alleviated.

The hybrid version proposed seems to address all these issues. The "Hybrid" option, which would allow for the restoration of tidal flow, the removal of the dam and the creation of a smaller, manmade lake. Continuing to have a fresh water way station for water fowl and migrating birds is a benefit we now have. One that is visible to all and not hidden behind alder, willows and whatever wild vegetation which would come with an estuary only proposal.

I-654-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-655

COMMENT

RESPONSE

I-655-1 seems to me if clorox was dispensed into the lake in extreme amounts it should kill the snails and other unwanted pests and filter the lake afterwards, create a professionally maintained lake, like an aquarium, and bring back to life a human play ground. I drive by it on purpose now whether I need to go either direction or coming down the courthouse hill.

ONE thing I really oppose is the homeless situations there abouts, all the area could be so beautiful for young and old and families, I'd volunteer my labor to help, but I broke my back in 2017. Had surgery but am permanently disabled.

I-655-2 Life is nothing but pain but it would be so marvelous,soothing,relaxing to have a wonderful SAFE place for all people to be,so close to home. Of course those people displaced could be offered jobs if they really wanted to work and help out and get their lives in the right direction to better themselves and increase their self esteem, and yes I have been homeless a couple of times, no work being the major reason. I have spoken!

I-655-1 Please see the Global Response to comments on Aquatic Invasive Species.

I-655-2 Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-656

COMMENT

RESPONSE

August 23, 2021

Capitol Lake-Deschutes Estuary EIS
Department of Enterprise Services
P.O. Box 41476
Olympia, WA 98504-1476

Dear DES staff:

I have completed my review of the EIS report. I am writing to offer my personal recommendations on the future of the Deschutes River estuary.

I am a long time resident of Thurston County. The basis for my recommendations comes from what I have learned through my own community involvement:

- In 2018 & 2019, I attended three public meetings held by the Tribal/Interagency Committee on the Deschutes River Estuary staffed by your department. I also attended two public meeting of the Capitol Lake CLAMP committee staffed by the former Washington General Administration.
- Participated in a series of public meetings staffed by the WA Department of Ecology to prepare a plan required by U.S. Environmental Protection Agency to address current TMDL water quality and water temperature violations in the Deschutes watershed.
- Serve on the WRIA 13 salmon recovery advisory committee staffed by the Thurston County Planning Commission. The Deschutes River is the principle river in the WRIA 13 region.
- Volunteer for the Nisqually Land Trust, Capitol Land Trust, Thurston County Stream Team, and the South Puget Sound Salmon Enhancement Group (SPSSEG).

I recommend the removal of the 5th Avenue dam and the restoration of a full free flowing estuary. A managed lake alternative is unacceptable and unworkable. The hybrid option is problematic. The adoption of the Estuary Alternative by the Legislature will restore health to the river and sea mixing zone so that migrating shore birds will once again make their hurried visits along with bird loving tourists - - a popular interaction we see each day at the Billy Frank Jr. Wildlife Refuge in the Nisqually delta.

I ask that you give my recommendation your utmost consideration.

Sincerely,
J. Martin McCallum



I-656-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-656-1

I-657

COMMENT

RESPONSE

Greetings! Thank you for considering the public input. I have moved to Olympia within the past year, and I have greatly enjoyed walking around the lake in all seasons of the past year. Paths are important, and the access to the trail is important.

I-657-1 Comment noted. Also see the Global Responses for Air Quality and Odor and the Preferred Alternative Identification Process.

I-657-1 Although I love the idea of an estuary, I cannot help but wonder how badly Olympia will smell at low tide. Downtown Olympia needs revitalization, and the stench of low tide will not help businesses be moved to join the downtown area. Please consider the environmental impact. But also the potential economic impact and do a dual system. Do the deli.

I-658

COMMENT

RESPONSE

I would look into this gentleman. He has a doctorate in this field, and proven success recovering these types of ecosystems. He knows how to clean sediment, bacteria, parasites and pollution. His name is Marinoorikawa and he has a relevant PhD in Bioindustrial Science.

I-658-1 Thank you for your comment.

I-658-1 Links:
<https://youtu.be/O6JseTWJcPY>

<https://www.google.com/amp/s/brightside.me/wonder-people/a-man-from-peru-has-found-a>

<https://m.facebook.com/morikawaphd>

I-659

COMMENT

RESPONSE

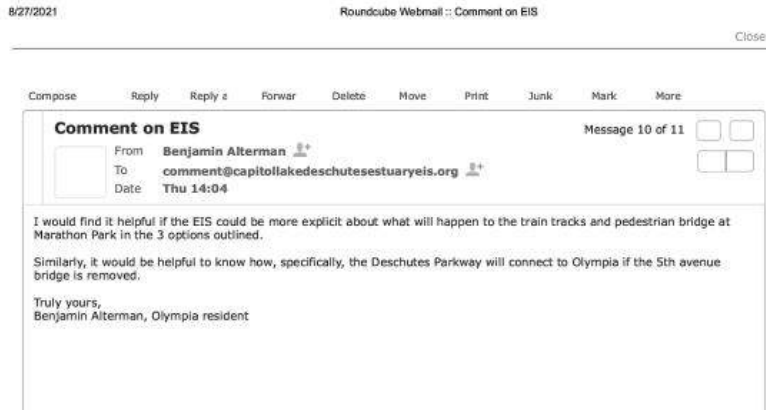
I-659-1 I support the lake/estuary hybrid. I expect it to be costly and difficult to complete, but it sounds like a smart investment.

I-659-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-660

COMMENT

RESPONSE



I-660-1

I-660-2

- I-660-1 Comment noted, the pedestrian bridge and trail, and the railroad trestle will remain under all alternatives.
- I-660-2 As described in Final EIS Supporting Chapter 2.0, a new 5th Avenue Bridge would be constructed under the Estuary and Hybrid Alternatives. Chapter 2.0 includes graphics that show the proposed connections of the new 5th Avenue Bridge to Deschutes Parkway and to 5th Avenue SW. The conceptual design of the new 5th Avenue Bridge has been developed in coordination with the City of Olympia. Design and configuration of the bridge and new connections between 4th and 5th Avenues and Deschutes Parkway would be further refined during the design and permitting phase. Please also see the Global Response for Estuary and Hybrid Alternatives.

I-661

COMMENT

RESPONSE

I-661-1

Nice idea to bring it back to it's original state. My concern is that homeless people have been living, destroying and polluting that area. You have a bigger problem with that issue than turning the lake into an estuary. It will just become more free area for the homeless to occupy with out any regulations.

- I-661-1 Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-662

COMMENT

RESPONSE

I-662-1 The Final EIS Summary has been edited to clarify that high bacteria levels were near the swimming beach.

10/18/21, 5:01 PM Roundcube Webmail :: Bob Jacobs' Comments -- First Installment

Subject: **Bob Jacobs' Comments -- First Installment**
 From: <jacobsoly@aol.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Cc: <jacobsoly@aol.com>
 Date: 2021-08-26 15:24



DES:

My comments are based on a long involvement with Capitol Lake/Deschutes Estuary, including:

- 1) Board member of the North Capitol Campus Heritage Park Development Association board since the organization's incorporation approximately 30 years ago.
- 2) Service as an Olympia city council member and mayor, 1993-99.
- 3) Service on the Olympia Parks Advisory Committee, 8 years in the 1980s.
- 4) Attendance at over 100 meetings of the CLAMP group.
- 5) Reading the Executive Summary of the DEIS and attending a staff briefing given to the NCCHPDA board.

This is the first installment of my comments on the DEIS.

At a couple of places in the Executive Summary there is commentary on the closure of the Capitol Lake swimming area in 1985. The wording leads the reader to understand that the lake became ever more polluted with bacteria and finally the swimming area had to be closed. That is incorrect in at least two major ways:

1. It was not the lake that was polluted, but the swimming area. To my knowledge, the lake as a whole has never exceeded allowable bacterial levels for swimming. During the CLAMP process we learned that the two major pollutants in Capitol Lake were/are nitrates and phosphates. These are fertilizers and are an environmental concern because they cause an overgrowth of aquatic plants in the summer that die in the fall and cause reduced oxygen levels in Budd Inlet. But nitrates and phosphates are not dangerous to swimmers.

The high bacterial levels in the swimming area were caused by effluent from a stormwater outfall in that area. The city tried to reduce these levels by installing an impervious curtain around the swimming area and flushing it with huge amounts of city water -- up to 10% of daily city-wide usage -- but that did not work. A year or two after closure of the swimming area the city Public Works Department discovered that "sanitary sewage" was entering the stormwater line via an accidental "cross connection". Thus, one reason for the closure was in fact bacterial levels, but these levels were limited to the swimming area, not lake-wide. And importantly, this problem was easily corrected.

The only other incidents of high fecal coliform bacterial levels in the lake that I know of were at some of the other stormwater outfalls. These situations were discovered when the city tested the effluent at all the stormwater outfalls that could be located. This was some years after the closure of the swimming area, and the volumes of the bacterial pollution were not great enough to affect large areas.

This information is from my memory. You can check it with the Olympia Parks Department, former Parks Assistant Director Terry Rogers, former Parks Director Jane Boubel, and Thurston County

https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=38_nbox=INBOX%2FDEIS Processed 138_action=print&_extwin=1

1/2

I-662-1

I-662

COMMENT

RESPONSE

10/18/21, 5:01 PM Roundcube Webmail :: Bob Jacobs' Comments – First Installment

Environmental Health.

2. The second and more important reason for closure of the swimming area was visibility. For swimming areas to be safe, there needs to be good visibility down into to water so that if someone goes down, they can be seen and rescued.

The bottom of Capitol lake is naturally covered with fine silt from river flows, and this silt is quickly stirred up when an area is used for swimming. Once stirred up, the silt remains suspended for a long time. It would be very difficult, if even possible, to correct this visibility problem.

//end of first installment//

I-662-2 The Final EIS Summary has been updated to note that water clarity was a factor in closure of the lake to swimming.

I-662-2

I-663

COMMENT

RESPONSE

8/27/2021 Roundcube Webmail :: Capitol Lake DEIS – The Goldlocks Conspiracy

Subject: **Capitol Lake DEIS – The Goldlocks Conspiracy**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org
 <Comment@CapitolLakeDeschutesEstuaryEIS.org>,
 Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>,
 Janet.Jansen@des.wa.gov <Janet.Jansen@des.wa.gov>,
 Carrie.Martin@des.wa.gov <Carrie.Martin@des.wa.gov>,
 DESPPDmail@des.wa.gov <DESPPDmail@des.wa.gov>
 Date: 2021-08-26 16:15



All:

The Capitol Lake DEIS dated June 2021 makes numerous attempts to stack the deck in favor of dam removal. For example, the three action alternatives were fabricated such that the compromise "Hybrid Alternative" would still result in dam removal.....which is the objective of this process. Thus, the politicians still get what they want while appearing to compromise.

The politicians apparently thought they could make two extreme proposals, then a "Hybrid Alternative" compromise in the middle between two extremes would save the day as their pre-planned tactical position. Those three action alternatives seem to have been dictated by politicians. Yes, that would be Senate Bill 6248 (ESSB 6248 (2020) – Section 1026, Page #49, Line #16). The three alternatives were in fact dictated by politicians.

This EIS reads just like Goldilocks and The Three Bears: Keeping the dam is too expensive... draining the lake eliminates the reflective pool.... but the the Hybrid Alternative is "juuuust Riiliiight". This is a conspiracy against the people of Washington State. Little did the politicians know that the Hybrid Alternative would actually have the worst impacts of all three action alternatives. The writers of the EIS should clarify that fact in the executive summary because most hard-working tax-paying citizens of Washington State have real jobs and don't have time to read the entire document to find how their money will be wasted. Nor do they have the luxury of writing fairy-tale fiction like some others.

The following statement should appear in the Executive summary when the EIS is re-written: **"The Hybrid Alternative has the worst impacts of the three action alternatives"**.

While the truth is hidden deep within the document, the DEIS is is clear on this point, much to the chagrin of the politicians: The Hybrid Alternative, which was supposed to be the approved compromise position, actually has the worst impacts of all three action alternatives. It has the highest cost (\$924M – Note #9 on page #7-6), it causes the most sediment erosion and dredging (middle of Page #2-22), and has the ugliest aesthetics (reflective mud estuary plus a rusty 790-meter sheet-pile barrier wall for the reflecting pool).

This will be known as the Goldilocks Conspiracy.

William R. Workman.

I-663-1 Comment noted. The main findings of the EIS are included in the Final EIS Summary for all alternatives (see Tables 2 and 3). Information on how the alternatives were developed is included in EIS Supporting Chapter 2.0, Section 2.1.

I-663-1

I-664

COMMENT

RESPONSE

8/27/2021 Roundcube Webmail :: Capitol Lake DEIS – Invasive Species Magic

Subject: **Capitol Lake DEIS – Invasive Species Magic**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org
 <Comment@CapitolLakeDeschutesEstuaryEIS.org>,
 Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>,
 NFloyd@ci.olympia.wa.us <NFloyd@ci.olympia.wa.us>,
 MMatlock@d.tumwater.wa.us <MMatlock@d.tumwater.wa.us>,
 RachaelJ@portolympia.com <RachaelJ@portolympia.com>,
 JDoan@d.tumwater.wa.us <JDoan@d.tumwater.wa.us>,
 JBurney@ci.olympia.wa.us <JBurney@ci.olympia.wa.us>,
 SamG@portolympia.com <SamG@portolympia.com>,
 achristensen@ci.tumwater.wa.us <achristensen@ci.tumwater.wa.us>,
 Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org> [3](#)
[more...](#)
 Date: 2021-08-26 16:29



All:

The Capitol Lake DEIS dated June 2021 makes numerous attempts to stack the deck in favor of dam removal. Check this out:

Page #2-23: "Sediment dredged from West Bay during the recurring maintenance dredging event under the Estuary and Hybrid Alternatives is expected to be suitable for disposal at an in-water location."

Page #7-3: "...upland disposal would be more than double the estimated cost of recurring maintenance dredging under the Estuary and Hybrid Alternatives".

Page #2-23: "New Zealand Mudsnaills... are saltwater tolerant but do not thrive in saltwater environments."

Page #2-23: "Although a small population of New Zealand Mudsnaills may establish in West Bay, high densities are not anticipated because of salinity levels"

Page #4-157: "...it is likely that all sediments dredged during maintenance dredging could be disposed in-water, so long as the material was also free of invasive species"

Page #4-26: "... if invasive species are present in the sediment, the dredged material will be transported to an upland disposal site."

TRANSLATION:

We pretend that all the sediment from West Bay will be disposed of in-water, to make dam removal look far cheaper than keeping the dam.

This is because fewer mudsnaills can survive in West Bay due to the higher salinity.

Of course, in-water disposal requires that the sediment must be completely free of all mudsnaills.... understand yet? Let us quickly pass the costs of dredging along to someone else before they figure out how expensive it is about to get for them.

Please pay no attention to that man behind the curtain.

William R. Workman.

I-664-1

It is assumed that the sediment removed during maintenance dredging in the Estuary and Hybrid Alternatives would be disposed at an allowable in-water location within the Puget Sound. This assumption is based on the suitable chemical quality of the Deschutes River sediment, which was sampled as part of the EIS analysis to get a representative understanding of sediment quality. The Deschutes River sediment would be naturally deposited in West Bay under the Estuary and Hybrid Alternatives and removed during recurring dredge events to avoid significant impacts to navigation and to maintain a working waterfront and recreational boating. Because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for freshwater aquatic invasive species persistence in deeper waters where dredging would occur. To evaluate the validity of this assumption, a survey was conducted for the Final EIS to determine whether New Zealand mudsnail have established in Budd Inlet, given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnail were found during this survey. See the Aquatic Invasive Species Discipline Report (Attachment 8) for additional analysis and rationale that support the assumption that in-water disposal of dredged material from the Estuary and Hybrid Alternatives would not pose a risk relative to spreading invasive species.

Before future dredge events, sampling for chemical quality and invasive species would occur to confirm suitability of the dredged material for in-water disposal. Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events. The description of uncertainty and the presentation of both costs have been maintained throughout the EIS; please refer to EIS Supporting Chapter 7.0 for more detail.

I-664-1

I-665

COMMENT

RESPONSE


8/27/2021 Roundcube Webmail :: Capitol Lake DEIS – Good Sediment News and Bad Sediment News

Subject: **Capitol Lake DEIS – Good Sediment News and Bad Sediment News**

From: William.R.Workman <William.R.Workman@protonmail.com>

To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>, BMedrud@ci.tumwater.wa.us <BMedrud@ci.tumwater.wa.us>, Commodore@theolympiayachtclub.com <Commodore@theolympiayachtclub.com>, DGinther@ci.tumwater.wa.us <DGinther@ci.tumwater.wa.us>, Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org>, JBurney@ci.olympia.wa.us <JBurney@ci.olympia.wa.us>, JDoan@ci.tumwater.wa.us <JDoan@ci.tumwater.wa.us>, MMatlock@ci.tumwater.wa.us <MMatlock@ci.tumwater.wa.us>, NFloyd@ci.olympia.wa.us <NFloyd@ci.olympia.wa.us> [4 more...](#)

Date: 2021-08-26 16:52



All:

I've got good news and bad news. The bad news is that removing the Capitol Lake Dam will cause previously - conveniently - confined sediment to spill out and spread all over into an otherwise navigable waterway and choke it with silt and rocks. However, the good news is that the navigable waterway will be choked with silt and rocks. You see it is a Federal Navigable Channel, which means some day we might get some free dredging services from the US Army Corps of Engineers to clean it out. Normally, dispersion makes messes more difficult to clean up. But as everyone knows: Federal dollars are easy to get... like freeeeeeee! You just print more when you run out.

Has anyone checked with the US Army Corps of Engineers about this? Please provide their written response.

William R. Workman.

I-665-1

Comment noted, Enterprise Services engaged the USACE as part of the Technical Work Group during development of the Draft EIS to review regulatory feasibility of the action alternatives. After the Draft EIS, Enterprise Services met with the U.S. Army Corps of Engineers to confirm assumptions included in the Final EIS regarding sediment deposition and maintenance dredging. In this meeting, Enterprise Services also described that the Estuary Alternative would restore sediment loading, relatively similar to conditions that existed before the 5th Avenue Dam was constructed. For many decades before 5th Avenue Dam construct, the USACE dredged the federal navigation channel to support commercial navigation, including at the Port of Olympia.

Formal engagement with the U.S. Army Corps will occur during the design and permitting phase for the Preferred Alternative. As described in EIS Supporting Chapter 9.0, U.S. Army Corps authorization would be required for all action alternatives, and there would be a specific review under Section 408 for the Estuary and Hybrid Alternative to evaluate the effect of those projects on other "federal projects," which include the Federal Navigation Channel.

I-665-1

I-666

COMMENT

RESPONSE


8/27/2021 Roundcube Webmail :: Capitol Lake

Subject: **Capitol Lake**

From: Scott Goddard <jz2xq@yahoo.com>

To: comment@capitolakedeschutesestuaryeis.org <comment@capitolakedeschutesestuaryeis.org>

Date: 2021-08-26 17:17



Sirs/Madams:

I believe this body of water should be managed with its primary goal to protect fish and wildlife, and to promote diversity in animal and plant forms. Our area is filled with recreational spots for humans. I'm all for providing perimeter walkways for human recreation, but the waters in Deschutes River estuary at Capitol Lake should be reserved for wildlife and fish.

I believe the Estuary Alternative will best accomplish these goals.

Kind Regards,
Scott Goddard
420 Sherman St. SW #302
Olympia, WA 98502

I-666-1

Please see the Global Response for the Preferred Alternative Identification Process.

I-666-1

I-667

COMMENT

RESPONSE

I-667-1 Thank you for the opportunity to comment on the Draft EIS (DEIS). I strongly support the Managed Lake Alternative. The DEIS fails to recognize the decisions that led to the creation of Capitol Lake in the first place. The Capitol Lake Basin, and much of the Lower Budd Inlet were tidal mud flats prior to the creation of Capitol Lake. While the DEIS shows pictures of the basin under both the Estuary and Hybrid Alternatives, they are misleading. There are numerous photographs of the basin before the Lake was created and they show the reality of the result of dam removal. In addition, while the potential for funding shortfalls in the management of siltation is mentioned, the DEIS fails to realistically assess the likelihood of political appetite for paying the dredging costs of private marinas in lower Budd Inlet. Should the dam be removed and the likely shortfall occur, maintaining marinas, including Percival Landing, will not be an economic possibility and the entire area will become an unattractive mudflat, driving away development and recreation. The DEIS's failure to address this likely outcome is a glaring omission with irreversible impact. I have attached two examples of the ACTUAL estuary and would hope that any final EIS would include a more realistic presentation.

I-667-1 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative. Please also refer to the Final EIS Summary, which has been updated to include additional historical photos.

I-667



COMMENT

RESPONSE

I-667



COMMENT

RESPONSE

I-668

COMMENT

RESPONSE

Thank you for the work that went into this EIS. Unfortunately it appears to downplay compliance with the Clean Water Act. For each option, a more detailed analysis is needed for CWA issues, including the effect of options on NPDES stormwater permits, compliance with water quality standards, impacts on 303d listings, and support for implementing TMDLs (both existing and draft).

I-668-1 Compliance with federal law is a major component in the options under consideration, and should be given the highest level of scrutiny and weight. In particular, the option to manage the existing lake clearly does not allow compliance with the CWA. This should be clearly analyzed and made a key point of evaluation. The hybrid and estuary options appear to be more likely to allow CWA compliance.

I-668-1 Please see the Global Responses to water quality comments. Final EIS Supporting Chapter 4.0 (Section 4.3) and the Water Quality Discipline Report (Attachment 7) have been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards and TMDL allocations.

I-669

COMMENT

RESPONSE

Add loaches to the lake, they are a bottom feeding fish that prey on snails. Or open up a French restaurant es cargo yum!

I-669-1

I-669-1 Please refer to the Global Responses for Aquatic Invasive Species.

I-670

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Comments on Capital Lake / Estuary EIS Plans

Subject: **Comments on Capital Lake / Estuary EIS Plans**
From: Rob Penney <robpen11@gmail.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-27 10:21



• Comments on Capital Lake Deschutes Estuary Plan.docx(~16 KB)

I-670-1 I found the planning document extremely well researched and written, especially given the myriad of complex factors, estimates and simulations involved. Thank you for your consideration of my comments.

Rob Penney
1621 Rogers Street NW
Olympia, WA 98502

I-670-1 Enterprise Services appreciates the commenter's detailed review of the Draft EIS.

I-670

COMMENT

RESPONSE

Comments on Capital Lake – Deschutes Estuary Project

I found the planning document extremely well researched and written, especially given the myriad of complex factors, estimates and simulations involved.

In the Background section, the very first sentence of section on Project Area is: "The Project Area includes the 260-acre Capitol Lake that is managed by the Department of Enterprise Services (Enterprise Services), and it extends to the northern point of West Bay of Budd Inlet." The word "northern" should be "southern".

The goals of the project don't seem to be simultaneously achievable by any action alternative (e.g. prioritizing ecological functions is generally at odds with recreation and aesthetics).

Improving water quality must include impact upstream flows into the river, which is outside the project area.

The pedestrian boardwalks mentioned on page 18 should be briefly noted in the table on 8.

The photos on pages 9 and 11 seem identical. Where are the estuarine islands and the wall surrounding the small reflecting pond in the hybrid option on page 11?

The simulated photo on page 10 is very appealing but doesn't seem to reflect the descriptions of the estuary options having no standing water 20% of the time.

The discussion of a swimming beach option at the top of page 19 seems to suggest that the anticipated water quality wouldn't prohibit safe swimming, but I thought this wasn't the case.

In the discussion of social justice/equity at the top of 20, it would be useful to note the current preference of the local tribes on the plans discussed, if this is known; I expect it is.

Using the averages values for the range of . This seems like REALLY important costs to share by this table as well as near the beginning of the executive summary so readers can review the myriad of details in the first 20 pages weighing the pros and cons of each action alternative while knowing their relative costs.

Rob Penney

I-670-2

The Draft EIS and Final EIS text is correct, the Project Area extends north as described, encompassing all of West Bay because project actions would occur in West Bay under some of the alternatives. Please see Figure 1 in the Final EIS Summary.

I-670-3

All action alternatives have the ability to achieve the project goals. The approach to achieving the project goals is outlined in EIS Supporting Chapter 2.0. Regarding the improvement of ecological functions and recreation; note that all action alternatives would include habitat areas constructed throughout the basin and boardwalks would be constructed over and around these habitat areas. Doing this will support the project goals of improved ecological functions and recreation.

I-670-4

As described in EIS Supporting Chapter 1.0, Section 1.9, the goals are given each separate consideration. Improving ecological functions is not prioritized over enhancing community use of the resource. It is recognized that the alternatives vary to the degree to which they achieve the project goals.

As described in the Draft EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes TMDL and other efforts are expected to improve water quality in the Deschutes River over the long term, which should result in improvements to water quality in the Project Area.

However, the EIS evaluates direct or indirect water quality impacts associated only with implementation of the project alternatives. Those impacts will only occur within the Capitol Lake Basin and Lower Budd Inlet, and will have no influence on conditions upstream of Tumwater Falls. Because project implementation will not impact the area upstream of Tumwater Falls, the EIS does not include a discussion of potential changes to water quality upstream as a result of actions by others.

I-670-5

Comment noted; boardwalks are referenced under Community Use for all action alternatives.

I-670-6

The Hybrid barrier wall (in the left distance) and the reflecting pool are visible on Figure ES-4 but not in Figure ES-2 of the Draft EIS. From this vantage point, the North Basin under the Managed Lake and the reflecting pool under the Hybrid Alternative would look similar, except for the barrier wall in the distance.

I-670-7

The visual simulations included in the EIS provide a snapshot of how the basin could look at various tide levels. It's recognized that the tide cycle is dynamic and that at certain times the basin will present as primarily

I-670

COMMENT

RESPONSE

	<p>tideflats with water in the river channel only. The Final EIS clarifies that during summer months, both low tides and high tides tend to be lower than average, with the result that more tideflat would be exposed during summer months than during winter months. And, on average over the course of a calendar year, water will be present across most of the North Basin under the Estuary Alternative.</p>
I-670-8	<p>As described in EIS Supporting Chapter 3.0, Section 3.3.1, water quality in Capitol Lake is influenced by the presence of the 5th Avenue Dam and impoundment of Deschutes River water, inputs to the river and lake from various sources (e.g., stormwater outfalls), lake treatments, accidental spills, and a range of other factors. As a result, Capitol Lake has historically experienced various water quality problems including aquatic weed infestations, algal blooms, and high bacteria concentrations that resulted in closure of the previous swimming area and restrictions on boating and other beneficial uses. In 2009, because of the presence of invasive New Zealand mudsnails, Capitol Lake was closed to all public water-oriented uses, including boating and fishing.</p> <p>Although the project would improve water quality, additional actions would be necessary for the North Basin to be considered suitable for formal swimming facilities. High bacteria and pollutant levels in the lake have historically been traced to stormwater and combined sewer outfalls or periodic spills that would not change as a result of any of the project alternatives, so periodic or continued violations of water quality standards for primary contact could mean that the area remains unsuitable for formal swimming facilities.</p>
I-670-9	<p>This section has been updated to describe that the Squaxin Island Tribe has stated that the Estuary Alternative is the only alternative that they support. This input and potential effects to tribal resources were considered in the Preferred Alternative identification process, as described in more detail in Attachment 21.</p>
I-670-10	<p>The planning-level costs are considered a Class 4 estimate, by standards established by the Association of the Advancement of Cost Engineering based on the preliminary nature of the design elements in this EIS process. They reflect an accuracy variation of -25% to +35% and are not intended to be represented as more precise. The planning-level cost estimates would continue to be refined in the design and permitting process as design progresses.</p>

I-671

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Re: Comments on Capital Lake / Estuary EIS Plans

Subject: **Re: Comments on Capital Lake / Estuary EIS Plans**
From: Rob Penney <robpen11@gmail.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-27 11:16



In the comments I just submitted on the plan, I realize I didn't include my preference on which action alternative I preferred.

I remember a decade ago when this discussion first began, the directors of Ecology, Natural Resources, and Fish and Wildlife sent a joint letter strongly advocating for an estuary. That carried weight with me--these are the experts and they must have felt very strongly about the enormous benefits of the estuary option to publicly put their weight behind it and risk public and political backlash. Sure, I would enjoy the look of a dredged lake and the opportunity to paddle in it, but I prefer restoring an estuary.

A functioning, resilient Puget Sound ecosystem is defined to include tidally-influenced wetland habitats at the estuaries of Puget Sound's major rivers that provide ecosystem functions, goods, and services. 75 percent of river delta tidal wetlands have been lost or degraded in Puget Sound. River delta estuaries, a unique environment where freshwater mixes with salt water and sediments collect, provide important feeding and rearing habitat for young salmon, migratory birds, and many other species that cannot find these unique benefits in any other place in our landscape.

Furthermore, as a taxpayer and an economic realist, I think cost estimates need to be considered, especially knowing the impact that the pandemic has had on the state and local budgets. The average 30-year cost estimates (the average of ranges for construction and maintenance in the Capital Lake - Deschutes Estuary EIP) for the managed lake, estuary, and hybrid options are \$472M, \$258M, and \$374M respectively. So the estuary is also estimated to be the cheapest option by far. Given the likely increasing costs of climate change in wildfires, flooding, and droughts as well as more pandemics, I think the state would be wise to conserve resources on this project while making the choice that reflect how we value our environment.

Rob Penney
1621 Rogers Street NW
Olympia, WA

On Aug 27, 2021, at 10:21 AM, Rob Penney <robpen11@gmail.com> wrote:

<Comments on Capital Lake Deschutes Estuary Plan.docx>

I found the planning document extremely well researched and written, especially given the myriad of complex factors, estimates and simulations involved. Thank you for your consideration of my comments.

Rob Penney
1621 Rogers Street NW
Olympia, WA 98502

I-671-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-671-1

I-672

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Capitol Lake DEIS – The Fifth (Common Sense) Option

Subject: **Capitol Lake DEIS – The Fifth (Common Sense) Option**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>, BMedrud@ci.tumwater.wa.us <BMedrud@ci.tumwater.wa.us>, DGinther@d.tumwater.wa.us <DGinther@d.tumwater.wa.us>, JBurney@ci.olympia.wa.us <JBurney@ci.olympia.wa.us>, JDoan@ci.tumwater.wa.us <JDoan@ci.tumwater.wa.us>, MMatlock@ci.tumwater.wa.us <MMatlock@ci.tumwater.wa.us>, NFloyd@ci.olympia.wa.us <NFloyd@ci.olympia.wa.us>, RachaelJ@portolympia.com <RachaelJ@portolympia.com>, SamG@portolympia.com <SamG@portolympia.com> [1 more...](#)
 Date: 2021-08-27 13:13



All:

The Capitol Lake Draft Environmental Impact Statement (DEIS) dated June 2021 contains only four alternatives which are intended to restrict citizen choices and justify dam removal. In addition, one of the choices is the "Do-Nothing" Alternative, which is only included because it is required by law. The Do-Nothing Alternative would be a poor choice... not a serious consideration in this case. As previously proven, the three remaining "action alternatives" were dictated by politicians who stacked the deck in favor of dam removal. It seems that a fifth option which makes the most sense was completely omitted from the DEIS document. This fifth and most sensible option is:

1. Repair the dam; 2. Dredge the middle basin once every 15-20 years; 3. Kill the "invasive species"; 4. Address the problem of nutrients at their source; 5. Call this project done.

The Department of Enterprise Services (DES) is typical of most Washington State Agencies which insist on wasting millions of dollars every year, stolen from the hard-working taxpaying residents of Washington State. The DEIS document is typical bureaucratic bungling over the politics of dredging and is therefore yet another waste of public funds. In what way does this DEIS enable the long-term maintenance which is required in order to implement any of the various options? Dredging would happen once and then the politicians and unelected bureaucrats would do what they do best...conveniently forget about it. After that, the sediment which was supposed to be periodically-removed will just flow out into West Bay and become somebody else's problem. The entire DEIS may need to be re-written to reflect this political reality, and include the fifth alternative described above.

WAC 197-11-875(5) exempts DES from SEPA-EIS when nothing is being constructed. Is this why all the action alternatives propose to construct some items such as unnecessary walkways and interpretive centers?to eliminate the codified exemption and justify dam removal? Why is it necessary to construct anything at Capitol Lake? All of the problems at Capitol Lake can be addressed by maintaining the dam properly, killing invasive species, dredging, and nutrient source controls. No portion of that requires any construction. The DES could have been entirely exempted from SEPA-EIS. Since the DEIS has already been written, it should now be edited to include the COMMON SENSE OPTION, which is: Maintain the dam properly - kill invasive species – dredge – source controls - done. In this common sense option, there is no need to ramble-on about impacts (SEPA-EIS-exempt) and no reason to propose mitigation (none required).

Repairing the dam is expensive but quite easy: Hire someone who knows what they are doing and get the dam repaired. All infrastructure eventually requires either maintenance or demolition. If the politicians can successfully delay repairing the dam long enough, then demolition will become the only remaining option. We know this next step is difficult for DES, but try this anyways: Hire someone who actually knows what they are doing, and get the dam repaired.

Dredging Capitol Lake has been done before. It was last managed by DES (GA back then). Some of those long-gone managers knew what they were doing.

[https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=17&_mbox=INBOX%2FDEIS Processed 14&_action=print&_extwin=1](https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=17&_mbox=INBOX%2FDEIS%20Processed%2014&_action=print&_extwin=1)

1/2

I-672-1 Comment noted. As described in EIS Supporting Chapter 1.0, Enterprise Services understands through coordination with governmental partners and agencies that neither dredging or other short-term actions nor a long-term management alternative can be implemented until an EIS is completed and a Preferred Alternative is selected. As a result, the Washington State Legislature directed Enterprise Services to complete this EIS.

The recommended approach described in this comment as a fifth option is very similar to the Managed Lake Alternative, which includes repair of the 5th Avenue Dam, dredging on a 20-year frequency, and actions to better manage invasive species. The fifth option recommended in this comment does not provide additional recreational opportunities that are included in the Managed Lake Alternative and therefore does not achieve all project goals established by a broad group of stakeholders in 2016.

Section 4.4 of EIS Supporting Chapter 4.0 describes various potential treatments for aquatic invasive species, none of which are likely to result in eradication of all freshwater invasive species.

Also see the Global Response for the Preferred Alternative Identification Process.

I-672-1

I-672

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Capitol Lake DEIS – The Fifth (Common Sense) Option

I-672-2 Killing most invasive species is actually quite easy. Just temporarily drain Capitol Lake during a hard freeze once per year. Refill. Done.

Pets and livestock are routinely defecating directly into the Deschutes River. Illicit RV campers and homeless camps are polluting the Deschutes as well. The Department of Ecology (ECY) is well aware of this but prefers inaction when there are political sensitivities. The following are direct quotes from ECY (text bolded for emphasis):

"Reductions are necessary throughout the watershed, but the highest reductions are needed in small tributaries to Budd Inlet. Immediate efforts should focus on identifying and reducing sources in the tributaries to Budd Inlet, building from past efforts by the City of Olympia and others. Urban areas include a variety of potential sources, including cross-connected infrastructure, failing septic systems, domestic animals, recreational users, and homeless populations. Stormwater should receive particular attention."

"Two locations along the Deschutes River (13-DES-20.5 and 13-DES-28.6) did not meet Part 2 of the water quality standards, and further source identification is recommended. Bacteria concentrations decline further downstream, and downstream sources do not appear to cause violations."

"Dairies have the potential to contribute fecal coliform bacteria to the Deschutes River. Both operations should be evaluated for overall facility management and manure applications in particular. Additional water quality monitoring may be warranted."

"Ecology staff noted cows on the banks and fecal material in the river and on gravel bars between Old Camp Lane (13-DES-32.3) and the Lake Lawrence tributary (13-LLT-00.0). This site should be evaluated for fencing and waste management."

"While Black Lake Ditch meets the water quality standards, Percival Creek does not, and additional source identification is warranted. Potential sources include recreational users and homeless populations."

(Source: Page 103 of ECY Deschutes TMDL-WQ Report, Publication No. 12-03-008)

Every Fourth of July, thousands of waterfront land owners launch tons of fireworks over (and therefore into) Thurston County Lakes. The active ingredients in these fireworks are metals and metallic salts. There are dozens of color-rendering combinations of sodium, potassium, copper, sulfur, magnesium, **phosphorus**, phosphates, **nitrites**, chlorides, etc. When these polluting nutrients come down the Deschutes River, the Washington State ECY wants you to believe they are magically created by the Capitol Lake Dam. So lets remove the dam and make them all disappear?

Apparently, common sense no longer applies at DES or ECY.

1. Repair the dam; 2. Dredge the middle basin once every 15-20 years; 3. Kill the "invasive species"; 4. Address the problem of nutrients at their source; 5. Call this project done.

This fifth alternative will be called the "Common Sense Alternative".

William R. Workman.

I-672-2 Please refer to the Global Responses for Aquatic Invasive Species.

I-672-3 The water quality analysis provided in Sections 3.3 and 4.3 of EIS Supporting Chapters 3.0 and 4.0, and in the Water Quality Discipline Report (Attachment 7) include data from water quality samples collected from the Deschutes River. The analysis describes changes to water quality as it moves into and through Capitol Lake, following review of several years of data.

With full implementation of the Deschutes River TMDL, led by Ecology, there would be a continuing trend in water quality improvement in the Project Area.

The fifth alternative described in this comment is very similar to the Managed Lake Alternative, which includes repair of the 5th Avenue Dam, dredging on an estimated 20-year frequency, and actions to better managed invasive species. The fifth alternative recommended here does not provide additional recreational opportunities that are included in the Managed Lake Alternative and therefore does not achieve all project goals established by a broad group of stakeholders in 2016.

I-673

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: comments on EIS

Subject: **comments on EIS**

From: Deborah Alterman <altermandbl@gmail.com>

To: <comment@capitollakedeschutesestuaryeis.org>

Date: 2021-08-27 13:22

Dear EIS:

I hope that whatever happens, there would still be access for pedestrians to use the pedestrian walkway on the BNSF railroad track bridge that gives access from the Deschutes Parkway Marathon Park to the park around the North Basin and Heritage Park. This pedestrian walkway on the railroad bridge is never mentioned and it does not show up in any of the diagrams or visual simulations.

Thank you,
Deborah Alterman,
a resident of Olympia



I-673-1 Comment noted, the trail on the BNSF trestle will remain under all alternatives.

I-674

COMMENT

RESPONSE

8/30/2021

Roundcube Webmail :: FW: Capitol Lake DEIS comments

Subject: **FW: Capitol Lake DEIS comments**
From: Allen T. Miller <atmiller@lukins.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-27 11:46



- Untitled_08192021_022406.pdf(~19 MB)

Attached are my comments for the Draft Environmental Impact Statement.

Allen "AT" Miller
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I-674

COMMENT

RESPONSE

I-674-1 See the Global Response for Cultural Resources. Heritage Park and associated elements including the Arc of Statehood, the Western Washington Inlet, the Eastern Washington Butte, the North Campus Trail, the Lawn Amphitheater, the City Fountain, and the seasonal ice and roller rinks in the Isthmus Park are not 50 years of age and not considered eligible for historic register listing or designation.

**CAPITOL LAKE WATERSHED DRAFT EIS COMMENTS REGARDING
HISTORIC AND CULTURAL RESOURCES**

Pursuant to the State Environmental Policy Act (SEPA) WAC 197-11-440(6)(iv) Urban quality, historic and cultural resources, and the design of the built environment, the EIS needs to consider the impacts to the Washington State Capitol Campus National Historic District since Capitol Lake is a significant part of the Capitol Campus designed by Wilder and White in 1911 and the Olmsted Brothers in 1928. The Draft Environmental Impact Statement does not take into account the nationally significant City Beautiful Movement design principles of the State Capitol Campus which is on the National Historic Register.

In 1911, the architectural firm of Wilder and White created a master plan for the Washington State Capitol Campus as part of a nation-wide design competition. This plan captured the imagination of the competition judges with its unique approach, a group of symmetrically arranged buildings in a forest, atop a bluff overlooking a reflective lake, the City of Olympia, and Puget Sound. As stated by Wilder and White in their August 29, 1911 report to the State Capitol Commission, "a tide lock at [5th Avenue] would form a lake and the whole effect would be visible from most points of the City as well as the Sound." "Washington's Audacious State Capitol and Its Builders," Norman Johnston, p. 33, (1988).

Wilder and White incorporated five design principles into their plan for the State Capitol Campus. These principles include: (1) the City Beautiful Movement, (2) the Capitol Group of buildings, an unprecedented design of separate legislative, executive, and judicial buildings to look like a singular Capitol building when viewed from Budd Inlet, downtown Olympia, and the Fourth Avenue Bridge, (3) the borrowed landscapes of the Olympic Mountains and Budd Inlet to frame the design, (4) the northern orientation of the Capitol Group and Campus to Budd Inlet and the Olympics and (5) a lake to reflect the beautiful buildings on the bluff.

"It was at Olympia, Washington, that the American Renaissance in state capitol building reached its climax... Such a collection of Classical buildings on a plateau surmounting a green hill 117 feet above sea level proved an irresistible vision. It would be a spectacular monument, with Mount Rainer in one direction, the Olympic Range in another... all mirrored in the blue waters below. The City Beautiful, a concept of perfection evolved for dense urban scenes, seemed destined to achieve its finest expression in the natural landscape of the Pacific Northwest. No architect or dreamer could have asked for a more splendid setting."

Temples of Democracy, The State Capitols of the USA, Professor Henry-Russel Hitchcock (1976), pp. 257-259.

The Olmsted Brothers 1928 plan for the landscape also required Capitol Lake to reflect the buildings. Maintenance of Capitol Lake as a reflective lake is necessary in order to preserve and protect the historic design of the Washington State Capitol Campus which is the best example of City Beautiful movement architectural design and urban planning outside of Washington D.C. Capitol Lake stands in the design tradition of the Tidal Basin and the other reflective bodies of water along the National Mall from the U.S. Capitol of the Lincoln Memorial. Failure to protect Capitol Lake would replace its mirroring and sparkling presence with the dismal mud flats of the past.

I-674-1

I-674

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RESPONSE

"To the south of the boulevard skirts the edge of a proposed freshwater lake secured by tide locks across the head of the Sound and will be a great addition to the city park system."

The American Architect, VOL CVIII, No. 2083, November 24, 1915, Wilder and White, p. 346.

"The late 1940's was to include the beautification of the expanse at the base of the Capitol group site to its north and west. The [Wilder and White and Olmsted Brothers] plan saw this area as a grand water feature... [to replace the] plane of mudflats... The project also included the construction of a dam, the ensemble thereby creating a permanent body of water, Capitol Lake. Substantially completed in 1951, this new visual and recreational amenity became an appropriate setting for the acropolis of the Capitol group which is now so handsomely supported."

Washington's Audacious State Capitol and Its Builders, Professor Emeritus, Norman J. Johnston (1988).

Significant progress has been made toward the completion of the Wilder and White plan since 1911. After the Capitol Group of buildings on the West Capitol Campus bluff was completed and the Olmsted landscaping plan was instituted in the 1920's and 1930's, Capitol Lake was created by the State Capitol Committee and the Legislature in 1949-1950 with the construction of a dam and a tide gate along 5th Avenue. Since 1991, further progress has been made toward the completion of the North Capitol Campus Heritage Park along the shore of Capitol Lake with the Legislature and City of Olympia spending twenty-five million dollars to complete the land acquisition, the Arc of Statehood, the Western Washington Inlet, the Eastern Washington Butte, the North Campus Trail, the Lawn Amphitheater, the City Fountain, the City seasonal ice and roller rinks in the Isthmus Park, and several phases of the construction of Heritage Park and the Washington State Law Enforcement Memorial. Two million dollars in private funds have also been raised for construction of these City Beautiful elements of the North Capitol Campus. The redesign of enhancements to the Eastern Washington Butte at the North end of the Arc of Statehood should also be addressed in the Draft EIS.

Maintaining the open water environment in the north and middle basins of Capitol Lake is the only action which is compatible with the historic 110- year plan for the State Capitol Campus. The Draft EIS does not consider the national significance of the historic design of the State Capitol Campus remaining intact by maintaining and improving Capitol Lake through regular dredging every 10 to 20 years which occurred up until 1986.

16 U.S.C. 470f – Section 106 of the National Historic Preservation Act provides,

The head of any federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal Agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.

I-674-1

I-674

COMMENT

RESPONSE

I-674-1

The Nationally protected State Capitol Campus Historic District must be preserved under federal law.

Under RCW 79.24.720 Capitol Lake is designated as a historic facility of the State Capitol.

RCW 79.24.720 – Department of enterprise services' responsibilities.

The department of enterprise services is responsible for the stewardship, preservation, operation, and maintenance of the public and historic facilities of the state capitol, subject to the policy direction of the state capitol committee and the guidance of the capitol campus design advisory committee. In administering this responsibility, the department shall:

(1) Apply the United States secretary of the interior's standards for the treatment of historic properties.

Capitol Lake must be preserved under State law. The Draft EIS fails to analyze the necessary dredging and maintenance of Capitol Lake to the standard as applied by the Secretary of Interior to the National Mall in Washington D.C. Capitol Lake is the City Beautiful movement equivalent of the Tidal Basin and the reflective pools from the U.S. Capitol to the Lincoln Memorial.

The cost of dredging and maintaining Capitol Lake are extremely inflated by only including the costs of disposing the dredge spoils upland instead of in-water disposal. The Draft EIS chart on page 7-5 should include the cost of maintaining the historic Capitol Lake with the cost of in water disposal for a fair comparison of the cost of the alternatives. Whether dredging in Capitol Lake or dredging in Budd Inlet the New Zealand mud snail will be present and those dredge spoils can be safely disposed of in-water. The dredge spoils from the Lake could also be used and sold as valuable soil and be a revenue stream to the State.

I-674-2

The sediment disposal costs of maintaining Capitol Lake should also be shared by the State, Thurston County, the Port of Olympia, the City of Olympia, the City of Tumwater, and LOTT since all these public entities benefit from removal of sediment in Capitol Lake on a every 10-to-20-year basis just as Capitol Lake was designed. Removal of the dredge spoils in Capitol Lake will be less frequent and more economical than removing the dredge spoils from contaminated Budd Inlet. Not maintaining Capitol Lake is in violation of Federal and State Law and the Draft DEIS must analyze these issues.

I-674-2

Existing environmental conditions and environmental regulations prohibit sediment from the Managed Lake from being disposed of in-water disposal due to the presence of the New Zealand mudsnail.

However, in response to comments received on the Draft EIS, cost estimates have been developed for in-water disposal of sediment dredged under the Managed Lake Alternative. Environmental conditions and/or environmental regulations would have to change for the sediment to be considered suitable for in-water disposal. Dredging would not occur sooner than the 2050s under the Managed Lake Alternative, and conditions could change in that time, although there is no current indication of changes in that direction.

Please refer to Final EIS Supporting Chapter 7.0 for more detail on the approach to shared funding for increased maintenance dredging under the Estuary Alternative. In coordination with the Funding and Governance Work Group, as documented in Chapter 7.0, they suggested that costs should be the responsibility of the state of Washington (solely) under the Managed Lake Alternative given consistency with the status quo.

Final EIS Supporting Chapter 7.0 also describes that remediation of contaminated sediment in Budd Inlet is expected to occur before removal of the 5th Avenue Dam.

There is no known state or federal law that has been violated by lack of maintenance on the existing Capitol Lake; however, Ecology modeling has shown that Capitol Lake itself (with or without maintenance) would likely result in continued violations of state water quality standards.

I-674

COMMENT

RESPONSE

I-674-3

List of Exhibits

- Exhibit 1 1911-12 Wilder and White watercolor of State Capitol Campus
- Exhibit 2 Guide of Olmsted Legacy at the Washington State Capitol Campus
- Exhibit 3 1954 Photo North Basin
- Exhibit 4 1982 Photo Capitol Lake North Basin swimming and recreation
- Exhibit 5 1974 National Register of Historic Places Inventory – State Capitol Campus Historic District
- Exhibit 6 Capitol Campus Heritage Park Development Association letter
- Exhibit 7 Letter from Washington State Dept. of Archaeology & Historical Preservation
- Exhibit 8 Photo Middle Basin reflection (day)
- Exhibit 9 Photo North Basin reflection (day)
- Exhibit 10 Photo Middle Basin reflection (night)
- Exhibit 11 Photo North Basin reflection (night)
- Exhibit 12 Photo Middle Basin mudflats
- Exhibit 13 Photo North Basin mudflats
- Exhibit 14 Photo North Basin mudflats
- Exhibit 15 Photo State Capitol Campus National Historic District

I-674-3 Thank you. Exhibits are acknowledged.

I-675

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Capitol Lake DEIS – Super-Spreader in the Sediment Pandemic

Subject: **Capitol Lake DEIS – Super-Spreader in the Sediment Pandemic**

From: William.R.Workman <William.R.Workman@protonmail.com>

To: Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>, Commodore@theolympyachtclub.com <Commodore@theolympyachtclub.com>, Carrie.Martin@des.wa.gov <Carrie.Martin@des.wa.gov>, DESPPDmail@des.wa.gov <DESPPDmail@des.wa.gov>, Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org>, Janet.Jansen@des.wa.gov <Janet.Jansen@des.wa.gov>, BMedrud@ci.tumwater.wa.us <BMedrud@ci.tumwater.wa.us>, Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, SCC-CCDACPublicComments@des.wa.gov <SCC-CCDACPublicComments@des.wa.gov>, DGinther@ci.tumwater.wa.us <DGinther@ci.tumwater.wa.us> [5 more...](#)

Date: 2021-08-27 14:26



All:

The Capitol Lake Draft Environmental Impact Statement (DEIS) dated June 2021 contains misleading information which is intended to justify dam removal. For example, it is common knowledge that containment of any pandemic of sediment is more cost-effective than spreading the disease around. Certainly, preventing the spread of mud, rocks, and invasive species by containment behind the dam would be far more efficient and economical than infecting the entire West Bay. The Capitol Lake Dam is like an N95 mask: not 100% effective but reasonably low-cost and painless.

I-675-1

However, when the dam is removed, the sediment, contamination, and invasive species will be spit out over a mile of West Bay. It defies common sense to think that the cost of dredging will go down by spreading the sediment over a larger area. However, the DEIS completes this "deny-the-science" magic trick by cheating on the cost estimates. The DEIS artificially reduces the cost of sediment removal for the Estuary and Hybrid Alternatives by assuming perpetual in-water disposal for only those two options.

I-675-2

The DEIS writers say that Managed Lake sediment must be hauled to an expensive upland disposal area (due to the New Zealand Mudsnaill) while Estuary sediment can be cheaply dumped directly into the Puget Sound (between Anderson and Ketrion Islands?). The DEIS writers assume that sediment spewed from the mouth of the Estuary Alternative will be certified free of the mudsnail.

I-675-3

However, the mudsnail is euryhaline and adapts well to brackish environments. The mudsnail can survive in Capitol Lake and at the Yacht Club. In fact, neither sediment will be free of the mudsnail. The mudsnail can also survive in some areas of the Nisqually Reach near the in-water dump site. Salinity levels as low as zero (0) PSU have been measured in the Nisqually Reach by salinity surveys, thus ensuring invasive mudsnails would thrive after spreading to a new host victim. The mudsnail can trap an air bubble with its shell and float anywhere the tides go. Releasing the sediment pandemic by removing the dam may not be the most intelligent action. If the DEIS writers want to contradict these facts, then they should obtain letters from ECY, DNR, EPA, DFW, and USACE committing to allowing perpetual future dumping of West Bay sediment directly into the Puget Sound.

Since the entire DEIS is based on these flawed assumptions, the DEIS writers should already have obtained such letters. Even if their assumptions were true for now, the DEIS writers have no idea what variants of restrictive rules these regulatory agencies will invent in the future. Environmental regulations mutate to become progressively more restrictive all the time. Since the cost estimates have been falsified, the DEIS will now need to be re-written.

Let's keep the dam and do our part to avoid super-spreading the sediment pandemic.

William R. Workman.

Sent with [ProtonMail](#) Secure Email.

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1/2

I-675-1

Please see response to Comment I-394-1.

I-675-2

As described in Final EIS Supporting Chapter 7.0, sampling for chemical and invasive species would occur to confirm suitability of the dredged material for in-water disposal before future dredge events. Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events.

I-675-3

Planning-level cost estimates and technical analyses were prepared for both in-water and upland disposal due to the inherent uncertainty in the quality of dredged material, which relates to chemical quality and presence (or absence) of aquatic invasive species. Before dredging begins, a determination is made in coordination with the Dredged Material Management Program to determine whether sediment is suitable for in-water disposal or not. This determination is based on sediment sampling in the proposed dredging area and the sampling must occur relatively close to the proposed dredging. Because maintenance dredging would not occur in West Bay until the late 2030s or early 2040s, a suitability determination cannot be made during the EIS process. However, sediment was sampled for the EIS and that sediment, which is representative of the sediment that would be dredged in the future, does meet chemical quality criteria for in-water disposal. Additionally, a survey was conducted in Budd Inlet, following the Draft EIS, to determine whether a New Zealand mudsnail population had established given the transport of sediment and material over the 5th Avenue Dam in high flow events. New Zealand mudsnail were not found during this survey.

I-676

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail : Bob Jacobs' Comments -- Second Installment

Subject: **Bob Jacobs' Comments -- Second Installment**
 From: <jacobsoy@aol.com>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Cc: <jacobsoy@aol.com>
 Date: 2021-08-27 15:26



DES:

This is the second installment of my comments re the Capitol Lake Deschutes Estuary DEIS.

1. Non-comparable cost estimates

The DES representative who briefed the Heritage Park board mentioned that the cost estimates for the three alternatives in the DEIS are not comparable. I do not remember the details, but as a former financial analyst and elected official, I find non-comparable estimates completely unacceptable.

Cost estimates for alternative courses of action are obviously very important for decision making. And they are focused on by the media, as we have already seen in the case of this DEIS. Thus, cost estimates are a powerful influence on policy decisions.

Cost estimates should include all costs --

- capital and operating costs over a reasonable period, e.g., 25 years
- direct and indirect costs
- public and private costs.

Cost estimates should also include reasonable ranges and should be discounted at a reasonable rate.

2. Fair Treatment of the Hybrid Alternative

I am troubled by concerns that I have been hearing in the community to the effect that the DEIS might not be treating the Hybrid Alternative fairly. Bias should be avoided in an EIS.

Two specific items I have heard about are the water and the wall.

a. Water. The idea of a hybrid approach has been around for many years. The reflecting pool has always been conceived of as a freshwater basin, fed by a number of artesian wells that would intercept the plentiful underground flows from uplands to Budd Inlet and Capitol Lake. The idea is that the freshwater flows would be voluminous enough to replenish the pool every few days, thus preventing stagnation. Also, it has been reported that this plan would be easily permitted because it would be a "non-consumptive use".

Reportedly, the DEIS assumes brackish water would be used in the reflecting pool. That is just not as attractive as fresh water. Why assume brackish water? Are the potential artesian flows insufficient? How do we know? Could the depth of the reflecting pool be reduced to make this work?

b. Reportedly, the dike which would separate the reflecting pool from the river is assumed to be constructed of sheet piling. Steve Shanewise, who has expended considerable effort in researching this option, suggests that a wall constructed of loose boulders (like the railroad trestle) would be more attractive, cheaper, and more durable. Steve says he knows a person who builds such walls regularly. Has DES taken the time to seriously consider this option?

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1/2

I-676-1 The planning-level costs were developed by civil, environmental, and coastal engineers on the EIS Project Team and are considered a Class 4 estimate, by standards established by the Association for the Advancement of Cost Engineering based on the preliminary nature of the design elements in this EIS process. They reflect an accuracy variation of -25% and +35%. The planning-level costs include estimates for:

- Design, permitting, and construction; and
- Maintenance dredging after construction (estimated for 30-years, consistent with the project time horizon).

Cost estimates would be refined during design and permitting, as design advances.

More detailed information on the planning-level costs is available on the project website and in Final EIS Supporting Chapter 7.0.

I-676-2 Please see the Global Response for the Hybrid Alternative, which has been updated to include a freshwater reflecting pool.

I-676-1

I-676-2

I-676

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Bob Jacobs' Comments -- Second Installment

3. Truck Disposal

Why is truck disposal assumed under the Managed Lake Alternative, rather than the less expensive barge/in-water disposal approach that I believe was used in the last dredge?

End of Second Installment. Thank you for the chance to comment.

Bob Jacobs
360-352-1346

720 Governor Stevens Ave. SE
Olympia, 98501

I-676-3 See the Global Responses for Sediment Management & Disposal and Transportation.

I-676-3

I-677

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Capitol Lake DEIS -- Ignorance of Federal Navigational Servitude

Subject: **Capitol Lake DEIS – Ignorance of Federal Navigational Servitude**
 From: William.R.Workman <William.R.Workman@protonmail.com>
 To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frere@des.wa.gov <Bill.Frere@des.wa.gov>, Rachael@portolympia.com <Rachael@portolympia.com>, SamG@portolympia.com <SamG@portolympia.com>, Commodore@theolympiayachtclub.com <Commodore@theolympiayachtclub.com>, Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org>
 Date: 2021-08-27 15:30



All:

The Capitol Lake Draft Environmental Impact Statement (DEIS) dated June 2021 contains misleading information which is intended to justify dam removal. For example, the DEIS writers claim that the principle of Federal Navigational Servitude obligates the US Army Corps of Engineers (USACE) to dredge West Bay.

The first paragraph of Page #4-16 contains this fundamental misunderstanding of the Doctrine of Federal Navigational Servitude. The Doctrine actually gives the Federal Government the right (but not the obligation) to regulate, enable (or even obstruct) the navigation of navigable waterways. In what way does the doctrine require USACE to dredge sediment from West Bay? Actually USACE is not required to do anything except what the courts and congress tell them to do.

This question becomes important because the Estuary and Hybrid Alternatives require dredging every 5-6 years. The DEIS writers would like you to believe that the USACE is going to magically adjust their dredging interval to the new reality after dam removal.

How was it determined that dredging at any specific interval has any relation to the Federal Navigational Servitude Doctrine? Perhaps 5-6 years will not be the actual interval for dredging. Perhaps the EIS writers should enlighten us on that subject. Perhaps DEIS writers should check with an Attorney specializing in waterway navigation rights.

William R. Workman.

I-677-1 The reference to navigational servitude in Final EIS Supporting Chapter 4.0, Section 4.2, has been modified.
Please see responses to Comments F-1-1, F-1-2, and F-1-3.

I-677-1

I-678

COMMENT

RESPONSE

I-678-1 | Just rebuild the ecosystem into an estuary.

I-678-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-679

COMMENT

RESPONSE

I-679-1 | It is time to restore and maintain Capitol Lake as it was intended, from legislation passed in 1938 authorizing its creation, and created in 1951. I have witnessed what was once a vibrant lake (both basins) where the community enjoyed, boating and swimming turned into an ugly marsh. Washington General Administration initiated "Save a Beautiful Lake" movement in 1975 - but through total failure by the legislature, and all governing bodies - the sheer neglect, and deferred maintenance has led us to a time where it is essential to restore the lake. People do not want a mud flat estuary as the reflection of the Capiitol Building, or a downtown focal point!

I-679-1 Tribal leaders are indicating its for the fish...well they are the ones with nets stretched from one side of the dam from Bayview grocery to the rail lines on the west - sounds good in theory but not reality of their actions.

All surrounding marinas, as well as the Port of Olympia, and Percival Landing, will be affected by constant inflow of sediment damaging commerce for what should be a beautiful waterfront.

RESTORE the LAKE is the only truly responsible solution - its there, protect and restore this valuable asset as it was intended. Poor management is not a reason to change this once beautiful and vibrant resource.

I-679-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-680

COMMENT

RESPONSE


8/30/2021 Roundcube Webmail - Capitol Lake DEIS - Keep the Dam - The Fish Will Thank You

Subject: **Capitol Lake DEIS - Keep the Dam - The Fish Will Thank You**

From: William.R.Workman <William.R.Workman@protonmail.com>

To: Comment@CapitolLakeDeschutesEstuaryEIS.org <Comment@CapitolLakeDeschutesEstuaryEIS.org>, Bill.Frare@des.wa.gov <Bill.Frare@des.wa.gov>, Commodore@theolympiaachtclub.com <Commodore@theolympiaachtclub.com>, Friends@SaveCapitolLake.org <Friends@SaveCapitolLake.org>, Rachel1@portolympia.com <Rachel1@portolympia.com>, SamG@portolympia.com <SamG@portolympia.com>, BMedrud@ci.tumwater.wa.us <BMedrud@ci.tumwater.wa.us>, Carrie.Martin@des.wa.gov <Carrie.Martin@des.wa.gov>, DESPPDmail@des.wa.gov <DESPPDmail@des.wa.gov>, DGinther@ci.tumwater.wa.us <DGinther@ci.tumwater.wa.us> [7 more...](#)

Date: 2021-08-27 16:43



All:

The Capitol Lake Draft Environmental Impact Statement (DEIS) dated June 2021 buries information which supports keeping the dam. For example, the DEIS mentions dissolved oxygen levels 24 times and how important and dangerously-low they supposedly are, before ever mentioning the inconvenient facts. The truth is that dissolved oxygen levels generally appear to meet the applicable water quality standards (see Table 3.3.6). In addition, dissolved oxygen levels improved between 2006 and 2014 (see Figure 3.3.5). This figure shows the results of the ECY modeling and reporting dissolved oxygen levels and depicts improving oxygen levels in Budd Bay by comparing 2006 and 2014.

One would think that if water quality data was going to be used to rip a dam out, that there should be more of it. Perhaps there is more data for different times and locations in West Bay. This data presented in the DEIS is sparse considering how much this is about to cost the hard-working residents of Washington State.

Since water quality already seems to be sufficient (temp-DO-pH) and has been improving, why would DES push the panic button now and rip the dam out? Perhaps the DEIS could include a graphic which more-clearly shows how dissolved oxygen levels and other parameters have been improving over time, or at least have not been getting any worse. This would communicate the truth about water quality trends. Please don't cheat on this graphic by comparing October of one year to May of another, or by comparing different locations to each other.

One might think that the Executive Summary would provide some clarification about improving water quality because many members of this community have been misled by inaccurate articles in The Daily Olympian and other sources of information. Most citizens have real jobs and they don't have time to read the entire DEIS document.

Keep the dam in place and the fish will thank you.

William R. Workman.

I-680-1 Please see response to Comment I-482-1.

The Executive Summary does describe that water quality conditions have been improving in Capitol Lake in terms of physical and chemical characteristics important to aquatic life. It also describes that under an Estuary Alternative, there would be no change to minor to moderate improvements in water quality in Budd Inlet due to removal of the 5th Avenue Dam and that dissolved oxygen conditions would not result in substantive changes for cold water fish, though overall habitat conditions would improve.

Ecology has stated that the Estuary Alternative is the only alternative that could meet water quality standards because it would constitute a 'natural estuary' condition.

I-680-1

I-681

COMMENT

RESPONSE

I-681-1 | I favor the full restoration of the Deschutes River Estuary.

I-681-1 Please see the Global Response for the Preferred Alternative Identification Process.

I-682

COMMENT

RESPONSE

I strongly support removing the 5th Avenue dam and restoring the Deschutes River estuary, either in the form of a free flowing river-estuary, or in the 'hybrid' form, if the hybrid option can be achieved while restoring most of the estuary. In these times of unprecedented changes and assaults on the planet, and life as we know it, how can the dam removal and estuary restoration not be the best option? Capitol Lake is an impaired water body with conditions that violate state water quality standards; it's configuration and environmental conditions are detrimental to the health of the Deschutes River and Puget Sound. Returning the lower Deschutes River into estuary habitat will yield profound benefits to salmon and marine life not only from the local watershed but also to those from other natal rivers. South Sound estuaries support feeding and rearing for juvenile chinook salmon from many river systems, not just the local rivers. The historical Deschutes estuary also supported Percival Creek natal salmon.

I-682-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-682-1 The Draft DEIS confirms that removing the dam and restoring the estuary will improve ecological health, be less costly, improve water quality, and eliminate or reduce invasive species which have led to the closures of recreational uses. Combining estuary and river restoration with recreational and community planning for the area around Heritage Park could provide great benefits to the community. Getting rid of the mud snails and other invasive species via the introduction of tidal waters is a logical and cost effective step towards opening up recreational and community uses of the area now closed to access. It's time to prioritize the health of the water that provides life to us all over the perceived, aesthetic value that a man-made lake presents. In fact, both values can be achieved. Some of the most beautiful and iconic cities have estuaries and rivers intertwined with the built environment, including San Francisco, Vancouver B.C., and New York. Olympia should seize the chance to do the right thing for the environment AND make the community a more vibrant and economically viable place.

I-683

COMMENT

RESPONSE

I-683-1 Capitol lake is not functioning as a manufactured lake, and returning deschutes river and Puget sound to original condition is at least a step in the right direction, the removal of the Elwha river dams is instructive but the Elwha will take decades to recover, better start sooner than later here at home. I support dam removal here in the hopes of returning salmon health for future generations, many species are dependent upon that. Thank you for your consideration.

I-683-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-684

COMMENT

RESPONSE

I-684-1 I support returning Capital Lake to a natural Estuary. Capital Lake is not a real lake. I'd rather grow fish, clams and other seafood that we can eat rather than boats. I don't know why you would compare Capital Lake to naturally formed lakes. I don't think that is an equivalent comparison. There aren't many areas on the planet where fresh water meets salt water the way it does here in Budd inlet. This is a unique treasure that we get to live next to every day. We should take special care of this treasure and potential abundant food source.

I-684-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-684-2 Thank you for your comment. The water quality analysis did evaluate data from the Deschutes River because of its input to Capitol Lake.

I-684-3 The study area varies for specific technical disciplines as described in EIS Supporting Chapter 3.0. Please see the Global Response for the Preferred Alternative Identification Process.

I-684-2 Other areas of concern that related to the future Capital Lake estuary is pollution from the Deschutes river, homes and businesses that are not on LOTT and leaking sewage into the river/estuary/budd inlet area. Also, this estuary extends all the way out to Boston Harbor. Why does it seem the study is not more inclusive of the entire unique estuary area. From my perspective this unique habitat includes the Deschutes river, Capital Lake Estuary and Budd Inlet all the way out to Boston Harbor. Please restore it to it's natural state so we can all have more local food sources, clean air and clean water.

I-684-3

Thanks for letting me comment on this study.

I-685

	COMMENT	RESPONSE
I-685-1	Our household strongly supports the Estuary plan. We also agree with DERT's recommendations to move quickly with reaching out to Tribal stakeholders and others with historical and scientific expertise before solidifying any definitive plans.	I-685-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.
I-685-2	We commend the council for recommending moving forward with removal of the dam and returning this habitat to estuary conditions. Thank you!	I-685-2 Comment noted. See Final EIS Supporting Chapter 8.0 for information on engagement with tribal and other stakeholders that has occurred as part of the EIS process. See also Attachment 21 for information on the Preferred Alternative identification process.

I-686

	COMMENT	RESPONSE
I-686-1	My preference is the hybrid model. I have read many of the different reports and feel the hybrid would fit our community best and provide a beautiful lake/reflecting pond and estuary for maximum wildlife, birds and amphibians activity and habitats. I realize you want a more extensive letter but due to Covid I am watching a toddler and baby so have very little time for long explanation but I would like my vote to be recognized.	I-686-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-687

	COMMENT	RESPONSE
	<p>Thank you for this opportunity to comment on the Draft EIS for the Capitol Lake - Deschutes Estuary. In general I feel the draft EIS was thorough and well executed. Here are some things that I would like to see better addressed and/or discussed:</p>	<p>I-687-1 Potential impacts (and benefits) on ESA-listed species, including ESA-listed Chinook salmon, steelhead, and orcas, were discussed in EIS Supporting Chapter 4.0, Section 4.5. The commenter does not raise specific issues regarding the adequacy, accuracy, or completeness of the Draft EIS.</p>
<p>I-687-1</p>	<p>1) Habitat benefits for ESA-listed species: more attention should be called to the alternative that provides the highest level of habitat for ESA-listed species. At this time where we are losing our last runs of chinook salmon and resident orca pods, more attention needs to be paid to how the alternatives will impact listed species.</p>	<p>I-687-2 Resiliency to climate change effects were considered in Section 4.8.2.3, 4.8.4.3, 4.8.5.3, and 4.8.6.3 of EIS Supporting Chapter 4.0 in terms of the alternatives consistency with goals set out in the Thurston Climate Adaptation Plan. Flood resilience benefits were considered as part of the hydrodynamics analysis included in Section 4.1. The carbon sequestration potential of each alternative was considered in Section 4.7 (see sidebar text boxes "Carbon Sequestration Potential").</p>
<p>I-687-2</p>	<p>2) Climate change, sea-level rise and carbon sequestration: again, I believe more attention should be focused on these issues as they relate to the different alternatives, as these issues are fundamental to our ability as humans to continue living on this planet in a manner we are accustomed to. More emphasis should be placed on the alternative that provides the most benefit in terms of carbon sequestration and climate change resiliency.</p>	<p>Importantly, climate change effects will occur over many decades, and the analysis for this EIS and potential impacts are constrained at 30 years.</p>
<p>I-687-3</p>	<p>3) Historical significance: I believe there is too much emphasis placed on the historical significance of the dam and lake. The dam and lake have been on the landscape for less than 75 years, while the unfettered estuary was on the landscape for tens of thousands of years, before white settlers decided to alter it. Prioritizing and emphasizing the recent modifications made to the estuary by white people is clearly chauvinistic and disrespectful to the Native Americans who lived in and around the Deschutes Estuary since time immemorial. We should not be prioritizing white history over Native American history.</p>	<p>These factors were considered in the decision-making process for identifying the Preferred Alternative relative to the environmental sustainability of the alternatives, see Attachment 21 of the Final EIS.</p>
		<p>I-687-3 See the Global Response for Cultural Resources.</p>
		<p>I-687-4 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.</p>
<p>I-687-4</p>	<p>My personal preference is to have the estuary fully restored/enhanced to achieve a condition more closely resembling it's pre-dam and lake condition. If we are serious about attempting to reverse species loss and climate disaster, bold steps must be taken and anything less is a disservice to our children and the planet.</p>	
	<p>Thank you again for this opportunity to comment.</p>	

I-688

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: I Support the Estuary Option

Subject: **I Support the Estuary Option**
 From: Jules James <julesjames1885@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-28 00:08



Folks:

I've just finished reading the draft EIS for Capitol Lake.

I'm thinking if the birds, bees, insects and fish could vote, they would overwhelmingly support the Estuary option. They could use the area 24-7 for food, shelter and pleasure. Us humans are there in force mostly on sunny days, and only for recreation. Highest and best use of Capitol Lake is as an estuary.

Jules James
 425 72nd Avenue NE
 Olympia, WA 98506

I-688-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-688-1

I-689

COMMENT

RESPONSE

I-689-1 | I support the hybrid plan to create part estuary & part lake.

I-689-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-690

COMMENT

RESPONSE

Please let Capital Lake become a natural estuary again. Have we not learned that nature can manage nature best? If we want to be good stewards of the environment let nature take care of itself.

Thank you,
 Steven Aksamit

I-690-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-690-1

I-691

COMMENT

RESPONSE

I-691-1 The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

8/30/2021 Roundcube Webmail - Comment Deschutes Estuary EIS

Subject: **Comment Deschutes Estuary EIS**
 From: E Fehr <emwizard2018@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-28 01:22



I am glad the comment period was extended so I can send my comment in time. I heard about this at the last minute.

It may be of value for your planning to hear about a Japanese environmental clean-up technology that I have now been familiar with for years.

It is called EM Technology.

EM stands for Effective Microorganisms.

EM is a combination of three main naturally occurring beneficial microbes that can literally render polluted aquatic or soil environments into a clean and healthy condition again.

It digests sediments, neutralizes toxins, like petrochemicals, pesticides, industrial pollutants, even arsenic over time and it also deals with metals, referring them into the less harmful atomic state.

Implementation is not expensive and very effective and absolutely environmentally friendly without any negative side effects for plants, animals and humans.

The technology has been used for 40 years all over the globe in many successful projects.

Unfortunately EM Technology is not yet well known and implemented enough in America, especially in governmental programs.

To give you a picture of the effectiveness of this technology and to show the power of microbes, the most minute living beings on earth, I want to mention one example of many outstanding environmental projects that was completed in Japan in the 90s.

Seto Inland Sea, a Japanese bay, was terribly polluted, no seaweeds or fish could be harvested. One sewage plant along the shore line started to use the Effective Microorganisms and what happened at the discharge point:

Little fish were attracted to the sewage plant area. The discharged water represents a probiotic solution that is beneficial for aquatic life so that regeneration can occur.

That made a noise and soon all other sewage plants were following the example. Within 5 years the Seto Inland Sea was remediated, the water was clean and healthy and fish, oysters, and seaweeds could be harvested again.

I can provide a magazine "Eco Pure" where this project is described in detail besides others.

In my opinion there is no need of redesigning the estuary. It is possible to control pollution with EM Technology and clean up Capitol Lake in a relatively short time and with minimal costs compared to other solutions.

[https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=2&_mbox=INBOX%2FDEIS Processed 15&_action=print&_extwin=1](https://webmail.gandi.net/roundcube/?_task=mail&_safe=0&_uid=2&_mbox=INBOX%2FDEIS%20Processed%2015&_action=print&_extwin=1)

1/2

I-691-1

I-691

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail - Comment Deschutes Estuary EIS

I am the local EM Technology affiliate and offer all the assistance that I am able to provide from my knowledge base.

For more information:
www.emrojapan.com

(My new website is in construction)

Best regards,
and thank you for giving the opportunity for comments,

Erika Fehr
Rainier
360 446 6819

I-692

COMMENT

RESPONSE

I-692-1 Let it be what it is meant to be from the start, beautiful, natural wetlands. They have an important function which among many it's a habitat that provide shelter to many creatures and plants. By allowing the water to flow freely in its water form, it would help move sediment layers and bring nutrients to the water, land, and animals.

I-692-1 The Capitol Lake is so polluted and full of invasive New Zealand snails which are harmful to the whole ecosystem. These invasive species will take over eventually all the lakes here in Olympia, Lacey, Tumwater, etc. Which in time will make them inaccessible, polluted, and toxic! Learn from Nisqually Bird Refuge, what a successful project it became!

I-692-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-693

COMMENT

RESPONSE

I-693-1 I am strongly in favor of maintaining the fresh water lake. Either of the other proposals will result in a stinking low tide mud flat in the center of our city at the foot of our capital campus. It does cost more but it is an asset well worth the cost while the alternate is a 12 hour a day nuisance.

I-693-1 Comment noted. Please see the Global Responses for Air Quality and Odor and the Preferred Alternative Identification Process.


I-694

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
 From: A.W Cardiff <awcardiff@gmail.com>
 To: <comment@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-28 09:20



Hello,

I am interested in the future of Capitol Lake and the wildlife that benefits from this ecosystem. In particular, I am concerned with the future of the bat colony that roosts at Woodard Bay in East Olympia. These bats feed nightly in Capitol Lake from May to September. Many of these bats are nursing females and depend on the food source found at the lake to feed their young. If the lake was dredged and the water level reduced during the summer months, it would cause a significant negative impact on these animals. Bats, although often feared or hated, form a vital part of the ecosystem by keeping insect populations in control. I urge you to keep in mind the bats of Olympia as you decide the future of Capitol Lake.

Thank you.

Anna Wahler

I-694-1

I-694-1 Comment noted. See also the Global Response for Fish & Wildlife for a description of changes in the analysis of bats in the Final EIS.

I-695

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Comment about "DELI" project

Subject: **Comment about "DELI" project**
 From: Lyna Ray <tsunami.wave2020@gmail.com>
 To: <info@capitollakedeschutesestuaryeis.org>
 Date: 2021-08-28 11:34



Hi, I was walking around Capitol Lake and saw a man advertising to "Do the DELI", a plan to clean up Capitol Lake and create a hybrid alternative to make the lake swimmable again. I am in favor of his plan, if it does make the lake swimmable again.

I have been a resident of Thurston County since 5th grade (I am 33 now), and I remember a time when the lake WAS swimmable.

We had art and music festivals, people with their kids would come hang out and swim at the lake downtown, go jump and dance around in the fountain, and in general enjoy the shops, restaurants and sellers in downtown Oly.

It was fun, beautiful and a great place to go spend a day with your friends or family.

Now it is a stinky, contaminated duck pond that is practically abandoned except for the homeless camping out around the area.

That is pathetic.
I expect more from the capital city of our state.

Please work on a solution to this on-going problem, and seriously consider the "DELI" plan as an option to restore the beauty and functionality of the Capitol Lake area downtown.

Thank you for your time and consideration.

I-695-1

I-695-1 Comment noted. Please see the Global Responses for Air Quality and Odor, Hybrid Alternative and the Preferred Alternative Identification Process.

I-696

COMMENT

RESPONSE

I-696-1 | I think an estuary is the most responsible and reasonable choice. Please strongly consider it. Thank you.

I-696-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-697

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Draft Environmental Impact Statement

Subject: **Draft Environmental Impact Statement**
 From: <janalynwiley@aol.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-28 13:48



I was one of the original members of the Deschutes Estuary Restoration Team, originally named the Friends of the Deschutes Estuary. I attended nearly all of the CLAMP meetings that revolved around this never ending lake vs estuary issue, all the way thru to the final recommendation to restore the estuary, which was NOT PUBLISHED IN THE FINAL DOCUMENT. I have witnessed countless studies and public comment periods since that time. Now, here we are. Will this be punted one more time?

DERT's evaluation of the draft EIS echoes exactly what went thru my mind when I reviewed the documents. Please know, that the restoration of this estuary is what I will always support. Nothing less will serve the Salish Sea. I do not believe that resources to create the hybrid solution is wise. It was not taken seriously when initially studied by CLAMP and it is not a viable option now except in the minds of those who sit on the political fence. I see it as a creation of yet another fake lake that the State will need to manage and pour unnecessary money into over and over again.

Everything in the document that DERT submitted is 100% supported by me.

<https://files.constantcontact.com/4cf897ad701/5cf5d6bb-1b49-4150-ae9e-e1deaee73ad7.pdf>

Jana Wiley

I-697-1

I-697-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-698

COMMENT

RESPONSE

8/30/2021

Roundcube Webmail :: Draft EIS Comment

Subject: **Draft EIS Comment**
From: Kate Rosengard <kate-rosengard@outlook.com>
To: comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-28 14:08



My preference for Capitol Lake is Managed Lake for these reasons:

The Estuary choice would ultimately be a do nothing approach with unsavory and unsightly consequences, and would also necessitate dredging which would have to occur in the inlet so the port could function. The Hybrid choice would cause money to be spent to remove structures and rebuild with a less than satisfactory result.

1. The Managed Lake choice implies that the various aspects of the lake would be cared for on an ongoing basis.
2. The Managed Lake choice would, according to the description of the long-term plan provided on the EIS site, "address the diminished beneficial uses of the waterbody, caused by accumulating sediment, historically poor water quality, algal blooms, and invasive plant and animal species", which seems to me a worthwhile goal for the community.
3. People of certain ages retain memories of swimming and boating on the lake which hopefully could begin again.
4. The Managed Lake choice would preserve the lake which greatly enhances the setting of the Capitol Building which is seen by many people who come either to simply visit or on official business and provides a lasting impression of our state.
5. Complexities of the Managed Lake choice would provide people with jobs.
7. Just as a homeowner budgets for money to be spent to maintain a home for the family, the Managed Lake option would necessitate budgeting for maintenance to care responsibly for the people's Capitol Building; it could be done.
8. While I am a fan of living in harmony with nature such as xeriscaping in desert environments, I cannot envisage a similar approach to mudflats, which is one of the major reasons for choosing the Managed Lake option.

Thank you,
Kate Rosengard

I-698-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-698-1

I-699

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail - Comments on the Draft Deschutes Estuary EIS

Subject: **Comments on the Draft Deschutes Estuary EIS**
 From: Sandler & Seppanen <Laurel.Lodge@Comcast.Net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Cc: 'Sandler & Seppanen' <laurel.lodge@comcast.net>
 Date: 2021-08-28 14:16



Thank you for the opportunity to give comments on the draft EIS for the Capitol Lake – Deschutes Estuary Project. I appreciate the thorough review of the required EIS elements for the No Action Alternative and the three proposed alternatives. My reason for commenting is to request that a subsection be added to the final **EIS Cultural Resources Section (4.9)** to describe cultural, heritage, spiritual, and educational values inherent in the built environment of each alternative, and ways in which the impact of these values could be mitigated.

Built environments, particularly in publicly funded projects, tend to reflect, express, and reinforce a cluster of cultural, heritage, spiritual, and educational values of the dominant culture at the time of construction. I will refer to this cluster as Majority Values. By intention or not, Majority Values are conveyed to everyone who interacts with the built environment. Importantly, they will continue to echo through future generations, even after Majority Values no longer reflect the values held most in the community.

For this reason, the description of each of the offered alternatives should include a description of the implicit Majority Values. When the implicit values are out of sync with contemporary community values mitigation strategies should be listed through publication and informational exhibits on-site.

I have provided an example, below, of the values implicit in each alternative.

VALUES IMPLICITE IN BUILT ENVIRONMENT OF THE ALTERNATIVES

1. Estuary Alternative

This is the closest to a natural environment, though given the many manmade changes in the area, the best that can be said is that this alternative harmonizes the built and natural environments. The implicit Majority Values are accepting of the natural ebb and flow of tides and recognize that from time to time the powers of nature can and will disrupt the human desire for a stable environment. The viewer might sense unease about what was on the shoreline adjacent to the city park where the built environment covers up some of Olympia's history such as the effort to hide poverty and homeless from view by removing Little Hollywood.

2. The Managed Lake Alternative

This is an entirely built environment. It speaks to a time the Majority Value it reflects was that humans are to dominate nature making it stable and idealized. The dam, and the more recently added concrete walls riming the lake that highlight the state's thirty-nine counties, present the lake as newly formed, effectively erasing the longer history of the site, while enshrining the Capitol Building in permanence. The built environment specifically fails to acknowledge the peoples who have been on these waters and land since time immemorial. The lake is a contemporary statement about the modern American desire to hide from view realities like poverty and homelessness. It was built, at least in part, to eliminate Little Hollywood, the float houses on the edge of Olympia that served the needs of those with little means for more than two decades. The lake is like an advertising photo created to highlight the dream of some community booster. It is a photo that covers that over any imperfections in the community.

3. Hybrid Alternative

The natural environment is partially present though dominated by the built environment with the dam removed but the water flow constrained by a concrete barrier to allow for a saltwater pond. The Majority Values that support domination over nature are present here just as they were in the Managed Lake Alternative. The free-flowing water with its tidal flow and potential to flood, however, attests to the understanding that humans are not unequivocally dominant over nature. Nature can trump the human desire for stability and domination. This juxtaposition reflects the unsettled reality and political polarization of the 2020's in America, perhaps in the world, as many of us cling to a

I-699-1

Thank you for your comment. Section 4.14.3.4 of EIS Supporting Chapter 4.0 describes how the project alternatives may enhance cultural values for some, or maintain status quo for others, as part of the evaluation of impacts and benefits related to the value of ecosystem services. Clarifications have been made in the Final EIS to more fully capture the range of values (cultural, heritage, spiritual, and educational) placed on the ecosystem services provided under the alternatives.

I-699-1

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I-699

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail : Comments on the Draft Deschutes Estuary EIS

sense of separateness from the rest of nature, while the reality of climate change hammers home the message that humans face the same existential crisis as do all living things.

MITIGATION STRATEGIES
For all alternatives it is possible to be transparent about the cultural, heritage, spiritual, and educational values that influence the design of their respective built environments. It is important to be explicit about the values symbolized by the built environment and to explain that other alternatives that symbolize different values were considered but not chosen. Mitigation should also include recognition of long past uses of the environment, specifically of the river as a means of travel. As already described in the EIS, kiosks can provide the history of use of this land and waterway, including the long history of Indigenous use.

Loretta Seppanen and Rick Sandler
2919 Orange Street SE
Olympia, WA

I-699-2

I-699-2 See response to Comment I-699-1 regarding consideration of the different values associated within the Project Area. As described in Section 4.9.7 of EIS Supporting Chapter 4.0, a mitigation measure is included to develop an interpretive plan for the Capitol Lake – Deschutes Estuary in conjunction with the Interpretive Center that could be jointly led by the Olympia Heritage Commission and the Tumwater Historic Preservation Commission and undertaken in coordination with the Squaxin Island Tribe, the Nisqually Tribe, the Washington State Archives, the Washington State Historical Society, the Olympia Historical Society, and other stakeholders. This would support ongoing interpretive work at the Interpretive Center and existing parks and new work along the boardwalks within the South and Middle Basins.

I-700

COMMENT

RESPONSE


8/30/2021 Roundcube Webmail : Capitol Lake - Deschutes Estuary EIS Comment

Subject: **Capitol Lake - Deschutes Estuary EIS Comment**

From: Edwin J. Pole II <ejpii.col@gmail.com>

To: comment@capitollakedeschutesestuaryeis.org
<comment@capitollakedeschutesestuaryeis.org>

Date: 2021-08-28 14:28



Of the two presented, I support the Estuary alternative as the most natural and least expensive to maintain. I do NOT support the hybrid "reflecting pool" or the managed lake alternatives especially if not totally funded by Olympia. The rest of the state should not be burdened with the costs of maintaining an artificial environment for Olympia.

If Olympia wishes to have a "reflecting pool" or a city "beach", it should pay for the costs itself and coordinate its design, installation, and maintenance with the state. One major objection by Olympia residents is that a natural estuary is odiferous. Life is smelly. It is natural. Further, I don't perceive any particularly unpleasant odors when I drive by the Nisqually delta or Mud Bay. I think the whole premise is false.

A further objection to the natural estuary is that it would impact the private boat docks, north of the 5th Avenue bridge, and the Port of Olympia. State funds should not go to supporting docking for people that can afford boats nor to a Port that is a failing enterprise. They should support themselves.

Edwin J. Pole II
5014 70th Way SE
Lacey, WA 98513

I-700-1

I-700-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-701

COMMENT

RESPONSE

I support returning the north basin to its original, tidal estuary state. The capital lake as it sits is a dead end. It will never be healthy and will be a constant and expensive struggle for us to keep from total putrefaction. The estuary will be very expensive to restore up front, but won't cost much in the long haul to maintain.

I-701-1

I-701-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-702

COMMENT

RESPONSE

I-702-1	An estuary would be my preferred option as someone who believes the science behind habitat restoration to help declining salmon runs. Estuaries are key for juvenile salmon and our state capital should reflect that instead of being a holding pond for invasive species.	I-702-1	Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
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I-703

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Public Comment attached on Deschutes Estuary - Capitol Lake EIS


Subject: **Public Comment attached on Deschutes Estuary - Capitol Lake EIS**

From: Grossman, Zoltan <grossmaz@evergreen.edu>
To: comment@CapitolLakeDeschutesEstuaryEIS.org <comment@CapitolLakeDeschutesEstuaryEIS.org>

Cc: Grossman, Zoltan <grossmaz@evergreen.edu>, zoltangrossman@gmail.com <zoltangrossman@gmail.com>, McCarty, Alexander <mccartya@evergreen.edu>, prof.mccartya@gmail.com <prof.mccartya@gmail.com>, Dotul <Dotul@evergreen.edu>, Hart, Griffin <hargr111@evergreen.edu>, Griffin Hart <hart0944@gmail.com>

Date: 2021-08-28 15:08

• GrossmanEISCommentsWithRemovingBarriers.pdf (~11 MB)



Public Comment attached on Capitol Lake – Deschutes Estuary EIS

To the Department of Enterprise Services,

I am a Member of the Faculty in Geography and Native American & Indigenous Studies at The Evergreen State College. I earned my Ph.D. in Geography from the University of Wisconsin in 2002, and have devoted my recent studies to Indigenous climate justice and resilience. I was author of *Unlikely Alliances: Native and White Communities Join to Defend Rural Lands* (University of Washington Press, 2017; Foreword by Winona LaDuke), and co-editor of *Asserting Native Resilience: Pacific Rim Indigenous Nations Face the Climate Crisis* (Oregon State University Press, 2012; Foreword by Billy Frank Jr.).

In winter quarter 2021, I co-taught an Evergreen class with Alexander McCarty titled "Conceptualizing Place: Pacific Northwest Native Art and Geographies." Our students produced a 132-page online book about barriers to salmon runs, notably dams, dikes, and culverts, and how tribal nations have led alliances to remove some of the barriers in order to restore salmon habitat in Northwest watersheds. In *Removing Barriers: Restoring Salmon Watersheds through Tribal Alliances*, students told the stories of the watersheds and barrier removals through text, graphics, and their own original digital artworks and maps. The two sections of *Removing Barriers* can be downloaded in two parts at <https://sites.evergreen.edu/removingbarriers>.

The twelve chapters highlighted the Nisqually, Elwha, Skokomish, Chico, White Salmon, Nooksack, White, Deschutes, Chehalis, Klamath, and Snake watersheds, as well as background on dams, dikes, and culverts, and their effects on Pacific salmon, orcas, and coastal communities. The place-based stories of habitat restoration highlight how treaty rights and tribal sovereignty have become leading drivers of reversing damage wrought by settler colonialism, and how the healing of the watersheds and their estuaries is made possible by a process of decolonization in corresponding Indigenous homelands. The book's theme of "removing barriers" applies to the barriers to salmon runs, barriers between human beings and the natural world, barriers between Native and non-Native communities, and barriers to Indigenous self-determination.

I have three public comments on the EIS, concerning 1.) climate change and sediment deposition, 2.) the 5th Avenue dam as a historical injustice, and 3.) questioning the need for a reflecting pool. **Please accept the attached document including my comments, and the Introduction and "Deschutes: Restoring the Estuary" chapter** (by Griffin Hart and Tierra McCarty) from *Removing Barriers* that I wish to include as part of the public record.

Thank you,
Dr. Zoltán Grossman

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I-703

COMMENT

RESPONSE

8/30/2021

Roundcube Webmail :: Public Comment attached on Deschutes Estuary - Capitol Lake EIS

Zoltán Grossman, Ph.D.
Geography / Native American & Indigenous Studies,
The Evergreen State College

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Unlikely Alliances: Native Nations and White Communities Join to Defend Rural Lands, by Zoltán Grossman;
Foreword by Winona LaDuke (University of Washington Press, 2017).

Asserting Native Resilience: Pacific Rim Indigenous Nations Face the Climate Crisis, edited by Zoltán Grossman &
Alan Parker, Foreword by Billy Frank Jr. (Oregon State University Press, 2012)

I-703

COMMENT

RESPONSE



ZOLTÁN GROSSMAN, Ph.D.
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August 28, 2021

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
P.O. Box 41476
Olympia, Washington 98504-1476
comment@CapitolLakeDeschutesEstuaryEIS.org

Dear Department of Enterprise Services,

I am a Member of the Faculty in Geography and Native American & Indigenous Studies at The Evergreen State College. I earned my Ph.D. in Geography from the University of Wisconsin in 2002, and have devoted my recent studies to Indigenous climate justice and resilience. I was author of *Unlikely Alliances: Native and White Communities Join to Defend Rural Lands* (University of Washington Press, 2017; Foreword by Winona LaDuke), and co-editor of *Asserting Native Resilience: Pacific Rim Indigenous Nations Face the Climate Crisis* (Oregon State University Press, 2012; Foreword by Billy Frank Jr.).

In winter quarter 2021, I co-taught an Evergreen class with Alexander McCarty titled "Conceptualizing Place: Pacific Northwest Native Art and Geographies." Our students produced a 132-page digital book about barriers to salmon runs, notably dams, dikes, and culverts, and how tribal nations have led alliances to remove some of the barriers in order to restore salmon habitat in Northwest watersheds. In *Removing Barriers: Restoring Salmon Watersheds through Tribal Alliances*, students told the stories of the watersheds and barrier removals through text, graphics, and their own original digital artworks and maps. The two sections of *Removing Barriers* can be downloaded in two parts at <https://sites.evergreen.edu/removingbarriers>.

The twelve chapters highlighted the Nisqually, Elwha, Skokomish, Chico, White Salmon, Nooksack, White, Deschutes, Chehalis, Klamath, and Snake watersheds, as well as background on dams, dikes, and culverts, and their effects on Pacific salmon, orcas, and coastal communities. The place-based stories of habitat restoration highlight how treaty rights and tribal sovereignty have become leading drivers of reversing damage wrought by settler colonialism, and how the healing of the watersheds and their estuaries is made possible by a process of decolonization in corresponding Indigenous homelands. The book's theme of "removing barriers" applies to the barriers to salmon runs, barriers between human beings and the natural world, barriers between Native and non-Native communities, and barriers to Indigenous self-determination.

I have three comments on the EIS, concerning climate change and sediment deposition, the 5th Avenue dam as a historical injustice, and questioning the need for a reflecting pool.

Climate change and sediment deposition

My first comment is on the relationship of climate change and sediment deposition, which I feel did not receive enough attention in the Deschutes Estuary – Capitol Lake EIS. The EIS acknowledges that climate change will affect the outcome of any estuary plans, not only through

- I-703-5 Thank you for your comment preface. See responses below to specific comments.
- I-703-1 Section 3.1.7 of EIS Supporting Chapter 3.0 mentions the potential impacts from climate change on Capitol Lake, and the numerical model and EIS incorporate climate change projections related to sea level rise and extreme river flows as part of the future conditions for all alternatives including the Hybrid Alternative (Section 3.1). It is acknowledged that "climate change" is not specifically mentioned in Section 4.1.6 about the long-term conditions under the Hybrid Alternative, but the hydrodynamic and sediment transport model results have already included the impact from climate changes such as increased flow rates, higher tidal levels, and a difference in sediment transport relative to existing conditions. Refer to the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5), which describes that the numerical model looked at the changes to water levels and sediment transport under scenarios that considered both existing conditions and relative sea level rise.

The Hybrid Alternative would no longer have tide gates because the design was updated to include a freshwater, groundwater-fed reflecting pool rather than a saltwater reflecting pool within the eastern portion of the North Basin. The freshwater reflecting pool would have a constant discharge to the estuary. The western portion of the North Basin would still serve the purpose of an estuary system.

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sea-level rise, but through increasing flood events, and intensifying sediment deposition. The EIS states, "Climate change will also affect rainfall patterns and river flow rates. Climate models predict that the Deschutes Watershed may experience a 10% to 30% increase in extreme 24-hour rainfall by mid-century. Similarly, future peak flow rates in the Deschutes River may increase; however, flow rate change projections are uncertain. Increased peak flow rates have the potential to cause more frequent and substantial flooding in the Capitol Lake Basin. Increased peak flow rates will also mobilize more sediment, which may lead to higher rates of lake bed elevation change" (3.6-7).

I-703-2 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-703-1

The Executive Summary (8) states that ecological functions would be the same under the Estuary and Hybrid alternatives, but at the same time documents that the Hybrid model would present greater challenges than the Estuary in sediment management. While the Estuary model would require recurring maintenance dredging every six years, the Hybrid model would require dredging every five years. In the Hybrid model, the majority of Capitol Lake would be retained as a reflecting pond, while the tidal flows would be limited to a small channel west of the retaining wall. As water "flows through the North Basin and out to Budd Inlet, it would accelerate along the reflecting pool wall. This increase in speed would scour sediment near the wall. Sediment eroded from the North Basin in this way would be transported into Budd Inlet, causing increased sedimentation. As a result, the Budd Inlet deposition for the Hybrid Alternative would be approximately 23% greater than the predicted deposition for the Estuary Alternative, although the patterns of change would be similar" (4.1.6.1).

Simply put, the springtime floodwater-driven sediments in the Hybrid model would be constricted within a narrower path, rushing toward Budd Inlet, and not allowed to slow down and spread out over the estuary. Intact estuaries have the effect of mitigating violent floodwater surges coming from inland rivers and streams, just as they mitigate storm surges coming from the sea. But if only a small portion of the estuary is permitted to regularly contain tidal flows, the estuary would not serve its full ecological function. Floodwaters would roar through a narrow chokepoint, gushing sediments toward the Port and Yacht Club.

The EIS takes climate change-influenced hydrodynamics into account in assessing the No Alternative scenario, in which the risk of dam failure "would be highest during back-to-back flood events, which will occur with increasing frequency given future climate projections" (4.1.2.1), but climate change is never mentioned when assessing the Hybrid alternative. Will we see increased or intensified flood events causing water to roar through the narrow "estuary" circumscribed in the Hybrid alternative? Temporarily lifting the tidal gates may allow some flood-borne sediments into the pool, but will not be as effective in flushing them out as in the regular tidal flows allowed by the Estuary alternative.

I-703-2

The Hybrid or "Dual Estuary-Lake Idea" (DELI) is being sold as a compromise containing the positive aspects of both a lake and an estuary. Through reading the EIS, I have come to believe that the Hybrid is the least attractive of the three alternatives, because it retains some of the negatives of the lake (requiring constant maintenance) and constricts the estuary into a narrow channel that fails to realize its potential for ecological restoration, sediment management, and flood control. The Hybrid alternative wants to have its cake and eat it too, but fails to fully achieve either goal, particularly given future weather extremes.

Imagine for a moment if the planners of Nisqually delta restoration had, instead of pulling out all the dikes, and opted for a "hybrid" model of continuing cattle grazing but opening tidal flows into a few narrow waterways. The Nisqually estuary restoration would not have been such a resounding success, and would not have been able to reverse the historical damage to

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I-703-2 ecosystem health. The 5th Avenue Dam and Capitol Lake have caused enormous damage to estuarine functions, and the estuary ecosystem should be restored as much as is technically possible, rather than opting for half-measures.

The 5th Avenue Dam as a historical injustice

My second comment, drawing from our students' research, is how damming the Deschutes River constituted a historical injustice toward Indigenous, Black, and immigrant communities that have lived in the estuary area. The "Deschutes: Restoring the Estuary" chapter of *Removing Barriers*, written by Griffin Hart and Tierra McCarty, can be downloaded [here](#). I have also attached the Book Introduction and Deschutes chapter to these comments to make them part of the official record.

Hart and McCarty reviewed the history of the estuary, including the displacements of the Squaxin village of Steh-Chass, a series of Chinatowns, the Little Hollywood shantytown (to make way for Capitol Lake), and contemporary homeless communities. They found that, through the displacement and razing of marginalized communities, the estuary has been historically transformed from a life-giving place of abundance to a place of ecological harms and racial / economic injustices. The construction of the 5th Avenue Dam stands as one of the most profound injustices, which it is high time to roll back. In the collection of his essays, *Tell the Truth*, Nisqually treaty rights leader Billy Frank Jr. supported "making a better home for all forms of life, including people... instead of accepting a steadily shrinking estuary pie, the tribes are working to make that pie bigger."

I-703-3 As a tribal rights advocate since 1978 and a resident of Olympia since 2005, I would like to strongly support the stance of the Squaxin Island and Nisqually tribes for the Estuary alternative. Under Article VI of the U.S. Constitution, the 1854 Treaty of Medicine Creek has the federal standing of the "Supreme Law of the Land," and served a promise that tribal nations would have access to fish and shellfish in their "usual and accustomed" harvesting places. The Deschutes estuary was one of those places, and the 1951 construction of the 5th Avenue Dam could be defined as a violation of that treaty. In fact, Billy Frank Jr. himself was among those violently arrested in a 1968 "Fish-In" at the 5th Avenue Dam, in a scene from the documentary [As Long as the Rivers Run](#).

The 1974 Boldt Decision reaffirmed the continuity of treaty rights, and subsequent tribal legal victories instituted state-tribal co-management of the fisheries, which has made Washington a national model of environmental collaboration. The 2007 Martinez Decision ordered that the state remove or repair harmful culverts, and the state is finally complying after years of intransigence. The 5th Avenue Dam is much larger and more harmful than any of the culverts covered in that "Culverts Decision." The state and local governments need to honor their continuing treaty obligations, remove both the dam and artificial lake, and not leave themselves open to future tribal litigation based on these strong legal precedents.

Why do we need a reflecting pool anyways?

I-703-4 Given this history, my third comment takes issue with the goals of the Managed Lake and Hybrid alternatives to maintain a pool to reflect the Capitol. In my value system, attempting to (as much as possible) restore an ecosystem that worked for thousands of years, and the honoring of our treaty obligations to the Indigenous nations who stewarded that ecological balance, takes precedence over views of a classical building constructed in 1928, or the colonial celebration of a state founded in 1888. The Estuary alternative would still reflect the building at

I-703-3 Thank you for your comments. The EIS acknowledges the social justice and equity concerns associated with maintaining a lake (see the Final EIS Summary and Section 4.14 of Final EIS Supporting Chapter 4.0). See also the Global Response for Cultural Resources on how tribal values and resources were considered in the EIS. Finally, tribal values and resources were incorporated into the process to select a Preferred Alternative as described in Section 1.12 of Final EIS Supporting Chapter 1.0, and the Preferred Alternative Identification (Attachment 21):

- Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
- Each alternative was also evaluated relative to cultural resources, which considered whether precontact landscapes would or would not be restored or preserved.
- The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.

I-703-4 This response acknowledges the commenter's position.

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least once a day at high tide, but no public funds would be spent on a reflective pool to serve as an aquatic mirror for a government symbol.

The successful partial restoration of the Nisqually Estuary in the Billy Frank Jr. Nisqually National Wildlife Refuge, through the collaboration of federal and tribal governments, has attracted far more public, media, and tourist interest than the Capitol building's reflection in Capitol Lake. Even a partially restored Deschutes estuary could become a crown jewel in a future Olympia ecodistrict, and be marketed to tourists similarly as "reflecting" Olympia's ecocultural values, which are also illustrated by the Procession of the Species, and recently by Joe Seymour's four Coast Salish salmon on the Views on Fifth building near the dam.

In their Deschutes chapter in *Removing Barriers*, Hart and McCarty observe, "Through collaborative partnerships between local organizations and tribal nations...we have seen a positive impact on the health of the Deschutes River ecosystem. However, by reviewing the work that has been done on the dam removals on the Elwha and dike removal on the Nisqually, it is easy to come to a realization that we need to remove the 5th Avenue Dam to help remove barriers to salmon runs on the Deschutes.When the Deschutes Estuary is turned back into a mudflat, the saltwater can flow in and out, and it could again become a functional habitat for salmon and other aquatic species. The Deschutes Watershed and estuary would benefit from the removal of the 5th Avenue Dam and the contaminants...."

Hart and McCarty conclude, "To address the many facets of restoration, we can help make the estuary a beautiful place to live for everyone who works and lives in Olympia, and all of the Steh-Chass watershed area. In so doing, we could begin to reverse the displacement of communities and waters in Olympia, and allow them to move freely without constraint. Following the last 140 years of alteration, the Deschutes River and the vestigial remnants of its historic estuary will become an example of contemporary approaches to environmental justice and ecosystem restoration."

When I attended the 2018 Steh-Chass Festival in Heritage Park, I was struck by the synchronicity of Native cultural revitalization, ecological restoration of the watershed, and the potential revival of downtown Olympia. In my research and advocacy, I have seen that environmental and climate resilience will not be successfully implemented only from above, by the federal government or United Nations, but from below through a patchwork of local watershed-based solutions from below. I urge that you choose the Estuary alternative to contribute one patch to the quilt of resilient solutions in the Pacific Northwest. Visionary leadership is needed to reverse the damage of the past, and build a more hopeful and resilient future in collaboration with the natural world and our fellow human beings.

Sincerely,



Dr. Zoltán Grossman

I-703-4

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COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Comment on Capitol Lake/Deschutes Estuary EIS

Subject: **Comment on Capitol Lake/Deschutes Estuary EIS**
 From: Doug & Lillian Ryan <dfrimr@earthlink.net>
 To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Date: 2021-08-28 15:11



Comments on Capitol Lake/Deschutes Estuary EIS 8/28/21

I have read the Draft Capitol Lake/Deschutes Estuary Environmental Impact Statement, and I support the option for restoring the Deschutes Estuary.

There are a number of reasons why I think the Estuary option is the best one:

Restoring the Estuary would most effectively address the immediate environmental problems posed by the current lake, namely sediment accumulating in the lake, low summer oxygen levels in lake water, and invasive exotic aquatic species in the lake.

The Estuary restoration would cost taxpayers less in the long-run than either of the other options.

By mingling salt and freshwater, the Estuary would create habitat needed by anadromous fish, like salmon and trout, both for their returning spawning runs and for the survival of rearing young fish swimming out to the ocean.

By creating vital mudflat habitat, the Estuary would increase the amount of estuarine organisms that are food for important fish such as salmon.

Increasing salmon would help restore other struggling Puget Sound species that depend on them for food, especially the endangered J pod of southern orcas.

Restoring the mile-long Deschutes Estuary, the southern-most arm of Puget Sound, would be an important step toward the goal of Washington State to bring back Puget Sound as a functioning ecosystem.

Restoring the Estuary would bring back a significant spiritual and cultural ecosystem that has been revered by the indigenous people who have lived here for many centuries.

I am skeptical that the other options, both of which include a lake, can effectively correct the current problems of Capitol Lake. I especially think that invasive exotic species will continue to plague any options that include a lake, and so long as invasive species are present, I doubt that recreational use will be possible, because of the high risk that water-contact recreation would pose of spreading the invasive species to other waters bodies.

In summary, considering the impacts of the three options in the study, I think that best option is to restore the Deschutes Estuary as a functioning ecosystem. In many cases elsewhere, restoration of degraded ecosystems, while they may be technically possible, are often not possible because undoing the damage is too expensive. The Deschutes Estuary offers the State of Washington the truly rare opportunity to both gain the benefits of bringing back a naturally functioning ecosystem and at the same time actually save taxpayers money. Common sense says that our community can't afford to miss this unusually attractive opportunity.

Douglas F. Ryan
 3620 25th Way SE
 Olympia, WA

I-704-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-704-1

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	COMMENT	RESPONSE
I-705-1	I think we either go with a managed lake or estuary alternative. I don't like the ugly retaining wall in the hybrid model. I am not a proponent of mudflats due to the smell, especially so close in proximity to downtown Olympia. You may need to convince citizens of that part.	I-705-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.
I-705-2	My comment today is just to suggest that you consider a round-about on the new 5th Ave bridge. I don't know if you plan to have a traffic light where traffic turns left from 5th Ave on to Deschutes Parkway, but I'm curious if the rise in elevation might inadvertently create a potential for more accidents if there is no traffic light or round-about.	I-705-2 The new 5th Avenue Bridge under the Estuary and Hybrid Alternatives includes a roundabout at its west-end intersection with Deschutes Parkway SW and Olympic Way. This would allow direct vehicle movements between Deschutes Parkway SW and Olympic Way that are not accommodated by the existing 5th Avenue Bridge. This proposed roadway configuration has been developed in coordination with the City of Olympia, and the new 5th Avenue Bridge is proposed as a low-trestle design to match grade of its east and west connections. Concepts would be further refined during the design and permitting phase following completion of the Final EIS. Also see the Global Response for Transportation.

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	<p>I can't believe that we are still having this conversation, when the solution has been so obvious for so long. We all know that the dam would never ever be built in the current climate. Washington state policies would never allow the dam to be built, yet for some reason we are still wondering whether it should remain in place. One thing the DEIS doesn't address is - what practical function does the dam provide? While some dams provide electricity, flood-protection, or a reservoir for water, this dam provides nothing but an environmental crisis.</p>	<p>I-706-1 This comment is a statement and does not affect the environmental analysis in the EIS.</p>
<p>I-706-1</p>	<p>The CLAMP process provided ample evidence on the benefits of estuary restoration, and recommended dam removal. Sadly, this study was ignored, and we find ourselves wasting millions of dollars on yet another study. As if that isn't enough, the DEIS is terribly flawed and shockingly biased. Truly, an astonishing disappointment. The conclusions are not written objectively, as an analysis of this nature should be, but are rather misconstrued by authors who clearly favor a managed Lake, or are simply resistant to change.</p>	<p>I-706-2 Please see the Global Responses to water quality comments regarding the study area.</p> <p>I-706-3 Please see the Global Responses to water quality comments regarding the study area.</p> <p>I-706-4 Please see the Global Responses to water quality comments regarding the comparison of Capitol Lake to other lakes in Thurston County.</p> <p>I-706-5 Please see the Global Responses to water quality comments. Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7) have been revised to include a regulatory compliance section that describes the ability of the alternatives to meet water quality standards and TMDL allocations.</p>
	<p>I am confident that you are receiving ample notes from various environmental organizations that outline the myriad flaws with the DEIS. You have a lot of work to do over the next year to make the necessary corrections. You need to work harder to conduct a thorough analysis and create a document that is objective in its findings.</p>	<p>Please also see responses to the comments submitted by DERT, LOTT, and the City of Olympia.</p>
<p>I-706-2</p>	<p>You have failed in many areas, some so obvious that it really calls into question the integrity and competence of your team. How did you fail to account for East Bay</p>	
<p>I-706-3</p>	<p>when Ecology's TMDL demonstrates that the dam has an even larger impact on East Bay than West? This is an astounding oversight. Expand the area to include all of Budd Inlet. Stop comparing the reflecting pool to other lakes in the region - it is NOT</p>	
<p>I-706-4</p>	<p>A LAKE, SO YOU CAN NOT COMPARE IT TO OTHER LAKES.</p>	
<p>I-706-5</p>	<p>The authors make audacious claims that water quality standards could be met under a managed lake alternative and work hard to minimize the improvements to water quality under the estuary alternative. The authors state that water quality is improving in the reflecting pool, despite public perception. This isn't just a subjective comment, it is a bold-faced lie that contradicts every study I have ever read on the Deschutes Watershed.</p>	
	<p>There are many organizations sending detailed comments, including the non-profit that I work for - the Deschutes Estuary Restoration Team (DERT). Please take these comments seriously and do a better job. LOTT and the Olympia City Council support full estuary restoration, as do many other leaders, representatives, businesses, and community members. Let's do the right thing here, this fight is getting tired.</p>	

I-707

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I-707-1 | Maintain the lake as it is. The environmental damage done decades ago by installing the dam and the subsequent loss of the tidelands/ estuary is too complicated to undo and the current visual appeal would be seriously degraded by tidelands at the foot of the Capitol. Use funds to mitigate tideland damage in other areas. The recreational and aesthetic opportunities of a lake within a city center are a unique and desirable feature for the city of Olympia.

I-707-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-708

COMMENT

RESPONSE

8/30/2021 Roundcube Webmail :: Comment on the Draft EIS for the "Capitol Lake-Deschutes Estuary project"

Subject: **Comment on the Draft EIS for the "Capitol Lake-Deschutes Estuary project"**

From: Gary Franklin <doctwaiku@gmail.com>

To: <comment@capitolakedeschutesestuaryeis.org>

Date: 2021-08-28 16:00



There are fundamental flaws in the current EIS, and the assumptions underpinning the analysis. I was the representative for the South Capitol Neighborhood Association when the earlier analysis on these issues occurred. This initial Capitol Lake Adaptive Management Plan was initially developed in 1999-2001, and contractors were engaged to address these issues by the General Administration agency in approximately 2009 with findings presented to multiple stakeholders at that time. I believe we had met for 1-2 days, with multiple notes being taken on flip charts by the contractors and GA staff. The final report on that stakeholder engagement effort can be found here:

<https://des.wa.gov/sites/default/files/public/documents/About/CapitolLake/21-CapitolLakeAlternativesAnalysisFinalReportJuly200.pdf?e=21277>

My impression of that process was that both the contractors for GA and the GA staff were definitely biased towards what they perceived to be an environmentally advantageous alternative-either the estuary or the hybrid. Multiple issues raised by myself and others at that time were not considered or even properly documented:

1. The historical nature of the inclusion of the Capitol lake in the original design for the State capitol campus by Wilder and White and their landscape architects the Olmstead Bros was never discussed in any detail at all. Historical archives documenting the long standing nature of the original goal of the planning of the Capitol Campus to include a reflecting pond for the capitol buildings on the bluff has received no weight in the 2009 or current analyses. This would be like taking out the reflecting pond for the Washington Monument in Washington, DC and returning the Potomac river to an estuary. Also my understanding is that the Capitol Campus is on the National Registry of Historical places (<https://catalog.archives.gov/id/75613517>). The request to place the Capitol campus buildings and surrounding grounds and Capitol lake was submitted in 1979. Since the Capitol Lake was part of the original design of the Capitol Campus, I believe the EIS should have analyzed the historical impact of the current alternatives, not just the environmental impacts.

2. There was not, and is not today in the current EIS, adequate assessment of recreational and place meaning of Capitol Lake for the citizens of WA State. I had recommended in the 2009 CLAMP deliberations, and reiterate now, that there should be a formal assessment via formal survey methods of the recreational use of the lake and the meaning of the lake to those who use it either regularly or who visit the lake from all over the state. Yes, there are place signs all around the lake, as there were in 2009, "explaining" the alternatives. But there is no request for or emphasis on the meaning of the lake to those who use the lake. I recommended conducting a representative survey of lake users over a period of time, including all seasons, to gauge an accurate view of the lake's use and meaning to WA citizens. This survey would cost a fraction of what was paid to the contractors on the CLAMP project in 2009. Many stakeholders would be very interested in the results of such a survey. In addition to the pleasure derived from the lake, the draw of the Capitol Campus and the Lake has also likely benefited the economy of Olympia and environs. Again this has not been addressed at all.

3. There is another fundamental flaw in the way the alternatives are presented. There is no alternative to maintain the status quo of the lake PLUS funding ongoing dredging and perhaps other important needed work. The managed lake alternative only includes returning the middle and southern basin to estuary. There is no alternative to maintain the lake states of the entire lake and to conduct dredging as needed. In addition to this, I believe the cost estimates in the EIS on the different alternatives dramatically overestimate the dredging costs and underestimate toe costs of the alternatives.

4. There is no assessment of what may occur from return to an estuary from odors of dead fish, or what may occur from an increase in mosquito populations potentially carrying such things as West Nile Virus. Again, some of these issues were raised in 2009, but were not documented nor carried forward to the current EIS as potential health risks.

Sincerely yours,

Gary M Franklin, MD, MPH
1825 Water St
Olympia, WA
98501

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I-708-1 The Cultural Resources Discipline Report (Attachment 13) of the EIS includes a detailed description of the Historic Development Context of Capitol Lake, including the work of Wilder & White and the Olmsted Brothers. The Des Chutes Basin Project was recommended as a historic district, in part due to its association with the pattern of events described by this comment. A formal determination of eligibility has since been received from the State Historic Preservation Officer and Washington State Department of Archaeology and Historic Preservation, and it was found not to be eligible. The Final EIS has been updated to reflect this determination.

See the Global Response for Cultural Resources related to the comments on the Capitol Campus Historic District.

I-708-2 As described in Section 3.8 of EIS Supporting Chapter 3.0, a park user survey was conducted at parks adjacent to Capitol Lake during high usage periods in the summer of 2019 to gauge activities park users currently engage in, and the activities they are likely to participate in the future, among other information. Similar input was also collected from the Community Sounding Board.

It is acknowledged that the survey was based on a simple survey methodology. This degree of simplification is consistent with the overall resolution of a recreational analysis in support of a SEPA EIS. See Section 4.22 and 4.2.2.1 of the Land Use, Shorelines, and Recreation Discipline Report (Attachment 11) for more information.

With regard to the economic value of Capitol Lake and how the project could affect the local economy, please see Section 4.14 of EIS Supporting Chapter 4.0.

I-708-3 As described in EIS Supporting Chapter 2.0, Section 2.1, the action alternatives were developed through a Measurable Evaluation Process to identify optimized versions of the Managed Lake, Estuary, and Hybrid Alternatives that would best achieve project goals. Through this process, Enterprise Services determined that maintenance dredging required to maintain the middle and south basins in a lake configuration were less environmentally and economically sustainable compared to other approaches to sediment management (see Attachment 19: Concepts Screened through the Measurable Evaluation Process). Conducting only dredging also would not achieve the project goals relative to improved water quality, restored recreation or enhanced ecological functions.

I-708

COMMENT

RESPONSE

- I-708-4 In response to comments received on the Draft EIS, additional detailed information regarding the planning-level cost estimates were posted to the project website and are available for the public to review.

Please also note that the planning-level costs were developed by civil, environmental, and coastal engineers on the EIS Project Team and are considered a Class 4 estimate, by standards established by the Association for the Advancement of Cost Engineering based on the preliminary nature of the design elements in this EIS process. They reflect an accuracy variation of -25% to +35%. The cost estimates would be further refined in the design and permitting phase, as design progresses.
- I-708-5 In response to this comment, Section 5.7.4 and 5.7.5 of Final EIS Supporting Chapter 5.0 have been revised to acknowledge that freshwater fish extirpated as a result of a transition to saltwater would decompose within the basin or be flushed from the basin as a result of tidal action. Any odor impacts would be temporary.

See response to Comment I-491-2 regarding mosquito vector risks.

I-709

COMMENT

RESPONSE

I-709-1

I strongly support removal of the 5th Ave dam and restoration of the Deschutes Estuary. I have followed this project for years and the only thing that has changed is the Capitol Lake reservoir continues to fill with sediment and the water quality in the reservoir continues to degrade.

Several studies clearly show that Deschutes Estuary restoration is the most economical long term solution as well as the best way to improve water quality and the habitat for salmon and other threatened endangered species.

Please move forward with recommending Deschutes Estuary restoration so I can see this happen in my lifetime.

More than enough time has passed. It is time to act by restoring Deschutes Estuary. I wrote the following comments in 2010. Please demonstrate the effectiveness of government by moving forward with the estuary restoration process.

Dear polisci committee members,

- I-709-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-709

COMMENT

RESPONSE

Please excuse the long post. There are several facets affecting Deschutes Estuary restoration that I discuss below. I am trying to be brief so this email jumps among several points without much segue.

I have followed the CLAMP process for many years, attended many meetings and ALL the CLAMP study component presentations by the consultants directly to CLAMP and the evening public presentations that followed.

I have to say the CLAMP process was the most open and inclusive public process I have witnessed. There was ample opportunity for the public to add their comments at the CLAMP meetings, regardless of validity. There were several public presentations of the Deschutes Estuary Feasibility Study (DEFS) results as each study component was completed. Formal public testimony as well as informal Q&A for the public occurred.

Ninety seven percent of the people I speak to about this decision favor Deschutes Estuary restoration. I have not surveyed Ron Rants who developed the buildings by the port and farmers market. I have not surveyed the vocal minority of yacht owners or yacht salespeople who are now subsidized by WA State taxpayers via the 5th Ave. dam which, as Bob J. mentioned, serves as a sediment trap upstream from their marinas.

I personally know members of the Olympia Yacht Club (OYC) who favor Deschutes Estuary restoration. On the other hand, the OYC board is looking out for their own financial interests which lead them to favor retaining the dam. The lake is immaterial to their concerns.

There are others in Olympia who favor retaining Capitol Lake reservoir purely based on their own personal aesthetic preference.

Over the last few years, informal polls in the Olympian, typically among local residents, show a nearly 50:50 split lake vs. Deschutes Estuary restoration.

I agree with Bob Jacobs that 10 years ago, general public opinion was more in favor of retaining Capital Lake than it is now, among OLYMPIA area residents.

The reason behind this shift is a growing awareness among the general public of the huge cost of maintaining Capitol Lake reservoir as well as the worsening health of Puget Sound.

Ongoing public education campaigns are a must if Puget Sound is to be protected. The general public must see the benefit of spending their tax dollars on protecting Puget Sound and the environment around them or the legislature will continue to put environmental concerns on the back burner, underfunded and under supported.

I-709-1

I-709

COMMENT

RESPONSE

We all know it will take another 5-10 years for the Deschutes Estuary restoration process to succeed. In 5-10 years, kids now aged 8-13 will be eligible to vote. Their influence may be key in affecting future legislators desire to protect Puget Sound by restoring Deschutes Estuary. This means we need a significant educational component focusing on school age youth. During our enviro lobby day meeting with Representative Kathy Haigh, D-35th, she vehemently expressed this need to educate our youth for these very reasons.

It is pertinent to know that CLAMP consultants said studies show that, in general, the majority of US citizens favor protecting our environment and are willing to spend some money to do so, even if they will never visit the area they are protecting. The implication for us is that, outside of Olympia, a majority of state residents (taxpayers) will probably favor estuary restoration as the best, most economical and environmentally sound choice for the future of Capitol Campus.

Deschutes Estuary restoration involves state land only. No private holdings need to be acquired to make this happen. Federally money is likely available for estuary restoration but not maintaining Capitol Lake by dredging. Federal money will act as an economic stimulus to the Olympia area as the dam is removed, a new wider, safer bridge is built across the newly reclaimed Deschutes Estuary, pedestrian walkways are enhanced, etc.

As mentioned, the science is clear in that Deschutes Estuary restoration will result in significantly greater water quality, wildlife habitat, benefit for at-risk species, etc., as compared to maintaing Capitol Lake as a reservoir.

It is relevant to note that Budd Inlet (the portion of South Puget Sound adjacent to Capitol Lake/5th Ave. dam), has some of the worst water quality of any of the estuaries tested in WA State based on scientific studies by Ecology.

Scientific modeling indicates that Capitol Lake/5th Ave. dam causes harm to the water quality in Budd Inlet, particularly regarding dissolved oxygen. I will defer specifics to our science officer, Doug.

I agree it is important to have a local organization promoting Deschutes Estuary Restoration. I am a board member of Deschutes Estuary Restoration Team (DERT) which will serve in that role. However, it is incredibly important for groups like People for Puget Sound to play a significant role promoting Deschutes Estuary restoration as part of our plan to promote restoration and protection of wetlands around Puget Sound.

I-709-1

I-709

COMMENT

RESPONSE

I-709-1

Ideally, a coalition of groups favoring Puget Sound restoration and protection will form to help move this process through the political arena.

A few years ago, an American Rivers <<http://www.americanrivers.org/>> representative publicly testified on behalf of that organization in support of Deschutes Estuary restoration. They have expressed ongoing support to me.

I also contacted Restore Americas Estuaries <<https://www.estuaries.org/>>, PugetSoundKeepers Alliance <<http://www.pugetsoundkeeper.org/>> and a few other organizations in the past, that may help garner their respective member support for this project.

Thanks for letting me share my thoughts.

Best,

Paul Allen

I-710

COMMENT

RESPONSE

I-710-1

Restoring the estuary is the best alternative because it provides the best habitat for our native wildlife, an educational resource for science and history and a chance for all to witness the natural beauty of our state. What better way to frame our state capital?

I-710-1

Please see the Global Response for the Preferred Alternative Identification Process.

I-711

COMMENT

RESPONSE

I-711-1

Remove the dam. Let nature take its course. Have an annual community review of status to generate recommendations.

I-711-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-712

COMMENT

RESPONSE

I-712-1 | Tear down the dam and restore the site back into it's natural state. Let the salmon swim freely. Stop holding nature captive with colonizers ideals of land management.
Even better yet, give the land back to the tribes.

I-712-1 | Please see the Global Response for the Preferred Alternative Identification Process.

I-713

COMMENT

RESPONSE

I-713-1 | Restore Capitol Lake to its original beautiful state - expensive yes - but a real treasure for this city & its visitors!

I-713-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-714

COMMENT

RESPONSE

I-714-1 | As an Indigenous woman and marine ecologist living in Olympia, I support removal of the dam, and restoration of a healthy, free-flowing Deschutes River. I agree that:
"Estuary habitat conditions reestablished by dam removal would result in substantial beneficial effects for salmon, other anadromous species, and marine fish. Due to historical declines, estuary habitat is a scarce and valued habitat... as compared to freshwater ponds and lakes, which remain relatively abundant" (DEIS, 4-68).
"Tribal populations would experience disproportionately adverse impacts from the managed lake alternative, raising environmental justice concerns. Removal of the 5th Ave Dam under the Estuary Alternative... would have beneficial effects for ecological, cultural, heritage, spiritual, and educational value for tribes" (DEIS, 19).

I-714-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-714-2 | See response to Comment T-2-23 regarding the EIS Project Team's coordination with the Squaxin Island Tribe.
For other aspects of this comment, see the Global Response for Cultural Resources.
I-714-3 | Thank you for your comment. Please see the Global Responses to water quality comments.
I-714-4 | The Project Area as defined in Section 1.4 and Figure 1.1.1 of EIS Supporting Chapter 1.0 generally describes the geographical scope of the project, to include the 260-acre Capitol Lake Basin that the Department of Enterprise Services manages under long-term lease agreement, and West Bay, where project actions would occur under some of the

I-714

COMMENT

RESPONSE

<p>I-714-1</p>	<p>"Aquatic invasive species that are intolerant to saltwater (e.g., New Zealand mudsnail, Eurasian watermilfoil, curly pondweed) would be largely eradicated from the area with the transition from freshwater to saltwater" (4-69).</p> <p>When combining the costs of construction plus 30-years of management, the Estuary alternative is the most cost effective alternative, while a managed lake is the most expensive alternative by a significant margin.</p>	<p>alternatives. Discipline specific study areas differ from the Project Area to include areas that would be impacted (beneficially or adversely) by the project alternatives. Study areas are described in EIS Supporting Chapter 3.0, some of which extend north to Boston Harbor and are further defined in the attached Discipline Reports.</p>
<p>I-714-2</p>	<p>However, DES and the consultant team did not speak with many state and local agencies with extensive knowledge of the project area, but instead expects the relevant agencies to respond to the DEIS. This is an inefficient and unprofessional approach. DES and the consultant team apparently did not speak with staff at the Squaxin Tribe regarding cultural resources and historic uses of the Deschutes River and Estuary.</p> <p>There is a lack of attention in the Executive Summary given to Tribal cultural resources such as the Steh-Chass, the indigenous name for the lower Deschutes River and estuary, the effect being to privilege the recent landscape architecture of colonial settlers over millennia of Indigenous cultural landscapes.</p>	<p>I-714-5 See the Global Response for Air Quality & Odor related to the evaluation of carbon sequestration potential under the alternatives.</p>
<p>I-714-3</p>	<p>There appears to be significant picking and choosing of data to support an apparent outcome. For instance, the DEIS notes that Thurston County had ongoing water quality data from 2004-2014, but for purposes of the DEIS, only water quality data from 2010 to 2014 was used because there was a "trend" in that five-year period.</p> <p>The DEIS acknowledges that the "Lake" does not meet the regulatory standards for a Lake, and is therefore subject to water quality standards for rivers. Yet the DEIS repeatedly compares data from Capitol "Lake" to other lakes in the region. Why? Similarly, water quality in Budd Inlet is compared with others in South Sound, despite the fact that none of them have a freshwater river flowing into them.</p>	
<p>I-714-4</p>	<p>The project area includes only West Bay, ignoring the impacts of the 5th Ave Dam on East Bay and the rest of Budd Inlet. The project area must be expanded to reach Boston Harbor.</p>	
<p>I-714-5</p>	<p>The DEIS has very little discussion of the impacts of climate change on the project area and the potential for climate change mitigation under each alternative. Estuaries are very effective at sequestering carbon and this value should be quantified in the study.</p>	

I-715

COMMENT

RESPONSE

August 28, 202

Capitol Lake Deschutes Estuary

Subject: Public Comment

Greetings,

I have lived in Olympia Washington and been a homeowner here for almost 30 years. One of the beautiful scenes that drew me to this area was the lovely reflection of the Capitol in the lake. I have watched it become a stagnant, unusable lake that was once a place for friends, family, and visitors to come together for walking, picnics, boating, and even, at one time, swimming. Do not let the original idea of a reflecting pond, which will surely draw locals as well as tourists to the downtown area, die.

That being said, the desire to return the lake, at least partially, to its original state as an estuary is environmentally sound. That is why I am in favor of the DELI concept (Dual Estuary/Lake Idea) for fixing Capitol Lake, rather than the All Lake or All Estuary options, which, based on Decision Durability in the DEIS, could most likely bring an end to the argument on both sides of this issue. It is the most reasonable compromise being offered and could satisfy the desire for the community to have a lovely fresh-water place to gather as well as the need for our eco-conscious community to see the restoration of the estuary. Please be open to this option which takes all concerns into account.

Regards,

Kristin Voth

434 Cushing St. NW

Olympia WA 98502

{360}790-2388

I-715-1

I-715-1 Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-716

COMMENT

RESPONSE

I-716-1

I am in support of estuary restoration. What was done in Elwa is model for what could occur in Olympia. It could create more diverse habitat with more birds, vegetation and change with tides.

I-716-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-717

COMMENT

RESPONSE

I-717-1

I am a city of Olympia resident and I live roughly 1/4 of a mile from Capitol Lake on the Deschutes Parkway side. I use Marathon Park and the Capitol Lake campus for exercise multiple times a week and I have done so for 15+ years. In the past two years, I have seen evidence of dilapidated RVs and cars draining fluids and sewage onto the sidewalk or into the lake. The amount of trash and human waste, including medical waste, around the Deschutes Parkway encampment is dangerous and unacceptable. Estuary or lake, clear the encampment and prevent overnight parking along Deschutes Parkway to uphold public access and safety and to maintain our treaty obligations to neighboring tribes who are also stakeholders.

I-717-1

Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-718

COMMENT

RESPONSE

I-718-1

I doubt my words matter, as your minds already seem made up. Although costly, I am strongly in favor of the managed lake option. The lake is a beautiful part of the downtown area.

I-718-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-718-2

Part of this management needs to include managing the substantial number of vagrants who seem to think it's ok to pollute the land and water of our once beautiful city. I get that folks can get down on their luck, but that in no way excuses the dirty needles, general litter, and pee/turds released into our waterways through state-owned channels. CLEAN THIS CRAP UP, REGARDLESS OF WHICH OPTION YOU CHOOSE!

I-718-2

Regarding concerns with unauthorized camping and public safety, see the Global Response for Land Management.

I-719	COMMENT	RESPONSE
I-719-1	1st choice: Managed lake...least expensive. There are lots of other things to spend state money on (homelessness, renewable energy, etc.). 2nd choice: Hybrid: retains the visual of the lake.	I-719-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-720	COMMENT	RESPONSE
I-720-1	Hybrid plan makes the most sense. Having a smaller pool would be much easier to maintain. Nature's tidal flushing is necessary to keep the marine basin's habit balanced.	I-720-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-721	COMMENT	RESPONSE
I-721-1	Capitol Lake should be returned to its nature as an estuary. As a recreational lake, it's a flop; as a reflecting pool for the Capitol, it's a cruel joke on the residents of the homeless encampment—it takes a special kind of cruelty to grandly present the Capitol dome's shimmering to people living under tarps. Any kind of artificial lake, either the present mudhole or the slimmed-down DELI version, impacts wildlife adversely and burdens the city with maintenance costs. An estuary would promote wildlife, largely maintain itself, and provide as many scenic and recreational opportunities as an artificial lake.	I-721-1 Please see the Global Response for the Preferred Alternative Identification Process.
I-722	COMMENT	RESPONSE
I-722-1	I strongly support implementation of the estuary alternative and the removal of the dam creating Capitol Lake.	I-722-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-723

	COMMENT	RESPONSE
	My concerns regarding the alternative plan selection process:	
I-723-1	1. The choice should take into account impacts on ALL of Budd Inlet, not just the existing lake and West Bay	I-723-1 Comment noted. The study area for each environmental discipline varies and, where appropriate, includes a larger geographic area to capture the range of potential impacts and benefits in the analysis. Discipline-specific study areas are described in EIS Supporting Chapter 3.0. This allows Enterprise Services to understand the potential scope of changes from the project alternatives, and consider this in the decision-making process relative to the ability of the alternatives to meet project goals, or to result in other environmental impacts or benefits.
I-723-2	2. All agencies and organizations, public and private, (e.g. DNR, the Squaxin Tribe) with relevant knowledge and experience should be consulted - this was not implemented in the DEIS and thereby limits its scope. Also, mistakes, such as including the impact of dredging for Panamax ships, need to be corrected - Port of Olympia Commissioners were taken aback when this section of the DEIS was read to them at a public hearing. They had never requested such dredging. This error calls into question the reliability of the DEIS.	I-723-2 Final EIS Supporting Chapter 8.0 describes engagement activities, including the Squaxin Island Tribe and Washington State Department of Natural Resources. Consistent with State Environmental Policy Act requirements, Enterprise Services consulted with tribes, state and federal agencies, local jurisdictions, and stakeholders throughout development of the EIS. Regarding Panamax vessels, the Navigation Discipline Report (Attachment 6) has been revised to correct this error, which came from early consultation with the Port of Olympia about future operational needs.
I-723-3	3. Restoration of all fish, bird, mammal and plant species of the naturally occurring ecosystem of the Deschutes River and Estuary must be the number one priority value and goal in the selection of an alternative plan. No compromises should be made in this perilous time of mass extinctions and climate change.	
I-723-4	4. The restoration of indigenous cultural rights must also be a top priority, over any other historical "rights" listed in the DEIS.	
I-723-5	5. Capitol Lake is not a natural lake and should not be evaluated as such.	I-723-3 Comment noted. Please see the Preferred Alternative Identification Process Global Response.
I-723-6	6. Aesthetics are another priority. The DEIS points out how an 18' wall near Marathon Park in the Hybrid alternative plan would not harmonize with the surroundings. Being able to view the numerous and myriad wildlife that would return to a restored estuary (e.g. multiple species of birds, seals, otters, salmon) would be a boon to those who enjoy the two parks, who picnic, rest, run and walk there. It also has the potential to contribute to our local economy, because it could function as a viable tourist attraction.	I-723-4 The purpose of an EIS is to identify probable significant impacts. See the Global Response for the Preferred Alternative Identification Process for how Tribal Resources were considered in the process to identify a Preferred Alternative, and a description of the process that Enterprise Services followed to solicit feedback from the Squaxin Island Tribe (and other stakeholders).
I-723-7	7. The Estuary alternative plan is the most cost-effective. It makes sense to choose it for this reason, especially since securing funds for modifications of any sort may be challenging.	I-723-5 The SEPA process requires that the EIS evaluate changes to existing conditions, regardless of whether the existing conditions are natural or anthropogenic. Importantly, the Water Quality Discipline Report describes that the detention time for water in the Capitol Lake Basin range from 0.6-7.9 days. In Washington State, detention time is used to define the difference between lakes and rivers. A waterbody with a mean detention time greater than 15 days is treated as a lake for use designation. Therefore, by definition, Capitol Lake is classified as a river and held to the applicable water quality criteria.
I-723-8	8. DoE should align itself with Washington state congressional leaders who strongly advocate for restoring and protecting Puget Sound and its ecosystems. CD-10 Rep. Marilyn Strickland co-chairs the Puget Sound Recovery Caucus. She and Rep. Derek Kilmer were able to get the Puget SOS Act of 2021 passed, which [taken from Rep. Strickland's website]: "would enhance the federal government's role and investment in Puget Sound, the nation's largest estuary by volume, which is vital to Washington state's identity and economic engine." The DoE must factor in the fact that the Deschutes River and Estuary are inextricably linked to ALL of Puget Sound. This is an ecologically sound and rational approach.	I-723-6 For other analyses, like Land Use, Shorelines and Recreation, the waterbody current acts more like a lake and so it is more appropriate to describe it in that context. Comment noted.

I-723

COMMENT

RESPONSE

- I-723-7 Thank you for your comment. Economic sustainability was a primary consideration in the identification of the Preferred Alternative, as outlined in Attachment 21 of the Final EIS.
- I-723-8 Comment noted. The commenter does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIS.

I-724

COMMENT

RESPONSE

I-724-1 I commend the individuals responsible for creating the draft EIS. The document is very well done, clear and thorough.

I-724-1 After reviewing the alternatives, my first choice is the estuary option. I would also be supportive of the hybrid option. I do not support the managed lake option.

I-724-2 One additional comment I have that is not discussed at all in the document is that a homeless tent camp has existed now for many years along the northwest side of the lake, either within or just outside the project area. For any of these options to be successful environmentally, recreationally, and eshtetically, this homeless camp must be addressed. The City needs to relocate it outside the project area, or take viable steps to provide suitable housing to the homeless so the camp does not return post project. While this issue may not rightfully be part of an EIS, it is part of the overall project success so I would like to know how the city intends to address this camp.

Thank you for the opportunity to comment.

- I-724-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
- I-724-2 Regarding concerns with unauthorized camping, see the Global Response for Land Management.

I-725

COMMENT

RESPONSE

- I-725-1 I am in favor of the dual Estuary/Lake Idea
- I-725-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-726

	COMMENT	RESPONSE
I-726-1	I agree with the EIS that the estuary alternative would significantly improve habitat and water quality conditions, is the most cost effective alternative, and would greatly reduce or eradicate the invasive species that have plagued the lower Deschutes River basin for decades. The presence of the New Zealand mud snails is more than enough reason to reject the "lake" alternative. It is time to remove the dam and allow the land to heal.	I-726-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-727

	COMMENT	RESPONSE
I-727-1	I favor the hybrid alternative. Here are my comments. From the Executive Summary page 12, "Despite what has been perceived to be worsening conditions in Capitol Lake, monitoring data indicate that water quality conditions have actually been improving in the lake and are relatively good in terms of physical and chemical characteristics important to aquatic life. " This shows that a primary reason for an estuary (to improve water quality that violates state water standards) is not as severe as previously thought.	I-727-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-727-2	Further I only saw a minor reference to the water quality of the Deschutes River upstream to its source from the project area. From the Executive Summary page 23 "For example, if the TMDL goal for total phosphorus in the Deschutes River is achieved, it would result in a substantive reduction in nutrients in the Project Area, which would reduce algal blooms and improve dissolved oxygen concentrations." I understand that this is not part of the project area, but no plan or methodology to achieve the TMDL leaves out a huge factor in water quality at the mouth. This is a major gap.	I-727-2 Thank you for your comment. Please see the Global Responses for Water Quality. I-727-3 Please see the Global Response for the Hybrid Alternative, which has been updated to include a freshwater reflecting pool. Please see Land Use, Shorelines, and Recreation Global Response for discussion of swimming. Adaptive management plan(s) are developed during design and permitting to specifically address the selected alternative and its needs relative to meeting agency requirements and performance standards.
I-727-3	Given that water quality is not the driving factor it once was, other cultural, environmental, and popular public use amenities become more prominent. I understand that tribes and others are in favor of the estuary. I understand that the estuary is likely to improve the ecological conditions at the mouth. The hybrid alternative fulfills both of those while keeping a reflecting pool for the Capitol. The additional amenities are also significant. There would be a way to walk around the lake portion increasing hiking options which would be attractive to many. It would have a relatively calm and stable water level for appropriate water craft. It would provide a new and interesting landscape view of the entire area. It would draw locals and tourists in to visit and linger. And it would eliminate flooding In Heritage Park and along Powerhouse Rd. if not also on Water St.	I-727-4 Comment noted. Please see Attachment 21 of the Final EIS for a description of the process to identify a Preferred Alternative for long-term management, including an evaluation of the alternatives against a broad range of criteria. I-727-5 Comment noted.

I-727

COMMENT

RESPONSE

I-727-3 | I understand that there are springs on the east portion of the area. These could supply enough fresh water to have a continual overflow out thus keeping the lake from becoming stagnant and providing sufficient water turnover, There was no discussion of what the adaptive management plan would be. I understand that having a swimming area was specifically not considered being left up to the City. This should be part of this project and would be a most welcome amenity by many.

I-727-4 | I recognize that the hybrid may have higher construction and maintenance costs than the estuary. However the increased attractiveness of the fresh water hybrid would bring many more people to the area who would be spending their money generating an increase in taxes received which could help defray the increased costs. It would increase the vitality downtown and add to its vibrancy more than the other alternatives.

The fresh water hybrid with swimming would create a new destination in the Olympia area and would likely please almost all who are interested in this project. It would add a remarkable attraction to downtown Olympia for many years to come.

I-727-5 | Finally the separation of improving water quality in the Deschutes River, the Capitol Lake – Deschutes Estuary Long- Term Management Project, and the Olympia Sea Level Response Plan may be a way to manage the work. But this distinct separation creates silos in areas that overlap and therefore could have unintended adverse consequences. Please keep this in mind. Thank you for your consideration.

I-728

COMMENT

RESPONSE

I-728-1 | I would like to see Capitol Lake returned to an Estuary so that both humans and wildlife can coexist in a future and sustainable world. Especially since PNW is growing more and more each year, and current city of Olympia has the growth mind set of build, build, build. But more building doesn't mean progress when so much is lost of the natural world, especially the loss of habitat and the canopy of trees. An estuary will allow for wildlife to return and provide birds, like the blue heron refuge. Salmon populations will thrive. And last but not least, future generations of Olympians will be able to enjoy the natural world and amazing wonder where salt and fresh water meet.

I-728-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-729

COMMENT

RESPONSE

I believe and Estuary is the best option.
1.) Keeping the lake is costly and will likely increase in cost over time. The lake now serves no community value other than a view of a body of water. We get that at high tide from the bay. No lake recreation is currently possible nor expected to become possible.
2.) From my understanding, creating an estuary will require dredging of the released silt. Apparently there may be funding available for that and other dredging. Dredging would be very helpful for the Port and marinas. That funding, I understand, would not be available when keeping the lake.
3.) An estuary will be a far better ecological addition for the Olympia downtown. It would provide an ever changing variety of views and provide a home for plants aquatic animals and birds. With good design a certain amount of space could allow for a few trails, scientific exploration and education.

I-729-1

I-729-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-730

COMMENT

RESPONSE

The lake was made as a reflection pool for one of the most beautiful state capitals in America. The lake used to be a place to gather and fellowship.
I don't want a stinky estuary in downtown Olympia.

I-730-1

I-730-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-731

COMMENT

RESPONSE

I-731-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-731-1

Dear State of Washington Dept. of Enterprise Services,
I wish to comment on the Capital Lake project
I am interested in supporting the hybrid alternative with the saltwater reflecting pool.
I believe that economically the state capital benefits from this public park feature, and I feel that removing the dam and allowing an estuary is of significant importance. Only the Hybrid addresses these primary concerns.
The lake has been a center focal point for the area for over 70 years. Originally a park to get rid of a shanty town, it is again in a situation that without public support the area could become a sad embarrassment to the state of Washington.
The proposal for the Managed Lake Alternative is just expensive. It doesn't solve any of the environmental issues with regard to historic habitat. I was in favor of creating an estuary and now I see that the hybrid option would bring me to the middle.
I remember the old swim park and it was a social place. The capital lake area is well used by locals and tourists and it is important to recognize our investment in this landmark both as the state capital and as a growing community.
I believe that if we fast forward twenty years we'll look back on this decision as we do on other infrastructure projects that were successful. By creating a recreational area that attracts users, we maximize the opportunity to provide the most enduring legacy rather than force the decision makers to remake this decision all over again when it becomes obvious that the Managed Lake is a problematic ecosystem.
If we do not provide an estuary for Tribal restoration needs, this topic will never be addressed and will be an ongoing issue into the future of Olympia. It is important to recognize the shared nature of our natural habitat.
The Hybrid Alternative has decision durability for getting our population interested in fixing the habitat shortcomings we now face.
Thank you, Laureen Brian
laureenbrian@gmail.com
360 250-2057
2609 Galloway Street SE Olympia

I-732

COMMENT

RESPONSE

To Whom It May Concern,

I'm writing to voice my support for a hybrid approach to the long-term management of the Capitol Lake - Deschutes Estuary waterbody. I believe this to be the best of the four possibilities outlined in the Draft Environmental Impact Study because of the balance it brings to the competing historical, environmental and economic interests involved. It's a solution that can ease the cultural and aesthetic differences and by doing so prove durable enough to gain the political support needed for a project of this magnitude.

This hybrid approach balances diametrically opposing aesthetics that allows each side to benefit over a do nothing approach and provides a foundation for a more inclusive historical perspective by addressing some of the equity and social justice issues related to restoring the estuary while supporting the historic 1911 plans for a sustainable reflecting pool.

The environmental reasons for supporting the hybrid approach with a salt water lake are based on -
 - the substantial benefits to fish and wildlife as per the draft Environmental Impact Study (EIS), section 4.5,
 - the reduction of invasive species due to salt water as per EIS, section 4.4,
 - and the transformation of more common fresh water lands into estuarine wetlands as per EIS, section 4.6.

Economically, it's -
 - the least expensive way to preserve the investment in the reflecting pool (construction plus long range costs, Executive Summary, pg. 21, table ES.4),
 - the best option for reducing flooding (as per EIS, section 4.1),
 - provides additional recreational opportunities (as per EIS, section 4.8),
 - and as per EIS, section 4.14, "the Estuary Alternative would beneficially affect tribal populations through the cultural, heritage, spiritual, and educational value that an estuarine environment provides."

Neither the Lake or Estuary approach is likely to garner enough support to be politically viable, leaving only the do nothing option. While it's true that water quality is not diminishing according to the study, the aesthetic of the area is suffering. It's incredibly unattractive to have a body of water so infested you shouldn't touch it and the state's investment to provide a reflecting pool for the capitol is visibly at risk, giving the impression of general decay. Furthermore, any delay in construction only compounds the future impact in an area of growth. And finally, and perhaps most importantly, do nothing leaves the current issues of equity and social justice unaddressed.

Instead of running away from our history we should look to embrace it by applying everything we've learned to the inclusive solution presented in the hybrid approach.

In closing I'd like to recognize the work done to present the options. This is a complex issue and the research and writing that was put into the executive summary made it easy to objectively compare the approaches.

Respectfully,

Carl Dexter
2609 Galloway St SE
Olympia, WA 98501

I-732-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-732-1

I-733

COMMENT

RESPONSE

I-733-1 | The Estuary plan is the right choice for the plants, animals, and people of this community. Please restore the estuary!

I-733-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-734

COMMENT

RESPONSE

Subject: **Capitol Lake**
From: Pamela Dittloff <pambo10@hotmail.com>
To: <info@capitolakedeschutesestuaryeis.org>
Date: 2021-08-29 10:21



I-734-1 | Please do not make this stinky mudflats.
Sent from my iPhone

I-734-1 This response acknowledges the commenter's position. See also the Global Response for Air Quality & Odor.

I-735

COMMENT

RESPONSE

Subject: **Comments from NextDoor**
From: Rob Penney <robpen11@gmail.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-29 10:53



• Comments from NextDoor on Capitol Lake.docx(~51 KB)

I, Rob Penney, copy-pasted all the comments from my posting on Next Door yesterday. I replaced all names but mine with XXX and deleted all the icons and where people live and when they comments for brevity—it's still six pages. I also deleted three confusing comments in a row about making a wager—the typical silliness you get on social media. I expect/hope someone on the review time participates on NextDoor and can benefit from any additional comments later today. I'm heading out soon and wanted to get at least this much into your hands. Good luck and thank you for taking on this Herculean task.

I-735

COMMENT

RESPONSE

I-735-1 Comments noted. Also see the Global Response for the Preferred Alternative Identification Process.

Comments from NextDoor on Capital Lake / Deschutes Estuary Plans

As of 8/29/21 at 10:40 AM

I, Rob Penney, copy-pasted all the comments from my posting on Next Door yesterday. I replaced all names but mine with XXX and deleted all the icons and where people live and when they comments for brevity—it's still six pages. I also deleted three confusing comments in a row about making a wager—the typical silliness you get on social media. I expect/hope someone on the review time participates on NextDoor and can benefit from any additional comments later today. I'm heading out soon and wanted to get at least this much into your hands.

Rob Penney

Crunch time to Weigh In on Future of Capital Lake / Estuary.

We only have until Sunday night to submit comments on plans for Capital Lake. Roughly: leave it as is with more dredging to make it boatable, yank out the dam and transform it into a natural estuary, or make a hybrid with an estuary and a small reflecting pond by the capital. View the plan, which I think is extremely well researched and written, at <https://capitolakedeschutesestuaryeis.org>. See my attached photos of five key pages. Remember: sharing ideas on NextDoor feels productive and is a great start, but if you want to impact the future of a key feature of our town you need to actually submit comments to the state. Once the project plan is set, you may find yourself grumbling for decades every time you drive past the lake / estuary, regretting not taking the time to do what you can when you had the chance. Thanks. I remember a decade ago the directors of Ecology, Natural Resources, and Fish and Wildlife sent a joint letter strongly advocating for an estuary. That carries weight with me—these are the experts. Sure, I'll miss the look of the lake and the opportunity to paddle in the lake, but I lean toward restoring an estuary, which is the most biologically productive places for marine life and birds. Most estuaries around Puget Sound have been permanently replaced by developments, and this is a rare chance to add one back. Note that the average 30-year cost estimates for the managed lake, estuary, and hybrid options are \$472M, \$258M, and \$374M respectively. So the estuary is the best environmental option and the cheapest by far. Thank you so much for doing your part to shaping the future of our community.

Comment

Thanks, Rob, for your insight! And great pics!

Comment

You have presented a case to contemplate comfortably. Thank you. I'll read and comment, with a beginning lean your direction.

I-735-1

I-735

COMMENT

RESPONSE

Comment

Yup. Highest and best use of Capitol Lake is as an estuary. The birds, bees and fish can use it 24-7 for shelter and food naturally. Human-made water features cost more and achieve less.

Comment

Comment submitted. Thank you for bringing this to my attention!

Comment

Capitol lake is a giant storm water collection pond designed to stop downtown Olympia from flooding during winter storms when the Deschutes river is on flood stage. The Army Corp of Engineers designed it that way and that's why there's a dam with flood gates. The politicians want you to think it's only a reflecting pond. When in reality it has a real safety purpose, not just vanity. Returning to "natural" will only allow flooding of downtown and poor control of storm water and sediment produced by the river. It's funny how this fight has gone on for over 25 years! I remember them dredging the lake and the bay in the 70's and it's long overdue! An estuary will produce nothing but a giant stinking mess, especially in the winter!

Comment

~~XXX~~ your understanding is full of false information and flawed science. Your yacht at the OYC will be fine. Seven generations man. Set the River Free.

I-735-1

Rob Penney

I'm not a hydrology expert, but it seems the biggest impediment to avoiding flooding of downtown is the "armoring" wall around capital lake that precludes surface water from naturally draining into the lake, but maybe there are underground pipes that facilitate that. It seems that an estuary with an enormous unimpeded connection to the bay can absorb runoff water as well or better than the lake. As for a "king tide" flooding downtown, it seems the walls around Capital Lake will work to retain that water until it recedes. I think we're all coming up with good observations and questions, but to a certain extent we need to assume that the folks who will design this restoration project are good at what they do and will consider things like flooding in their design.^(edited)

Comment

Thanks Rob!

Comment

If only it were that easy. I lived in one of the two houses on the westside with an unobstructed view of Capitol lake so I had a vested interest at the time of the study. They spent 10 years in 10 million dollars and at the last meeting and I went to it, one person raised their hand and said "I would just like for the record even though your recommendation is for an estuary that it will greatly impact bud bay with a ton of sediment that is going to be let into the bay and the marina will no longer be able to exist" and someone else raised their hand and said the

I-735

COMMENT

RESPONSE

bay was not part of this study. And at this point I was like wait..what? you spent ten years and ten million dollars and did not look at how it would affect going in to the Bay??? they said no we didn't study anything past the dam itself. At another time a gentleman came to a garage sale that we had and said that his mom had built our house and that she was the first female mayor of Olympia and before it was dammed off to make it Capitol Lake it was a very muddy and smelly as he put it embarrassing for Olympia with a tendency to flood ...and then he said but a few decades go by and how quickly people forget. Anyways he said it was an embarrassment to Olympia (I think this was in the 50s??) and so the plan was to dredge it every eight to ten years and that hasn't been done in a long long time so now it is very shallow and kind of a toxic mess. They spent the money that was set aside for dredging on the study. I appreciate you bringing this up so people are aware, I wish I had confidence in the "study" but I do not. How could they not include the impact on the "other side of the dam"? I never replied to anything on here as I agree it doesn't do any good to rant or Rave I guess I'm just saying I spent many hours /days/ years of my life invested in this and I do hope if people have an educated opinion that they make it known. We sold the house and moved to Mason county.

Comment

Thank you for sharing! This is why our communities need our elders who know and remember what happened in the past. Just because something new sounds like a good idea, doesn't make it so. It's also not surprising the government study would be limited in scope and not calculate the true consequences from this action unfortunately.

Comment

Hold up there XXX, Impact on the bay has been studied. Please study resorted estuaries before you continue with this false scenario.

Comment

XXX okay, let's talk about our elders and their voices and what happened in the past. As a sixth generation Oly Girl, from my family's stories and history, the best darn thing that can happen is to restore the estuary. I'm also an oral historian and archivist; it's time we finally hear what the local tribal elders had to say about restoring the estuary. Their voices have at least equal weight in the decision. Or are yacht club priorities and mis-perceived property value concerns really more important?

Comment

XXX Animosity is not needed. What are the impacts of invasive species spreading into the bay if it's returned to an estuary? What was the smell prior to it being dammed to assist to prevent flooding? What damage will occur if returned to an estuary that appears cheap now that may have greater costs in the future? The fact is that there is institutional knowledge that yes, elders, older, wiser, citizens have more understanding for the reasons why the lake exists. That should be considered and I'm glad to get a better understanding of how the area has evolved. Trying to return to what it originally was pre-civilization is not always realistic as

I-735-1

I-735

COMMENT

RESPONSE

clearly there are people, families, business, property, the bay that can all be impacted, I'm glad for people who can share their messages for people to weigh and measure information instead of attacking others.

Comment

People lived on the mud flats in our past history before the lake.



Rob Penney

You and others are quite right that a study that didn't analyze the downstream impacts of the project is incomplete. However, this study did include that, and the costs in the study that I summarized reflects the varying cost of dredging the bay for each scenario to maintain it for ships at the port as well as recreation boaters.

Rob Penney

I appreciate the wisdom of the elders being brought into the conversation. A lot of my focus for the last ten years had been assessments of new and emerging technologies, but it's important to consider the long-range and historical perspectives. XXX mentioned hearing the perspectives of the tribes. I would really like to read those if someone has a link. This was their land originally and I think it's important to remember and respect that. Regarding the possible smell of the estuary, I've walked around the Billy Frank Jr. Nisqually Wildlife Refuge many times since it was restored to an estuary and was never bothered by any offensive smell. What about others?

Comment

Do what best for the environment and the salmon. The rest of us will have to just come along

Comment

I'm a big salmon fan, but read the State's report. None of the three options will change salmon habitat. The whole lake salmon habitat is man-made, there was never a natural salmon run. Salmon can jump four feet, but not 12, the falls stopped them until the fish ladder was installed about 100 years ago. In no way shape or form will the lake be "natural" again since it is surrounded by city and freeway. This is just a way for the state to renege on their promise to maintain the lake. Nothing more.

Comment

XXX, you are believing / perpetuating false history and science to condone the dam. I have relatives that documented a salmon run in the mid 1800s. The proof is there.

I-735-1

I-735

COMMENT

RESPONSE

I-735-1

Comment

XXX Are you saying that salmon can leap 12 feet over the falls? That the fish ladder wasn't man made? Free the river sounds good but the river has always dumped into what was a tide flat. If you want a down town tide flat again perhaps we can address why the state built the damn in the first place. It was flooding and the stink. A quick visit to Mud Bay explains a lot. Why is there no one living there? Could it be the smell? The King Tides flooding the area? Don't get me wrong, I believe your opinion will prevail. Not because of the science, but because it is the cheap alternative to maintaining the lake for boating and fishing. GA has wanted to dump the lake on the city for a long time. Please be specific.

Comment

XXX you're such a Californian story teller! You're the one spreading lies! You have relatives who fished the Deschutes in the mid 1800's? I call BS!!

Comment

XXX I don't know what to make of your comment. No, I'm not from California, although I don't know how that is relevant, and I never claimed to have fished the Deschutes in the 1800s. My grandfather and father fished the rivers in Kitsap if that is important somehow. It's fine for you to call BS, but on what?

Comment

Set The River Free!!

Comment

Great Idea Lets do this!

Comment

I like the idea of making it a natural estuary. A reporter with The Olympian wrote about it a couple weeks ago. I emailed him and asked for further info on his statement that the 5th Avenue bridge would be removed when the dam is dismantled. He has not responded after 2 weeks. Can anyone expound on this?

Rob Penney

I've read nothing about the bridge being removed, and I'm sure they'd never consider that. The report says it will just be a wide connection to the bay, as in the full width of the bridge rather than the tiny little dam.

Comment

Please visit Mud Bay. That is what an estuary looks and smells like. Is that what you want downtown? It's natural, I'll give you that.

I-735

COMMENT

RESPONSE

I-735-1

Comment

By the way, before the pioneers over-logged the southern Salish Sea, Mud Bay, or Squi-aitl Cove, was sandy, not muddy. It has never fully recovered.

Comment

Nisqually was turned back into an estuary

Comment

It sure has and it's great for wildlife, but would you want the Nisqually delta in your city?

Comment

I grew up with pulp mills. It wouldn't bother me much.

Comment

I voted for the managed lake. Having mud flats in the middle of Oly doesn't appeal to me. I think if it becomes an estuary that people will regret it after not too long.

Comment

Time to give back to nature, instead of continually taking. I'm 110% in agreement of turning it into an estuary.

Comment

I am for the upper lake becoming an estuary and the lower lake to continue being a managed and dredged lake. The lake acts as a flood management tool and protects the use of our Port. The lack of planning on the impact to the Port and shipping channel is so concerning. This isn't about folks taking out their big boat. This is about blocking the ship channel and port facilities to all.

Rob Penney

I just want to remind everybody again to not just participate on Next Door and not share comments with the state at comment@CapitolLakeDeschutesEstuaryEIS.org. Thank you!

I-736

COMMENT

RESPONSE

I-736-1

Thank you for your work on this project/issue.
I think it must be obvious, if politics and personal opinion be taken out of the decision, that returning the Deschutes estuary to our planet, to our State, and to the Puget Sound is the right thing to do. I personally think it is the best thing for Olympia, as well. Please take/support that course of action. I have not studied the options of the different 'shoreline' plans to understand which is best, but removing the dam and moving in the direction of allowing the estuary to return makes sense.

I-736-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-737

COMMENT

RESPONSE

Subject: **Comment on Deshutes Estuary/Capitol Lake DEIS**
 From: C. Persons <cpeople2u@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-29 12:07



I-737-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
 I-737-2 Please see response to Comments I-747-16 through I-747-21.

Dear DES staff and other contributors to the DEIS:

Thank you for your considerable work on preparing the DEIS, and for the opportunity to comment on it.

I prefer the Estuary Alternative because it:

- *restores the estuary for fish and other marine habitat;
- *eliminates most problems with non-native invasive species, water quality, and potential flooding of the existing Capitol Lake and the proposed Managed Lake alternative;
- *honors the spiritual connection and historic rights of the Squaxin Island Tribe;
- *will in the end be an attractive natural addition to Olympia's waterfront area for both visitors and tourists.
- *will be the least expensive and most sustainable alternative over time;

However, the current plan in the DEIS would open the dam and allow the river to flow in 15 to 16 years! Native salmon runs are almost non-existent now, and it is doubtful that any will remain by then.

I urge you to rewrite the construction plan described in the DEIS to:

- *fast track the FEIS and permitting;
- *create a construction plan that speeds up opening the dam. Among many possibilities are:
 - unless the newly flowing river will endanger Deschutes Parkway, move that road and improve its intersection with 5th Ave. AFTER the dam is opened
 - remove dredge spoils off site instead of using them to build artificial habitat that over time might be moved away along with other sediments
 - use no coffer dam or a coffer dam that allows the river to flow freely during the rebuilding of the 5th Ave. bridge
 - add the amenities -- pedestrian bridge, boardwalks, fishing dock, boat launch and decontamination station, and so on -- AFTER the dam is breached.

This will require more funding than the current DEIS construction plan for the Estuary alternative. I suggest that the state legislature and governor will be willing to allocate extra funds to save native salmon runs at the very foot of the Capitol Campus. Another source is tribes and foundations -- they have been instrumental in saving other fish-habitat created by removing dams in Washington State.

I urge you to choose the Estuary Alternative AND to explore every avenue to speed up opening the dam as soon as possible. Please work to breach the dam and restore the river estuary in 6 years, not 16!

Charlotte Persons
 903 Glass Ave. NE
 Olympia, WA 98506
 360-431-1174

I-737-1

I-737-2

I-738

COMMENT

RESPONSE

I-738-1 Comment noted. Also see the Global Responses for the Hybrid Alternative and Preferred Alternative Identification Process.

Subject **Do the Dell**
From Brookelle Riley <bountifulbodyworks@gmail.com>
To <info@capitolakedeschutesestuaryeis.org>
Date 2021-08-29 12:26



I-738-1

To whom it may concern, I am writing today to Voice my alignment with the decision to do the DELI, It seems like a great opportunity to unite two sides of opposing forces into one cohesive solution, that would benefits not only the environment and our natural land but the community at large. The swimmable lake would also be a huge resource for families and communities alike!

I hope this support is taken with value.

All the best,
Brookelle R.

I-739

COMMENT

RESPONSE

I-739-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

Subject **Do the DELT**
From Brookelle Riley <brookelleriley@gmail.com>
To <info@capitolakedeschutesestuaryeis.org>
Date 2021-08-29 12:30



I-739-1

I'm writing today to express support for the Dual Estuary Lake Idea for the freshwater lake. It is a great idea that would greatly be if it our society!!

I-740

COMMENT

RESPONSE

I first want to acknowledge that the land and water in question is the traditional territory of the Steh-Chass people, of the Squaxin Island Tribe, and also pay respect to Medicine Creek Treaty Tribes, the Nisqually and Chehalis people who have stewarded these lands and waters for thousands of years.

I strongly support the restoration of an estuary and the removal of the 5th Ave dam. As we continue to experience impacts of climate crisis in our region, from wildfire smoke to declining salmon runs, it is more clear than ever that we must make dramatic efforts to reverse the short-sighted decisions of the past to restore vital habitat and ecology in our community.

I-740-1

Estuaries are beautiful, rich and vibrant. Capitol "lake" is not. Its creation was an act of environmental injustice, displacing poor and Indigenous peoples who depended on the wild foods provided by the estuary habitat. To keep it in place further perpetuates this injustice in prioritizing an increasingly toxic, inert reflecting pool for the Capitol Building over the health and well-being of salmon and other wildlife species culturally significant to First Peoples in this region.

Beyond these compelling reasons, the estuary alternative is the least expensive option by a wide margin.

Please act now to restore vital habitat and ecology and right the wrongs of the past, to ensure that future generations do not continue to bear the burden of correcting our mistakes.

I-740-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-741

COMMENT

RESPONSE

Subject: **Comments on DEIS**
From: Ted Whitesell <ted.whitesell@gmail.com>
To: <comment@capitolakedeschutesestuaryeis.org>
Date: 2021-08-29 13:36



-
- Capitol Lake DEIS Comments, 8-29-21.pdf(~76 KB)

Attached are my comments for your consideration.

Thank you very much.

Edward A. Whitesell

I-741

COMMENT

RESPONSE

Edward Whitesell
816 Plymouth St., SW
Olympia, WA 98502
August 29, 2021

I-741-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-741-2 Thank you for your comment. Tribal values and resources were incorporated into the process to select a Preferred Alternative as described in Section 1.12 of Final EIS Supporting Chapter 1.0 and the Preferred Alternative Identification (Attachment 21):

- Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
- Each alternative was also evaluated relative to cultural resources, which considered whether precontact landscapes would or would not be restored or preserved.
- The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
Olympia, WA 98504

Dear Department of Enterprise Services,

I have reviewed your June 2021 Draft Environmental Impact Statement for the long-term management of Capitol Lake and the lower Deschutes River, and I would like to offer some brief comments.

I am a 70-year-old homeowner in West Olympia, where I have lived for 23 years. My wife and I have enjoyed countless walks over the years, from our home to Capitol Lake, around it, and back home again. We have seen many changes with the seasons and the tides and have enjoyed many community gatherings around the lake. My wife grew up in Olympia and has fond memories of the lake's early years when it was clean and open to the public.

One might think that a couple like us would be eager to see that Capitol Lake be retained, cleaned up, and re-opened for public use, given our close association with the lake over the years. On the contrary, we are eager to see the Deschutes River Estuary restored.

Each time we walk around the lake we are filled with a mixture of reactions to the beauty of the setting juxtaposed with the ugliness of the water pollution and – in the summer – the vast mats of blue-green algae and, sometimes, dead fish. This is not what we want for our community, and neither is it what we would expect to see below Washington's Capitol Dome. Having lived in southeast Alaska, I know what healthy estuaries are like and, by contrast, how rare they have become in Washington. I miss Alaska's tidal wetlands, teeming with fish, game, and avian life, and I wish the same for my own community.

As your detailed study shows, it would be both expensive and environmentally disadvantageous to attempt to restore and maintain a lake environment by continuing to dam the mouth of the Deschutes River. The most sensible alternative is the estuary alternative.

It is also critical that the Department of Enterprise Services and the citizens of Olympia respect the wishes of the Native Peoples who are the traditional users and managers of the Deschutes Estuary. I appreciate your close collaboration with the Tribes, and I know you are aware of their strong support for the estuary alternative. The recommendations and positions of the

I-741-1

I-741-2

I-741

COMMENT

RESPONSE

I-741-2

Tribes should not be considered those of just one more "stakeholder," of equal importance to those of any other stakeholder.

The Capitol Lake dam and I were both born in 1951. I would like to think that my own life span will be longer than that of the dam, so that I might see the restoration with my own eyes. But that is not the point of my comments in this letter. My point is that I fervently hope that future generations will enjoy the environmental, cultural, economic, and public benefits of the Deschutes Estuary for evermore.

Thank you for considering my views.

Sincerely,

Edward A. Whitesell

I-742

COMMENT

RESPONSE

I-742-1

I recommend keeping the lake option. Downtown has so much potential, and the full lake option is the best option to help make downtown nice. The partial or full estuary option would be an eyesore (I recommend looking at the area on MudBay Road at low tide to see what it would look like). As it is, we avoid downtown because of the open drug use and unsafe feeling. The lake option is the best option to improve downtown.

I-742-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-743

COMMENT

RESPONSE

I-743-1

I feel Figure 2.2.4 on page 2-12 of the EIS is misleading. The image and description paint a nice-looking picture of the estuary. But this is at "mean" tide when there is plenty of water. There should be a drawing at low tide, when the area would be mud, like Mud Bay Road. This would give your readers a more balanced view. Thank you.

I-743-1 The visual simulation showing mean tide conditions for the Estuary Alternative in EIS Supporting Chapter 2.0 have been supplemented with the high and low tide visual simulations.

I-744

COMMENT

RESPONSE

Subject **Public comment**
From Kevin Maltz <kdmaltz@live.com>
To <info@capitolakedeschutesestuaryeis.org>
Date 2021-08-29 14:12



I-744-1 Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

Hello,

I-744-1

I like the idea of the hybrid plan (Dual Lake / Estuary Idea. It is a great compromise between the lake and the estuary proposals. I really like the idea of a place to swim downtown too.

Thanks for listening,
Kevin Maltz

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I-745

COMMENT

RESPONSE

I-745-1 It's time to upgrade...Remove the dam and make it natural

I-745-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-746

COMMENT

RESPONSE

Please resume managing the upper and lower basins of Capitol Lake dredging for depth the maintain and remove the accumulation of river sediment.

I-746-1

I-746-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

Maintain the Lake as a lake. Dredge it ASAP!!

I-747

COMMENT

RESPONSE

Subject **Danver Capitol Lake DEIS**
From <sданver7@aol.com>
To comment@capitolakedeschutesestuaryeis.org
<comment@capitolakedeschutesestuaryeis.org>
Date 2021-08-29 14:44



• Deschutes Estuary Cap Lake V .2 8 29 21.pdf(~152 KB)

I-747

COMMENT

RESPONSE

August 29, 2021

TO: comments@CapitolLakeDeschutesEstuaryEIS.org

Department of Enterprise Services
Capitol Lake – Deschutes Estuary EIS
P.O. Box 41476
Olympia, WA 98504-1476

To whom it may concern,

I participated on a Capitol Lake – Deschutes Estuary committee, coordinated by the State of Washington, fifteen years ago. I appreciate that finally a DEIS has been developed for this controversial and complicated issue.

Support the Estuary Alternative. Seventy-five percent of river delta tidal wetlands in Puget Sound have been degraded or lost. The Puget Sound Partnership’s goal of restoring estuaries by 2020 was reached by only 20%. Restoration of the Nisqually estuary was presumed to be upwards of 80% of that figure. The Deschutes delta has lost 51% of its shoreline length to development.

A restored Deschutes estuary will re-establish a functional, resilient estuary and increase habitat for seabirds, shorebirds, salmon, shellfish, and marine life. The visual benefits to the city and its residents and tourists of a healthy estuary once again, will have long-term economic gains for Olympia. The Estuary Alternative has significant beneficial effects of restoration for tribes - ecological, cultural, heritage, spiritual, and educational.

Suggestions regarding the Estuary Alternative and its implementation:

- I would like to see the Deschutes/Capitol Lake project developed in a landscape context since the functioning of the system is dependent on what happens upstream and throughout South Puget Sound. Natural communities of wetland, sea, wading and shorebirds and other animals are associated with its habitats, from wetlands and riparian forests to nearby communities, farmlands and working lands. By restoring historical habitat, the estuary will provide a safety factor for rearing fish. Conversion to an estuary would substantially benefit anadromous fish. Mudflats are teeming with life. There will be a shift in avifauna and wildlife, but there won't be any overall loss.
- Three major steps are necessary to restore the historic estuary, e.g. both the west and east parts of Budd Inlet - cleaning up toxic sediment, removing non-point pollution from stormwater and leaky septic systems, and restoring water input from historical tributaries. The value of wetlands, rivers, marshes, tideflats, and uplands as ecosystem services is reduced when contaminants are present in habitats or water (page 3-139, 3.14.5). The project described in the DEIS is an opportunity to clean up non-point pollution from 50 water outfalls into Capitol Lake and to ensure the federal government cleans up sediments with dioxins and PAHs in west Budd Inlet before new sediments are delivered by the free-flowing Deschutes River (see explanation below). These projects are a necessary first step. However, to restore the historic Deschutes estuary, the FEIS must include a plan to remove toxic sediments from the entire delta, to focus

1

- I-747-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
- I-747-2 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
- I-747-3 Please see the Final EIS Summary for a description of the work being conducted by the Washington State Department of Ecology to improve water quality in the Deschutes River and Budd Inlet, which include requirements to state agencies and other municipalities for improved stormwater discharges. The Final EIS Summary also includes information on the Port-led remediation of contaminated sediment in Budd Inlet, which is expected to occur before removal of the 5th Avenue dam. Enterprise Services does not have decision-making authority over all of the environmental elements and areas described in the comment, but acknowledges the interconnectedness of the system and is making decisions relative to a long-term management project that will improve environmental conditions in the Project Area.

I-747-1

I-747-2

I-747-3

I-747

COMMENT

RESPONSE

current programs to cleanup septic tanks and stormwater on developments along all its shores, and to daylight and restore water volume to its tributaries.

I-747-4

- Consider restoring Moxlie Creek to have inflow to East Bay and reconnect upstream for salmon use again. Connection with historical tributaries is critical in returning length to the shorelines. The Deschutes delta historically had a shoreline of roughly 11 miles; it now has a current length of about 5.6 miles, as many delta tributaries have been lost. Restoration would mean the Deschutes estuary would, once again, be the next largest in South Sound. No longer will migratory salmon fry have to travel a long way to find habitat when they leave the Nisqually estuary.

Estuary Alternative

I-747-5

- We urge Department of Enterprise Services, parties that serve on the Work Groups, and Washington State agencies to expand the scope and continue the momentum of the Deschutes Estuary/Capitol Lake project as described in the DEIS.

Modeling

I-747-6

- Model the settling and accretion of sediment throughout the three basins of Capitol Lake, West Budd Inlet and beyond. Expand the current northern border of the project area to include the entirety of Budd Inlet. Hydrodynamic and sediment transport models, along with historic maps, help determine where flow conditions would re-create existing tidal sloughs from transported sediments. Popular birding destinations, sloughs are braided channels where tidal saltwater and freshwater mix in estuaries. River sloughs form in old river channels. Sloughs act as buffers from waves and weather events, and as protective habitats for juvenile salmon, other young fish, and marine species. Sloughs also serve key functions in pollution control. Once cleanup is assessed and accomplished, sloughs could be established in East Bay to aid in its restoration. Modeling can determine where sediments could accrete.

2

- Good modeling of the historic estuary will create also more certainty for many kinds of planning: for the initial and periodic dredging of the Deschutes Estuary and siting its new amenities; for Budd Inlet's shoreline buildings, parks, boat launches, docks, and roads; and for the frequency and extent of dredging Budd Inlet, whether for private and public marinas or for the Port of Olympia's marine channel and turnaround basin.

Sediment contaminants

I-747-7

- Contaminants must be removed before the dam is removed. Low levels of chemical exceedances in contaminated sediments can become cumulative over time. Sediment contaminants must be removed from West Bay and all exceedances before the dam is removed. Does this statement "West Bay sediments would be "the clean sediment deposited from the Deschutes River, rather than the existing West Bay sediment" (page 2-23) presume the federal government/DMMP will have removed contaminants from existing sediment before dredging?
- This statement about federal regulations pertaining to West Bay contaminants must come earlier in the DEIS: "...this [West Bay] sediment contamination is expected to be addressed through a separate regulatory process before long-term operation of the selected alternative" (page 4-154). Instead, it must say "before the dam is breached." Clarify the potential conflict on page 4-150 to match this information. Create a timeline with the federal government/DMMP to ensure they

I-747-4

Thank you for your comment. Enterprise Services does not have decision-making authority over Moxlie Creek, but does have jurisdiction over the Capitol Lake - Deschutes Estuary given its long-term lease agreement with the Department of Natural Resources.

The Draft EIS provides analysis and disclosure of potential environmental impacts associated with the Capitol Lake – Deschutes Estuary Long-Term Management Project. Analysis of other issues within the Deschutes watershed, including those listed by the commenter, is beyond the scope of analysis for this EIS. Enterprise Services acknowledges the interconnectedness of the system and is making decisions relative to a long-term management project that will improve environmental conditions in the Project Area.

I-747-5

This comment is a statement and does not affect the environmental analysis in the Draft EIS.

I-747-6

The numerical modeling did include the entire Capitol Lake Basin and Budd Inlet (both West and East Bays) to Gull Harbor. This is described in Sections 1.4, 4.3, and 5.4 of the Hydrodynamics & Sediment Transport Discipline Report (Attachment 5). Figures 5-28 through 5-31 (in Attachment 5) show the erosion/deposition that would be expected in this area based on the modeling results. These results were the basis for identifying maintenance dredging needs in West Bay (see Section 4.2, Navigation, in EIS Supporting Chapter 4.0 for information on maintenance dredging).

I-747-7

Additional content has been added throughout the Final EIS to describe the dredging and remediation that is needed in West Bay and must occur before removal of the 5th Avenue Dam. Please refer to EIS Supporting Chapter 7.0 for a timeline that attempts to overlay the Port of Olympia-led efforts in West Bay with the Enterprise Services-led efforts related to this project.

I-747

COMMENT

RESPONSE

conduct their regulatory sediment removal process *before* the dam is removed. Add the timeline to this project as well, and list timeline dates in the FEIS.

Dredging

• Please be mindful of human effects of long-term maintenance dredging on Budd Inlet’s marine environment. Spot dredging for sediment placement during restoration should have no major effects. The Port of Olympia marine channel/turning basin must be maintained. However, the risk of sediment quality degradation from recurring maintenance dredging throughout the project area is not necessarily low (page 4-150).

I-747-8

• Dredged sediment quality loses its capacity to hold dissolved oxygen (DO). During dredging, organic material (aquatic plants and planktonic algae) in bottom sediments is re-suspended. Oxygen is lost to the air, causing significant reductions in the DO concentration in a tidal waterway. When bottom waters do not flush into surrounding waters, oxygen is used up in the bottom sediments when bacteria eat excess organic material. Low DO levels can affect migration and spawning for salmon, reducing hatching success and causing direct mortality to adult and juvenile salmon.

I-747-9

• Dredging impacts marine organisms by degrading their habitat, introducing noise, and remobilizing contaminants. It creates sedimentation issues including increases in suspended sediment, where invertebrates, eggs, and larvae are most vulnerable. High turbidity levels from suspended sediments cause waterways to fill in faster.

Marinas

• Dredging for shoaling and navigation is known to reduce DO levels, aside from creating turbidity and destroying vegetation and marine life. The Sediment Management Standards and Water Quality Standards do not consider habitat issues. In the case of private marinas, dredging will not promote natural system recovery. Shoaling means vessel-generated waves cause boats to erode the banks and seabed, removing substantial amounts of sediments, aquatic plants, and marine life. Low DO would be enhanced without dredging or shoaling. All three West Bay marinas experience shoaling and/or sediment accumulation to some extent (page 3-15).

I-747-10

• Consider moving marinas to a location where dredging is not required. Consider limiting or moving private and public boating and marina facilities away from the tidal zone and east Budd Inlet, thus removing some of the need to maintenance dredge. Habitat to support estuarine functions could then be established, to the benefit of all citizens, particularly in the tidal/freshwater mixing area at the breached dam and at East Bay. Does maintenance dredging due to private boat mooring preclude the possibility of sloughs in East Bay?

I-747-11

Water pollutants

• Use the construction project to restore the water quality of Budd Inlet, which is more contaminated than most other Puget Sound estuaries. The current construction plan for the Estuary alternative will simply replace the approximately 50 stormwater outfall pipes along the shore with pipes made of a material that will not corrode in saline water. However, these outflows are known sources of “non-point” pollution from tire residues, vehicle oil leaks, lawn pesticides and fertilizers, and a host of other pollutants.

I-747-12

I-747-8

A pilot study of hydraulic dredging impacts in Lake Lawrence in Thurston County was conducted in the 1990s (Hartman 1995). During that study water quality measurements were taken from mid-depth in the water column approximately 5 feet from the cutter head. Measurements were made during dredging and 1 hour after dredging ceased. Turbidity increased from 2.4 to 14 nephelometric turbidity units (NTU) during dredging but decreased to 6 NTU within an hour. TSS increased from 4.6 to 24 mg/L during dredging and decreased to 10 mg/L within an hour. There was no measured impact on DO. This is described in additional detail in Section 5.3 of the Water Quality Discipline Report (Attachment 7).

The primary purpose of an EIS is to provide impartial discussion of significant environmental impacts, and reasonable alternatives and mitigation measures. Accordingly, the EIS focuses on the most significant issues. Potential temporary and nominal changes to dissolved oxygen conditions as a result of dredging are not considered potentially significant, and are not typically a concern in the process to obtain permits for dredging. Importantly, additional best management practices would be implemented throughout construction and dredging to avoid and minimize potential impacts to fish and other aquatic species.

I-747-9

Comment noted. Dredging impacts on fish and wildlife are addressed in EIS Supporting Chapter 5.0, Section 5.5.

I-747-10

Maintenance dredging within the deposition areas of West Bay is an important part of the Estuary and Hybrid alternatives to manage sediment accumulation resulting from removal of the 5th Avenue Dam, as described in the Draft EIS. Please refer to response to Comment I-747-8. Please also note that the Department of Natural Resources has been including new conditions in the marina leases to require that a minimum water depth is maintained, which reduces shoaling and associated impacts.

I-747-11

Although the EIS does not preclude marina relocation in the future, relocation is not proposed as part of the project. Rather, maintenance dredging is proposed to maintain a working waterfront and recreational boating in West Bay, which provides a public (and private) benefit. Members of the Funding and Governance Work Group have agreed to provide funding for the increased maintenance dredging through 2050, which aligns with the latest/longest current lease term that the private marinas have with the Department of Natural Resources.

3

I-747

COMMENT

RESPONSE

Maintenance dredging should not preclude the possibility of future actions in East Bay, and it would not be conducted in the existing intertidal habitat area along the western shoreline of West Bay. It is only proposed in the deeper waters that are used for navigation.

- I-747-12 The TMDL for Budd Inlet, released by Ecology in 2022, has stormwater allocations for municipal stormwater permittees, including the cities of Lacey, Olympia and Tumwater, Thurston County, Washington Department of Transportation, and Enterprise Services. The TMDL assigns municipal stormwater allocations for all months, with reductions for each jurisdiction. Allocations were developed for four parameters (TN, DIN, TOC and BOD5). As described in the Draft EIS and Final EIS, regulatory actions taken by Ecology and others through implementation of the Deschutes River and Budd Inlet TMDLs are expected to improve water quality in the Project Area over the long term.

I-747

COMMENT

RESPONSE

I-747-13	<ul style="list-style-type: none"> • <u>The perfect opportunity to monitor stormwater pollutants is when the outflow pipes are dug up and exposed.</u> The pipes can then be directed to move stormwater into underground retention facilities that will clean the stormwater before it flows into the Deschutes Estuary. Restoring a clean Deschutes estuary would be a tremendous net ecological gain for Puget Sound estuaries. 	I-747-13 Thank you for this comment. Please see response to Comment I-747-12, which describes Ecology as the lead agency with jurisdiction over stormwater input to the Project Area, and that implementing actions as required under the TMDL will improve water quality in the Project Area.
I-747-14	<p><i>Bat Habitat</i></p> <ul style="list-style-type: none"> • <u>Please document the “severe” impact to bats with conversion of Capitol Lake to an estuary.</u> One bat species is a state Species of Concern, but not state- or federal-listed. Is there best available science/data supporting the loss of Capitol Lake as a “severe impact” to bats? BHAS supports the protection of bats in their natural habitats and encourages the protection of freshwater wetlands, but not in converted historic estuaries. 	Please also see the Final EIS Summary, which describes Ecology's work to improve water quality; and the Port of Olympia's work to remediate contaminated sediment in the Project Area.
I-747-15	<ul style="list-style-type: none"> • <u>Acquisition can steer the plan’s freshwater direction for the Estuary Alternative.</u> Work with Capitol Land Trust to acquire restorable lands along the Deschutes River or closer to Woodard Bay. 	I-747-14 Thank you for your comment. We appreciate this perspective. As described in Section 3.3.2 of the Fish & Wildlife Discipline Report (Attachment 9), the assessment of potential adverse impacts considered several factors, including whether an alternative would eliminate or make non-viable a species group or species of regional importance within the Capitol Lake Basin or West Bay, through the loss of suitable habitat. Further, SEPA requires analysis of project changes relative to conditions that would occur under the No Action Alternative. Therefore, the No Action Alternative represents the appropriate baseline for analysis. See the Global Response for Fish & Wildlife for additional information on the bat analysis and related updates in the Final EIS.
I-747-16	<p><i>Construction</i></p> <ul style="list-style-type: none"> • <u>Breach the dam earlier in the process to help conserve salmon.</u> Estuarine habitat loss is one of the greatest threats to native salmon runs. The current construction plan for the Deschutes Estuary alternative involves 2 to 3 years on the FEIS and 5 years on permitting. At the very end of the 7 to 8 year construction period, the construction plan will release the dam and let the Deschutes River flow freely. Under the proposed plan, assuming no delays, the dam will actually be opened 15 to 16 years from now! 	I-747-14 Thank you for your comment. We appreciate this perspective. As described in Section 3.3.2 of the Fish & Wildlife Discipline Report (Attachment 9), the assessment of potential adverse impacts considered several factors, including whether an alternative would eliminate or make non-viable a species group or species of regional importance within the Capitol Lake Basin or West Bay, through the loss of suitable habitat. Further, SEPA requires analysis of project changes relative to conditions that would occur under the No Action Alternative. Therefore, the No Action Alternative represents the appropriate baseline for analysis. See the Global Response for Fish & Wildlife for additional information on the bat analysis and related updates in the Final EIS.
I-747-17	<ul style="list-style-type: none"> • <u>Start construction in 4 years instead of 8 years.</u> To speed up the end goal of opening the 5-Avenue dam, we urge fast-tracking of the FEIS and permitting process. Modeling of shore accretion and other changes, including changes to East Bay, can begin as soon as the Estuary alternative is chosen. Similarly, permitting of some construction pieces can begin before the FEIS is completed. All of the permitting can be expedited - similar to emergency bridge repairs. 	I-747-15 See the Global Response for Fish & Wildlife for information on the bat analysis and identification of potential mitigation measures, and related updates in the Final EIS.
I-747-18	<ul style="list-style-type: none"> • <u>Permitting must be more clearly defined in the EIS.</u> The statement “management activities to maintain water quality and ecological functions would be defined during permitting.” (page 2-53) is vague. Describe the levels of permitting involved for these activities. Describe how management activities would be defined in the permitting process, particularly since it has been shown time and time again that no net loss of wetland ecological functions, applied during permitting, has not been achieved. 	I-747-16 Removing the 5th Avenue Dam requires a suite of permits from federal, state and local regulators, which are based on a proposed design and construction plan. Design and permitting cannot be circumvented.
I-747-19	<ul style="list-style-type: none"> • <u>To speed up the process of dam release and removal, the first step before the estuary construction project begins must not be moving and extending Deschutes Parkway.</u> Instead, consider moving and extending Deschutes Parkway after Capitol Lake is dredged, outfalls are secured, and the dam is breached. It is not clear from the DEIS whether increased water flow from the un-dammed Deschutes River will require moving Deschutes Parkway. The current intersection of Deschutes Parkway SW and Olympia Avenue SW is certainly not ideal, and we applaud the desire to improve it. Yet if the Deschutes Parkway will not be at risk, consider moving and extending the parkway to improve the intersection <i>after</i> the dam is breached. 	During construction, there are a number of activities that must occur before removal of the 5th Avenue Dam. To provide one example, many stakeholders have suggested that a long-term closure of the 5th Avenue corridor is unacceptable. To avoid that impact, a new 5th Avenue Bridge must be constructed before the existing 5th Avenue corridor is closed for dam removal.
I-747-20	<ul style="list-style-type: none"> • <u>Revise the construction plan to open the dam as soon as the three basins of Capitol Lake are dredged to create a channel.</u> Building the 5thAvenue bridge can be done without a coffer dam, or with a coffer dam that allows the river to flow freely or almost completely freely. The amenities 	Enterprise Services acknowledge that existing conditions within the Project Area must be address through project implementation.
		I-747-17 Streamlined permitting processes can often be pursued for restoration projects; however, a range of federal consultations and other state and local processes must still be completed before the required environmental permits can be issued. Given that the Estuary Alternative has been identified as the Preferred Alternative, the long-term management project may qualify for the

I-747

COMMENT

RESPONSE

- available streamlined permitting processes and Enterprise Services would explore that at the beginning stages of design and permitting. At the earliest, funding could be provided by the Washington State Legislature for design and permitting in the 2023-2025 biennium.
- I-747-18 Please refer to EIS Supporting Chapter 9.0 for a full list of permits that would be required to construct the action alternatives.
- The applicable discipline specific analyses also provide more information on potential management approaches that could be used. For example, the water quality analysis (Section 4.3 of EIS Supporting Chapter 4.0) for the Managed Lake describes that the focus for a lake management plan would be on aquatic plants and mechanical harvesting could be used. There are a variety of management techniques also described in the aquatic invasive species analysis (Section 4.4) to support ecological functions.
- Specific management approaches would be confirmed through coordination with the regulatory agencies during the permitting process, and as performance standards are better defined.
- I-747-19 Please see response to Comment I-747-16.
- I-747-20 Please see response to Comment I-747-16.

I-747

COMMENT

RESPONSE

- 5- Ave. pedestrian bridge, fishing dock, boardwalk, boat launch and decontamination station - can be added after the river is flowing.

- Speed up the construction process by removing the dredge spoils off-site from Capitol Lake instead of using them to create habitat. Creating artificial habitat such as islands and artificial shores with the dredge spoils may not be feasible if New Zealand mud snails and pollutants are too numerous. Artificial islands or shores may simply disappear if not modeled accurately. Over the years, the river will ebb and flow with high and low tides and droughts and floods. Very likely these artificial "habitats" will be moved around, just like other sediments. Instead, with native plantings along the shores to support the system, let the river create its own shoreline habitat.

Managed Lake Alternative

While BHAS emphatically prefers the Estuary Alternative, we would like to comment on some problems with the description of the Managed Lake Alternative.

- The EIS must provide comparisons to other dammed lowland river impoundments, not lakes. Regarding flooding: we can't step back to the historical floodplain, but we can get closer with mitigative actions. Consider any potential overflow channels, or natural processes (as in Percival Creek), and enhancements needed to increase flow frequency, to create small ephemeral (from rain runoff) wet meadows upstream. An adaptive management plan with monitoring for invasive species will probably be needed in the Habitat Enhancement Plan.
- Delete the sentence on page 12: "Perceptions of poor water quality and worsening conditions in Capitol Lake are likely based on the impaired aesthetics from aquatic plant growth and the ongoing restrictions on recreational use, rather than water chemistry." Impaired aesthetics is a subjective term, and perceptions must be left to public comment. The next sentence "However, recent monitoring data indicate that water quality in Capitol Lake is relatively good." Relative to what? Other impoundments? Freshwater impoundments are not directly comparable to saltwater habitats. Capitol Lake's water quality is only as good as what comes out of the outfalls.

Stepping back, the EIS should consider the integrity of the lower Deschutes Watershed and Budd Inlet ecosystems as an active estuary for future generations. Please keep this perspective as my comments are reviewed.

Sincerely,
Sue Danver

I-747-21 Beneficially reusing the dredged sediment onsite results in a significant cost savings compared to transloading the material upland and potentially to a landfill. Creating habitat areas with the dredged sediment would also improve ecological functions, which is a primary project goal.

Enterprise Services has consulted with the Technical Work Group, including agencies with jurisdiction, to confirm the assumption that the dredged sediments can be beneficially reused within the Capitol Lake Basin. This is allowable because the sediment will stay within the same system.

The habitat areas would be designed to withstand certain river flows and could be armored as needed to improve stability. Notably, during the last major dredge event in Capitol Lake, sediment was placed at the south end of the Middle Basin, and is now the freshwater wetland habitat at the Interpretive Center Park.

I-747-22 The comment "The EIS must provide comparisons to other dammed lowland river impoundments, not lakes" does not provide enough information to discern issues with the adequacy, accuracy or completeness of the Draft EIS analysis or the ability to analyze the different impacts and benefits across the project alternatives.

Regarding requests to develop overflow channels and other floodplain enhancements, while that might reduce flooding under a Managed Lake Alternative, flood management is not a part of the project purpose and need. However, because water elevations would change across the alternatives, the numerical model did evaluate flood conditions to inform decision making relative to potential impacts and benefits.

The action alternatives do include development of an Adaptive Management Plan to maintain water quality, improve ecological functions, and manage invasive species. A Habitat Enhancement Plan would also be implemented.

The Habitat Enhancement Plan would include adaptive management strategies to ensure native plant survivability and to manage invasive species during establishment of the habitat areas. This is further described in EIS Supporting Chapter 2.0, Section 2.2.

I-747-23 This paragraph has been deleted from the Final EIS.

I-747-24 Comment noted, please see responses to specific comments.

I-748

COMMENT

RESPONSE

I-748-1 | Destroy the dam. I know it's not the same, but what they did with nisqually is perfect.

I-748-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-749

COMMENT

RESPONSE

I-749-1 | I'm not sure what study is being looked at but the debate on dams and how they affect wildlife is and easy one. Remove the Capitol Lake dam, drain the lake and re-establish the natural flow to Puget Sound. Capitol Lake was created to boost the ego and vanity of man. Let Mother Nature have it back. Cheers

I-749-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-750

COMMENT

RESPONSE

I-750-1 | You don't need a reflecting pond. Geez!

Let it go back to nature. If it goes back to a natural state you can then integrate unobtrusive nature trails or viewing areas for people to enjoy if they want to. If people want to swim they can swim in any one of the many other lakes in the area.

I was born in Olympia and grew up there in the 70s and 80s. Could not use the lake for anything during that time.

I-750-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-751

COMMENT

RESPONSE

I-751-1 | Managing the algae, milfoil, and other problematic plant life and shoreline management, along with muck eating microbes will vastly decrease the numbers of snails and improve water quality. Keep the dam and work with what is already there.

I-751-1 | Please refer to the Global Responses for Aquatic Invasive Species.

I-751-2 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-752

COMMENT

RESPONSE

I-752-1

Please remove the dam and restore the estuary. This land was here before us and we need to be less impactful or there will soon be nothing left. Salmon, orcas, etc. We have ruined nature's balance with greed and ignorance. Please remove the dam. I'll provide free labor.

I-752-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-753

COMMENT

RESPONSE

I-753-1

I'd like to see the damn removed and follow the tribes lead at fixing the lake to clean up the area And make it more environmentally appropriate please let's take care of our environment together

I-753-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-754

COMMENT

RESPONSE

Subject: **Comments on Deschutes Estuary Draft EIS**
From: Barb Carey <barbmcoly@comcast.net>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date: 2021-08-29 15:32



• Comments_29_August_21.docx(~17 KB)

Thank you for taking my comments attached. Could you please let me know that you received them?
Sincerely,
Barbara Carey
360-888-2224

I-754

COMMENT

RESPONSE

August 29, 2019

Barbara Carey
2706 Hampton Ct SE
Olympia, WA 98501

RE: Comments on the Capitol Lake – Deschutes Estuary Draft EIS

I-754-1

Thank you for considering my comments on the June 2021 Capitol Lake-Deschutes Estuary Long-term Management Project Draft EIS. I am a retired hydrogeologist with the Washington State Department of Ecology and have experience in water quality monitoring and analysis. My comments fall into two main categories: 1) issues with the water quality analysis for Capitol Lake and 2) my opinion, based on the information available, that the estuary is the best alternative.

Here are my comments on the water quality analysis for Capitol Lake from Attachment 7.

I-754-2

- The data used to determine that water quality has improved in Capitol Lake for 2004-2014 from Thurston County are not presented in the report, nor is there a reference that a reader could consult. The Quality Assurance and Quality Control methods and results for the 2004-2014 monitoring data are also not presented. Without verification of the data and methods used for the 2004-2014 monitoring, we cannot know that the conclusion that water quality has improved is accurate.
 - An outside objective peer review of the analytical aspects of the report is needed to verify the methods, data, and conclusions of the report.

I-754-3

- The report indicates that two stations in the lake were sampled in 2004-2014. Were these sample sites combined for trend analysis or were the two sites analyzed separately? The method for treating the data for analysis should be specified.

I-754-4

- Appendix D of Attachment 7 shows Kendall Tau results, but it is not clear which location each graph represents (there are more than one graph for each parameter). It would be helpful to label the graphs with the sample location.

I-754-5

- Although significant trends for water quality parameters are listed in the Water Quality Section of the report, the actual changes are not shown. A comparison of actual values would help give perspective to the degree of change, i.e., annual means or medians in a table or graph.
 - Alongside significant water quality improvements, there was significant water quality deterioration in conductivity in the data considered as a whole and summer. Likewise dissolved oxygen decreased significantly in the fall at the surface, when salmon are moving up the river.

I-754-6

- Anomalous lake conditions during the 2019 data collection due to the spill and cleanup of the Deschutes River may have introduced an unknown bias on results. Besides that, year to year variation can be enormous so that one year of data is not sufficient for making weighty management decisions. Basing major conclusions about nitrogen loss between the river and the lake, and resulting impacts on Budd Inlet, on data collected only in 2019 is not reliable. The conclusion that the 2019 data indicate that removing the dam would increase nitrogen input to Budd Inlet (Attachment 7, p. 4-41) conflicts with the WA Department of Ecology analysis, which

I-754-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process and responses to individual comments.

I-754-2

Please see the Global Responses for Water Quality regarding use of the 2004-2014 data set. Please also note that the Water Quality Discipline Report was independently reviewed by a 3rd party expert to ensure the technical analysis was conducted using industry-recognized best practices and included a reasonable level of analysis to allow for the comparison of alternatives, consistent with the requirements of the State Environmental Policy Act (SEPA).

I-754-3

The trend analysis was performed on the main north basin site which has been monitored by Thurston County in the past and, therefore, has a long-term data record. Section 4.1.2 of the Water Quality Discipline Report (Attachment 7) and the title of Table 4.1 have been clarified in response to this comment.

I-754-4

The appendix has been revised to include site locations in the graphs.

I-754-5

Please refer to Section 4.1 of the Water Quality Discipline Report (Attachment 7) for updated tables and figures. Please also refer to Appendix D of the Water Quality Discipline Report for Kendall's Tau Correlation Analysis Plots.

I-754-6

To support the EIS analysis, additional data was collected in 2021. The Water Quality Discipline Report has been updated with these data. Please see the Global Responses for Water Quality regarding use of the 2004-2014 dataset. The Water Quality Discipline Report was reviewed by an independent 3rd party expert to ensure technical analyses are conducted using industry-recognized best practices and include a reasonable level of analysis to allow for the comparison of alternatives, consistent with the requirements of the State Environmental Policy Act (SEPA).

I-754

COMMENT

RESPONSE

I-754-7 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-754-6

received thorough peer review, and indicated improvement in Budd Inlet with dam removal. Again, outside peer review of the technical aspects of the report are warranted.

Reasons for choosing the estuary alternative.

- Constructing the dam and lake, while an act of civic pride by our predecessors, has caused great damage to the ecosystem, including salmon and other fish and shellfish.
- The No Action or Managed Lake alternatives are especially irresponsible with the knowledge that the water body does not meet the state regulatory definition of a lake with a water retention time of only 0.6-7.9 days (or less since more sediment has accumulated). The current or managed water body that isn't really a lake is an incubator for algae and aquatic plants that deplete oxygen from the water and raise the temperature of the water—two of the major stressors for salmon and other fish. As the DEIS reports, dissolved oxygen levels are measured during the day, when plants are producing oxygen. Oxygen levels decrease tremendously at night and by early morning can be quite low. Unfortunately, fish need oxygen 24 hours/day.
- The hybrid option is also not a responsible choice. Both the salt water and fresh water reflecting ponds would have poor water quality at best and require intensive management, including treatment with a coagulant to remove excess phosphorus to attempt to control algae growth, according to the DEIS.
- As a community, it is our responsibility to act more humbly than our predecessors and try to rectify the damage that has been done to the Deschutes Estuary before the salmon runs and other wildlife are completely ruined.

I-754-7

I-755

COMMENT

RESPONSE

I-755-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

Subject: **Comments of the Capitol Lake Deschutes Estuary EIS**
 From: Dale Armstrong <dadarmstrong60@gmail.com>
 To: <comment@capitolakedeschutesestuaryeis.org>
 Date: 2021-08-29 15:33



I-755-1

To whom it may concern,
 I appreciate the efforts made to insure the decision on Capitol Lake be made with science. However, I am a physician and I must take issue with some of the conclusions made by the report. I will state from the onset, I firmly believe the "Lake" was a mistake in the first place. I put lake in quotation marks because it isn't really a lake. We just put a dam at one end of the river and slowed it down a bit.
 Let us take an example of how well the Nisqually Estuary is functioning and try to replicate that. People and nature are both able to enjoy the benefits.
 I am sure if we asked the salmon, they would definitely take issue with the study and support a return of the river meeting the ocean to its natural habitat!!!!
 Please don't allow fancy numbers and data to interfere with common sense!!!! It has had to be dredged at least twice because of sediment filling. The Estuary would solve that dilemma on its own. Sometimes we just have to admit that we cannot improve on Mother Nature!!! Let Capitol Lake return to its natural splendor as an estuary!!!
 Sincerely,
 Dale Armstrong, M.D.
 2706 Hampton CT SE
 Olympia, WA 98501

I-756

COMMENT

RESPONSE

I-756-1 This land belongs to First Nations people and it should have never been up to us to put a dam in. Restore the estuary to mend broken treaties and bring some natural beauty back to the downtown area.

I-756-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-757

COMMENT

RESPONSE

I-757-1 I strongly recommend preserving the entire Capitol Lake and continue dredging on a periodic basis. It should be a decision at the State level , not the city, due to the extraordinary impact on the beauty of the Washington's capital city. There are many reasons to preserve the entire lake, and it is worth the resources to do so. I live within blocks of the lake and my family and I walk there often. I am an avid outdoors person and environmentalist, and I respect the good intentions of the alternative solutions, but the other solutions will create an eyesore and diminished beauty. compared to the current setting. The current large freshwater lake is another important habitat for migrating waterfowl. Salmon are able to easily migrate in the current system. What are the negative results and costs of the alternatives? For example, will draining area result in low tide putrid smells, impacting downtown businesses? In developing the current lake, Olympia's earlier planners developed a world class lake, enjoyed by all, citizens and visitors alike - don't ruin it. Preserve the entire lake for the sake of future generations.

I-757-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-757-2 Comment noted. The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

I-757-3 The analysis of potential odor effects of the Estuary Alternative is described in Final EIS Supporting Chapter 4.0, Section 4.7.5. The analysis of potential economic impacts on downtown Olympia is described in Section 4.14.

I-757-4 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-758

COMMENT

RESPONSE

Before my father passed away he stated to me ' you better hope they Don't return that lake to an estuary! as growing up in Olympia before they installed the damn was so nasty as the smell at low tide was unbearable throughout the area.'

As a lifelong resident of Olympia myself and the fond memories of swimming in the lake when they had the dock and recreation system in place for swimming and recreation and having worked in facilities for GA and Enterprise Services I am acutely aware of the issues confronting Capitol Lake, the river, the Basin and Bud Inlet etal.

Personally I think we should dredge the lake and leave the damn in place take the dredge material via railroad (activate old line) dry it out in eastern WA to kill all the snails, etc. and use the clean material as compost and soil supplement for the farmers.

I-758-1

I-758-1

Comment noted. See Sections 3.7 and 4.7 of EIS Supporting Chapters 3.0 and 4.0 for information on odor. Also see the Global Response the Preferred Alternative Identification Process.

I-759

COMMENT

RESPONSE

I support returning Capitol Lake to a natural estuary.

I have lived in Olympia for over 30 years, and this issue has been discussed since the 1990s if not longer. It's time to return the area to it's natural state NOW.

I-759-1

I-759-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-760

COMMENT

RESPONSE

Subject **Draft EIS Comment**
From lisa dias <lisainolympia@yahoo.com>
To comment@CapitolLakeDeschutesEstuaryEIS.org
<comment@CapitolLakeDeschutesEstuaryEIS.org>
Date 2021-08-29 16:24



I-760-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-760-1

To whom it mat concern,,
Please dredge and keep Capitol lake, a lake.
Thank you,
Lisa Dias
606 Percival street sw
Olympia, WA 98502

Sent from Yahoo Mail on Android

I-761

COMMENT

RESPONSE

Subject **Draft EIS Comment**
From Nancy Stevenson <nancystevenson@comcast.net>
To <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date 2021-08-29 17:27



I-761-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-761-2 Comment noted.

I-761-3 Comments noted. The characterization of impacts, benefits, and costs provided in the EIS, provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives.

As noted in the Final EIS, the Hybrid Alternative has been modified to include a freshwater reflecting pool, which would improve water quality conditions if adaptatively managed.

I-761-4 See the Global Response for Visual Resources regarding the design of the barrier wall.

I-761-1

I appreciate the opportunity to comment on the Draft EIS for Capitol Lake/ Deschutes Estuary. I provide my comments and questions for consideration as the final EIS is prepared and a preferred Alternative is chosen.

1. Removing the 5th Ave Dam is necessary to restore tidal flows and improve ecological functions of the Deschutes Estuary.

It's clear that removing the dam is necessary to restore and improve the natural wetland habitat and overall ecological functioning of the Deschutes Estuary. Both the Estuary and Hybrid Alternatives take this action and achieve this purpose. Both options are less expensive than the Managed lake.

I-761-2

2. Should a small lake/reflection pond be retained?

There is something special about the tranquility...the reflective beauty of Capitol Lake. Looking at the visual simulation (on page 44 of the Draft EIS Presentation dated July 2021) illustrates how the smaller salt water pond of 45 acres proposed in the Hybrid alternative retains this beauty even at low tide. Retaining such a pond provides an elegant transition from the cityscape to the natural setting of the estuary which is recreated by the removal of the dam.

I-761-3

3. What are the other potential benefits of the reflection pond that would justify the extra costs (Hybrid costs \$70 to \$127 million more than the Estuary).

Besides the aesthetic appeal of a maintaining a reflection pond there are added recreational benefits. The pond's barrier wall includes a 14 foot wide path completing a 1 mile multimodal loop around the lake for pedestrians, bikes, and handicap access. The pond also provides enhanced boating opportunities. The salt water tidal action through the barrier wall helps manage, in a natural way, invasive species like the mud snail. Further, the flushing action of the tidal waters may reduce low dissolved oxygen levels in Budd Bay. There are flood prevention attributes as well.

On page 7-5, Table 7.1.1, comparing costs of the alternatives, indicates that there are: "...reduced costs to the City of Olympia, the Port of Olympia, and other entities given the flood reduction provided by the reflecting pond barrier wall." If these costs can be quantify, then that analysis should be prepared and included in the final EIS.

I-761-4

4. A suggested improvement to the pond's barrier wall.

On page of the 47 of the Draft EIS Presentation dated July 2021, there is a comment that: "Barrier wall could be improved with textured concrete panels and integration with Eastern Washington Butte Design. What would this look like? Are there any other ways to improve the look of the wall? If the Hybrid Alternative is selected then such improvements should be made.

I-762

COMMENT

RESPONSE

I first want to acknowledge that the land and water in question is the traditional territory of the Steh-Chass people, of the Squaxin Island Tribe, and also pay respect to Medicine Creek Treaty Tribes, the Nisqually and Chehalis people who have stewarded these lands and waters for thousands of years.

I strongly support the restoration of an estuary and the removal of the 5th Ave dam. As we continue to experience impacts of climate crisis in our region, from wildfire smoke to declining salmon runs, it is more clear than ever that we must make dramatic efforts to reverse the short-sighted decisions of the past to restore vital habitat and ecology in our community.

I-762-1

Estuaries are beautiful, rich and vibrant. Capitol "lake" is not. Its creation was an act of environmental injustice, displacing poor and Indigenous peoples who depended on the wild foods provided by the estuary habitat. To keep it in place further perpetuates this injustice in prioritizing an increasingly toxic, inert reflecting pool for the Capitol Building over the health and well-being of salmon and other wildlife species culturally significant to First Peoples in this region.

Beyond these compelling reasons, the estuary alternative is the least expensive option by a wide margin.

Please act now to restore vital habitat and ecology and right the wrongs of the past, to ensure that future generations do not continue to bear the burden of correcting our mistakes.

Thank you!!!

I-762-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-763

COMMENT

RESPONSE

I-763-2 We have studied the DEIS, most particularly the "Decision Durability" section of the Executive Summary. As you are well aware, there exists in the community and throughout the state very strong views for both of the major alternatives. Choosing either as a Preferred Alternative is really no decision at all as there will be endless appeals and court cases from the losing side. Thus, Capitol Lake will remain in its worsening condition.

I-763-1 We strongly support a proposed compromise, the DELI proposal, that will give each side of the issue most of what they want. This compromise will have the potential to unite the two sides and provide a wide-ranging list of benefits to the environment and to the state-wide community.

I-763-1 Finally, we were surprised that the DEIS considered a saltwater pool instead of fresh water pool option, and are curious why the DEIS authors did not do a better job in evaluating the fresh water pool option. We believe a fresh evaluation of the fresh water pool option, with consultation with new expert consultants, will provide clear evidence of the viability and cost-effectiveness of the fresh water pool option.

I-763-2 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.

I-763-1 Please see the Global Response for the Hybrid Alternative, which has been updated to include a freshwater reflecting pool.

I-764

COMMENT

RESPONSE

Subject **Capitol Lake DEIS Public Comments**
 From Steve Shanewise <steve.shanewise@outlook.com>
 To <info@capitollakedeschutesestuaryeis.org>
 Date 2021-08-29 17:56



• DELI Comments DEIS[9987].pdf(~156 KB)

Please enter my attached Public Comments in the Record for the Capitol Lake DEIS.

Steve Shanewise

I-764

COMMENT

RESPONSE

**PUBLIC COMMENTS ON
CAPITOL LAKE DEIS**

Steve Shanewise
August 2021

"If either the Lake or Estuary Alternatives become the Preferred Alternative, the civil war stalemate that has been fought for decades over these two choices will just continue on. The only way to stop the fighting so we can come together as one is through the Hybrid Alternative with a Freshwater Lake."

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I-764

COMMENT

RESPONSE

INTRODUCTION

My comments are divided into four sections:

- 1) Freshwater Lake vs. Saltwater Pool in the Hybrid Alternative
- 2) Barrier Wall in the Hybrid Alternative
- 3) Dredging
- 4) Tidal Opening at 5th Avenue

It is clearly stated in the DEIS that changes can be made to project Alternatives (p.20 of Executive Summary). This can occur as the result of “technical analysis and/or public comments...”, or if “substantial” changes to conclusions are found. The comments I submit here achieve all three of these standards relative to replacing the saltwater pool with a freshwater lake in the hybrid alternative. My comments about the barrier wall, dredging and tidal opening are not as conclusive, but still have strong merit.

**FRESHWATER LAKE VS. SALTWATER POOL
IN THE HYBRID ALTERNATIVE**

REINSTATE THE FRESHWATER LAKE

Measurable Evaluation Process

On p.2-2 of Chapter 2: Project Alternatives and Construction Approach, the 4th paragraph describes the Measured Evaluation Process used to select a saltwater pool over a freshwater lake within the Hybrid Alternative. In particular, Exhibit 2.4: Project Goals, called-out in the margin, details four specific issues where the freshwater lake actually beats the saltwater pool, not the reverse:

- 1) A freshwater lake will *improve water quality* by introducing cool artesian flows into Budd Inlet 24/7; a saltwater pool would release sun-warmed water on hot summer days with low diurnal tides (Solar Oven Effect).
- 2) A freshwater lake will have no *sediment inputs* from groundwater; a saltwater pool should have at least some *sediment inputs* from Deschutes River water pushed back by tides.
- 3) A freshwater lake will *improve ecological functions* by increasing habitat diversity (a freshwater lake will provide habitat for waterbirds to drink, bathe and rest that is unavailable in the restored estuary); a saltwater pool will provide no additional habitat to restored estuary.

I-764-1 Please see the Global Response for the Hybrid Alternative, which has been updated to include a freshwater reflecting pool.

I-764-1

I-764

COMMENT

RESPONSE

4) A freshwater lake would *enhance community use* by providing a beloved swim beach that would have beneficial economic impacts to downtown businesses; a saltwater pool would not provide a swim beach or the same beneficial economic impacts.

Furthermore, all issues presented throughout the DEIS process to reject the freshwater lake in favor of a saltwater pool have been proven false (see below: WATER QUALITY ANALYSIS; Phosphorus and Adaptive Management Plans plus GROUNDWATER; Availability and Water Right). Finally, here's a bullet point layout of a Measured Evaluation Process for the choice between a freshwater lake or saltwater pool in the Hybrid Alternative without bias against the lake.

Freshwater Lake

- Water permit not hard to obtain
- Adequate groundwater supplies available
- Phosphorus can be easily and cheaply scrubbed
- Would supply cool water to restored estuary
- Freshwater habitat would enhance ecosystem diversity
- Freshwater swim beach would be beloved by the community
- Beautiful reflective pool for the capitol dome
- Would protect Heritage Park from tidal influence
- Could have a put-and-take trout fishery for kids and seniors
- Recorded public support in Scoping
- Do what is best, not easiest

Saltwater Pool

- Will have algae blooms same as or worse than the restored estuary or a freshwater lake
- Adaptive Management Plan also required in perpetuity to scrub phosphorus (more difficult than freshwater lake)
- Solar Oven Effect (water heats up; increases algae growth; threat to fish)
- No freshwater swim beach
- No recorded public support in Scoping

WATER QUALITY ANALYSIS

General

Water quality analysis of the freshwater lake/saltwater pool issue is horribly flawed. First, the DEIS states that the saltwater pool would have water "cooler, with higher D.O. and less algae than in the restored estuary." (p. 13 of Ex. Sum.). Second, it also states that the freshwater lake would have worse water quality problems than a saltwater pool because the latter would get daily tidal flushing (p.5-2 of WQDR). These are not scientifically defensible statements. I explain why below.

I-764-2 Please see the Global Response for the Hybrid Alternative, which describes that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool. As such, the analysis summarized in this comment has been removed from the Final EIS.

I-764-1

I-764-2

I-764

COMMENT

RESPONSE

I-764-3

Tidal Flushing

There is this insane notion presented in the DEIS that twice daily “tidal flushing” (App. E of WQDR; p.5-3 and p.5-18) would somehow magically make the saltwater pool water clean, but at the same time would not make the restored estuary water clean (no algae blooms in saltwater pool; significant algae blooms in restored estuary). This makes no sense considering that the restored estuary will be fully flushed with every tide, but the saltwater pool would only be partially flushed because it would be a “perched basin” with an invert outlet that would maintain a minimum water depth of 6 feet. Furthermore, solar heating on warm summer days with low diurnal tides would greatly exacerbate water quality problems. Finally, when talking about shellfish and raptor habitat within the saltwater pool (Att.9; p.5-42 and p.5-44) it is actually stated that the saltwater pool would receive less flushing than the adjacent restored estuary and would therefore not be suitable habitat for shellfish or raptors. Suffice to say that the analysis stating tidal flushing of the saltwater pool will keep it clean should be flushed down a toilet.

I-764-3 Please see the Global Responses for the Hybrid Alternative, which describe that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool. As such, the analysis summarized in this comment has been removed from the Final EIS.

I-764-4

Phosphorus

There is this equally insane notion that somehow the Budd Inlet waters, which have significant phosphorus loadings and already have problems with algae blooms, would not have this same problem when the water enters the saltwater pool (p.13 of Ex. Sum.). How on earth does this happen!? How does Budd Inlet water enter the saltwater pool, then sit there static for hours during low tides on hot summer days (see Solar Oven Effect below), and not have algae growth? This is not a scientifically defensible conclusion.

I-764-4 Please see the Global Responses for the Hybrid Alternative, which describe that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool.

Final EIS Supporting Chapter 4.0, Section 4.3.6, has been updated to describe that the freshwater reflecting pool would be managed to reduce the very high phosphorus concentration in the groundwater to concentrations reflective of a mesotrophic lake, to support all beneficial uses of the pool. Groundwater and stormwater nutrient inputs to Budd Inlet from the pool drainage basin would be reduced through activities such as nutrient inactivation of the inflow and enhanced stormwater treatment in the watershed to reduce development of algae blooms. Algae and aquatic plants would still be present at quantities that would impact (increase) DO concentrations due to photosynthesis. Aquatic plants would be managed to support all beneficial uses of the pool and to minimize impacts to Budd Inlet.

I-764-5

Adaptive Management Plans

It is also repeatedly stated throughout the DEIS that a freshwater lake would require an Adaptive Management Plan that would have to be implemented in “perpetuity” in order to prevent algae blooms in this system, yet no such Adaptive Management Plan would be required for the saltwater pool (p.8: Table ES-1; p.28 and p.30 of Executive Summary). Not only would a saltwater pool also require an Adaptive Management Plan in “perpetuity” because it would have problems with algae blooms, it would be harder to implement than one for the freshwater lake because phosphorus inputs to the saltwater pool would be variable and not easily treated while the freshwater lake groundwater inflows would have constant phosphorus values and the wells could be easily scrubbed. So, here again the freshwater lake wins out over the saltwater pool, exactly opposite of what the DEIS says.

I-764-5 Please see the Global Responses for the Hybrid Alternative, which describe that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool. As such, the analysis summarized in this comment has been removed from the Final EIS.

I-764

COMMENT

RESPONSE

<p>I-764-6</p>	<p>Stormwater Outfalls (App. E of WQDR; p.4-1)</p> <p>The DEIS also implies that fixing the existing stormwater outfalls into the north basin of Capitol Lake would only be necessary under the freshwater lake option. This is false. Stormwater outfalls will need to be treated for existing phosphorus loadings by 2024 for any Alternative chosen, Estuary, Lake or Hybrid, and specifically not just for the Freshwater Lake option in the Hybrid Alternative. This is because new rules will be implemented by state law starting then.</p>	<p>I-764-6 At this time, the upcoming 2024 stormwater permit is not expected to include a requirement for phosphorus treatment in stormwater treatment facilities beyond what currently occurs, such as in cases where enhanced treatment is required as defined in Ecology’s 2019 Stormwater Management Manual for Western Washington. With full implementation of the Deschutes River TMDL and the Draft Budd Inlet TMDL, additional stormwater treatment will be required regardless of the alternative selected.</p>
<p>I-764-7</p>	<p>Stratification</p> <p>The DEIS states in one location that the Hybrid freshwater lake would not stratify because of wind action (App. E of WQDR; p.3-5) but then also says in two different locations that the water would stratify because of solar heating in summer (p.5-2). In both instances, the action of stratifying or not stratifying is portrayed as a negative impact for the freshwater lake.</p>	<p>I-764-7 The freshwater pool may stratify during the summer because it is deep enough, wind-induced mixing will be low, and the inflow of cool groundwater will be relatively high. The maximum pool depth would be approximately 15 feet and small ponds can stratify and form a thermocline at depths as shallow as 3 feet. under calm conditions. The wind fetch is only about 1,500 feet along the north-south axis., which would not allow for the development of substantial waves and vertical mixing during summer storms. Groundwater inflow is expected to be relatively high and cool and would flow along the pool bottom to the cooler bottom waters underlying a thermocline in the summer months.</p>
<p>I-764-8</p>	<p>Well Oxygenated Freshwater Lake</p> <p>The DEIS states (Chapter 4: p.4-49) that “...long-term, unavoidable adverse impacts to the lake basin would occur under the Estuary or Hybrid Alternative because the lake basin would be converted from a well-oxygenated freshwater lake to an estuary with low oxygen conditions...”. A freshwater lake instead of a saltwater pool in the Hybrid would provide mitigation compensation for this adverse impact. Indeed, a freshwater lake would provide clean, well-oxygenated water to Budd Inlet because of the groundwater inputs, something the saltwater pool could never do.</p>	<p>I-764-8 Thermal stratification of the freshwater pool would not be a negative impact and may be beneficial to pool water quality Groundwater monitoring data indicate that inflowing groundwater would be high in phosphorus and nitrogen. The inflow of groundwater to the bottom layer of water in the pool would reduce the nutrient supply to algae growing in the surface layer of water during the summer growing season. Vertical mixing of pool waters would increase the supply of nutrients supporting algae growth in the pool, which would happen during the fall for a stratified pool or throughout the summer and fall for an unstratified pool.</p>
<p>I-764-9</p>	<p>Solar Oven Effect</p> <p>The DEIS recommended saltwater pool would literally become a solar oven on hot summer days during extreme low diurnal tides. While the DEIS does say that “solar heating” would cause stratification of the water column in the freshwater lake (see Stratification above), they never mention solar heating for the saltwater pool option. Indeed, they actually say that the saltwater pool would provide “cooler” water to Budd Inlet than the freshwater lake (p.13 of Executive Summary).</p> <p>Low diurnal tides in summer would often submit a saltwater pool in the Hybrid Alternative to significant solar radiation. For example, on June 26, 27, and 28 of 2021, low diurnal tides would have left a saltwater pool with static water (no tidal inputs) for at least ten consecutive hours each day, over half of this in the heat of the afternoon. Then, on those same three summer days, temperatures rose to over 100 degrees where non-stop, direct sunlight would have been shining onto an unshaded saltwater pool. Needless to say, such extended, solar heating of a static, shallow body of water would cause significant warming, and any fish trapped within the saltwater pool during the lack of tidal exchange would likely be harmed.</p> <p>Then, when the tides finally did reach a level deep enough to flow into the saltwater pool again that evening, this much cooler Budd Inlet water would have plunged to the bottom and pushed all the solar-warmed, saltwater pool water back out and into the restored estuary. This would have negative impacts on water quality (would increase algae blooms) and could potentially harm fish, especially migrating salmon.</p>	<p>I-764-8 Please see the Global Responses for the Hybrid Alternative, which describe that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool. As such, the analysis summarized in this comment has been removed from the Final EIS.</p>
		<p>I-764-9 Please see the Global Responses for the Hybrid Alternative, which describe that Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool.</p>

I-764

COMMENT

RESPONSE

I-764-10	<p>MAINTENANCE DREDGING</p> <p>The freshwater lake would require no maintenance dredging basically forever. However, a saltwater pool would need periodic dredging in perpetuity because of sediment inputs from tidal flows pushing the Deschutes River, silt-laden waters back upstream. In Chapter 4, p.4-13: Fig. 4.1.3, there is a depiction of sediment deposition under each Alternative. Note that the Hybrid Alternative has no deposition shown within the barrier wall pool. That would only happen with a freshwater lake, which is not at all noted. With a saltwater pool, there would be deposition. An unbiased analysis would have called-out this beneficial impact for the freshwater lake.</p>	I-764-10 Based on comments received on the Draft EIS, Enterprise Services revised the Hybrid Alternative to include a freshwater reflecting pool that would not include tide gates. A saltwater pool is no longer being considered. The description of the Hybrid Alternative has been revised accordingly in Final EIS Supporting Chapter 2.0, Section 2.2.3.
I-764-11	<p>ECONOMIC ANALYSIS</p> <p>The conclusion reached in the DEIS regarding economic impacts was that they would be similar in type for all three Alternatives (p.22 of Ex. Sum.). This is an example of a conclusion that would substantially change with a freshwater lake instead of a saltwater pool in the Hybrid Alternative. The freshwater lake would have a <i>significant beneficial impact</i> to downtown economic vitality because a swim beach would attract more public use to the area than all other public use features combined in any Alternative. On hot summer days there would be at least hundreds of people using the Heritage Park swim beach which would in turn equate to significant use of downtown businesses, especially restaurants and bars. In a fair analysis, the Hybrid Alternative with a freshwater lake clearly beats the Lake and Estuary Alternatives when it comes to economic benefit.</p>	I-764-11 The Draft EIS and Final EIS describe that formal public swimming facilities are not included as part of any of the action alternatives. Consistent with this, the Economics analysis does not consider the impact of formal swimming facilities on downtown economic vitality. It does recognize the option value of potential future swimming opportunities, made possible because of the changes in water quality under the Managed Lake alternative. It also recognizes the more limited option value related to swimming under the Estuary Alternatives. This discussion, which was included in the Economics Discipline Report, has also been added to Final EIS Supporting Chapter 4.0, Section 4.14. Also added to Section 4.14, is a characterization of the option value specifically under the Hybrid Alternative. The discussion of option value of swimming in the EIS provides sufficient discernable information for decision-makers to weigh the potential impacts and benefits of the project alternatives.
I-764-12	<p>GROUNDWATER</p> <p><u>Availability</u></p> <p>During development of the DEIS it was originally said that up to 38,000,000 gallons per day (gpd) of groundwater would be needed to keep the freshwater lake clean. However, the DEIS states that slightly less than 500,000 gpd is all it would take for the freshwater lake to work, and admit that this volume would be available from the aquifer (App. E of WQDR: p.1-3 and 2-3).</p>	I-764-12 Comment noted. Following review of comments received on the Draft EIS, the Hybrid Alternative was modified to include a groundwater-fed freshwater reflecting pool. Groundwater availability and permitted use would need to be verified during design and permitting.
I-764-13	<p><u>Water Right</u></p> <p>It was also said, and seems to still be, that it would be difficult if not impossible to get a Water Right to access the artesian flows beneath the lake basin. Nothing could be further from the truth. Indeed, it could be one of the easiest Water Rights to get in Washington State for two reasons. First, the take is "Passive, Non-consumptive" meaning the flows are artesian and the water will only be borrowed temporarily before being delivered to Budd Inlet where it would have ended up anyway. This means you don't have to clear the hurdle of "Best Use" in the permitting process because it's not being "used". Second, there is no one downstream of the take who would complain about a potential loss of their own water rights. So, portraying the Water Right issue as a fatal flaw for the freshwater lake is simply false.</p>	I-764-13 The description of the process to obtain water rights for use in a groundwater-fed reflecting pool was informed by consultation with the Department of Ecology. Please see the Global Response for the Hybrid Alternative, which documents that the Hybrid Alternative has been modified to include a freshwater reflecting pool.

I-764

COMMENT

RESPONSE

I-764-14	<p>Test Well</p> <p>It is difficult to understand why a simple, cheap test well was not installed to obtain accurate, undeniable data on water quantity and quality. More time and money was probably spent gathering field data from leaking wells and then extrapolating it than a test well would have taken. The potential inaccuracies of the extrapolated data used is mentioned often (App. E of WQDR: p.1-5; p.2-1/2; p.3-2) and there is even an almost admission that a test well should have been put in (p.3-3: "Additional groundwater...monitoring data would be needed to reduce model uncertainty"). One problem with a test well though would be that your data would be accurate and hard to deny.</p>	I-764-14 The Hybrid Alternative has been updated in the Final EIS to include a groundwater fed reflecting pool. If the Hybrid Alternative were selected for implementation, the design and permitting process would include additional studies to confirm feasibility of this groundwater use and to complete the public interest test in order to obtain required permits.
I-764-15	<p>FISH AND WILDLIFE</p> <p>Fish</p> <p>The DEIS states that a saltwater pool would "provide fair to moderate rearing habitat for salmonids," (p.31 Ex. Sum.). The saltwater pool could actually become a death-trap for all fish on hot summer days with low diurnal tides when water would sit static through the heat of the day (see above: Solar Oven Effect). The DEIS also states that a freshwater lake "would stress anadromous fish", even though there would be no fish access between the freshwater lake and the adjacent restored estuary.</p>	I-764-15 In the Final EIS, the description of the Hybrid Alternative has been updated to include a groundwater-fed freshwater pool. As a result, the barrier wall would no longer include tide gates. The commenter is correct that the Draft EIS incorrectly described that there would be fish access through the barrier wall if the pool is freshwater. This has been corrected in the Final EIS.
I-764-16	<p>Water Birds</p> <p>The DEIS analysis of water bird use for the freshwater lake and saltwater pool is completely flawed. First, they fail to even mention the waterfowl use of the freshwater lake when mentioning wildlife benefits (p.31 of Ex. Sum.), yet this use is referred to as being higher than what a saltwater pool would receive (App. E of WQDR; p.5-4 "...the freshwater reflecting lake may have higher duck and goose populations than a saltwater pool."). However, when it comes to water quality issues from excrement, the frequent use of the freshwater lake by waterfowl and gulls is specifically called out many times.</p> <p>The fact is the freshwater lake would provide clean freshwater for waterfowl, gulls and shorebirds to drink and bathe in that a saltwater pool would not (water birds don't drink saltwater and prefer to bathe in freshwater). It would provide what is known as a <i>functional lift</i> to the ecosystem by providing additional habitat (freshwater lake) that would be unavailable with a saltwater pool option.</p>	I-764-16 Section 3.5.2.2 of EIS Supporting Chapter 3.0 and Section 4.2 of the Fish and Wildlife Discipline Report describe waterfowl use of the existing lake. A number of updates have been included in the Final EIS related to the change from a saltwater pool to a groundwater-fed freshwater pool under the Hybrid Alternative (see Section 4.5.6 of Final EIS Supporting Chapter 4.0). Regarding the referenced section of the Executive Summary, benefits to birds were not described for the Managed Lake Alternative because bird use of the lake would remain similar to existing conditions. As a result of the changes to the Hybrid Alternative, and in response to this comment, the impacts and benefits to wildlife have been clarified in the Final EIS Summary.
I-764-17	<p>Bats</p> <p>The analysis on impacts to bats is based solely on a saltwater pool, not a freshwater lake (Att. 9; p.5-44). A freshwater lake would provide 45 acres of freshwater habitat that would support insects bats feed on which the saltwater pool would not provide. This is another positive for the freshwater lake over the saltwater pool not pointed out in the DEIS.</p>	I-764-17 The discussion of potential impacts on bats under the Hybrid Alternative has been revised to reflect that this alternative now includes a freshwater, not a saltwater pool. While 45 acres of open, freshwater habitat would be retained, given that the majority of open, freshwater habitat would be eliminated, it was conservatively determined that impacts would potentially be significant on Yuma myotis and little brown bats at the Woodard Bay trestle colony.

I-764

COMMENT

RESPONSE

I-764-18

Raptors

The DEIS states that the saltwater pool would not have the same habitat values for raptors as the restored estuary because it would lack “the daily dynamics of tidal action” (Att. 9; p.5-44). And it also says that a freshwater lake “would not support raptors or fish-eating birds well” (p.31 of Ex. Sum.). I would argue that a saltwater pool would provide excellent habitat for eagles because of the potential for the Solar Oven Effect to kill fish, and that a freshwater lake would provide good prey (stocked trout) for ospreys.

I-764-18 The Hybrid Alternative now includes a freshwater, not a saltwater pool as described in Final EIS Supporting Chapter 2.0. Regarding habitat value of the Hybrid Alternative's freshwater pool to raptors, it has been clarified in the Final EIS that fish production in the pool would likely be lower than that of the estuary portion of the basin, but that overall, there would be no impacts on raptors.

I-764-19

DECISION DURABILITY (p.25 of Ex. Sum.)

Decision Durability is the lynchpin of the Hybrid Alternative with a freshwater lake because it will garner much more community support if chosen as the Preferred Alternative than either the all Lake or all Estuary Alternatives would. Think of it as you would Ranked-Choice Voting. Anyone who would have either the all Lake or all Estuary Alternative as their first choice would certainly choose the Hybrid Alternative as their second, but never their third. And there are building numbers of people who would vote for the Hybrid with a lake as their first choice because they believe a compromise is a fair, functional solution where we will get the best of both worlds. This means in a RCV system, the Hybrid Alternative would beat both the Estuary and Lake Alternatives because it would garner all the 2nd place votes as well as quite a few 1st place votes, but would get no 3rd place votes.

I-764-19 This comment is a statement and does not affect the environmental analysis in the Draft EIS. Also see the Global Response for the Preferred Alternative Identification Process.

The significance of having strong Decision Durability comes when it's time to ask for the money to design and build the chosen Preferred Alternative because with a divisively split community, funding will be very difficult to get. Elected officials do not dole out money to massive infrastructure projects that half the people in a community will loathe when built. However, if most of the community is united behind the Preferred Alternative, the opposite is true. And that is what Decision Durability is all about.

If either the Lake or Estuary Alternatives become the Preferred Alternative, the civil war stalemate that has been fought for decades over these two choices will just continue on. The only way to stop the fighting so we can come together as one is through the Hybrid Alternative with a Freshwater Lake.

I-764

COMMENT

RESPONSE

BARRIER WALL IN THE HYBRID ALTERNATIVE

HEIGHT

The DEIS states the height of the barrier wall for the Hybrid Alternative would be 18.5'-25' and that this would cause "severe visual impacts" (p.33 Ex. Sum.). However, these are elevations, not heights, based on a tidal datum. The true height of a new barrier wall would be about 10' at the southern end and only about 16' at the north end. Plus if a rock barrier were built with a 3:1 slope, there would be no vertical "wall".

ROCK, NOT SHEETPILE

A rock barrier would be cheaper, easier and quicker to build than a sheetpile wall. Plus, a rock barrier would easily survive even major earthquakes, if built with at least 3:1 sideslopes, while a sheetpile wall would not because it is a fixed, rigid structure that would crack from ground shaking. A rock barrier would also provide a boulder slope with cavities where salmon smolts could and seek refuge at most tides. It would also present a much lower visual impact than a shear, sheetpile wall.

DREDGING

RE-USE OF DREDGE SPOIL

The idea of reusing dredge spoils to make islands that would support trees seems questionable. The material picked up through suction would consist only of silts and fines which would tend not to mound well, even when initially confined with a containment wall. Once the wall was removed, these piles of silts/fines would erode back down to a uniform level within the landscape, especially with tidal action under the Estuary and Hybrid Alternatives.

DREDGING LOCATION

In the Estuary and Hybrid Alternatives, long-term dredging is only proposed north of 4th Avenue in Budd Inlet. However, this approach would allow the restored estuary to just continue to fill in with sediments over time and eventually lose much of its functional values. Dredging instead in the south end of the middle basin (as proposed in DEL) would prevent the eventual filling in of the estuary by capturing the sediments at the upper end of the system rather than the lower end.

I-764-20 The typical height of the barrier wall would be approximately 18-feet. This is measured from the average mudline in the estuary (0' NAVD-88) to the top elevation of the barrier wall, which would be approximately 18' NAVD-88. The barrier wall would make landfall at the north and south ends and so the height would decrease in these areas. The exact points of connection with the shoreline and resulting height would be determined during future design work. These estimates are based on conceptual design. Please see the Global Response for the Hybrid Alternative for discussion of the barrier wall design (rock vs. steel pile). Please also note that the EIS recommends that concrete panels could be hung from the barrier wall to improve aesthetics.

I-764-21 Please see the Global Response for the Hybrid Alternative.

I-764-22 The results of high-resolution sediment modeling did not show that there would be meaningful erosion of the habitat islands. In the next phase of the project after the EIS, design criteria would be developed for the habitat islands. The design criteria would establish a design event (threshold) beyond which erosion may occur. The habitat islands would be designed (engineered) to this design event so that erosion would only occur during events exceeding that threshold. Coordination with local stakeholders will continue during this design and permitting phase.

Creating habitat using dredge spoils provides a way to utilize the dredged materials. More detailed assessments of re-usage of dredge spoils such as which wetland plants are suitable with the dredge spoils and evaluation of erosion mitigation needs/measures will be addressed during the design phase.

I-764-23 The proposed areas of initial dredging are not limited to places north of 4th Avenue. As listed in Table 2.3.1 of the Draft EIS, initial dredging to construct the Estuary Alternative and Hybrid Alternative would occur in the North and Middle Basins.

In the Estuary and Hybrid Alternatives, the North Basin (and Middle Basin to a lesser degree) would partially act as a sediment trap and would capture some of the sediments before the Deschutes River enters West Bay of Budd Inlet.

It is correct that frequent dredging within the Middle and North Basins, proposed in this Draft EIS comment, would make those basins deeper and increase their capacity to capture some of the sediments that could end up in West Bay. However, dredging downstream of the 5th Avenue Dam is more cost effective (due to presence of deep-water areas and ability to bring dredge equipment into the site) and would best support the project goal of improving

I-764

COMMENT

RESPONSE

ecological functions in the basin. Continued dredging in the Middle Basin would have an impact on the proposed habitat elements and ecological function.

I-764

COMMENT

RESPONSE

TIDAL OPENING AT 5TH AVENUE

The tidal opening necessary at 5th Avenue has significant ramifications for any estuary restoration. Full removal of the existing dam and roadway to create a 500'-wide opening could require a 4-year closure of both 5th Avenue and the Deschutes Parkway. In contrast, if just the guts of the 5th Avenue dam were removed to allow free tidal exchange, the closures would be just a few months. Plus, overall project costs would be reduced by tens of millions of dollars.

This option has been rejected within the DEIS analysis apparently because of concerns over scouring of the 4th Ave. Bridge supports. However, this is a false narrative. Under existing lake conditions, the dam tide gates are sometimes opened to release lake water when there is a significant difference in tide vs. lake water levels (lake is higher). This creates considerable "head" pressure which then causes the lake water to rush much faster out of the dam orifice than any flow velocities that would occur with an open free-flowing tidal system.

If the desire for a 500'-wide opening is purely aesthetics and not based on some ecosystem function, it should be rejected. And what possible, functional, cost-effective benefit could be gained given the same tidal constriction occurs just a few hundred feet upstream at Marathon Park? Indeed, I would suggest that a brief constriction in the flow might help mix the tidal waters and thereby improve their quality.

I-764-24

In response to comments received on the Draft EIS, the Estuary and Hybrid Alternatives have been modified to avoid long-term closure of the 5th Avenue corridor. To avoid this closure, a new 5th Avenue Bridge would be constructed south of the existing bridge and connected to the transportation system before removal of the 5th Avenue Dam and bridge.

Full removal of the 5th Avenue Dam best supports project goals relative to improved water quality and enhanced ecological functions, and is most compatible with estuary restoration. Regulatory agencies and tribes have also advocated for this larger opening and this is consistent with modeling performed by the Washington State Department of Ecology.

Federal funding opportunities may also be increased with dam removal, rather than tide-gate-opening only.

I-764-24

I-765

COMMENT

RESPONSE

I-765-1 Comment noted. Also see the Global Responses for Air Quality and Odor and the Preferred Alternative Identification Process.

I-765-2 Please refer to the Global Response for Shared Funding and Governance for Maintenance Dredging under the Estuary Alternative.

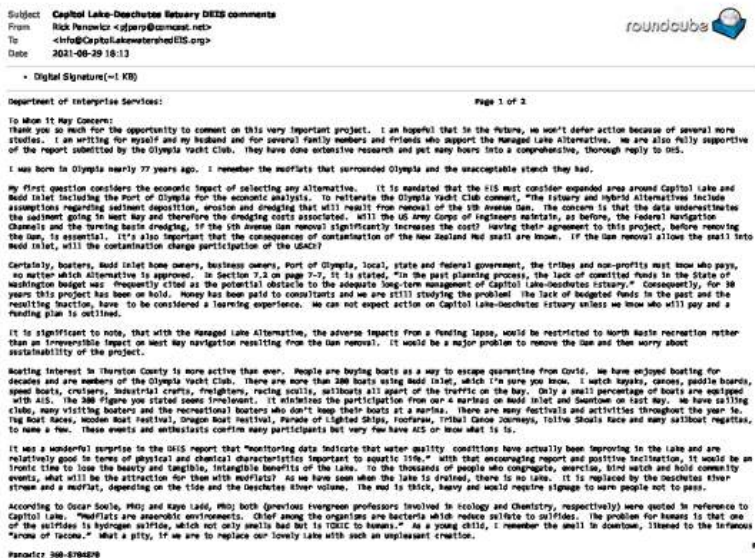
Please also note that several authorizations would be needed from the USACE before removal of the 5th Avenue Dam; their agreement must be obtained before construction can begin.

Please see planning-level cost estimates that are provided in Final EIS Supporting Chapter 7.0 for more detail on cost implications if the New Zealand mudsnail are in the sediment to be dredged. However, because sediment dredged under the Estuary and Hybrid Alternatives would be in a saltwater environment, there is low potential for freshwater aquatic invasive species persistence in deeper waters where dredging would occur. To evaluate the validity of this assumption, a survey was conducted for the Final EIS to determine whether New Zealand mudsnail have established in Budd Inlet, given their transport through the 5th Avenue Dam during high flow events. No New Zealand mudsnail were found during this survey.

Before future dredge events, sampling for chemical quality and invasive species would occur, in coordination with the DMMP, to confirm suitability of the dredged material for in-water disposal. The USACE leads the DMMP and would be consulted regarding disposal options in this process.

There is no known restriction on USACE-participation in dredging sediment with aquatic invasive species.

I-765-3 The Budd Inlet Vessel Traffic Pattern figure in the Draft EIS's Navigation Discipline Report accurately reflects the Port' of Olympia's cargo vessel call based on aquatic invasive species (AIS) data for 2018 to 2019. The AIS data include other vessels, not calling at the Port of Olympia, representing a sample of the vessel traffic for vessels where AIS reporting is optional. The figure provides a summary representation of larger vessel use of Budd Inlet into West Bay. The observable patterns reflect areas where larger vessel traffic generally occurs. Areas not shaded may have occasional transits and should not be interpreted as indicating a complete absence of vessel traffic (areas with 5 or fewer vessel passes per year are not shaded and many recreational vessels do not have AIS that can be recorded by the system). Vessel navigation was observed to be highest within the authorized Federal Navigation Channel and turning basin and throughout the east side of West Bay closest to the Port



I-765

COMMENT

RESPONSE

of Olympia, local private marinas, and marina access areas along the east shore of West Bay. Figure 4.4 also notes the limitations of the vessel data in the bottom legend and additional text has been added to the analysis for clarity.

Please note that the Port of Olympia and Olympia Yacht Club were both established in their existing location before the 5th Avenue Dam was constructed in 1951. Navigational uses (recreational and commercial) existed throughout this lower portion of the Deschutes Estuary and maintenance dredging supported those uses. Maintenance dredging is also assumed as part of the Estuary and Hybrid Alternatives to avoid potential significant impacts to the Port of Olympia and private marinas in West Bay as a result of increased sediment deposition (compared to existing conditions).

Please see Final EIS Supporting Chapter 7.0 for a description of a Memorandum of Understanding among members of the Funding and Governance Work Group for shared funding to dredge the increased sediment above existing conditions under the Estuary and Hybrid Alternatives. The term of this agreement is anticipated through 2050, with opportunity for extension.

Please also see Attachment 21 for a description of the process used to identify a Preferred Alternative, which included a comprehensive evaluation of the potential impacts and benefits of each alternative.

I-765-4

Section 4.1 of the Air Quality Odor Discipline Report (Attachment 11 to the Draft EIS) describes that sulfide concentrations arising from tideflats, salt marshes, and decomposition more generally do not approach toxic levels. A review of the Toxicological Profile published by the Agency for Toxic Substances & Disease Registry (ATSDR) found that the concentrations from naturally derived sulfide emissions do not rise to the level of a health concern. See also the Global Response for Air Quality & Odor.

I-766

COMMENT

RESPONSE

I-766-1 | Greetings, I would like to submit my support for restoring the Capitol Lake area back to its natural state as an estuary.

I-766-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-767

COMMENT

RESPONSE

Subject: **Capitol Lake-Deschutes Estuary DEIS comments**
 From: Rick Panowicz <pjparp@comcast.net>
 To: <info@CapitolLakewatershedEIS.org>
 Date: 2021-08-29 18:16



• Digital Signature(~1 KB)

page 2 of 2

Your graphs indicate, under the Estuary Alternative, that the Basin would be covered with water 80 percent of the time. That sounds good but if the tides are high at 10PM to 6AM it will have little impact on the pleasure people derive. The Olympia Yacht Club stated in their response that July 2021 had 28 days or 90 percent of the days, during daylight hours, when tide flats were exposed. It is not adequate to evaluate the exposed mudflats on a 24 hour lock. It would add more to the discussion if people knew the daylight hours of mudflat exposure, especially in the summertime when outdoor activities on the water, are cherished.

I look forward to hearing responses to the well defined questions from the Olympia Yacht Club. Any response that I receive from you will be appreciated. Hopefully, these questions will be given honest consideration so that Olympia receives the most valuable Alternative for our working waterfront, businesses, families, children and seniors.
 Thank You.

Panowicz 360-878-4878

Pan

I-767-1

I-767-1 | In response to this and other comments, it has been clarified in the Final EIS that tides tend to be lower during the summer months. Final EIS Supporting Chapter 4.0, Section 4.10.5, describes that water levels would be at mean tide or higher approximately 43% of daytime hours in the period between May and September, the peak recreational season, covering 80% or more of the North Basin. It is estimated that the channels in the North and Middle Basins would be at depths that would support shallow draft boating, such as kayaking, approximately 70% of the daylight hours during the months of May through September (see Section 4.8.5.2 of Final EIS Supporting Chapter 4.0).

The Tidal Conditions graphic included in Chapter 2.0 that is referenced in this comment has been clarified in the Final EIS.

Boating in West Bay would not be affected by changes to tidal conditions in the Capitol Lake Basin.

I-768

COMMENT

RESPONSE

I-768-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

Subject: **Fw: Failure Notice**
 From: philip_pearson <philip_pearson@yahoo.com>
 To: comment@CapitolLakeDeschutesEstuaryEIS.org
 <comment@CapitolLakeDeschutesEstuaryEIS.org>
 Cc: Philip Pearson <philip_pearson@yahoo.com>
 Date: 2021-08-29 18:27



----- Forwarded Message -----
From: "mailer-daemon@yahoo.com" <mailer-daemon@yahoo.com>
To: "philip_pearson@yahoo.com" <philip_pearson@yahoo.com>
Sent: Sunday, August 29, 2021, 04:54:20 PM PDT
Subject: Failure Notice

Sorry, we were unable to deliver your message to the following address.

<comment@CapitolLakeDeschutesEstuaryEIS.org>
 550: 5.1.1 <comment@CapitolLakeDeschutesEstuaryEIS.org>: Recipient address rejected: User unknown in virtual mailbox table

----- Forwarded message -----

I strongly support the Deschutes Estuary for several reasons. First, I believe it to be the best environmental solution for salmon and other native species. Second, it would reduce or eliminate the problems cause by the poor water quality of the artificial lake. Third, in the long run it would likely be the least expensive alternative as it would better approximate natural forces needing the least maintenance.

While the lake is attractive from a distance, its water quality makes it quite unsuitable for the future.

I understand the hybrid alternative would be the most expensive action and makes no sense. It would be the combination of the worst parts of the other two plans.

Please restore the Deschutes Estuary, and quickly while there may be time to save the salmon runs.

Philip Pearson
 Lacey, WA

I-768-1

I-769

COMMENT

RESPONSE

I-769-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I have lived in Olympia for more than 40 years. I worked and lived downtown for many of them. I walked around Capitol Lake frequently and attended many gatherings by its side. I have watched the lake change over the years and listened to the many controversies surrounding it and its use. I prefer to see the lake return to an estuary. Restoration of the natural habitat and marine and wildlife would be of great educational interest and is an ecologically sound move from what I have read. To restore a sacred place to the native Tribes would be a positive action. Sincerely,
 Diana Flannery

I-769-1

I-770

COMMENT

RESPONSE

I-770-1 Comment noted. Also see the Global Responses for the Hybrid Alternative and Preferred Alternative Identification Process.

Subject: **DELT**
From: Roger Cummings <rocstudio1@gmail.com>
To: <info@capitolakedeschutesestuaryeis.org>
Date: 2021-08-29 18:51



I-770-1

Okay As a citizen of Olympia for 46 years, I support Decision Durability, and a fresh water pool as well as estuary restoration. It's a balanced approach.
Roger Cummings
Olympia WA

I-771

	COMMENT	RESPONSE
I-771-3	<p>Having lived in Olympia's near west side for over 50 years, we have appreciated Capitol Lake and have been saddened with its demise.</p> <p>Having a clean, sparkling lake surrounding our state Capitol grounds is a major asset to our community and State. We can't understand why it has not been maintained, when other communities and countries are able to maintain much larger bodies of water; to us it represents gross mismanagement.</p> <p>The management of Capitol Lake should be under the jurisdiction of the State, and the whole grounds should be made a State park. You should also buy up the private property where vagrants are illegally camping and take control of this blight on our community. (Moving the vagrants to the County Fairgrounds where there are adequate facilities for their basic hygiene and other needs is a humane option). We support the restoration of the entire Capitol Lake as a freshwater body with wildlife preservation as a flyway for migrating birds etc. There are enough estuaries around, just go over to Mud bay or over the bridge at Budd inlet one can see enough mud flats when the tide is out (they also reek)--why extend that?</p> <p>Why balk at the idea of managing a fresh water lake which is relatively small in size comparatively? Think of the effect on our community of reeking mudflats and backed up traffic if the 5th ave Bridge is taken out. If you cite an environmental need to revert to a "natural state", then consider entire countries which are built on wise management of waterways--like Holland for example with its extensive built up dikes. Holland is one of the most environmentally friendly countries in the world, and they actively manage their water resources.</p> <p>Please think of the next generations and truly consider the citizens you represent when you make such important decisions as the future of Capitol Lake.</p> <p>Regarding financing, we suggest asking for State or even Federal grants to complete this project to maintain Capitol Lake and make it a State partnership at least.</p> <p>For the good of our beautiful community, Sincerely, Ulla Giesecke</p>	<p>I-771-3 Regarding concerns with unauthorized camping, see the Global Response for Land Management.</p> <p>I-771-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.</p> <p>I-771-2 The Estuary Alternative has been identified as the Preferred Alternative for long-term management. Please refer to Attachment 21 for more detail on the decision-making process.</p> <p>If the Washington State Legislature provides funding for the next project phase, Enterprise Services could begin to pursue grant funding opportunities for project implementation. Construction funding is likely to include funds from a variety of sources, including federal, state, and potentially philanthropic.</p>

I-772

	COMMENT	RESPONSE
I-772-1	<p>Remove the damn so the ecosystem can rejuvenate itself.</p>	<p>I-772-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.</p>

I-773

COMMENT

RESPONSE

I-773-1 | It's pretty obvious that the best solution is to remove the dam. I am not a scientist but I do work in finance and from a financial point of view it also makes the most sense to remove the dam. Ecological standpoint says remove the dam. Financial standpoint says remove the dam. So remove the dam.

I-773-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-774

COMMENT

RESPONSE

I-774-1 | Restoration of the estuary is by far the best solution.

I-774-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-775

COMMENT

RESPONSE

Subject **Input on Capitol Lake Deschutes Estuary DEIS**
From Dick Binns <dick.binns@gmail.com>
To <comment@capitolakedeschutesestuaryeis.org>
Date 2021-08-29 20:24



• DEIS Comments.pdf(~85 KB)

Attached please find in PDF format my personal input as an Olympia area resident on the Capitol Lake Deschutes Estuary DEIS process. Please note that this input is different than the input I forwarded you Saturday morning under the same email address from the owner of The Oyster House and Budd Bay Cafe.

Please let me know if you have any questions on my submissions.

Thank you for your time and attention.

Dick Binns

971-277-0868
dick.binns@gmail.com

I-775-1

I-775-1 | Thank you for your comments. Your comments are addressed below.

I-775

COMMENT

RESPONSE

I-775-2 This response acknowledges the commenter’s position. The commenter does not raise any specific issues regarding the adequacy, accuracy, or completeness of the Draft EIS to provide a response.

August 29, 2021

Department of Enterprise Services

To Whom it May Concern:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for Capitol Lake/Deschutes Estuary.

I-775-2

I have significant concerns about both the Estuary and Hybrid proposals that entail removal of the 5th Avenue Dam as outlined in the DEIS. My main concerns are that the dam removal options as examined in the DEIS significantly underscope both the costs and the environmental, economic, recreational and aesthetic impacts to Olympia’s waterfront and downtown area. Olympia has a phenomenal waterfront. As the City of Olympia’s website says:

Set like a jewel at the southern tip of Puget Sound with sweeping views ….. Olympia’s sparkling setting has drawn people to its rich shores for thousands of years. Today there is something for everyone here in the embrace of Olympia’s remarkable waterfront.

I-775-3 Final EIS Supporting Chapter 3.0, Section 3.3.3.1, acknowledges that nitrogen, both in the form of total nitrogen (TN) and dissolved inorganic nitrogen (DIN), decreases between the river and the lake, indicating that the lake is a sink for nitrogen. As a result of this, and as described in Section 4.3.5.2 of Final EIS Supporting Chapter 4.0, nitrogen discharged to Budd Inlet is expected to increase with dam removal. Section 3.3.4.2 has been modified to emphasize the increased nitrogen input in light of the pending nitrogen reduction program for Puget Sound. The comparison between nitrogen inputs in the Deschutes River and Capitol Lake has been expanded in Section 3.3.3.1 to include a comparison of nitrogen loading. These results further support the findings of Ecology’s modeling and the EIS team’s analysis that nitrogen inputs to Budd Inlet will increase with dam removal.

I-775-3

From an environmental aspect I was pleased to see that the DEIS acknowledged that Capitol Lake was a clean lake with decent water quality. What I did not see discussed that I’d hoped to was the role Capitol Lake plays as a nitrate sink in removing nitrates via the plant life growing in the lake from the nitrate rich Deschutes river before it enters Puget Sound. I believe the Deschutes is the second most nitrate rich river in western Washington and higher nitrate levels contribute to lower dissolved oxygen and thus poorer water quality in Puget Sound. Any proposal to remove the dam needs to evaluate how the loss of this nitrate sink will be remediated without further environmental damage to the South Sound.

I-775-4 See the Global Response for Land Use, Shorelines, and Recreation.

I-775-5 Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

I-775-4

Examination of recreational options under the various scenarios was limited. In the Managed Lake scenario no mention was made of the possibility of boating and sailing instruction for smaller children on a properly managed and dredged Capitol Lake. Nor did the DEIS address how the popular sailing lessons offered by the City Parks Department would be conducted in the event lower Budd Inlet was to silt up once the 5th Ave Dam was removed.

I-775-6 As described in Section 4.2.5 of EIS Supporting Chapter 4.0, the removal of the 5th Avenue Dam would increase sediment deposition to West Bay as sediments are transported farther downstream, as indicated by the deposition pattern modeled for the Estuary and Hybrid Alternatives. Higher deposition rates would occur on the east side of West Bay (where maintenance dredging is proposed) due to a shallow intertidal habitat area on the west side of West Bay. No change in tideflat exposures in lower Budd Inlet during low tides is anticipated.

I-775-5

My major concerns lie in the cost and aesthetic impacts that removal of the 5th Avenue Dam would have on Olympia. With no dam, large amounts of silt that previously stayed in Capitol Lake will now deposit in lower Budd Inlet. While the DEIS acknowledged this issue it then minimized the impact by taking the best possible silt deposition scenario and not addressing the key issue of who would do the dredging and how it would be financed. Unmanaged silt in lower Budd Inlet threatens not only the marinas and Port as mentioned in the DEIS, but the City’s Percival Landing, Port Plaza and indeed all of Olympia’s “remarkable waterfront” as silt continues to accumulate. What was once largely a view across Budd Inlet to Mt. Rainier, the

I-775-6

I-775

COMMENT

RESPONSE

I-775-6

Olympic Mountains or Black Hills will become a view across unsightly and unusable mud flats. While the DEIS made the assumption it was cheaper to dredge lower Budd Inlet than Capitol Lake I do not believe this is necessarily the case as managing the same amount of silt over a wider area not as accessible from the shore is likely to be more expensive, particularly if historically polluted areas are encountered while dredging what used to be Olympia's industrial area.

The Puget Sound cities that are located near rivers manage their rivers as Olympia has been doing in a fashion with the 5th Avenue Dam. One need only look at pictures and charts for Bellingham, Everett, Seattle or Tacoma to understand this. Everett for instance has the Snohomish river draining to its north but the city and waterfront is protected by a large artificial jetty. To abandon Olympia's de facto "management plan" as instantiated by the 5th Ave Dam without a backup strategy could be a civic blunder of epic proportions. And the impact to our economy in terms of desired development, residents occupying or owning market rate housing, good jobs and tourism could well prove to be significant.

I-775-7

I understand the belief that creating an estuary will improve environmental conditions and empathize with the desire to do so. As much as anyone I want a healthier cleaner Puget Sound. But it's by no means clear to me that the very expensive removal of the dam and subsequent silt management costs it imposes is the best use of our tax dollars. These same funds could be spent across Puget Sound on many smaller and more impactful projects that offer a higher environmental return because they aren't trying to undo 170 years of development. To commit large amounts of funds towards a Deschutes Estuary without examining what else might be a higher priority and impact for Puget Sound is a mistake.

I-775-8

I care about Olympia and its future as evidenced in my active financial and volunteer support of civic and cultural organizations like Harlequin Productions, Enterprise for Equity and Olympia Youth Sailing. I do not want to see the City and these organizations hurt by an expensive and uninformed effort that will damage Olympia economically, recreationally and aesthetically while doing little, if anything to improve the environment of Puget Sound.

Thank you for your time and attention to the DEIS and for supporting an inclusive process.

Dick Binns

dick.binns@gmail.com

3208 46th Ave NW
Olympia, WA 98502

I-775-7

Please refer to Final EIS Supporting Chapter 7.0 for more information on planning-level cost estimates and the assumption that remediation of known contaminated sediment in Budd Inlet would occur before removal of the 5th Avenue Dam.

A key finding of the economic analysis conducted for the EIS is that long-term impacts on downtown development would be positive under action alternatives (including the Estuary and Hybrid Alternatives), as long as they are implemented in a way that is well-planned, thoughtfully designed, and accessible. Overall, other economic factors likely have more influence on market conditions for development in downtown Olympia than changes in the Capitol Lake Basin.

Please refer to Attachment 21 of the Final EIS for more information on the Preferred Alternative identification process, which considered a range of criteria including the ability of each alternative to achieve project goals, to result in other environmental impacts or benefits, relative economic and environmental sustainability, construction impacts, and durability of the decision with stakeholders.

I-775-8

This response acknowledges the commenter's position.

I-776

COMMENT

RESPONSE

Note: If supplied links don't work, please cut and paste the links into a search engine to access their content. Thanks:

Here are my comments on the Capitol Lake/Deschutes Estuary DEIS:

When the 5th Avenue dam was installed 70 years ago, the area south of the dam was essentially turned into a freshwater wetland, which it has been functioning as ever since. Over these seventy years the area behind the dam has gained more and more wetland characteristics, to the extent that it is now a vibrant freshwater wetland ecosystem. Signs of this are everywhere. A thriving dragonfly population breeds in the lake, as I wrote about in a nature blog a few years back:

http://olypollinators.blogspot.com/2016/09/here-be-dragons_6.html

Many species of warblers call, breed and feed on the massive number of lake-breeding insects within this fabulous freshwater habitat. Here is a video I took of a Yellow-rumped warbler at Capitol Lake:

<https://www.youtube.com/watch?v=B3Z2Zna5U7U>

Here is another blog I wrote that mentions the chironomid flies and caddisflies that breed in the lake, and their importance as a food source for wetland-associated bird species:

<http://olypollinators.blogspot.com/2016/04/a-wild-success-food.html>

No wetland assessment or classification appears to have been made of the lake as part of the EIS process. I believe it is important that such an assessment be conducted. If the 260-acre lake does qualify as a freshwater wetland under state guideline, its loss as such (even to an estuary which is a much different ecosystem) may be required to be mitigated by the acquisition or creation of freshwater wetlands elsewhere, preferably in the upper Deschutes Watershed.

One clear evidence that Capitol Lake is operating as a burgeoning fresh water wetland is the presence of freshwater mussels living on the bottom of the lake. No mention of this species of mussel, or the effects upon it of changing the lake to a marine environment, is mentioned in the Draft EIS. Every effort should be made to positively identify the mussel species living in the lake (and there may be more than one), since several species of freshwater mussels are critically endangered, and the loss of 260 acres of habitat could be important.

Here is a video I took of freshwater mussel shells littering the bottom of Capitol Lake. The mussels were probably killed during a drawdown of the lake during a freezing period, or a hot spell:

I-776-1 As described in Section 3.6 of EIS Supporting Chapter 3.0 and in the Wetlands Discipline Report, a planning-level analysis was completed for the EIS in order to estimate the presence, extent, and type of wetlands in the study area. The commenter is correct that wetlands were not delineated, rated, or surveyed as part of the EIS. Wetland delineations most commonly occur during design and permitting of the selected alternative, which is the next project phase.

The Draft EIS and Final EIS include acknowledgement that mitigation for wetland loss would be required if impacts cannot be fully avoided or offset through design of habitat features or implementation of the Habitat Enhancement Plan. Please note, however, that improving ecological functions over existing conditions is a key goal for all action alternatives. Mitigation for unavoidable direct and indirect impacts on wetlands would be compensated for at ratios determined by the permitting agencies, if necessary. Mitigation could include replacing existing wetlands in-kind onsite, or offsite if replacement cannot be supported within the Project Area. With consideration of improved habitat functions and self-mitigating functions of the alternatives, it is possible that the need for compensatory mitigation may be reduced to zero. Wetland mitigation requirements would be identified in coordination with jurisdictional agencies during design and permitting of the selected alternative.

Regarding freshwater mussels, see the Global Response for Fish and Wildlife.

I-776-2 Section 4.6.5 of EIS Supporting Chapter 4.0 and Section 5.5.2.1 of the Wetlands Discipline Report (Attachment 10) acknowledge that changes in habitat would occur from the reintroduction of saltwater and tidal flow. As the comment notes, previous actions in the watershed -- unrelated to the project -- have also contributed to changes in habitat type and structure in the South Basin. With the Estuary Alternative, freshwater vegetated wetlands adjacent to the low-gradient river channel would convert due to tidal influence to low and high marsh wetland with a central area of exposed mudflat at low tide. Reintroducing tidal influence in this area will result in changes more similar to historic conditions. At the upper limit of tidal influence, the salinity would decrease to where salt-tolerant freshwater vegetation would become the dominant species. In the South Basin, this transition is estimated to occur approximately where the Deschutes River begins to narrow, adjacent to Tumwater Historical Park. Transitional wetlands would have characteristics of both fresh and saltwater habitats, as these wetlands would be at high enough

I-776-1

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<https://www.youtube.com/watch?v=VP3psqRpU4k&list=UUG3jWO8v65u8iJuwIX2bISA>

elevation that saltwater would not necessarily be the dominant source of hydrology. In response to this comment, it has been clarified in Section 4.6.5 of Final EIS Supporting Chapter 4.0 and Section 5.5.2.1 of the Wetlands Discipline Report that approximately 14 acres of currently forested freshwater wetlands would convert to estuarine or transitional wetlands, which would directly impact trees currently growing in these areas.

I-776-2

The southern end of the Deschutes Estuary was highly impacted by the installation of the 5th Avenue dam, but also by the creation of Interstate 5, which walled off the south basin and retained only a small opening for the river to pass through. The result is that sediments have built up in the south basin to the extent that the area north of the Old Brewhouse, which used to be open marine habitat, is now many acres of land growing a beautiful mixed forest of alder trees and other species. Tumwater Historical Park on the other side of the river similarly has a heavily forested shoreline that would be detrimentally impacted by tidal influences and the intrusion of salt water. This would be a major loss that should be assessed and mitigated.

The addition of salt marsh habitat in this area is considered to be beneficial since salt marshes are relatively uncommon in this area. More detailed assessments of wetland impacts and impacts to both freshwater forested wetlands and forested uplands will occur during the design and permitting processes. Enterprise Services will follow mitigation sequencing, including avoiding, minimizing, and compensating impacts to wetlands, and would comply with local jurisdictions' critical areas ordinances.

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I strongly support the option to return the Capitol Lake to a natural estuary. Our continued existence relies on the interconnected webs of nature and the wellbeing of our fellow creatures. This is a small step toward fulfilling our responsibilities.

I-777-1

Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

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I-778-2	<p>I respectfully submit these comments in strong support for the full restoration of the Deschutes River Estuary for the following reasons, not necessarily in the following order:</p> <p>Whereas, true ‘reflection’ of our Washington State Capitol, in its location in the Pacific Northwest, must consider the reverence for and value placed on wildlife and its habitat – marine and terrestrial – by all Washington State residents, particularly Native Tribes;</p> <p>And whereas, accepting current and future climate conditions requires accommodating sea level rise and greater and more frequent downstream flooding;</p> <p>And whereas, local Native American Tribes advocate for estuary restoration to give salmon a fighting chance at survival and reestablishing healthy, productive runs; ...the only scientifically, economically, and ecologically defensible alternative is to restore tidal flow to conditions similar to the historic Deschutes Estuary, remove the 5th Avenue Dam, and create a 500-foot opening to reconnect the Capitol Lake Basin with Budd Inlet.</p> <p>Monitoring and modeling tell us we should be preparing for more and bigger storms. They also tells us that sea level is rising, and in areas of downtown Olympia, the land is subsiding (sinking). So relative sea level rise in those areas will only be greater. The shoreline will move inland. The more room it has to do that, the less threatening and costly that inland ‘relocation’ will be.</p>	I-778-2	<p>Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.</p>
I-778-1	<p>As a geologist, I work with Tribal, public, and private shoreline landowners to mitigate human triggers of shoreline erosion and landsliding. Through careful drainage, vegetation, and development management we can accommodate these natural processes while keeping ourselves and our infrastructure investments safe. The geologic and geomorphic character of our region, which shapes the landscape we cherish and is a draw to others moving here, is dynamic and can be destructive. We should be working towards adapting, rather than continually modifying to suit us.</p>	I-778-1	<p>Comment noted.</p>
I-778-3	<p>The exact intent of the Wilder and White, and Olmsted design for the Capitol Campus appears to still be in debate. Nevertheless, that intent should not be a driver this many years later. We live in a different time, with warming climate, more rapidly-increasing population, changing public interests, and a better understanding of our role as part of the local ecology. Furthermore, keeping any lake (salt or freshwater), clear enough to reflect the Capitol buildings seems costly and unlikely. And tidal flats only ‘stink’ if you don’t like living on an ecologically functional shoreline.</p>	I-778-3	<p>This response acknowledges the commenter’s position.</p>

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COMMENT

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Subject: **Capitol Lake and Deschutes Estuary DEIS Cultural resource comments.**
From: Maurice Major <culturlandscapes@gmail.com>
To: <comment@capitolakedeschutesestuaryeis.org>
Date: 2021-08-29 20:44



- Capitol Lake and Deschutes Estuary DEIS comments by Maurice Major.docx(~30 KB)

Dear DEIS Team,

I understand that for this project, cultural resources are just one of many issues, and that they are not the most important. However, the DEIS document is so full of inaccuracies and misconceptions on the process, current state of knowledge, and assessment of effects that I am compelled to speak up.

Please accept the attached comments into the record.

Thanks,
Maurice Major, Principal Investigator

Cultural Landscapes
421 Turner Ave. NE / Olympia WA 98506
360.918.4290 / culturlandscapes@gmail.com

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DEIS Comments
Maurice Major, August 28, 2021

Page	Comment
I-779-1	ES-23 The "Olympia Sea Level Rise Plan" (paragraph 5) does not include the best and latest science behind relative sea level rise, and thus underestimates the degree to which tidal flooding will increase over time.
I-779-2	ES Table 2 This table does not include a category for "Treaty-protected Resources." Under Part 2 of the Boldt Decision, the state must not just ensure that tribes get half of the fish and other resources guaranteed in the Treaty of Medicine Creek, but it must also ensure that populations of those resources are not depleted or eliminated. All alternatives should be evaluated in terms of their effects on treaty-protected fish and other resources.
I-779-3	ES-33 "Cultural Resources" should include ecosystems and species of importance to tribes, which can constitute Cultural Landscapes and/or Traditional Cultural Properties (both of which are categories in the DAHP WISAARD database, or traditional fishing and gathering areas (access to which was included in the Treaty).
I-779-4	ES-33 "Cultural Resources" mentions the "Des Chutes Basin Project Historic District," yet there is no record of such ever having been proposed, and it is not in the DAHP WISAARD database. Absent any actual District, the DEIS should either eliminate mentions of this District, or include a potential Estuary Archaeological District. The table mentions several components of this imaginary District, yet mentions none of the actual archaeological sites and cultural places known to tribes and the Chinese-American community. Along with the omission of Treaty-protected cultural resources, this results in a skewed and racist cultural resource framework that privileges potential impacts to a possible District of 20 th Century cultural resources over millennia of actual Indigenous cultural resources, in direct contradiction to the stated emphasis on justice.
I-779-5	ES-33 It is unacceptable to list estuary alternative potential effects to a district that does not exist as a significant impact , especially when the certain effect of lake maintenance dredging on archaeological resources is termed a potentially significant impact .
I-779-6	ES-33 Section 106 will certainly apply to components of the project, but for actions not considered federal undertakings, Governor's Executive Order 21-02 and RCW 27.53 will apply. Please include this information.
I-779-7	ES-33 The table mentions no potential benefits of estuary restoration. The estuary alternative more than the others will protect and enhance culturally important species and landscapes.
	ES-33 The hybrid alternative is described as having a benefit by reducing the potential impact to the reflecting pool, which is not a historic resource in the DAHP WISAARD database, much less determined NRHP-eligible. No evidence is presented to support the assertion of a benefit.
	ES-33 The cultural resources here do not include historic archaeological sites likely to exist in the reflecting basin, such as materials and sites related to Chinatown or Little Hollywood.
	ES-39 Again, this does not address cultural resources other than archaeology and historic built environment. This is incomplete. An estuary is a cultural landscape of deep significance to tribes, so the omission of cultural landscapes,

- I-779-1 Regarding the sea level rise scenarios used in the modeling for the EIS, see the Global Response for Hydrodynamics and Sediment Transport.
- I-779-2 In response to this comment, a summary of how the alternatives would affect tribal resources has been added to the row on "Fish & Wildlife" in Table 2 of the Final EIS Summary. See also Final EIS Supporting Chapter 4.0, Section 4.5.7, where long-term impacts to tribal resources are described.
- I-779-3 See the Global Response for Cultural Resources.
- I-779-4 See the Global Response for Cultural Resources.
- I-779-5 Thank you for your comment. This has been clarified in the Final EIS Summary and in Final EIS Supporting Chapter 3.0, Section 3.9.
- I-779-6 See the response to Comment I-779-2 regarding the discussion of tribal resources in Table 2. The table also mentions benefits under the Estuary Alternative in the Economics row. Regarding the previously recommended historic district referred to by this comment, see the Global Response for Cultural Resources. Please note that the Final EIS Summary is a high-level summary of the major conclusions of the EIS analyses. Additional information can be found in the supporting chapters and in the Cultural Resources Discipline Report.
- I-779-7 In response to this and other comments, Section 3.9 of Final EIS Supporting Chapter 3.0 and Section 4.1.3 of the Cultural Resources Discipline Report (Attachment 13) have been updated with additional discussion of recorded and potential archaeological sites. Regarding the comment on Cultural Landscapes and Traditional Cultural Properties, see the Global Response for Cultural Resources.

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I-779-7		traditional materials (plant and animal species of importance to tribes), and traditional cultural properties from consideration skews the cultural resource considerations in an unfair way.
I-779-8	ES-39	There is no reliable basis for claiming that the estuary and hybrid alternatives would have "a greater risk of encountering unrecorded archaeological sites." It is likely that a focus on re-establishing the natural Deschutes estuary channels would actually have less potential to encounter and affect unrecorded archaeological sites than the lake basin dredging proposed under the managed lake and hybrid alternatives
	ES-39	Key Findings regarding cultural resource should begin with the need for cultural resources surveys.
I-779-9	ES-39	Proposed Mitigations for cultural resources emphasize a "Protection and Monitoring Plan." The City of Olympia and DAHP's input on projects in the City have also emphasized monitoring, but the resulting plans have been repeatedly violated and are not reliable protections for archaeological resources.
I-779-10	Ch1-All	Narrative and tables make it seem as if Technical Evaluation of alternatives can be done with the data collected to create the DEIS. In fact, significant questions and data gaps remain that could affect consideration of alternatives.
I-779-11	Ch1 -All	This chapter begins history with the design and then construction of the Capitol Lake Basin. This is misleading, since the estuary existed for millennia before that, and estuary restoration is an option.
I-779-12	Ch3-88	The history of recreational use excludes 5,000 years of tribal use, and the first 100 years of non-Native use, all of which occurred on an estuary that existed before the artificial lake was constructed. This silences important voices in history.
I-779-13	Ch3-90	Thank you for including traditional cultural properties. These should be included in the Executive Summary as well.
	Ch3-90	NHPA Section 106 is one framework for considering effects. But because federal agencies may not include the entire project area or range of project actions, it is important to recognize that the State has obligations under RCW 27.53, the RCW sections related to burials, Governor's Executive Order 21-02, SEPA, and the Centennial Accord and Millennium Agreement.
I-779-14	Ch3-91	The cultural resources process is described as beginning with historic register eligibility evaluations. In fact, this project must begin with an inventory process, since there are cultural resources yet to be documented. The way this is written, the project proponents could claim that only resources known and recorded previously must be evaluated.
I-779-15	Ch3-91	Tribes that should be invited to consult include all of the Medicine Creek Treaty Tribes, but Muckleshoot and Puyallup are excluded. While the ACOE is obligated to consult only with federally recognized tribes, the State should invite Steilacoom and Duwamish as well, since they historically visited Olympia on a frequent basis.
I-779-16	Ch3-91	No state agency is identified as lead for cultural resource consultation. This is important, since the ACOE frequently decides to consult and review only a limited portion of large, complex projects. Executive Order 21-02 requires cultural resource review and consultation for any state-funded actions not undergoing 106 review.
I-779-17	Ch3-91	"Methods for Studying Cultural resources" is misleading with regard to archaeology. It should state clearly that no archaeological inventory was attempted.

- I-779-8 As described in Section 5.5.1.1 of the Cultural Resources Discipline Report (Attachment 13), it was reasoned that the Estuary and Hybrid Alternatives would have a greater risk of encountering unrecorded archaeological sites due to work in the upland areas along the Deschutes Parkway, which has a very high risk for precontact archaeological sites, and there are recorded sites along both sides of the parkway.
- I-779-9 As described in Section 5.9.6.1 of EIS Supporting Chapter 5.0, an archaeological survey may be recommended by reviewing parties (and conducted) in areas to be impacted by construction as identified during design and permitting, following the selection of an alternative for implementation. A survey was not conducted as part of the EIS, as this is typically not done for an EIS involving review of a range of conceptual-level alternatives. This approach is consistent with the overall resolution of a Cultural Resources analysis in support of a SEPA EIS.
- I-779-10 The commenter does not provide specific assertions about significant questions and data gaps in order to provide a response to this comment.
- I-779-11 Comment not understood. The initial paragraph of Chapter 1.0 in the Draft EIS does describe that originally the Project Area was part of the Deschutes Estuary.
- I-779-12 Comment noted. EIS Supporting Chapter 3.0, Section 3.9 (Cultural Resources), provides a description of the Indigenous context of the Project Area. Additional information is included in Section 4.1 of the Cultural Resources Discipline Report (Attachment 13).
- I-779-13 See the Global Response for Cultural Resources.
- I-779-14 Thank you for your comment. This has been clarified in Sections 3.9 and 4.9.7 of Final EIS Supporting Chapters 3.0 and 4.0.
- I-779-15 Thank you for your comment. The U.S. Army Corps of Engineers, and potentially the State under Executive Order 21-02, will be engaged in the project and in tribal consultations during design and permitting, which is the phase after the EIS process is complete. The tribes will be engaged through several aspects of the federal permitting process led by the federal and state lead agencies.
- I-779-16 Section 3.9 of Final EIS Supporting Chapter 4.0 has been updated to reflect that consultation could occur under both Section 106 and Executive Order 21-02.
- I-779-17 The methodology states that cultural resources review included a desktop analysis, which is further described in Section 3 of the Cultural Resources Discipline Report (Attachment 13).

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I-779-18	Ch3-92	Either use modern tribal entities or include the full set of bands who used Budd Inlet. Please consult with tribes regarding preferred spelling/ orthography.
I-779-19	Ch3-92	There are several Lushootseed placenames in and near the project area that should be included. Indian Claims Commission testimony by Squaxin Island Tribe elder Johnny Scalopine identified multiple locations where longhouses existed in the project area, which should be mentioned here.
I-779-20	Ch3-92	It is important for the DEIS to notes that in addition to recorded archaeology, more sites are certain to be encountered. This is true not just in adjacent uplands, but in all three basins. The tectonic history of the project area means that former upland sites may not be below sea level, and the widespread deposition of fill in Olympia has buried additional sites. The DEIS mentioned that the Squaxin are "salt water people," but fails to mention that salt water people created sites in the tidelands, below post and current sea level.
I-779-21	Ch3-93	There was no coherent "Des Chutes Basin Project," at least not in the sense of historically significant undertakings such as the Columbia Basin Irrigation Project. The two-word "Des Chutes" spelling is modern error, as the legislative authorization was for DesChutes.
I-779-22	Ch3-94	Legislative authorization mentioned elements that never happened, such as a railroad along 5 th Avenue and a road along the south side of the lake basin. Along with the changes in plans and difference between the architectural and landscape architectural plans and the actual results, these are important considerations when historic register eligibility and project cultural resource effects are considered.
I-779-23	Ch3-94	The final paragraph includes among the historic themes "European settlement," but not Asian settlement, despite abundant evidence that the land adjacent to the lake was home to one of the first Chinese enclaves in Puget Sound. It also ignores Native response to the development of Olympia, continuing a troubling tendency of this document to act as if tribal use and valuing of this place stopped in 1854.
I-779-24	Ch3-95	If images of the historical visions for a reflecting pond are included, why not tribal visions, or a representation of tribal use areas?
I-779-25	Ch3-96	Inclusion of the "Des Chutes Basin Project Historic District" is extremely misleading. There is no such thing, and nobody has proposed it. DAHP confirmed on July 22, 2021, that no entity has proposed such a district. At most, the period of significance (a crucial part of any NRHP eligibility evaluation) would be 1951-1971. If the DEIS is to list potential districts with potential eligibility, an archaeological district or cultural landscape or traditional cultural place encompassing the estuary and surrounding shores must also be included. The period of significance would be roughly 5,000 years preceding the dam. The focus on a historic district with a misspelled name and minimal period of significance over a cultural landscape steeped in millennia of cultural significance is unjust and racist.
I-779-26	Ch3-97	The DEIS includes here every nearby historic district at state and local levels, but did not include a similar list of archaeological sites, instead referring readers to an attachment. This privileges the built environment over archaeological resources, skewing the cultural resource considerations. Archaeological site location is confidential, but sites should be identified and discussed without locational information.
	Ch3-99	Section 3.9.3 poses the question of whether TCPs are present, and then avoids answering it. It is troubling that the DEIS recommends forming a new historic district based on the dam, but does not do the same for TCPs associated with

- I-779-18 The description of cultural groups has been clarified in Final EIS Supporting Chapter 3.0, Section 3.9.1.1. Orthographies were largely based on published literature.
- I-779-19 Thank you for your comment. Additional ethnographic information has been added to Section 4.1.2 of the Cultural Resources Discipline Report (Attachment 13).
- I-779-20 In response to this comment, additional discussion of the shoreline setting and potential for encountering archaeological resources has been included in Final EIS Supporting Chapter 3.0, Section 3.9.1.2.
- I-779-21 The two-word "Des Chutes" spelling stemmed from language in House Bill 530 approved by the 1937 state legislative session, which became Chapter 159 (page 561) of the Session Laws of the State of Washington Twenty-Fifth Session and included the same two-word spelling. See the Global the Response for Cultural Resources for an explanation of changes in the Final EIS to provide a more balanced level of information on historic periods and perspectives.
- I-779-22 See the Global Response for Cultural Resources regarding determinations of eligibility received from the Washington State Department of Archaeology and Historic Preservation following the release of the Draft EIS.
- I-779-23 The final paragraph noted in the comment has been revised in the Final EIS to include reference to Chinese-American settlement. Chinese-American history and settlement along the basin are described in EIS Supporting Chapter 3.0, Section 3.9.3.2, and in the Cultural Resources Discipline Report (Attachment 13). Tribal use and values are described in EIS Supporting Chapter 3.0, Section 3.9.3.1 and are further described in the Cultural Resources Discipline Report. See also the Global Response for Cultural Resources.
- I-779-24 Historical visions that are readily available in historic literature and publications were presented in the Draft EIS as part of the historical development context to understand the potential for resources in the Project Area to meet criteria for National Historic Register eligibility. Please see the Global Response for Cultural Resources for information on determinations received from DAHP since the issuance of the Draft EIS, and related changes in the Final EIS. In discussions with local area tribes during development of the Draft EIS, the EIS Project Team was not made aware of any tribal visions or representations of tribal use areas in the Project Area. Also, tribes often consider their vision and other information held within the tribe, private. The

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team recognizes that such information may be made available by tribes, or may be developed, as part of an inquiry into Traditional Cultural Properties (see the Global Response for Cultural Resources for information on identifying Traditional Cultural Properties). This typically involves an intensive ethnographic research inquiry in consultation with tribes and is typically undertaken as part of the formal consultation process that would occur during the design phase. In response to this comment, some usage of the word "vision" has been removed in the Final EIS were describing the historic context.

I-779-25 See the Global Response for Cultural Resources regarding comments on the previously recommended Des Chutes Basin Project Historic District.

In response to this comment, the list of archaeological sites included in Table 4.3 of the Cultural Resources Discipline Report (Attachment 13) has also been included in Section 3.9.1.2 of Final EIS Supporting Chapter 3.0.

Regarding the listing of historic districts that the commenter refers to on page 3-97 of the Draft EIS, these are historic districts that are listed in the National Register of Historic Places and are commonly called out as such in the historic resource section of an EIS (note that the previously recommended Des Chutes Basin Project has been removed from the list in the Final EIS - see the Global Response for Cultural Resources).

I-779-26 The recommended historic district was determined not eligible following release of the Draft EIS and is no longer included as a potential historic district in the EIS. See the Global Response for Cultural Resources regarding the identification of TCPs and for further information on the eligibility determination, and related updates in the Final EIS.

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I-779-26		non-white people.
I-779-27	Ch3-99	Somewhere here, it should be mentioned that even after Euro-American settlement had begun, Olympia Oysters remained an important resource. In his history of the oyster industry, E. N. Steele states that the Squaxin maintained a claim to the oyster beds north of 4 th Avenue, and that the Chinese community claimed those south of 4 th . This is culturally and environmentally important information about the estuary.
	Ch4-114	Again, the DEIS states that removing the 5 th Avenue Dam and loss of the reflecting pool is an impact. This is far from certain, and it should be made clear that there is no such thing as a Des Chutes Basin Project Historic District.
	Ch4-114	Again, the Key Findings focus on the dam and reflecting pool but little else. The repeated emphasis on these recent features to the exclusion of other cultural resources results in a DEIS that misleads readers and pushes them toward the manage lake alternative.
I-779-28	Ch4-114	Stating that impacts to archaeology would be potentially significant while dam removal would be a significant impact is wordplay not borne out by the evidence, and a racist elevation of the dam and pool over all other cultural resources, including those that have been present for hundreds or thousands of years.
	Ch4-114	The Key Findings omit cultural landscapes and traditional cultural properties. This is again an implicit bias against the estuary alternative, since it would represent a benefit to those types of cultural resources, whereas all other alternatives are significant impacts.
I-779-29	Ch4-117	Establishment of "habitat areas" (islands) in Capitol Lake would in fact be an impact to the Lake if it were a contributing element of the recommended Basin District; the visual effect of a marsh or island in something designed as a reflecting pool is a substantial reduction in integrity. While that eligibility has not been determined, the entire DEIS considers potential effects, so for consistency, the managed lake alternative should be classified as a potential effect on historic resources.
I-779-30	Ch4-118	Thanks for finally mentioning the benefits of estuary restoration to non-archaeological tribal cultural resources. However, to be fair and consistent, why not list benefit in bold, as is done with impacts?
I-779-31	Ch4-119	Maintenance dredging is unlikely to occur outside of existing dredged or natural channels, and is therefore unlikely to have impacts on archaeology. Less than significant impacts would be accurate.
	Ch4-119	Again, impacts to a non-existent Historic District are emphasized for the estuary alternative. It remains troubling that potential impacts to a potential District that does not exist is given so much weight.
I-779-32	Ch4-119	Estuary restoration would be a benefit to the existing historic districts downtown, whose period of significance pre-dates the dam. Estuary removal would re-establish NRHP integrity dimensions such as setting, association, and feeling.
I-779-33	Ch4-120	Maintenance dredging effects under the hybrid alternative are said to be likely only if the saltwater reflecting pool option is chosen. In fact, freshwater pool would also be subject to sedimentation and eventual eutrophic action, and dredging would become necessary.
I-779-34	Ch4-121	If in fact the reflecting pool is determined eligible, a wall that reduces its size and changes its shape is definitely not a mitigation, as suggested. Remove this misleading statement.
I-779-35	Ch4-122	Again, discussion jumps straight to evaluation and mitigation, with no

I-779-27 Thank you for your comment. See the Global Response for Cultural Resources related to identification of Traditional Cultural Properties, Cultural Landscape, and/or Archaeological District. We recognize that further research into past use and resources could be part of a future evaluation under Section 106 and/or EO 21-02; this is noted in the Cultural Resources Discipline Report.

I-779-28 The recommended historic district was determined not eligible following release of the Draft EIS and is no longer included as a potential historic district in the Final EIS. As a result, the removal of the dam (and pool) is no longer described as a significant impact in the Final EIS. See the Global Response for Cultural Resources for further information on the determination of eligibility and on this (and other) requests to include the identification of TCPs and cultural landscapes in the EIS.

I-779-29 The previously recommended historic district was determined to be not eligible for listing in the National Register of Historic Places, and the Final EIS has been revised to reflect this determination. See the Global Response for Cultural Resources.

I-779-30 In response to this comment, the description of beneficial effects has been clarified as "substantial" and placed in bold font in the Final EIS

I-779-31 See response to Comment I-388-1.

I-779-32 See the Global Response for Cultural Resources for information about the previously recommended historic district and a response related to benefits to existing historic districts. Regarding the potential benefit of estuary restoration relative to historic districts, Final EIS Supporting Chapter 4.0, Sections 4.9.5 and 4.9.6, have been updated to reflect the benefit for the Tumwater Historic District.

I-779-33 The description of the Hybrid Alternative has been revised in the Final EIS to include a freshwater pool. See the new description of the Hybrid Alternative in Final EIS Supporting Chapter 2.0. The pool would be groundwater fed and not subject to sedimentation and maintenance dredging.

I-779-34 See the Global Response for Cultural Resources regarding the previously recommended historic district. The description of impacts and mitigation has been revised accordingly in Section 4.9 of Final EIS Supporting Chapter 4.0, including the statement mentioned by the commenter.

I-779-35 See response to Comment I-779-9.

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I-779-35		indication that there are massive and significant data gaps that can only be addressed by field inventory.
I-779-36	Ch4-122	Again, proposed measures for archaeology are relegated to the attachment, while a laundry list of measures for historic built features is included in the main DEIS
I-779-37	Ch4-122	The City of Olympia issues Certificates of Appropriateness? Really? I served on the Heritage Commission, and no such process existed then for projects such as this. It remains doubtful that such a Certificate carries any weight, legally.
I-779-38	Ch4-122	Mitigation may also be required under Executive Order 21-02
I-779-39	Ch4-124	It is not correct to state that the managed lake alternative has no adverse impacts on historic built environment resources. The City and State-listed downtown historic districts gained their significance from the pre-dam era. The dam and reflecting pool are not new impacts to those districts, but they are in fact adverse regarding these existing districts.
I-779-40	Ch5-48	Key Findings state that estuary and hybrid alternatives will have greater effect due to more ground disturbance, but this does not consider that the additional ground alteration is primarily dredging of previously dredged areas.
I-779-41	Ch5-48	Paragraph 2 of the Key Findings focuses on construction effects unrelated to cultural resources, and deems them "less than significant." This distracts from cultural resources.
I-779-42	Ch5-48	Key Findings should include the fact that historic built environment surveys have been done previously, but that archaeological inventory leaves major gaps, and planning cannot move forward in compliance with Section 106 or EO 21-02 without an archaeological inventory survey.
I-779-43	Ch5-49	"Archaeological Resources" needs to state clearly that at this time, only a tiny percentage of the APE has been studied. Any recommendations beyond inventory are premature.
I-779-44	Ch5-51	Jet grouting is described as too deep to allow assessment of archaeological effects. Archaeological monitoring of geotechnical testing or archaeologist-directed sampling has demonstrated ability to identify and assess archaeological deposits.
I-779-45	Ch5-52	All of the additional effects noted for the estuary alternative presume significance of the historic built environment. None of the features mentioned (including Capitol Lake) are contributing elements of either the Downtown Olympia or Washington State Capitol Historic Districts. The dam and associated infrastructure were built in the final two years of the Downtown District's period of significance, and almost all of the contributing elements of both districts were constructed well before the dam and lake. The only post-1950 construction mentioned as contributing elements are commercial properties that have no association with the dam or pool. For this reason, the presence of the dam, bridge, and parkway must also be assessed as potential impacts to the existing districts, and their removal as a potential benefit.
I-779-46	Ch5-52	Effects on archaeological sites cannot reasonably be assessed without more detailed construction plans and an inventory survey. Staging areas and fill introduction have an unknown but tentative potential to affect archaeological deposits along Deschutes Parkway through compaction or decreased accessibility, but neither would actually have direct effects on depositional integrity, and would be reversible or avoidable. Habitat construction is regularly designed to avoid archaeological resources on Puget Sound estuaries. The likely archaeological effects are not significant, and should be assessed as potentially significant even less than significant.

- I-779-36 Section 4.9.7.1 of the Draft EIS states that mitigation measures related to archaeological resources are described in Section 5.9.6.1. However, in response to this comment, these measures have also been added to Section 4.9.7.1 of Final EIS Supporting Chapter 4.0.
- I-779-37 Section 4.9.7 of Final EIS Supporting Chapter 4.0 has been revised to clarify that the review process through City of Olympia Heritage Commission (per City of Olympia Municipal Code, Chapter 18.12 Historic Preservation) would be completed for changes to resources listed to the Olympia Heritage Register.
- I-779-38 In response to the comment, Section 4.9.7 has been revised to clarify the potential need for additional mitigation measures under EO 21-02.
- I-779-39 SEPA requires analysis of project change relative to conditions that would occur under existing conditions. Therefore, the No Action Alternative represents the appropriate baseline for analysis. Relative to the dam and reflecting pool, they existed at the time of the National Register listing of the Tumwater Historic District (listed in 1978) and the Olympia Downtown Historic District (listed in 2004).
- I-779-40 See response to Comment I-779-8.
- I-779-41 The Key Findings narrative has been clarified in the Final EIS in response to this comment.
- I-779-42 See response to Comment I-779-9.
- I-779-43 In response to this comment, Sections 3.9.1.2 and 5.9.2.1 of Final EIS Supporting Chapters 3.0 and 5.0 (and Section 4.1.3. of the Cultural Resources Discipline Report [Attachment 13]) have been updated to note that very little of the Project Area has been surveyed.
- I-779-44 Thank you for your comment. Regardless of what archaeological studies are conducted prior to construction, jet grouting will cause non-observable subsurface disturbances. It will not be possible to document impacts on any archaeological deposits with any degree of specificity.
- I-779-45 See the Global Response for Cultural Resources for information on DAHP's determinations of eligibility provided following the issuance of the Draft EIS, and related changes in the Final EIS.
- I-779-46 Regarding the need for future survey / inventory, see response to Comment I-779-9. The section referred to in this comment (Section 5.9.4.1 of EIS

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Supporting Chapter 5.0) does state that significant impacts would only occur if construction impacted protected archaeological sites. These impacts are also described as "potentially significant" in the Key Findings section, and in the Final EIS Summary. The EIS characterizes the difference in potential to encounter buried archaeological resources under the project alternatives at a high-level, commensurate with the existing conceptual design level of the alternatives. While it's recognized that detailed survey and inventory of archaeological resources would provide more information, the characterization of impacts to archaeological resources in the EIS provides enough discernable information for decision-makers to weigh the project alternatives. Survey and inventory could occur after a Preferred Alternative is identified and design is advance to provide more detailed areas of potential impact.

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	COMMENT	RESPONSE
I-779-47	Ch5-53 Estuary alternative is characterized as having definite long-term impacts on historic resources. That statement is debatable—no eligible properties or districts are affected, and removal of 1950s features may be a benefit to either or both districts—but does not belong in this chapter.	I-779-47 See the Global Response for Cultural Resources.
I-779-48	Ch5-54 Again, the only legal framework presented is Section 106, but 5.9.6.1 states that a Site Alteration and Excavation permit may be necessary. Such permits are not issued for projects under Section 106 review and consultation. The reality is that the project will likely include elements without a federal nexus that may need DAHP permits and elements that may require a Memorandum of Agreement that stands in place of a state permit in the 106 process.	I-779-48 Section 5.9.6.1 of Final EIS Supporting Chapter 5.0 has been updated to acknowledge the potential for split federal/state regulatory nexus, including the role of a Site Alteration and Excavation Permit.
I-779-49	Ch5-54 Archaeological inventory survey is definitely needed for any action alternative in this DEIS. Regardless of DAHP recommendations, the first principle of both federal and state cultural resource protection is to gather the information needed to make decisions. Given the paucity and quality of existing archaeological data, an inventory survey must be completed.	I-779-49 See response to Comment I-779-9.
I-779-50	Ch5-54 Mitigation requires an inventory, and professional evaluation of sites identified during that inventory. Therefore, archaeological inventory survey is a necessary precursor of mitigation, but not mitigation. Archaeological monitoring or data recovery excavations may be proposed as mitigation.	I-779-50 Section 5.9.6.1 of Final EIS Supporting Chapter 5.0 has been updated to reflect that before constructing any of the action alternatives, Enterprise Services would consult with DAHP, affected tribes, and the lead federal agency to determine the types and locations of archaeological studies that are needed.
I-779-51	Ch5-55 Archaeological monitoring of geotechnical work is an excellent recommendation. This works better when continuous sampling (rather than typical geological sampling at 5-foot intervals) is done throughout the vertical APE extent.	I-779-51 Thank you for your comment.
I-779-52	Ch5-55 Any Inadvertent Discovery or Monitoring Plans must be based on inventory findings. Neither can reasonably be used in places where inventory including subsurface testing was not completed before construction.	I-779-52 Section 5.9.6.1 of Final EIS Supporting Chapter 5.0 has been updated to acknowledge that before constructing any of the action alternatives, Enterprise Services would consult with DAHP, affected Tribes, and lead federal agency to determine the types and locations of archaeological studies that are needed.
I-779-53	Ch5-56 Again, long-term impacts to historic built environment are mentioned in this chapter on short-term effects.	
I-779-54	Ch6-20 Again, potential impacts to a non-existent historic district are highlighted, and the estuary alternative called out for its significant impact, without reference to the actual, register-listed Downtown and Capitol Historic Districts. This creates a disadvantage unsupported by evidence or process.	I-779-53 The last statement in Section 5.9.7.2 has been removed in the Final EIS Supporting Chapter 5.0.
I-779-55	Ch6-20 The DEIS states without evidence that prehistoric and ethnographic-period cultural resources have already been reduced. In fact, all recent archaeology has shown that Olympia's ancient and early historic resources are preserved beneath fill.	I-779-54 See the Global Response for Cultural Resources.
I-779-56	Overall The emphasis on a potential Deschutes Basin Project Historic District in the DEIS and in the Cultural Resources appendix severely skews discussions of historic and cultural resources throughout the document. <ul style="list-style-type: none"> There is no such District, and the contributing elements described actually detract from the existing Capitol and Downtown Historic Districts, since all of the named elements post-date and alter multiple dimensions of NRHP integrity. The recommended District is mentioned so many times that readers get the impression it already exists, or that it enjoys support from historic preservation professionals. I am such a professional, and see multiple factors that would prevent finding such a District eligible If the DEIS is to recommend potential historic districts, it should also spend equal time on a Deschutes Estuary Cultural Landscape Archaeological District. North, mid and south basins all have 	I-779-55 Section 6.6.8.2 of Final EIS Supporting Chapter 6.0 has been revised to explain that past and ongoing development and natural elements have likely reduced the information potential of some prehistoric- and ethnographic-period cultural resources. However, in some cases, past actions, such as placement of dredged fill, have helped to preserve sites.
		I-779-56 See the Global Response for Cultural Resources.

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I-779-56	<p>archaeological sites and landforms that are best understood as an over-arching Archaeological District. Repeated mention of a potential Basin Historic District whose period of significance is just 20 years while ignoring the Squaxin and Indigenous archaeology and cultural materials and cultural landscape is negligent and racist.</p> <ul style="list-style-type: none"> Throughout the document, the appearance of the proposed Basin Historic District creates the impression that there will be adverse effects if the 5th Avenue Dam is removed and the “lake” returns to tidelands. This is false, unless and until the Basin District is formally determined eligible and more important than the Capitol and Down Historic Districts, other historic structures previously determined NRHP eligible, and archaeological sites (both previously recorded and yet to be documented).
I-779-57	<p>Overall</p> <p>Throughout the DEIS and the Cultural Resources Appendix, the authors fail to identify the gaping holes in our knowledge of archaeological and tribally valuable cultural resources (e.g., natural resources with cultural value and meaning, such as fish and sweetgrass). A few previously recorded sites are mentioned, but data gaps are not. Local archaeologists are aware of other sites, and high-probability locations and landforms in the APE, but the DEIS and Appendix barely mention that substantial archaeological investigation is needed before cultural resource impacts can be understood, much less avoided or mitigated. Historical resources (newspaper accounts, letters, Indian Claims Commission testimony, etc.) also indicate that ancient and early historic era Indigenous settlements and sites are present, but not yet documented.</p> <p>It is fundamentally important that the DEIS identify the need for archaeological inventory survey before the likely effects of each alternative can be described, much less addressed.</p>
I-779-58	<p>Overall</p> <p>As a result of the deficiency in recognizing archaeological data gaps, the DEIS and Cultural Resources Appendix incorrectly jump ahead to emphasizing the use of monitoring and inadvertent discovery plans. This fails to acknowledge standard process, in which cultural resources must be found, documented, and evaluated against NRHP criteria <i>before</i> mitigation or avoidance strategies are even discussed.</p> <p>Use of MIDPs (Monitoring and Inadvertent Discovery Plans) has been common in Olympia in recent years, and in almost every case have led to cultural resource damage, violations of the MIDP conditions, and construction delays. This approach subverts due diligence and city, state, and federal law, and will subject this project to legal jeopardy.</p> <p><u>I strongly urge the adaccepted</u></p>
I-779-59	<p>Overall</p> <p>Throughout the DEIS and Cultural resources Appendix, the regulatory framework for cultural resources is presented as Section 106 of the NRPA. Section 106 will undoubtedly come into play, but as any experienced cultural resource professional knows, the federal APE may not be the same as the state APE. This document needs to carefully consider and make clear that in addition to federal Section 106, there is the State’s RCW 27.53 statute (and others), the RCW sections related to burials, Governor’s Executive Order 21-02, SEPA, and the Centennial Accord and Millenium Agreement, and Olympia Municipal Code shape the legal and regulatory framework for this project.</p>

I-779-57 Regarding the requested archaeological survey, see the response to Comment I-779-9.

For all other aspects of this comment, see the Global Response for Cultural Resources.

I-779-58 See Section 5.9.6.1 of EIS Supporting Chapter 5.0. The first mitigation measure listed recognizes that DAHP and affected tribes may request an archaeological survey in areas that will be impacted by construction. Section 5.9.6.1 has been revised to acknowledge that any efforts to avoid, minimize, document, or interpret any impacts on cultural resources are predicated on properly designed inventories/surveys as a precursor.

I-779-59 In response to this and other comments, the regulatory authorities have been clarified in the introduction to Section 3.9 in Final EIS Supporting Chapter 3.0. As the project proponent, the Department of Enterprise Services is the lead state agency.

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I-779-59		No state agency is identified as the lead for cultural resources consultation that is required under various statutes and Orders. It is crucial to identify the responsible agency for that now.
I-779-60	Overall	The Cultural Resource sections throughout the DEIS fail to identify a critical point, which is that Olympia's waterfront developed primarily by building on fill. This preserved archaeological materials beneath a mantle of sediment, often with excellent preservation conditions.
I-779-61	Overall	The DEIS and Cultural resources Appendix ignore Treaty-protected resources. In my view, there should be an entire chapter of the DEIS devoted to impacts—both adverse and beneficial—that various alternatives may have on resources protected by the Medicine Creek Treaty of 1854.
I-779-62	Overall	Throughout the DEIS and Cultural Resources Appendix, authors give the impression that only archaeological sites and historic built environment. Equal attention should be given to the potential for cultural landscapes, traditional cultural places, and cultural materials that remain important to contemporary Indigenous people.
I-779-63	Overall	Throughout the DEIS and Cultural Resources Appendix, authors barely or never mention that archaeological sites (and potentially traditional cultural places) associated with Chinese and other non-Native ethnic groups exist. Potential impacts to the original Chinatown, Little Hollywood, and other sites in and around the North and far South Basins in particular are not addressed.

I-779-60 In response to this comment, an expanded discussion of this point has been included in Section 3.9.1.2 of Final EIS Supporting Chapter 3.0 and in Section 4.1.3 of the Cultural Resources Discipline Report (Attachment 13).

I-779-61 Tribal values and resources were incorporated into the process to select a Preferred Alternative as described in Section 1.12 of Final EIS Supporting Chapter 1.0 and the Preferred Alternative Identification (Attachment 21):

- Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
- Each alternative was also evaluated relative to cultural resources, which considered whether precontact landscapes would or would not be restored or preserved.
- The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.

I-779-62 See the Global Response for Cultural Resources.

I-779-63 Final EIS Supporting Chapter 3.0, Section 3.9.1.2, has been updated to provide additional discussion of archaeological sites in the Project Area.

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I-780-1	<p>Hello, My husband and I are professionals and have been involved in salmon recovery and environmental restoration for over 30 years. We strongly support either the estuary or hybrid alternative for the Capitol Lake-Deschutes restoration.</p>	I-780-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-780-2	<p>While salmon recovery efforts have focused on freshwater habitat for decades, stocks continue to decline drastically. Emerging research shows that repairing degraded and lost estuarine habitat is equally important for salmon recovery. Even though the Deschutes River has limited upstream salmon habitat because of the falls, the estuarine function is vital to salmon recovery in tributary streams, survival of other aquatic and terrestrial species, and a healthy environment overall.</p>	I-780-2 Comment noted.
I-780-3	<p>The Capitol Lake-Deschutes estuary restoration is a rare opportunity for large scale estuarine habitat restoration in Puget Sound and the greater Salish Sea. By choosing to proceed with this project in the Washington State capitol city, we are sending a message to the rest of the state and the region that we are serious about doing the right thing.</p>	I-780-3 Comment noted.
I-780-3	<p>I was not able to read through all of technical documents but I am well familiar with the regional and global challenges of sediment management in a river delta setting and sea level rise. Highly engineered environments that rely on regular dredging are much less resilient at adapting to changing conditions such as increased flooding, extreme weather (including drought), and vegetation change associated with climate change. A solution that restores natural processes as much as possible will be the most resilient and adaptable in the future.</p>	I-780-4 Please see the Global Response for the Hybrid Alternative, which has been updated to include a freshwater reflecting pool.
I-780-4	<p>I am somewhat familiar with the dual estuary lake idea (DELI) that was not formally included in the DEIS but may be reconsidered in the final EIS or as a hybrid option. I think this idea has merit and should be considered. It adds recreational elements not available in the existing Hybrid alternative. It also provides better freshwater habitat, manages stormwater and high groundwater, and provides a potential, low-tech solution to sediment dredging. This proposal was prepared by long-time professionals and has merits worthy of consideration. The proponents believe it could be a win-win solution between the all-estuary and all-lake sides of this project.</p>	
I-780-4	<p>As a taxpayer who believes in long-term solutions that restore natural processes to the maximum extent in our urbanized environments, I think the hybrid/DELI alternative should be strongly considered and that the estuary should be restored to the maximum extent possible.</p>	
	<p>Sincerely, Judith Radloff</p>	

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Subject **Public Comment on Draft EIS Capitol Lake-Deschutes Estuary**
From Helen Wheatley <h.wheatley100@gmail.com>
To <comment@CapitolLakeDeschutesEstuaryEIS.org>
Date 2021-08-29 21:05



- Wheatley Public Comment DEIS 8-29.pdf(~213 KB)

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Public Comment on the Capitol Lake-Deschutes Estuary Long-Term Management Project Environmental Impact Statement

Submitted by Helen Wheatley, Ph.D.
Olympia, Washington

Thank you for the opportunity to provide comment on this Draft EIS. I support the Estuary Alternative as the most broadly beneficial and therefore the best under the criteria of the State Environmental Policy Act (SEPA).

Every year that the decision is delayed, the public cost of this project rises. What has been the cost of delay since 2009, not only in accumulated sediments and construction costs, but missed opportunities to apply for federal restoration and infrastructure grants? It is long past time to move forward.

ECONOMICS DISCIPLINE REPORT

Visual Impacts (accuracy): The report misstates that "Implementation of the Estuary Alternative represents the most visual and environmental change to the downtown area..." (p. ES-4)

The Visual Services Discipline Report states otherwise.

On the Estuary, the Visual Services attachment states: "While the lake would become an estuary and have a different vegetation and water regime, the changes under the Estuary Alternative would be harmonious with the surrounding landscape because it would maintain a unified naturalistic shoreline environment in a setting that is dominated by parks and open space."

On the Hybrid: "The Hybrid Alternative would be the same as the Estuary Alternative in the Middle and South Basins. However, **in the North Basin, the visual impacts of the barrier wall would be severe, introducing a large, conspicuous structure that divides the waterbody and blocks views** across it from the east and west. Although mitigation for the appearance of the wall could be provided, **its sheer scale would result in a significant unavoidable impact.**" (Visual Services Discipline Report, p. ES-2) (emphasis added)

Reasonable alternative:

Where applicable, the wording throughout the Economics Discipline Report, and throughout the EIS, should be corrected to reflect that the Hybrid Alternative produces significant impact, and that the Estuary would produce change "harmonious with the surrounding landscape." "Harmonious" should be interpreted to mean "no impact" to visual/aesthetic elements.

Invasive Species (information, call for revision): The persistence of the New Zealand mud snail (NZMS) under all freshwater alternatives may lead to a huge impact on recreational use in nearby freshwater bodies, as the snail is likely to spread outward from its current environment, especially if recreational uses are reintroduced. The potential economic and recreation impact of the NZMS as it spreads throughout the county over the time frame of the project, should be considered.

Wheatley Public Comment

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- I-781-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
- I-781-2 The characterization of visual impacts in the Visual Discipline Report is based on accepted frameworks for conducting visual assessments of the scale and character of a project. Visual impacts were assessed in terms of spatial dominance, scale, and contrast as described in Section 3.3.1.4 of the Visual Discipline Report. While the Estuary would represent a substantial change, this change was found to be harmonious with the surrounding landscape because it would maintain a unified naturalistic shoreline environment.

The Economics Discipline Report's conclusions are consistent with the Visual Discipline Report, but broader. The economic analysis considers specifically how visual changes arising from implementing each alternative affect the value people derive from goods and services in the study area, rather than focusing on the end result of the visual change. This is consistent with how visual aesthetics contributes to economic value: it depends on the preferences of the individual and the environmental context within which they enjoy the view.

Regarding the Hybrid Alternative, the Economics Discipline Report considers the change from the perspective of multiple positions: the view from downtown Olympia (the area most applicable to analysis of economic impacts on downtown Olympia) would be dominated by the reflecting pool and not the exposed barrier wall that would be seen from the west. It also acknowledges the barrier wall would produce fewer valuable experiences for some, while providing value to some who enjoy a new vantage point to experience views.
- I-781-3 Under all action alternatives, an Aquatic Invasive Species (AIS) Management Plan would be developed in coordination with other state agencies, the waterbody would be treated to reduce the New Zealand mudsnail population before construction to reduce potential spread during construction, all dredge material would be treated and covered prior to transport offsite, decontamination stations would be installed at strategic locations around Capitol Lake for recreationalists to use at entry and exit, boat and foot access would be focused to areas with decontamination stations to reduce the potential spread of AIS, and educational signage would be posted to warn the public of AIS presence. These measures have been implemented at freshwater lakes in Whatcom County and have been effective in preventing the

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introduction of new invasive species and limiting the spread of existing AIS in local lakes.

Separate from this project, New Zealand mudsnails have spread throughout urban streams in Western Washington and significant impacts from those populations have not been reported.

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LAND USE, SHORELINES, AND RECREATION DISCIPLINE REPORT

Recreation (gap): Because it starts with the period after the Dam was constructed, the discussion fails to address the long history of recreational use that predates the Lake, including swimming and boating, but especially fishing.

This section should mention that the state has also taken an interest in promoting fish rearing in the Basin for many decades, as has the Squaxin Island Tribe. It should explain that recreational fishery was important to residents and a significant use of the Basin prior to dam construction.

Pedestrian Activity:

(gap; fairness) There does not appear to be discussion, in this section of the EIS or elsewhere concerning recreation, of the recreational impact of the current substandard condition, for pedestrians or bicyclists, of the current dam roadway. This substandard condition should be called out.

(concern about study process) An inherent flaw of a Park User Survey may be that it fails to capture those who are not using the park because of aversive factors. Its current condition has certainly driven people away, including the smell during certain times of the year.

Impacts for small children (information; fairness): As a parent, I will add these qualitative observations: The sidewalk at the dam crossing is extremely narrow and forces users to walk close to traffic. It is difficult for family groups to utilize. It is probably difficult for people with certain disabilities to utilize.

The wall in Heritage Park (Arc of Statehood) is also somewhat problematic for parents of young children. Children are attracted to walk on it, which means there is a risk of falling off into deep water. This discouraged me from using that area when my children were small, unless I had another adult with me to help supervise. An Estuary alternative could create a window of time when parents might feel more comfortable bringing small children to walk along the waterfront section, and children would have more wildlife to see.

Also, due to lack of circulation and flow and the accumulation of algae mats, the water at the sea wall often appears unhealthy and frequently contains dead wildlife (fish and birds). The mats of detritus may be an attraction for birds. As a result, the wall often has a lot of bird poop on it. An estuary may encourage a change in bird behavior resulting in a cleaner wall.

For parents of young children, the sanitary health and the safety of the shoreline environment is an important recreational consideration.

Shoreline:

Regulatory environment (Accuracy, regulatory requirements) The document states that DES "is responsible for the stewardship, preservation, operation, and maintenance of Capitol Lake Basin." This is not accurate. Be more clear about the areas of responsibility. Federal: it is part of a federal Estuary of National Significance; explain the extent federal regulatory interests (which are a major consideration for this EIS). Very significant, the Deschutes Basin is part of WRIA-13. . Department of Natural Resources: DNS controls and is responsible for the tidelands. DES leases them.

(suggested change) It would be good to use this introductory space to introduce and more fully contextualize the Regulatory Laws/Programs/ Policy tables.

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I-781-4

Regarding the history of recreational use that predates the lake (swimming, boating, fishing), SEPA requires analysis of project change relative to existing conditions. Therefore, the EIS focuses on describing the existing recreational conditions in the study area, which represents the appropriate baseline for analysis (see EIS Supporting Chapter 3.0, Section 3.8.3). In response to this comment, the text box describing "History of Recreational Use on Capitol Lake" has been changed to read "History of Recreational Use in Capitol Lake Basin" to acknowledge that recreational use would have occurred prior to dam construction as well, and the description expanded to describe recreational fishing as a prior use.

As described in Final EIS Supporting Chapter 2.0, all action alternatives include either a new non-vehicular bridge (Managed Lake) or a new 5th Avenue Bridge with multi-use lanes (Estuary and Hybrid Alternatives) that would support and improve pedestrian and bicycle travel through the corridor, and is considered a substantial transportation benefit of the project.

Regarding the user survey, it is acknowledged that the recreational use survey methodology used to understand user preferences was based on the assumption that data collected from park users captured by the survey is representative of the broader community, and it is acknowledged that this represents a high degree of simplification. The degree of simplification is consistent with the overall resolution of a recreational analysis in support of a SEPA EIS. The characterization provides enough discernable information for decision-makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the project goals. It should also be noted that similar data was included from the Community Sounding Board, the members of which may or may not visit the surrounding parks at this time.

I-781-5

Enterprise Services is the lead agency for compliance with the Washington SEPA (Revised Code of Washington [RCW] Chapter 43.21C) and for preparation of this EIS. Enterprise Services serves in this role given its responsibility for stewardship, preservation, operation, and maintenance of the public and historic facilities of the Washington State Capitol Campus (RCW Chapter 79.24.720), which includes Capitol Lake.

The aquatic lands of Capitol Lake are managed by Enterprise Services under long-term lease agreement from the Washington State Department of Natural Resources (DNR). Such leases are not regulatory. DNR requires that its lessees take primary responsibility for environmental stewardship.

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COMMENT

RESPONSE

With regard to the National Estuary Program, it is correct that the basin is part of the study area for the Puget Sound Restoration Program, one of the 28 federal Estuaries of National Significance. However, the NEP is a non-regulatory program.

See also Final EIS Supporting Chapter 9.0 for information on permits and approvals required for project implementation.

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It is important to highlight that Tideland is land for which DNR, not DES, is responsible. Consider the element of tideland leasing.

Shoreline

(Information; methodology; fairness) Under the Estuary Alternative, it appears that additional, island shoreline would be created. This is a significant fact, considering the Shoreline Management Act. Along similar lines, the Hybrid Alternative would create a new shoreline structure in the form of a long and tall seawall. Under the No Action alternative, shoreline would shrink. Provide more discussion of alternative differences for shoreline, with consideration of the Shoreline Management Act. If these differences are not accounted for, the Estuary alternative will not receive fair consideration.

(Accuracy) Given the very different shoreline scenarios with the different alternatives, it is hard to understand how the conclusion could be drawn, in terms of shoreline, that “none of the action alternatives would change any land or shoreline uses...” under impacts of operation. (5.3.2.3) Either this requires further explanation, or it is not accurate.

What is Baseline? (Methodology/assumptions)

There is an implicit choice in how to handle the dam as an object in the environment. Either the dam is regarded as an object that changes the environment, or it is an object that is a constant (no change) in the environment. It is usually assumed that the No Action Alternative serves as baseline.

However, the fundamental reason why a Long Term Management Plan is necessary, is that the dam is a change agent in the environment.

Shoreline is a particular area where it makes a difference whether the impact of the dam is regarded as a constant or as a change agent. The No Action and Managed Lake alternatives propose to keep the dam. This makes the question of “baseline” complicated. The No Action alternative guarantees change, not status quo.

For this section (and indeed the whole of the EIS), in the Long-Term timeframe, the Estuary Alternative actually provides the closest approximation to a theoretical “no change” baseline.

(suggested change) It is reasonable, and preferable, that all distinctions or impacts should be measured from the baseline of the estuary. In real life and real time, the “Lake Alternative” is a change scenario (change from the present, requires constant management). The Hybrid Alternative” is a change scenario. The No Action Alternative is a change scenario. The Estuary is a return to normal.

CULTURAL RESOURCES DISCIPLINE REPORT

What is this Report about?

I-781-7

This report explains how archaeology and historic built environment resources are incorporated into the EIS. That is what the Resource Description and Summaries of Impacts (Tables ES 1 and 2) tell us. The Executive Summary and discussions of Regulatory Context and Methodology are consistent with that.

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None of the alternatives would change the extent of shoreline jurisdiction. Under No Action Alternative, some open water would likely become vegetated, emergent wetlands, but the extent of ordinary high water would not be affected, except to the degree it would be affected by relative sea level rise. Under the Estuary Alternative, the habitat features would have some upland habitat but would be entirely within the area of the existing shoreline jurisdiction. Under the Hybrid Alternative, the barrier wall would be considered a shoreline modification, and would not establish a new shoreline.

The comment regarding the statement in the EIS that none of the action alternatives would change land or shoreline uses does not provide enough information on what the commenter considers inaccurate about that statement to provide a response.

Regarding the dam being part of the No Action Alternative, SEPA requires a No Action Alternative represent the conditions that would exist if the lead agency took no action. Since the dam is present, it must be considered part of the No Action Alternative. The effects of leaving the dam in place are described in the Draft EIS and Final EIS; thus, the commenter's concern that it is “an object that changes the environment” have been addressed.

As defined under SEPA, No Action does not mean no change.

I-781-7

Tables 2 and 3 (provided in the Final EIS Summary) summarize the key findings of the long-term and short-term environmental changes from the multidisciplinary impact analyses. A more complete summary of the findings is provided in the supporting chapters of the EIS, with the full technical analyses provided in the discipline reports that are attached to the EIS.

We believe the report is appropriately titled. As described in Section 2.1 of the Cultural Resources Discipline Report (Attachment 13), two main categories of cultural resources are reviewed as part of this analysis:

- Archaeological resources, including human remains and cemeteries
- Historic built environment resources (historic resources)

Indigenous places and traditional cultural properties, sometimes referred to as areas of traditional cultural concern, were also reviewed. For further discussion of traditional cultural properties, see the Global Response for Cultural Resources.

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COMMENT

RESPONSE

I-781-7 *(suggested change)* For clarity, this report should be renamed the "Historical Resources Preservation Discipline Report." Other cultural elements, such as aesthetics and recreation, are covered elsewhere.

I-781-8 *(suggested change)* The narrative description in Section 4, Affected Environment, Section 4.2 Historic Built Environment Resources, needs to be very carefully labeled so that the reader understands that under "Historic Development Context," what is being presented is not the full history of the Deschutes Basin, but a continuation of Historic Preservation analysis (a summary of "cultural resources within the study areas."):

(suggested change; fairness) Likewise, it should be made clear that "Indigenous Context" in the Archaeology section is not equivalent to Indian history, and the Medicine Creek Treaty (upheld by the Boldt Decision) is not a terminus to that history, which continues to this day.

(gaps/methodology/accuracy/fairness) This begs the question: where, then, is the full history of the Study Area? Why is it not included? For just one example, look at the Boldt Decision of 1974. That decision did not simply confirm the Medicine Creek Treaty. In its own right, it had significance for management of the Basin over the past (nearly) half century.

DES is the lead agency, but this does not mean that the EIS should be structured around the capitol campus, or biased toward those aspects of the Basin that are under the purview of DES its presentation of cultural considerations.

To draw the distinction in a very brief way, the Cultural Resources Discipline Report examines the history of human-built things: existing (and some past) structures and artifacts (what they are and where they are or might be). This is an historic preservation approach. An examination of history, according to the full purpose of SEPA, would look more like Environmental History and Cultural Geography: it would center upon the interaction between people and place in the study area: how they changed it (not just built within it), how they utilized it, thought about it, and were themselves changed by it. That's a very different narrative to the one presented here.

(suggested change) It would take a very long time to discuss what could or should be in the Cultural Resources Discipline Report, or in other parts of the EIS with a culture component that is not there.

I-781-9 There may be a somewhat efficient way to mitigate the mistaken (overly narrow) methodology. Besides relabeling the Report to better reflect its purpose to consider impacts on Historic Preservation resources, create a new section to provide a statement and/or table that provides summary guidance to the relationship between basin history/culture and other agencies connected to the basin.

In the Economics Discipline Report, EcoNorthwest discusses social elements in the added contexts of "Subsistence Value" "Non-Use/Existence Value;" "Recreational Value" and "Commercial Value."

By using this or a similar framework, calling these elements out and briefly examining them as historical elements, the holistic and contextual analysis provided in the Economics Discipline Report regarding impacts, might be better achieved in the Cultural Resources Discipline Report as well.

Another way to discuss historic-cultural elements (in a manner similar to the EcoNorthwest approach) could be to associate them with jurisdictions: Capitol Campus Committee/

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I-781-8 See Section 2.1.2 of the Cultural Resources Discipline Report (Attachment 13) for a description of "historic built environment resources." The term "historic" is applied to built environment resources under existing environmental regulations and refers to buildings, structures, and landscape features built by people and which remain functional. Section 2.1.1, Archaeological Resources, is not intended to describe Indigenous history. Please see Sections 4.1.1 and 4.1.2 for a description of the precontact-era context and Indigenous context of the study area. It is acknowledged that this is a brief description of the Medicine Creek Treaty and the Boldt decision, and additional documentation of this important history could be expanded. The existing information was included to provide some background and context for the discussion of potential impacts and benefits on tribal resources, and recommended mitigation measures were included in the Cultural Resources Discipline Report including preparation of ethnographic studies in coordination with local tribes, data recovery and interpretation of archaeological sites and districts; and/or Historic American Landscapes Survey; and other mitigations.

Tribal values and resources were incorporated into the process to select a Preferred Alternative as described in Section 1.12 of EIS Supporting Chapter 1.0 and the Preferred Alternative Identification (Attachment 21):

- Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
- Each alternative was also evaluated relative to cultural resources, which considered whether precontact landscapes would or would not be restored or preserved.
- The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.

I-781-9 For cultural resources, the SEPA review process requires project proponents to: (a) identify and describe any places or objects listed on, or proposed for, national, state, or local preservation registers known to be within or adjacent to the Project Area; (b) describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be within or adjacent to the Project Area; and (c) offer proposed measures to reduce or control project impacts, if any.

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In response to these and other comments, Section 3.9 of Final EIS Supporting Chapter 3.0 includes several changes that help provide a more balanced approach to the description of the Indigenous and of historic built environment context and history. Under the current SEPA rules, developed by the Washington State Department of Ecology, the review of probable significant impacts is addressed for each element of the environment, taken on their own. However, this does not preclude the decision-maker from considering the various impacts and benefits described in the EIS together in a holistic way. The commenter correctly notes that the Economics section of the EIS does address values associated with Ecosystem Services in a more contextual and holistic manner.

See also response to Comment I-781-7 and the Global Response for Cultural Resources.

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Architectural; Fish and Wildlife, Tribes/Fisheries Resource; Local, state, federal, tribal/economy, infrastructure, property and social history; federal, ecology/waterway. This would better impart an understanding that there are many historical considerations besides those related to historic preservation, and would encourage a better (fairer) process of achieving balanced consideration.

The absence of History/Environmental History/Cultural Geography makes this analysis incomplete and inadequate under the charge of SEPA. It would take a long time to describe and document all the ways that it fails. But at least, if labelled properly as an analysis for Historic Preservation, and if there were balanced discussion of other important historic/cultural geographic elements in a separate section of the report, it would not both fail and confuse.

Some particular notes on what is contained in this Discipline Report:

“Reflecting Pool” and Status Quo Bias

The cultural concept of “reflecting pool” is very important in this EIS. The Hybrid Alternative is essentially built around it.

(*accuracy*) Reference to “the reflecting pool” should be very carefully contextualized. For example, the sentence on page ES-3 (which, by the way, is a bit nonsensical and needs a rewrite): “Hybrid alternatives would remove the...Dam..., eliminating the reflecting pool.”

The Visual Resources Discipline Report shows clearly that the “reflecting” element will persist with the Estuary alternative most of the time. All parts of the EIS should harmonize with the findings of the Visual Resources Discipline Report.

(*accuracy/methodology/fairness*) The “reflecting pool” issue is not trivial from a cultural perspective. It is one significant reason why it has taken many years for the state to make a long-term management plan. The “reflecting pool” cultural trope provides an example of why it is necessary to draw a distinction between Historic Preservation and other kinds of history. Its cultural meaning is not contained within its historic preservation history, it has a life of its own as a cultural idea. Yet this important cultural element is not contextualized usefully by the Report.

The current structuring of Cultural Resources Discipline Report suffers from what EcoNorthwest discusses, in the context of economic values, as “status quo bias” and “the endowment effect.” (See section 4.3.4, Summary of Findings for the Demand and Value of Recreation. Economic Discipline Report, p. 4-40)

Briefly stated, there is a tendency for people “to value more highly what they know,” and for “people who perceive they are giving something up that they care about” to “value the loss more highly than the value someone may place on gaining something new.”

Furthermore, the built environment can foster cultural values and beliefs about the past that are largely unrelated to the actual histories of how a built environment came to be, and the purposes it was actually built to serve. Thus, people may value what they believe about an historic object in place (a building, a statue, a “reflecting pool”), even though those beliefs are more grounded in the present than in the past. (See Michel-Rolph Trouillot, *Silencing the Past: Power and the Production of History*)

The built environment is an artifact of not just cultural practices but historical power relations in society that continues to shape cultural memory (hence, historic preservation). It must be noted that much of the historical built environment under discussion in this report, is rooted in an

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In reviewing the sections of the Cultural Resources Discipline Report (Attachment 13) and Visual Resources Discipline Report (Attachment 14) relative to the comments on the reflective quality of an estuary, Section 5.5.2 of the Visual Resources Discipline Report correctly described the anticipated reflecting quality of the estuary and is consistent with the evaluation of cultural resource impacts. It acknowledges that the open water of a lake provides a more uniform surface than an intertidal area that is subject to tidal fluctuations. It further describes that during low tide conditions, the reflective surface of water would be absent in much, if not all, of the North Basin shoreline area.

Section 4.9 of Final EIS Supporting Chapter 4.0 and Section 5.0 of the Cultural Resources Discipline Report have been updated to reflect Washington State Department of Archaeology and Historic Preservation’s (DAHP’s) determination of the Capitol Lake - Deschutes Estuary and the Des Chutes Basin Project as not eligible for listing in the National Register of Historic Places. See also the Global Response for Cultural Resources for information on DAHP’s determination and related changes in the Final EIS.

This response acknowledges the commenter’s position on cultural values and refers to the response to Comment I-699-1 for more information.

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	<p>historical period (1920s-1950s) of active and deliberate erasure of the preceding history of the Deschutes Basin and its peoples. This includes the project area's contemporary twentieth century working class inhabitants, as well as the indigenous history stretching back thousands of years.</p>	<p>I-781-11 See the Global Response for Cultural Resources.</p>
<p>I-781-10</p>	<p>The "reflecting pool" is a culturally controversial object. For some, it represent erasure symbolized by "Little Hollywood." It also represents erasure of Native American culture. For this reason, present-day discourse on the roles of certain architects or "leading citizens" in shaping the history of the Basin should be approached with professional caution. Likewise, the cultural meaning of the built environment should not be assumed to be culturally monolithic. (See, for example, Eric Hobsbawm and Terence Ranger, <i>The Invention of Tradition</i> and Roxanne Dunbar-Ortiz, <i>An Indigenous Peoples' History of the United States</i>.)</p>	<p>I-781-12 Regarding the previously recommended Des Chutes Basin Project Historic District, see the Global Response for Cultural Resources.</p>
<p>I-781-11</p>	<p><i>(suggested change)</i> At the very least, incorporate present-day tribal voices in the Cultural Resources Discipline Report to provide understanding that there are multiple cultural perspectives regarding the built environment and its meaning. As it stands, the Report implies that Native American history is limited to archaeological concerns, when in fact Native voices are a vital element of present-day management.</p>	<p>For the comment on the presentation of individual historic properties in the Cultural Resources Discipline Report (Attachment 13), see Tables 4.7 through 4.14 for the listing of these properties. Because the discipline report is intended to serve as the detailed technical report in support of the EIS, information has not been removed as requested by the commenter. Table 4.6 in particular is important as a record of the previously unevaluated historic properties that were evaluated under this EIS effort.</p>
	<p>The Des Chutes Basin Project Historic District: What is a Cultural Factor, What is Impact</p> <p><i>(accuracy/methodology)</i> The Des Chutes Basin Project Historic District does not exist. Despite the methodological bias of this report toward historic preservation of the existing built environment, there is still no basis for including a nonexistent historic district as the equivalent of existing historic districts. There can not be an "impact" on something that does not exist.</p> <p>Therefore, statements such as the following should be removed:</p> <p>"If the recommended Des Chutes Basin Project Historic District is determined eligible for listing, this work would permanently diminish the integrity of the resource's essential physical features, and would be a significant adverse impact."</p>	<p>Section 4.2 of the Cultural Resources Discipline Report has been updated to reflect Washington State Department of Archaeology and Historic Preservation's determination of the Capitol Lake - Deschutes Estuary and the Des Chutes Basin Project as not eligible for listing in the National Register of Historic Places. The presentation of impacts in Section 5.0 of the Cultural Resources Discipline Report has also been updated to reflect these eligibility determinations.</p>
<p>I-781-12</p>	<p>Likewise, tables 4.4 references the "Potential Des Chutes Basic Project Historic District" as if its potential existence were on an equal par with existing registered resource elements. This reference should be removed. "Potential" historic districts should not be treated on equal footing with actual historic districts (Tumwater Historic District, etc.). As a manifestation of cultural value, the difference between being qualified, and actually being registered, must be recognized.</p> <p><i>(inconsistencies)</i> Here is one example of how the current approach sows confusion: There may be individual historical properties registered in existing historic districts that are very significant for consideration of project impacts. They are not listed in a table. Yet individual historical properties that are <i>not</i> registered, are listed in a table: Table 4.6.) It is hard to understand why individual properties that are <i>not</i> in historic districts are summarized by a table, when individual properties that <i>are</i> registered, are not.</p> <p><i>(gaps/suggested change)</i> There is no particular need to know what resources were surveyed. There is a need to know what resources may be impacted. The maps (e.g., Figure 4.2) could be modified, perhaps adding stripes or circles around those to which attention should be drawn. A table could be provided. It could substitute for the current data-dumping approach in this Report of listing resources that are not related to impacts and alternatives.</p>	

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Again, ECONorthwest provides a useful model within the EIS itself. It does not include or catalogue *all* the data it collected, it just says that it collected and analyzed it, and provides the information that matters. That helps to streamline and focus the information-gathering process for the decision-maker reading the document. A finished Discipline Reports should not require considerable data-culling and independent data analysis by the reader.

For these reasons, consider removing Table 4.6 (and other overly-extensive data) because it may be more confusing than enlightening.

As the non-contextualized treatment of a nonexistent historic district suggests, too much space is given over to detailing historic preservation/registration status in the report, at the expense of discussing historical context and meaning. In the case of discussing "historic built environment resources," the Report would be better focussed on helping to identify which historic structures need particular attention in the specific context of impacts from the Long Term Management Project. Their registration status and jurisdiction may, or may not be important.

More methodical emphasis on cultural meaning is needed

(strong opinion) It is worth considering that one reason why there is not already a Des Chutes Basin Project Historic District, could be that the built structures are not of comparatively high cultural value. See the language provided from the Comprehensive Plans to consider what that might mean. Local residents may not see the values of "high quality civic architecture" in the Des Chutes Basin Project.

Let's face it. The dam is ugly and inadequate to present need. The Deschutes Parkway is, for the overwhelming majority of people, just a road. A major part of the Deschutes Basin Project, as planned, never even happened — instead, the railway persists. The concept of this historic district has not been "achieved in cooperation with all members of the community and... integrated into city decision-making processes" per the Olympia Comprehensive Plan. Besides local residents, state actors have not perceived a high level of historical value in the structures themselves, regardless of whether they qualify for potential preservation technically.

(methodology/gaps/fairness) Cultural importance matters more than historic preservation in the context of SEPA (see SEPA discussion below).

I-781-13

For instance, while the antagonistic historical facts of Capitol Lake and Deschutes Basin Estuary each have cultural importance, the Dam, as a structure, does not. People who love the Basin as a recreational resource for walking, may not even have full awareness that the bridge they walk across is also a dam. Yet the dam is discussed here, and the waterbody is not, because the River and other natural resources are not considered as "historic" elements in this report unless they are modified by humans or, in the case of the "reflecting pool," a product of modification.

Why and when does this matter (for the EIS)? One significant example: the cultural importance of the Lake must be considered alongside the cultural importance of the Estuary. Compared to the heavy weight of this central evaluative task, the dam, as a structure, is virtually irrelevant from a cultural perspective. Likewise, the Deschutes Parkway is not understood by any but a handful of individuals to be a key element of the Des Chutes Basin Project, it is simply a road. It plays no role in helping people to understand the cultural heritage of the Basin. So what, really is the "resource"? Percival Creek, which flows under the Deschutes Parkway, has its own historical and cultural importance for its Chum and other salmon, for its great interest to recreational and subsistence fishermen historically, for the loss of its estuary, and subsequent history as a salmon pen area. Yet it is not discussed in the report. It should be.

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I-781-13 Regarding the previously recommended Des Chutes Basin Project Historic District, see the Global Response for Cultural Resources.

Since the issuance of the Draft EIS, the Washington State Department of Archaeology (DAHP) reviewed historic properties in the Project Area and found that some previously unevaluated historic properties are eligible for listing in the National Register of Historic Places, including the 5th Avenue Dam and 5th Avenue Bridge mentioned in this comment. DAHP's review also determined that the Capitol Lake - Deschutes Estuary, Deschutes Parkway SW, and the Des Chutes Basin Project mentioned in this comment are not eligible for listing in the National Register. See Sections 3.9 and 4.9 of Final EIS Supporting Chapters 3.0 and 4.0 for updates to the analysis as a result of DAHP's determinations of eligibility.

For cultural resources review under SEPA, the process requires consideration of potential impacts on places or objects listed in, or proposed for historic registers. It also requires that potential impacts on any landmarks or areas of historic, archaeological, scientific, or cultural importance be addressed. Based on this and other comments, Sections 3.9 and 4.9 have been revised to provide a more balanced level of information on these resources. See the Global Response for Cultural Resources for information on how areas of cultural importance were considered.

While SEPA only requires analysis of project change relative to conditions that would occur under existing conditions (or the No Action Alternative), the Draft EIS did describe how the project alternatives would or would not improve / support tribal values related to the estuary. See the Global Response for Cultural Resources for more information.

For aspects of this comment that address cultural significance of the waterbody, see the responses related to tribal values and traditional cultural properties within the Global Response for Cultural Resources.

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The historic preservationist approach applied here, including evaluation of alternatives based on "potential impacts to a historic resource's integrity," is not adequate. It is not the same as consideration of the *importance* of an historical resource, the *meaning* of the resource, and the *relationship* of the resource to other historically important elements.

Under SEPA, the environmental task of "attaining the widest range of beneficial uses" is paramount. Excessive focus on currently existing historic built environment resources caused this part of the EIS, which is supposed to help with SEPA evaluation, to lose its way. SEPA isn't even listed as part of the criteria used to evaluate significance "for the surveyed resources" (built/archaeological). It should be.

Section 2.0 Regulatory Context

(methodology/gap) The "regulatory context" discussed in the Report refers to regulation of historic preservation. This is inadequate.

SEPA: Clearly, the starting point for regulatory context of cultural evaluation in an EIS is SEPA itself, and the values and goals it enumerates that relate to discussion of cultural elements.

(information) The State Environmental Policy Act counts the biological and physical environment as a wellspring for the human need for cultural enrichment as well as other elements of human health. It calls upon government to support "conditions under which human beings and nature can exist in productive harmony," while meeting social, economic and other human needs now and for future generations. "Aesthetically and culturally pleasing surroundings;" "an environment which supports diversity and variety of individual choice"; achieving a "balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities"; and attaining "the widest range of beneficial uses of the environment without degradation, risk to health and safety, or other undesirable and unintended consequences" are all important elements that should be weighed, according to the state legislature, when considering cultural environment elements of policies and actions.

I-781-14

To that end, SEPA asserts that not only the natural sciences, but the social sciences and design arts, as well, should be deployed in decision making. Economics is one of the social scientific disciplines applied for this DEIS, but the state also seeks to "preserve important historic, cultural, and natural aspects of our national heritage."

According to the SEPA handbook, the EIS examines "all areas of probable significant adverse environmental impact associated with the alternatives..." The Report limits the "areas" to archaeology and historic built resources. It has already been discussed why this is no sufficient.

(methodology) In the context of SEPA specifically, the problem with inadequate cultural analysis is that it can lead to inaccurate weighing for "balance" under SEPA, or failure to recognize that "balance" is even in question.

For example, in the case of the dam, there may be an adverse historical impact to preserving it as an historic resource because doing so preserves an active tool by which an historic injustice is perpetuated.

For another example, while the hybrid alternative is depicted in terms of mitigating a *loss*, it is more appropriate to address it as construction of a *new* structure into the environment.

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I-781-14 For historic and cultural resources, the SEPA review process requires project proponents to: (a) identify and describe any places or objects listed on, or proposed for, national, state, or local preservation registers known to be within or adjacent to the Project Area; (b) describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be within or adjacent to the Project Area; and (c) offer proposed measures to reduce or control project impacts, if any.

Section 4.14.3.4 of EIS Supporting Chapter 4.0 does describe how the project alternatives may enhance cultural values for some, or maintain status quo for others, as part of the evaluation of ecosystem services impacts and benefits.

Please also refer to Attachment 21 for more detail about the Preferred Alternative identification process. In that document, it is described that tribal values and resources were incorporated into the process to select a Preferred Alternative in three primary ways:

- Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance.
- Each alternative was also evaluated relative to Cultural Resources, which considered whether precontact landscapes would or would not be restored or preserved.
- The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.

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I-781-14
(suggestion/information) The fundamental problem of the Report is clearly one of scoping. The EIS needs a practical fix that does not require a whole new research program based on better methodology.
 Because it is another social science-based report, and because consistency is desirable across the EIS, the Economics Discipline Report and the work of ECONorthwest should again be utilized as a model. It provides a helpful table that may suggest a useful example of how to frame scoping the historical issues that would be sufficient to avoid necessitating a "redo."
 Table 3.1 of that report, *Description of Ecosystem Service Study Areas*, delineates particular areas of concern (e.g., flood regulation, visual aesthetics), and then connects the resource elements ("supply") to who thinks it matters ("populations that use the Capitol Lake Basin...for recreation"). The range of these communities goes from local users of the project area, to "the Pacific Northwest, the U.S., and the world," or even "global."
 The Cultural Resources Discipline Report could benefit from construction of a similar table to help distinguish: what environmental elements are areas of concern for historical meaning (e.g., the water or shoreline, salmon, the Dam, nearby buildings); the geographical location and physical presence of these cultural-historical resources (the "supply"); and those people or jurisdictions to whom it matters.

I-781-15
 Table 3.1 of the Economics Discipline Report already starts the process. Under the ecosystem service element listed as "cultural, heritage, spiritual, and education" it lists the Basin and West Bay as the "supply" elements, and delineates "Populations that currently or historically have connected with the resources in the Capitol Lake Basin, directly or indirectly, centered primarily in Western Washington and statewide."
 Similarly, under the "visual aesthetics" service element, it identifies a tighter circle of concern: "populations that use the Capitol Lake Basin and West Bay for recreation; Populations living within view of the project area."
 These kinds of clarifying refinements are absent from the Cultural Resources Discipline Report, making it very hard to understand either the universe of what might be called stakeholders, or the jurisdictions (local? state? national?) for the elements being examined.
 It would also be helpful to better connect to cultural elements in other discipline reports in the EIS. As noted, the cultural discipline report has not been harmonized with the discipline report on the visual/aesthetic element. It clearly has also not been harmonized with the Economic element. These interrelationships within the EIS should be noted and refined.
The National Regulatory Context
(gaps) It has already been observed that this Report leaves out many historical elements. One of them, is the national relationship with the Deschutes Basin and Budd Inlet.

I-781-16
 SEPA seeks to "preserve important historic, cultural, and natural aspects of our national heritage." (emphasis added). Archaeology and Historic Districts (which the Deschutes Basin Project is not) are only one aspect of national heritage interest.
(methodology/information) Turning to history, the federal regulatory context matters not only in terms of historic preservation, but in terms of the unfolding of Basin/Inlet history itself. The federal interest in the navigation channel, dredging, and in salmon fishery, very much shaped the cultural meaning of the Dam structure and other structures and built environment, including

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I-781-15 The Cultural Resources analysis in the Draft EIS provides analysis and disclosure of potential environmental impacts associated with the Capitol Lake-Deschutes Estuary Long-Term Management Project in accordance with SEPA requirements as described in the response to Comment I-781-14. The section of the Economics Discipline Report referred to in this comment is specifically related to "Values of Ecosystem Services" and, therefore, describes values as opposed to properties / places / sites, which is the focus of the cultural resources analysis. Although the recommended changes may be helpful for some, they are not required to provide a complete analysis for the SEPA EIS; the changes have not been made.
 This comment does not provide specific examples of where the Cultural Resources Discipline Report is inconsistent with the Economics Discipline Report or the Visual Resources Discipline Report referenced.

I-781-16 The Draft EIS did include consideration of compliance with numerous federal regulations (and therefore, "federal interests") mentioned by the comment. See Sections 3.1 and 4.1, Hydrodynamics & Sediment Transport and Sections 3.2 and 4.2 (USACE federal navigation channel); Sections 3.3, 4.3 and 5.3, Water Quality (CWA, TMDL, NPDES); Sections 3.5, 4.5 and 5.5, Fish & Wildlife (Endangered Species Act, Magnuson-Stevens Fishery Conservation and Management Act, the Migratory Bird Treaty Act, and others); Sections 3.6, 4.6, and 5.6, Wetlands (USACE Section 404), and Sections 3.9, 4.9 and 5.9 (National Register of Historic Places / Section 106). See also EIS Supporting Chapter 9.0 that describes federal, state and local permits and approvals that would be required for the project.
 In summer 2022, after identification of the Estuary Alternative as the likely Preferred Alternative, Enterprise Services began researching funding opportunities for project construction. Construction funding would likely to include funds from a variety of sources, including federal, state, and potentially philanthropic; and as stated in this comment, more federal funding opportunities would be available for an Estuary Alternative than the other alternatives.

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I-781-17 See response to Comments I-781-7, I-781-9, I-781-14, and I-781-15.

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fill land, within the Basin. The Clean Water Act and federal treaties were pivotal in setting the Long Term Management Project in motion.

As part of an Estuary of National Significance, the Deschutes Basin is certainly a valued part of our national fabric, a fact that is reinforced by the ongoing process of developing a TMDL for the watershed. This too is an active part of the history of the Basin that has unfolded over several decades so far, as well as being a regulatory parameter. There are many ways that the federal government participates in the governance of Budd Inlet.

(strong opinion) For EIS consideration, the Estuary Alternative will clearly expand, enhance and preserve the national resource and cultural value of the Basin from a federal perspective.

(consistency/gaps/suggestion) Other parts of the EIS also need enhanced discussion of the federal interest. For example, there appears to be no discussion that expanding this federal connection can also expand the potential funding base for the Long Term Management Project, compared to the other alternatives.

The Status Quo Bias and Myth History

(methodology/information) The structuring of Cultural Resources Discipline Report suffers from what EcoNorthwest discusses, in the context of economic values, as "status quo bias" and "the endowment effect." It also reflects this phenomenon as it has occurred among those selected as key stakeholders/information sources. (See section 4.3.4, Summary of Findings for the Demand and Value of Recreation, Economic Discipline Report, p. 4-40)

Briefly stated, there is a tendency for people "to value more highly what they know;" and for "people who perceive they are giving something up that they care about" to "value the loss more highly than the value someone may place on gaining something new."

The academic field and the practice of Historic Preservation has certainly seen a great deal of critique for its inherent biases, especially in relation to social justice. (See, for example, the recently developed methodology of cultural heritage needs assessment, Ned Kaufman, "Historic Places and the Diversity Deficit in Heritage Conservation," *The Journal of Heritage Stewardship*, No. 2, Summer 2004. <https://home1.nps.gov/CRMJournal/summer2004/article3.html>)

I-781-17

The built environment can foster cultural values and beliefs about the past that are largely unrelated to the actual histories of how a built environment came to be, and the purposes it was actually built to serve. Furthermore, the built environment is an artifact of historical power relations in society that shapes memory. (See Michel-Rolph Trouillot, *Silencing the Past: Power and the Production of History*)

Much of the historical built environment under discussion in this report, is rooted in an historical period of active and deliberate erasure of the preceding history of the Deschutes Basin and its peoples. This includes the project area's contemporary twentieth century working class inhabitants, as well as the indigenous history stretching back thousands of years. In particular, present-day discourse on the roles of certain architects, architectural schools (City Beautiful) or "leading citizens" (see Wilder a & White, below) in shaping the history of the Basin should be approached with professional caution.(See, for example, Eric Hobsbawm and Terence Ranger, *The Invention of Tradition* and Roxanne Dunbar-Ortiz, *An Indigenous Peoples' History of the United States*.)

The cultural shaping of Memory is not something to be discounted as wrong, but rather as part of the historical fabric that shapes the world in which the artifact lives. Good examples right now

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is the debate over display of Confederate statuary, or the commemorative meanings of the name "King" in King County or the naming of the Jackson Highway.

Unfortunately, the qualitative sections of this Discipline Report fail to distinguish clearly among history, historic preservation, and the phenomena of cultural memory.

(suggestion/gap/consistency) Turning again to EcoNorthwest and the Economics Discipline section, one possible corrective might be to include discussion of what EcoNorthwest labels as elements of "Subsistence Value," "Non-Use/Existence Value," "Recreational Value" and "Commercial Value."

Where any of these elements arise in the text or discussion of the Cultural Resources Discipline Report, they are currently incidental and not a part of the research design or methodology. By calling them out and examining them as historical elements as well as economic elements, the holistic and contextual analysis provided in the Economics Discipline Report, might be better achieved in the Cultural Resources Discipline Report as well.

Appendix A: Study of Cultural & Spiritual Values (2009) (AHBL, Inc)

(suggestion) This section should be removed from the Discipline Report and treated strictly as a reference.

A large percentage of the Cultural Resources Discipline Report consists of this 2009 study performed for DES by AHBL, Inc. It shares many of the methodological problems of the current Discipline Report, only worse.

(information) Twelve very eventful years have passed since publication of the AHBL study. This includes the huge impact of the New Zealand Mud Snail on the cultural use of the Basin. It also includes the advent of homelessness as a very significant structural element of society in the study area.

Although these may be seen as novel elements, they both have historical continuity with past history. The NZMS is part of a succession of invasive species that are actually a biological element of the "built environment" of the historic dam structure. Prior to its commodification and subsequent acquisition by the State, much of the shoreline held the cultural position of a "commons," utilized for its "subsistence value" for working class people, displaced people, and immigrants.

These elements of history, so powerful especially within the last decade, were not even on the radar of the 2009 report.

Now the cultural currents of the movement for justice and equity, COVID and even climate change, have further contributed to the transformation of many forms of cultural use of the Des Chutes Basin and Budd Inlet. The 2009 study is obsolete.

(methodology/gap) Of particular concern when viewed by today's social science standards, the old study relied on views "which will be 'known' (quotemark added) to interviewees but held by other groups or communities (emphasis added)". This was a dubious method even 12 years ago, and now it cannot stand. Where possible, if interviews are to be included (and there is ample reason not to include the ones provided), then this should be rectified by seeking interviewees who regard themselves as members of those "groups are communities" empowered to provide their own perspectives for this study.

I-781-18 At the beginning of the Draft EIS process, the project team reached out to the Olympia Chinese-American Community and the Squaxin Island Tribe and asked whether the Study of Cultural & Spiritual Values (2009) was still a valid representation of their respective community and tribe values, and to identify any new information on history and ties to the area not already documented in the report. The Olympia Chinese-American Community and the Squaxin Island Tribe responded that the report is still a good representation and reasonable reference document; therefore, it was included as a reference to the Cultural Resources Discipline Report. The EIS Project Team has not heard otherwise from the Olympia Chinese-American Community and the Squaxin Island Tribe.

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I-781-19	<p>Capitol Architecture and Built Environment</p> <p><i>(accuracy)</i> Minor correction: "Johnson" should be "Johnston."</p> <p><i>(strong opinion/methodology)</i> In reference to the AHBL study and the narrative section of the the main body of the Discipline Report (which is notably better than the AHBL study), the history of Capitol Architecture is given too much prominence.</p> <p>Furthermore, it is not separated sufficiently from the Deschutes Basin Project as an historical event in its own right.</p> <p>The over-emphasis on capitol architecture may have three sources: bias because DES is the lead agency on the EIS; an historic preservation analysis performed without a justice and equity lens; status quo bias. Furthermore, an unusual aspect of this EIS is that the Long-Term Management Project is prompted by the impact of an historic built resource, the dam.</p> <p><i>Wilder & White and Olmsted Brothers:</i></p> <p><i>(accuracy)</i> Appendix A, "Study of Cultural & Spiritual Values Associated with Future Alternatives for Capitol Lake Basin" contains a misstatement of fact when it says: "...the 1911 Wilder & White plan for the Capitol Campus...proposed the creation of a pond to reflect the domed Legislative Building and the Temple of Justice in a portion of the Lake basin...". This is simply not true (see discussion below). Furthermore, the weight given to the Olmsted Brothers sketch is based on an inaccurate understanding of their landscape plan.</p> <p><i>(information)</i> The Wilder & White design was based on the idea of the (waterless) Acropolis at Athens where, in the words of Wilder & White themselves, "the unity of the whole is evident from all points... The site like the Acropolis was isolated from the city and raised above it, and the buildings comparatively small, yet all contributing to the same general purpose."</p>	<p>I-781-19 Comment noted. Please see the previous responses to comments in this letter. See also the Global Response for Cultural Resources.</p> <p>I-781-20 Thank you for your comments related to the designation of the lake as a "reflection" pool. While there may not be a historic or legislative record of the lake being called a reflecting pool, it has become known to many in the community as a reflecting pool, or at least appreciated for its reflective qualities. In response to this comment, the term "reflective" has been removed when used in reference to historic context. However, it is retained in other areas of the Final EIS where it refers to the waterbody in general.</p> <p>Sections 4.2 and 5.0 of the Cultural Resources Discipline Report (Attachment 13) have been updated to convey the Washington State Department of Archaeology and Historic Preservation's determination of not National Register eligible for the Capitol Lake - Deschutes Estuary and the Des Chutes Basin Project. See the Global Response for Cultural Resources for an explanation of changes in the Final EIS to provide a more balanced level of information on historic periods and perspectives.</p>
I-781-20	<p>The context of the "Birdseye view" illustration, is also provided by Wilder & White in <i>The Cornell Architect</i> (1916):</p> <p>"It was evident that the presence of the Capitol Group should have an important influence on the development of the city of Olympia and at the request of influential citizens we prepared a report containing suggestions to that end. In order to facilitate their comprehension a birdseye view of the city was prepared showing the proposed relation of the Capitol to these improvements." (emphasis added)</p> <p>In other words, it was suggested that the construction of the City itself follow the construction of the Capitol design. After the Capitol Group was designed, certain "influential citizens" asked the architects for a sketch of how they could build the city to utilize the potential viewscape. In response the architects presented a view based on significant dredge and fill of the Basin, not a reflecting pool. The Birdseye View sketch does not show reflection, nor does any other Wilder & White sketch.</p>	<p>I-781-21 The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.</p>
I-781-21	<p>Wilder & White sketched the main approach to the Capitol Group based on a belief that they could build terraces into the hillside. Their considerations for the viewscape were focused on how this would affect design of the Capitol Group. In their words:</p> <p>"The exact restrictions as to the boundaries of the site contained in the original programme were modified and at the request of the Capitol Commission we revised the group plan, holding to the</p>	

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same arrangement but gaining more space in every direction. **This permitted the use of architectural terraces as a setting for the Legislative and Justice Buildings and gave them additional importance, while it also permitted a loftier dome on the central unit....**" (emphasis added)

As architectural historian Norman Johnston has pointed out, Wilder and White were based in New York, and were unaware of the environmental conditions (let alone railroad property rights) when they created the original design.

Among other things, this made them ignorant of the local cultural importance of the northward viewscape from the bluff toward the Olympics range. As a result, they erased this culturally valued element, which had been included in the original call for designs (contest). As Wilder & White themselves stated:

"Neither of us had been to Washington and for the conditions surrounding the problems were entirely dependent upon the information contained in the programme."

All they knew was that "On the north and west the ground sloped abruptly to the water about one hundred feet below," and they were told that "near the centre of the grounds were the original foundations upon which is was proposed that the principal unit should be placed with the frontage towards the north, thus making this the principal axis of the group."

Wilder & White won the competition despite tossing away the northerly viewscape, which they had blocked in their design with the Justice building. They were solving a cost problem efficiently. There were compromises and contingencies built into the design from the very beginning.

In the end, Wilder & White's design concept of the grounds and the stair promenade had to be tossed aside. The soil composition of the bluff undermined the construction of the stair promenade, which was a central feature of their design. The dredge-and-fill city of the Birdseye illustration, didn't happen.

As an historical artifact in its own right, the Birdseye illustration took on a life of its own in the late 20th century.

The introduction of the landscape architecture firm Olmsted Brothers onto the scene, which was a rocky one, introduced another one of many elements of historical contingency to the Capitol Campus. Their proposed design sought to remedy the problems created by the placement of the Wilder & White capitol group, which could not provide a main approach up the bluff as anticipated. They proposed to solve the problem by creating viewscape and main approach angled from downtown Olympia.

Unfortunately, our present-day understanding of the Olmsted vision was erased when tall downtown buildings destroyed the line of sight to the Capitol, and because a significant part of their landscape design connected to their concept of the main approach was never executed. As a result, the "reflecting pool" illustration assumed a greater importance in the late 20th century, than it possessed at the time of its sketching.

As a collection of historic built resources, the Capitol Campus has been cobbled together not just from architectural vision, but from compromise, physical and economic limitations, and changing needs, values, and structures of power.

Frequently deployed in relation to the concept of a "reflecting pool," the architectural sketches demonstrate that not all of the significant architectural artifacts were built resources. The

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I-781-22 To address how a loss of resources can be mitigated, Section 4.9.7 of Final EIS Supporting Chapter 4.0 has been revised to expand the role of developing an interpretive plan for the Capitol Lake - Deschutes Estuary. See the Global Response for Cultural Resources for an explanation of changes in the Final EIS to provide a more balanced level of information on historic periods and perspectives.

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I-781-22 sketches have arguably gained more cultural power than the physical element of the Lake itself for some, as demonstrated by the interviews and misstatements of fact even within the draft EIS. This includes the culturally persistent concept that the estuary will significantly disrupt the visual field, when in fact it is harmonious and would continued to provide the "reflection" function a good deal of the time.

(suggestion) The loss of a structure does not necessarily result in the loss of the capacity to place or retain related historical objects accessibly in the environment. The EIS should discuss how the "impact" or sense of loss of historic build resources can be mitigated by measures such as providing a permanent display about the history of the Capitol Group, landscape design, and Capitol Lake, somewhere on the Capitol Campus.

(strong opinion) Applying historical analysis, not just historic preservation analysis, to the Lake Management and Hybrid Alternatives requires incorporating an understanding of the history of architectural ideas, but within their proper limits.

Construction of a wall, in particular, would be like erecting a statue of a Confederate hero in the 1920s. It would be a construction of a new object to institutionalize and enforce an interpretation of the past that perpetuates the power dynamics of the present.

(References: Wilder & White, "Illustrations of Washington State Capitol Competition Drawings," The Cornell Architect, Vol 2, No. 3, June 1916, <https://babel.hathitrust.org/cgi/pt?id=coo.31924015161049&view=1up&seq=109&skin=2021>

Norman J Johnston, *Washington's Audacious State Capitol and Its Builders*. Seattle: UW Press, 1988)

NAVIGATION DISCIPLINE REPORT

I-781-23 *(consistency)* Navigation contains cultural, economic, and land use elements, which need to be accounted for. This goes back to the general observation that the different reports should be better harmonized to present a coherent perspective, both in the Discipline Reports themselves, and in the Executive Summary.

Navigation Dreams: The Ship Canal

(information) It may be worth noting, as a point of cultural information, that from the 1930s up until the 1960s — in short, in the same time frame as the evolution of capitol campus planning — proponents (including federal legislators) promoted the idea of turning the Deschutes Basin into part of a large canal system connecting Olympia/South Sound via the Deschutes and Chehalis Rivers.

I-781-24 It was taken seriously enough, to have even been proposed by local "influential citizens" as a better alternative for New Deal infrastructure spending, than the Bonneville Power Administration.

This is an example of how there was persistent interest in continued commercial as well as recreational use of the navigation channel throughout much of the 20th century. It is another illustration of how the Basin's function as a setting for the Capitol Campus was always just one part of a larger field of meanings, uses, debates and discussions about the Basin and the Deschutes River.

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I-781-23 Comment noted, and please see the separate disciplines for these discussions, consistent with standard SEPA format.

Please also see Attachment 21, which provides a comprehensive evaluation of the alternatives relative to their ability to meet project goals, to result in other environmental impacts or benefits, their relative environmental and economic sustainability, cost impacts, and decision durability.

I-781-24 Thank you for this added historical context; it has been reviewed by the EIS Project Team and Enterprise Services.

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I-781-25	<p>(gap: transparency) When I attended a workshop on the draft EIS, the presenters could not explain fully Figure 3.2.2 regarding navigation patterns. This figure is potentially important. It matters for explaining who is using Budd Inlet for navigation, and how frequently. Right now, it is pretty incomprehensible, and the text (3.2.1; 4.2.1) provides no enlightenment, either. How frequently do vessels call at the Port? How heavily is the channel used by the marinas? This should be treated as essential information for many aspects of the EIS, based on the purposes of SEPA.</p>	I-781-25 The Budd Inlet Vessel Traffic Pattern figure in the Draft EIS Navigation Discipline Report accurately reflects the Port’s cargo vessel call based on AIS data for 2018 to 2019. The AIS data includes other vessels, not calling at the Port, representing a sample of the vessel traffic for vessels where AIS reporting is optional. The figure provides a summary representation of larger vessel use of Budd Inlet into West Bay. The observable patterns reflect areas where larger vessel traffic generally occurs. Areas not shaded may have occasional transits and should not be interpreted as indicating a complete absence of vessel traffic (areas with 5 or fewer vessel passes per year are not shaded and many recreational vessels do not have AIS that can be recorded by the system). Vessel navigation was observed to be highest within the authorized FNC and turning basin and throughout the east side of West Bay closest to the Port, local private marinas, and marina access areas along the east shore of West Bay. Figure 4.4 also notes the limitations of the vessel data in the bottom legend.
I-781-26	<p>(suggestion) Supplement the navigation channel use data with a table, or some form of information that informs how heavily the channel is actually used and by what types of vessels. For example, how often on average do cargo ships call at the Port of Olympia? Once every two weeks? Once a month?</p>	
I-781-27	<p>There should be greater effort to determine and characterize current use of the channel by recreational craft.</p>	
I-781-28	<p>(suggestion) Port of Olympia future use (4.2.2):</p> <p>It was important news to the Port Commission and the public, that the Port “would like to welcome Panamax and Neopanamax vessels...to their berths.” The presence of this text in the EIS even prompted a news story in <i>The Olympian</i>. One Commissioner called it “nuts,” and others agreed that the dredging problem alone is insurmountable, let alone other factors involved in bringing Panamax ships to Olympia. Remove the second paragraph of 4.2.2 completely from the EIS.</p> <p>It would be helpful to discuss anticipated future navigation needs of the Port of Olympia in a SEPA context, in addition to the dredging discussion. Climate change, the transformation of shipping in response to the need for reduced greenhouse gas emissions, and the aging (usefulness) of the berths are examples of additional long term considerations.</p>	Further details about the vessels calling at the Port are provided within Section 4.2.2 of the Navigation Discipline Report, stating that typical vessels calling at the Port include bulk cargo ships of about 600 ft LOA and beams of around 100 ft. Additional text has been included into Section 4.2.2 of the Navigation Discipline Report to summarize Port calls within the 2018 and 2019 timeframe. <i>“The Port usually sees between one and three cargo vessels at their facilities each month (Port of Olympia project communications, 2020).”</i>
I-781-29	<p>CHAPTER 2: PROJECT ALTERNATIVES AND CONSTRUCTION APPROACH</p> <p><i>Engagement with Government Partners:</i></p> <p>(accuracy) The presentation of government/agency engagement as being somehow synonymous with stakeholder engagement is not really correct. The legal framework and economic framework of government engagement should be highlighted to enhance understanding of the decision-making task being shepherded by DES.</p> <p>For instance, the legal framework must also be discussed in the section on how and when a decision will be made. DES appears to be conflating its capacity to weigh values in a selection criteria process, with a larger question of how regulations and policies impact the ultimate decision. Indeed, existing law, and not just a recognition of the degraded state of the Deschutes Basin, is a trigger of the whole Long Term Management Project and its EIS process.</p> <p>(suggestion) There should be better discussion of how a DES “decision” on the EIS plays into the larger process of making a real-world decision with government partners, and perhaps better conceptualization of how this can be accomplished giving due weight to the findings of those partners.</p> <p>As of this writing, LOTT and the City of Olympia have already made an effort to participate in the decision.</p>	Section 3.2 of Final EIS Supporting Chapter 3.0 has also been updated to describe that navigational use of West Bay is significant and extends beyond what can be captured in a single figure that focuses on larger vessel trips tracked by AIS.
	<p>Wheatley Public Comment</p>	I-781-26 Additional text has been included in Section 3.2 of Final EIS Supporting Chapter 3.0 and Section 4.2.2 of the Navigation Discipline Report to further summarize Port calls within the 2018 and 2019 timeframe. <i>“The Port usually sees between one and three cargo vessels at their facilities each month (Port of Olympia project communications, 2020).”</i>
		I-781-27 Additional emphasis on the use of West Bay by recreational vessels has been included in the Navigation Discipline Report (Attachment 6). And, this additional qualitative emphasis on recreational use does not change the information used to analyze potential significant impacts from the proposed alternatives and support decision making. Significance criteria is not based on a specific number of vessels using West Bay or impacted, but rather is based

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- on vessel wait times and/or a percent access of impact to leased moorage at existing West Bay marinas.
- I-781-28 The reference has been fixed to reflect partial Panamax rather than large Panamax ships. The navigational needs outlined in Draft EIS and Navigation Discipline Report are based on current Port of Olympia planning documents and direct coordination with the Port of Olympia.
- An EIS analysis does not speculate on potential changes that are outside of long-range planning documents.
- I-781-29 Please see the Global Response for the Preferred Alternative Identification Process and EIS Supporting Chapter 1.0, Section 1.12, for discussion of the process used to identify the Preferred Alternative.

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I-781-30 | This comment applies also to Table 2.1.1 on Objective Criteria, Ch. 2 p. 2-3. How does DES come to the conclusion that the only context for "Regulatory Feasibility" is how regulations directly impact management by DES? DES is the lead agency for the EIS process, not the only agency involved in management of the Deschutes Basin/Estuary. Other agencies bear responsibility for regulatory aspects.

I-781-31 | The Executive Summary should be rewritten to highlight that the regulators are critical to the decision process. A table could be created to help point the readers to those sections of the DRAFT EIS where regulatory elements are more fully discussed (e.g., Discipline Reports).

I-781-30 Regulatory feasibility in the Measurable Evaluation Process encompasses the ability of project components to be permitted by regulatory agencies. As described in Attachment 19: Concepts Screened through the Measurable Evaluation Process, a component was considered to have regulatory feasibility if (1) permits and approvals could be secured within the project schedule and budget and (2) it is within Enterprise Services' jurisdiction to implement and there are no legal protections on land, or other similar restrictions that could affect the feasibility. Enterprise Services also engaged with the Technical Work Group, comprised of technical staff from the local governmental agencies and state resource agencies, to review regulatory feasibility of the action alternatives after they had been developed. See Final EIS Supporting Chapter 8.0 for further discussion on this engagement with the Technical Work Group.

I-781-31 The Final EIS Summary has been updated to describe the decision process. Also see the Global Response for the Preferred Alternative Identification Process.

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I-782-1 Thank you for your work on improving the quality and studying Capital lake in Olympia. I would like to see the damn removed so to allow for better movement of water and wildlife. Thank you for your work, Patricia Wenger

I-782-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

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Under the Shoreline Management Act, the Draft Environmental Impact Statement is inadequate under the law.

I-783-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

Section Nine lists the permits required for the various alternatives. It identifies the shoreline master programs of Tumwater and Olympia. However, this is significantly misleading to the reviewer. It overlooks, the requirement for development to be consistent with the policies of the Shoreline Management Act. RCW 90.58.140(1)(2).

Development means a use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which, interferes with the normal public use of the surface of the waters overlying lands subject to this chapter at any state of water level. RCW 90.58.030(a).

Specifically, regarding the policies, RCW 90.58.020 begins with the following declaration:

Legislative findings-State policy enunciated-Use preference. The legislature finds that the shorelines of the state are among the most valuable and fragile of its natural resources and that there is great concern throughout the state relating to their utilization, protection, restoration, and preservation.

Later, this section contains the following language:

This policy is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effect to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.

The section culminates as follows:

Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public’s use of the water.

“The Shoreline Management Act is to be broadly construed in order to protect the state’s shorelines as fully as possible.” English Bay Enterprises, Ltd. v. Island County, 89 Wn.2d, 16,20, 568 P.2d 783,786(1977).

These provisions are mandatory. Restoration of the estuary is the only alternative which will satisfy them.

I-783-1

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Subject: **EIS Draft**
From: Allen Mote <allenmote@gmail.com>
To: <comment@CapitolLakeDeschutesEstuaryEIS.org>
Cc: Allen Mote <allenmote@gmail.com>
Date: 2021-08-29 22:25



RE CAPITOL LAKE PROPOSALS

There appear to be several issues that either have not been considered or, at least, do not seem to be addressed in the summary proposals. The most important are briefly addressed in Section 4.

I-784-1

1. UPSTREAM EROSION MANAGEMENT.

The State would seem to be in a position to manage or require the management of upstream erosion, rather than just continuing to dredge the result of the eroded materials filling Capitol Lake basin at taxpayer expense.
How is this being addressed?

I-784-2

2. SNAILS

For many years Capitol Lake has been closed to public use for the stated reason of the invasive "snails."

All 3 proposals indicate the Lake will be re-opened to public use.

How is it now that the Lake will be opened to public use?

My last research indicated that the snails have not been controlled or eliminated, but have spread further upstream.

Is the State now stating that the snails are not an issue?

Or is it a misstatement that the Lake will once again be open for public use?

I-784-3

3. MAINTENANCE PLAN & FUNDING

The Lake has not been well maintained.

Will a permanent long-term maintenance fund be established to cover the next 50 years of maintenance, or in perpetuity, so the mess that exists now will not happen again?

4. ABSENCE OF MEDICAL, SOCIOLOGICAL, MENTAL HEALTH, ETC., EXPERTISE IN PLANNING

There are several significant issues not addressed in the proposals that dramatically impact the physical, mental, emotional, and spiritual health of residents of the local communities as well as that of many visitors. Following are a few.

4A. Medical science has known for decades the dramatic impact of using ionizing machines to help hospitalized patients heal more rapidly. About 30% faster. Both physical and mental health conditions.

The highest amount of healing ions in nature is around moving water.

For centuries, indigenous peoples have used moving water as a healing environment for people suffering physical or mental distress.

In the case of Capitol Lake, the waves moving across the water contribute to this health benefit.

Capitol Lake is the only environment in the Olympia area that can provide this benefit.

4B. Medical science has also known for decades the importance of light for the health of people.

For many people the lack of adequate sunlight and the minimum daily requirement for lumens can lead to a medical diagnosis of SEASONAL AFFECTIVE DISORDER (SAD), both a physical and mental/emotional disorder.

Many additional people suffer from what can be considered as low-grade SAD.

This illness not only impacts the level of well-being of those suffering from it, and their families, but is also correlated with loss of productivity, depression and suicide.

In fact, it was a Dr. at the University of Washington who developed what has become known as the "Light Box," which is now used worldwide, especially in areas where there is insufficient light for people to maintain health or to thrive.

In Olympia, with the dark winters due to the cloud cover, and the predominance of forest canopy which further blocks natural light, there is not sufficient light/lumens available for many months out of the typical year.

Capitol Lake is the only natural environment where the absence of tree canopy cover, can allow the full penetration of natural light from above (yes, even through the clouds), and also reflects light from the surface of the water. These can significantly add to the required minimum daily requirement for lumens, and to the health and well-being of people.

4C. As populations become more dense, electronic devices are used longer and more frequently, more people work and are seated in offices, traffic increases, life is more complicated, etc., there is a contagion of increased tension among people and a decrease of healthy, natural, "grounding" opportunities.

As the pace of our society continues to increase, which adds stress to peoples lives, illness proliferates. Many health professionals will state that about 90% (or more) of illness is the result of stress.

People need a natural place to unwind and remember who they really are.

I-784-4

I-784-1 The cumulative effects analysis (EIS Supporting Chapter 6.0) considered future projects and localized changes to sediment transport (decrease or increase depending on the project). The influence of these on overall sediment transport is likely minor and would have no clear effect on modeling input parameters. Additionally, sediment management in the upper Deschutes Watershed has been evaluated by the Washington State Department of Ecology (Ecology), and there are specific actions and projects that will be implemented to minimize continued erosion from non-natural processes per the approved Total Maximum Daily Load that was issued for the Deschutes River, and for which Ecology is the state agency with jurisdiction.

I-784-2 Although several management options have been attempted in the past in Capitol Lake, the New Zealand mudsnail population continues to exist. However, there are no indications that the New Zealand mudsnail has spread into Budd Inlet or nearby freshwaters. The containment approach implemented by WDFW (containing the lake and prohibiting public access) has been effective in preventing the spread of New Zealand mudsnails.

Prior to project construction of any action alternative, the lake would be treated to minimize the existing density and distribution of New Zealand mudsnails. Management approaches are described in Section 4.2.1.1 of the Aquatic Invasive Species (AIS) Discipline Report that include freezing, heat, desiccation, saltwater backflush, and various chemical agents to treat the lake prior to construction and opening for recreational use.

To minimize spread and control density of AIS after construction, all action alternatives would include an AIS Management Plan that would be approved by WDFW as an alternative to the existing containment system. The primary proposed measures include installation of decontamination stations at strategic locations around the waterbody for recreationalists to use upon entry and exit, posting educational signage to warn the public of AIS presence, and restricting boat and foot access to areas with decontamination to reduce the potential spread of AIS. These methods have been implemented in Whatcom County and have been effective in preventing the introduction of new invasive species and limiting the spread of existing AIS in local lakes.

I-784-3 Please refer to the Global Response for Shared Funding and Governance for Maintenance Dredging under the Estuary Alternative.

I-784-4 Comment noted. The EIS provides analysis and disclosure of potential environmental impacts associated with the Capitol Lake – Deschutes Estuary

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Many societies have built-in practices and places to mediate the toll of stress. The US really does not. Open spaces and moving water have a natural calming and restorative effect on people. Keeping the Lake as open and uncomplicated as possible, can help reduce the ill effects of stress, sedentary work, and add to the overall health, well-being, and productivity of people.

4D. Open, VISUAL space, is a requirement for the health of a significant number of people.
People who have grown up where they can see long distances, and whose brains and minds have adapted to that environment need to experience a regular amount of visual space to remain mentally healthy, which also means to remain physically healthy. Without that, these people, many without realizing it, will slowly begin to decline and experience reduced effectiveness in work and living, and health. This also applies to many people who've grown up in environments that are heavily forested and/or with extensive cloud cover. This has been recognized in other cultures for centuries. And, in fact, is used as a mental health therapy, when life gets too overwhelming (as also noted in 4C above), i.e., taking the distressed, ill person away from the the overwhelming aspects of their lives, to a place where they can see a far-off, open and uncomplicated, horizon. Olympia, doesn't really have such a place. The closest would be Capitol Lake if it were kept open, so people could experience the natural, calming, soothing, effects of moving water; uncomplicated open space; healing ions, breezes touching their skin; etc.; all helping them return to a natural and healthy human experience.

4E. Summary:
In essence, designing Capitol Lake to be as visually open as possible, with free moving wind and waves, would be the only source in Olympia for the optimal health and healing of people and thereby all aspects of the community. The State of Washington, has the opportunity to make a clear statement that the physical, mental, emotional, and spiritual health of citizens is not only important, but critical to their well-being and to the overall prosperity of the citizens. To address only the 3 proposed designs through engineering and earth science eyes would be not only be short-sighted, but would discount the decades of medical, sociological, psychological, anthropological, etc., research and science, and what has been learned that makes peoples lives work well, feel a sense of fulfillment and happiness, and heal well when ill.

Respectfully submitted,

Dr. Allen Mote

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Long-Term Management Project. Analysis of issues listed by the commenter, is beyond the scope of analysis for this EIS.

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I-785-4

ZitaCommentDEIS_2021_Aug.pdf discusses factors that may affect sedimentation rates in the study area, and offers a new study for consideration:

EunbiLee_ThesisFinal.pdf projects future Deschutes River flow. Climate change and population pressures may cause a "critical low flow" condition in the Deschutes in coming decades. This may affect sedimentation rates. Lee's methodology and results may be of interest for the Capitol Lake - Deschutes Estuary final EIS.

I-785-4 Please refer to response to Comment 1-785-1.

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COMMENT

RESPONSE

To: DES and Floyd Snider
From: Dr. E.J. Zita <ejzita@gmail.com>
Date: 29 August 2021
RE: Comments on Capitol Lake-Deschutes Estuary (CLDE) DEIS (Draft EIS)

I-785-1

Thank you for your fine work on Phases 1 and 2 of the CLDE process, including the DEIS released last month. My written comments are similar to my verbal comments at your first public session this July.

Sedimentation from Deschutes River flow is a major issue in the CLDE DEIS. Your hydrological studies and data reviews are excellent tools for projecting sedimentation rates, depths, and locations in each of the alternative scenarios (managed Lake, restored Estuary, Hybrid, or No Action). I trust your methods, your results, and your cost estimates, assuming generally steady Deschutes River flow.

A recently published study found that **Deschutes River flow is declining** due to population pressures and climate change. The new study finds that a “critical low flow” condition may occur in coming decades.

The good news is that lower Deschutes flow may reduce expenses due to long-term sediment management.

The bad news is that lower Deschutes flow is likely to adversely affect ecosystem health and human uses in the watershed.

For the purpose of the final CLDE EIS, you may be interested in the methodology and results of this new study. It might inform your **projections of future sedimentation** in each of the alternative scenarios.

The new study is Eunbi Lee’s graduate thesis¹ “The Effect of Groundwater Pumping on Baseflow in the Deschutes River of Washington State.” Ms. Lee earned her Masters in Environmental Studies (MES) from The Evergreen State College (TESC) in 2020.

I-785-2

As you know, climate acceleration of extreme weather events is likely to cause episodes of heavier rainfall and flooding in our region. Those events may contribute to episodically increased Deschutes flow and sedimentation. That could partly counter the decreased flow projected in Ms. Lee’s thesis. The net effects of extreme weather events² are notoriously difficult to project. I look forward to your final EIS conclusions and recommendations, trusting you to synthesize the best available knowledge. Your work informs our community’s important decision about the future of Capitol Lake-Deschutes Estuary.

I-785-3

Thanks too for your exemplary public engagement throughout the CLDE work – from stakeholder groups and extended public comment opportunities, to publication of your excellent work on your clear and accessible website, <https://capitollakedeschutesestuaryeis.org/>

Best, **Zita** (a member of the CLDE Work Group, representing the Port of Olympia)

¹ I attach Ms. Lee’s thesis to this comment, and you may also find relevant studies at <http://collections.evergreen.edu/s/repository/>

² <https://www.ipcc.ch/report/managing-the-risks-of-extreme-events-and-disasters-to-advance-climate-change-adaptation/changes-in-climate-extremes-and-their-impacts-on-the-natural-physical-environment/>

I-785-1

We appreciate the commenter bringing this new study to our attention.

As described in Section 2.16.2 of the Hydrodynamics and Sediment Transport Discipline Report, there is considerable uncertainty surrounding the effects of climate change on precipitation and as a result, on streamflow. In addition, there is inherent uncertainty associated with predicting changes in water use and its potential impacts on river baseflow. According to the best available science on climate change, shifts in temperature and precipitation patterns due to climate change in the region are expected to impact streamflow. Projections of future flow conditions in the region indicate a shift toward an earlier freshet period, increases in late-winter and early-spring flows, and reduced streamflow during summer and early fall months.

The new study mentioned by the commenter is titled “The Effect of Groundwater Pumping on Baseflow in the Deschutes River of Washington State” and seems to be predicting a possible reduction of baseflow due to groundwater pumping. As described in the Hydrodynamics and Sediment Transport Discipline Report, even during the wet season, the majority of sediment is not constantly delivered but rather arrives during large flood events (USGS 2006). Therefore, we do not anticipate that this new study would change approach/findings of the Hydrodynamics and Sediment Transport Discipline Report.

That said, as mentioned in Section 4.2.5.3 of EIS Supporting Chapter 4.0 “if a number of low flow events were observed for a period of time and low sediment deposition was observed, the time between maintenance dredging events could be extended.” An annual bathymetric survey would help to ensure that maintenance dredging occurs based on need relative to potential significant impacts, which could be more or less than the estimated average frequency.

I-785-2

Please refer to response to Comment 1-785-1.

I-785-3

Enterprise Services appreciates the commenter’s detailed review of the Draft EIS. This comment is a statement and does not affect the environmental analysis in the Draft EIS.

I-786

COMMENT

RESPONSE

I-786-1

I am living on Capitol Blvd. overlooking the south and middle basin of Capitol Lake. I fell in love with the waterview when we bought the house and enjoy it every single day. I do not want it to be an estuary and look at tideflats. My neighbor who passed away a couple years ago mentioned that it was muddy and sometimes smelly when it used to be an estuary. The value of my home would decrease and I would be devastated to loose my view. Also Olympia it the capital of Washington and deserves a managed lake for people to enjoy. I hope you consider my viewpoint. After all I am the one who has look at it every single day.

I-786-1 Comment noted. Also see the Global Responses for Air Quality and Odor and the Preferred Alternative Identification Process.

I-787

COMMENT

RESPONSE

I-787-1
I-787-2

I support restoring the estuary. Please also considering the long term maintenance costs and resilience to climate change when making this decision.

I-787-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.
I-787-2 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-788

COMMENT

RESPONSE

I-788-1

the estuary is the very best for the environment out of the 3 alternatives. a 'mirror' is unnecessary and reflects a past era aesthetic which did not take into account the devastation and unmanageability this would cause.

I-788-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-789

COMMENT

RESPONSE

I find this introductory paragraph misleading.

"Historically, freshwater from the Deschutes River would mix with saltwater from Budd Inlet over expansive tidal flats. Between 1949 and 1951, a dam was constructed at 5th Avenue and, without the tidal exchange, the area was transformed into a freshwater lake, fed primarily by the Deschutes River. The newly formed Capitol Lake began to experience a range of environmental impairments after construction of the 5th Avenue Dam, eventually leading to community use restrictions that persist today."

The dam was not built after the lake as the sentence implies. Nor was the lake an immediate recreation area, as it is understood by most of the present population, until the late 1950's - mid 1960's.

I-789-1

The "...expansive tidal flats" statement is completely misleading. In addition to the tidal flats that were the outflow to the Deschutes River, tidal flats covered much of downtown Olympia from the south side of Legion Way and to the old boundary of Swan Town which was, I think, the east side of Plum Street. All the area of Olympia to the north has a little bit of bedrock sticking out into the bay, and extensive fill. The Deschutes River was not the only outflow into the bay and there are extensive mudflats under most of the rest of downtown Olympia. And the outlet to Budd Inlet from the Deschutes River was smelly and a mosquito nursery. Those who object to the occasional smell of the low tide mud flats on a hot day, would be shocked by the smell of the pre-lake aroma.

No one is proposing to tear out downtown, but we need to understand that we are dealing with a miniscule part of the "mudflats". However, this is no reason to tear out Capitol Lake. It is, indeed, a convenient object to make ourselves feel better about the environment and climate change. But I do not believe the future high tide problems will be helped by installing a slough. I think it could easily make things worse.

I-789-2

As it is, the bay around the west end of the downtown area, including Percival landing, is filling in (the Yacht Club paid for their own dredging and disposal which should be noted); and with the (proposed) slough runoff, the process will undoubtedly speed up, giving us the mudflats everyone seems to want. In addition, higher tides caused by global climate change, downtown Olympia is due for constant and messy pre-Capitol Lake flooding (Water Street was named "Water Street" for a reason). The dam allows us to hold back the river water and keep the tides from overflowing the lake causing the flooding that we used to often experience. This has made downtown flooding a thing of the past. I don't understand how the

I-789-1 Comment noted. Enterprise Services acknowledges the history of the Project Area is much more complex than the summary presented in the EIS. However, the EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives.

I-789-2 For a description of potential impacts on the Olympia Yacht Club and other marinas, see Section 4.2 of EIS Supporting Chapter 4.0. For a description of monitoring and maintenance dredging to address sedimentation impacts, see Section 4.2.5.3.

Regarding how flooding will be experienced under the project alternatives, see Sections 4.1 of Final EIS Supporting Chapter 4.0. As noted in the EIS, all alternatives will experience periodic flooding during extreme river flows and extreme high tides. Maximum overland flooding under the No Action and Managed Lake Alternatives is driven by extreme river flooding, and maximum overland flooding under the Estuary and Hybrid Alternatives is driven by extreme tide conditions (with sea level rise). Importantly, many of the areas that are susceptible to flooding adjacent to the basin are the same areas of Olympia that will experience flooding regardless of the alternative implemented for this project. These areas include portions of downtown Olympia and Heritage Park east of the 5th Avenue Dam that are flooded from Budd Inlet. The flooding extents are described in Section 4.1, and maps of the maximum water levels for all alternatives, are shown in Figures 4.1.1 and 4.1.2. Additional information is included in the Hydrodynamics and Sediment Transport Discipline Report (Attachment 5).

See also the Global Response for Hydrodynamics & Sediment Transport for more explanation of how flooding would be experienced under the alternatives, and the role the 5th Avenue Dam plays in helping to manage flooding in the basin.

I-789-3 Section 3.11 of EIS Supporting Chapter 3.0 provides information on existing sediment quality. The EIS describes that, overall, Capitol Lake has high quality sediment, meeting nearly all applicable sediment criteria. Section 4.11 includes information on long-term impacts and beneficial effects associated with sediment

I-789

COMMENT

RESPONSE

I-789-2

flooding problem will be abated in the future unless we build a higher wall around the slough. Which should be added to the initial projected cost.

quality. Refer also to the Sediment Quality Discipline Report (Attachment 15) for detailed data and analysis.

I-789-3

The State of Washington has taken little responsibility for the maintenance of Capital Lake since the mid 1960's early 1970's. No one wanted to pay for the maintenance and dredging required to keep the lake healthy. It has been completely ignored since then the last minimal efforts that ended during the 1970's. Areas of the south lake basin have been filled in, for various reasons since then, and the north basin of the lake has become a convenient catch basin for the extensive runoff of sediments and chemicals. The sediments, from the last 50 years of upstream runoff containing huge amounts of nitrogen and other chemicals from farming, golfing, cars, roads, and other uses need to be thoroughly addressed.

I-789-4

Before future dredge events, sampling for chemical quality and invasive species would occur, in coordination with the DMMP, to confirm suitability of the dredged material for in-water disposal. Because there is inherent uncertainty in the quality of future dredged material, planning-level cost estimates are provided for both in-water and upland disposal, and both of these disposal options may be used during future dredge events. Detailed information on the planning-level cost estimates was also posted to the project website during the Draft EIS comment period, in response to comments received on the Draft EIS and to provide opportunity for closer review by engaged stakeholders.

There are also problems with the dollar figures attached to the dredging, repairing, and of the lake versions. There are also the ongoing maintenance issues the state always winds up putting off/ignoring (same as all other options). The complete cleanup of the tainted sediments that should be undertaken, no matter the option, is not included in any concrete way. There appears to be a lot of patching up – doing the minimum, but I have questions about actual clean up. Also, what about the long-term maintenance funding? With the lake option there is, at least in acreage, a limit to the dredging that must be done and a limit to the manmade damage to the bay.

Please refer to the Global Response for Cost Estimates and Shared Funding related to maintenance dredging under the Estuary Alternative.

I-789-4

Everyone agrees, there must be specific, extensive, and expensive testing to determine how deep these sediments are and where they begin and end. And what, specifically, to do with them, not just professional guesstimates. It would probably, as these things go, cost at least 2 or 3 times any amount listed in any of the present documents. The "cheap" alternative is not cheap, especially if the actual costs of clean up, dredging, installation, and maintenance of the installation both short and long term are considered.

The economic analysis in Section 4.14 of Final EIS Supporting Chapter 4.0 and in the Economics Discipline Report (Attachment 18) include an evaluation of ecosystem services. Relative to the Estuary Alternative, which has been identified as the Preferred Alternative, this analysis found that enhancements to trails, establishment of shoreline habitat, and restored water-based recreation would increase the value of recreation in the Capitol Lake Basin. Increased educational value would arise from opportunities for research and observation of ecosystem restoration, with the potential to improve the success and reduce costs of future estuary restoration projects throughout Puget Sound. The aesthetic impacts on the recreational experience for visitors would vary based on the individuals' preferences. The more dramatic visual change in the Estuary Alternative could reduce value for some recreational users. However, other recreational users who prefer a more natural environment setting may experience an increased value. Long-term impacts on downtown development would be positive, as long as they are implemented in a way that is well-planned, thoughtfully designed, and accessible.

The cost of really solving the UPSTREAM runoff problems (ongoing costs are not included anywhere) and future maintenance of the slough. Will there be a budget crunch and will maintenance eventually be seen as too expensive at some point and put off in 10 or 20 years, based on the history of Capital Lake. This will result in the death of the south Bud Inlet area. Without the accessible catch-basin of the lake, we can look forward to an even more expensive bill for repairs.

Ending the grade school/community/tourist salmon watches, the sightings of seals, the occasional endangered whale, and the other saltwater species that we

I-789

COMMENT

RESPONSE

are still lucky to see from time to time both on the water and on the shore, would be a sad footnote.

A slough, mudflats, swamp, in the middle of Olympia. I don't believe the slough alternative is, in any way, more justified than the lake alternative. Personally, I would be very sad to see Capital Lake turned into something else. We are a town that wants to grow. It would give credence to my son's view that Olympia and Washington State is represented by both the present and proposed "swamp".

"What state puts a swamp in the middle of its capital city, on purpose? So they are going to make sure there is nothing for kids to do and no reason to live here." I agree with our son. I also don't think a slough/mudflats/swamp will do the trick.

I remember how proud we were, as kids, when we could take our out-of-town friends to the lake and swim, or paddle around the lake, or just sit and look at it while solving the problems of the world. There was Lakefair and fireworks. For a short period we had the greatest tourist attraction you could imagine; we were proud of "The Lake" and of our town, our State Capitol up on the hill, and our state. I want a fabulous tourist attraction, meeting place, wedding venue, picnic spot, walking trail; a place where kids can gather, swim, engage in and with the community. I want (not prefer) a Lake.

Thank you for your time and consideration,

Katie Woodland

I-789-4

I-790

COMMENT

RESPONSE

I-790-1

Thank you for the opportunity to review and comment on the draft EIS for the Capitol Lake - Deschutes Estuary project. I appreciate how easy the document was to read with clear explanations, graphics, and references. My preference would be either alternative that allows some part of Capitol Lake to become an estuary. I have three comments: 1) A fatal flaw related to the lack of rigorous analysis of a sea level rise vulnerability assessment for each alternative that must be addressed, 2) a significant error related to assumptions on cost of dredged material management, and 3) a lack of sufficient analysis of biological impacts and/or benefits. They are detailed below.

I-790-2

1) Issue – Insufficient analysis of climate change and sea level rise. The document includes cursory and inadequate analysis of water levels in Capitol Lake based on past tidal events, which is inappropriate for understanding future sea level rise projections and inundation scenarios. The science is well established that sea level rise to some extent is inevitable -- we are already seeing the impacts. However, there is no rigorous and in-depth analysis of sea level rise and how that will impact 1) water levels in all Capitol Lake basins, Percival Cove, and Percival Creek, 2) flooding from upriver, 3) erosion of hillsides along the Middle Lake basin, Percival Cove, and Percival Creek where homes are located, 4) Marathon Park, 5) Heritage Park, and 6) Deschutes Way. Included in the draft EIS appendix is a sediment transport study with a brief and egregiously inadequate mention of increased discharge due to climate change from Deschutes river, but a thorough and scientifically rigorous vulnerability assessment from sea level rise by climate experts has not been done. This is a fatal flaw that affects each alternative and cannot be overlooked.

A brief search on NOAA's Coastal Sea Level Rise Viewer shows impact along the entirety of the shorelines and slopes in all Capitol Lake basins, Percival Cove, Percival Creek, Deschutes Way, Heritage Park, and Marathon Park even under one foot of sea level rise. See attached graphic and NOAA website: <https://coast.noaa.gov/slr/#/layer/slr/1/-13681743.127159342/5947325.405275516/14/satellite/none/0.8/2050/interHigh/midAccretion>. Of course, it is much worse as sea level rise increments increase. In addition, the University of Washington Climate Impacts Group has a sea level rise viewer to visualize the probabilities of sea level rise under different greenhouse gas emissions scenarios. See attached graphic and UW CIG website: (<https://cig.uw.edu/our-work/applied-research/wcrp/sea-level-rise-data-visualization/>)

I-790-1

Comment noted; please see responses to specific comment.

I-790-2

See the Global Response for Hydrodynamics & Sediment Transport for a response on how sea level rise and climate change were considered in the EIS analysis. The University of Washington Climate Impact Group's localized predictions for sea level rise were utilized in the selection of the sea level rise scenario modeled for the Draft EIS, and the Climate Impact Group predictions formed the basis of the Olympia Sea Level Rise Response Plan.

Regarding water levels in Capitol Lake, see Section 4.1 of EIS Supporting Chapter 4.0. Water levels and hydrodynamics in all basins of Capitol Lake were simulated using 2 feet of relative sea level rise in Budd Inlet, and this simulation was completed for each of the project alternatives.

Regarding water levels in Percival Cove and Percival Creek, hydrodynamics were simulated in Percival Cove and Percival Creek flows and sediment loads were used as inputs to the model. See the Hydrodynamics & Sediment Transport Discipline Report (Attachment 5) for additional information.

Regarding flooding from upriver, flooding from extreme river flood events was one of the scenarios modeled. See the Global Response for Hydrodynamics & Sediment Transport and the Hydrodynamics & Sediment Transport Discipline Report (Attachment 5) for additional information. Changes in discharge as a result of climate change were not directly simulated because projected discharge rates from the Deschutes River have considerable uncertainty. The EIS acknowledges that floods of greater magnitude are generally expected to occur more frequently in the future. Simulating a +100-year fluvial flood event under current climate conditions is sufficient to investigate the comparative differences among the project alternatives, and to inform decision making.

Regarding erosion and stability of hillsides along the Middle Basin, Percival Cove, and Percival Creek, see the Global Response for Hydrodynamics & Sediment Transport.

Regarding flooding impacts to Marathon Park, Heritage Park, and Deschutes Parkway, see the Global Response for Hydrodynamics & Sediment Transport.

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COMMENT

RESPONSE

<p>I-790-2</p>	<p>This impact to shorelines will also impact the toe of the slopes surrounding the Capitol Lake basins, Percival Cove, and Percival Creek. This, in turn, will impact the stability of these slopes and the multitude of homes and infrastructure atop these slopes.</p> <p>Recommendation. Fill this data gap and fatal flaw by consulting with professional expert climate scientists (e.g., University of Washington Climate Impacts Group) and professional expert geologists (e.g., landslide specialists) and incorporate sea level rise projections and a scientifically rigorous vulnerability assessment into this analysis. Because this project will be considered long-term or permanent, the projections should be based on a conservative greenhouse gas emissions scenario (RCP 8.5). A thorough understanding of the risks to the land surrounding the lake, Percival Cove, and Percival Creek and the stability of the slopes and homes and infrastructure atop these slopes is critical.</p>	<p>I-790-3</p>	<p>Please refer to Sediment Quality Discipline Report for detailed information on sediment quality in the Project Area, which has supported the assumptions regarding sediment disposal options under the action alternatives.</p> <p>Please refer to Final EIS Supporting Chapter 7.0 for estimated costs related to upland or in-water disposal of the dredged material for each action alternative.</p>
<p>I-790-3</p>	<p>2) Issue – Insufficient analysis of disposal of dredged material. There is an assumption that dredged material from West Bay can be disposed of at an in-water disposal site. This analysis appears incomplete for the following reasons:</p> <p>a. According to the Dredged Material Management Program (DMMP), the only option for in-water disposal of dredged material from Budd Inlet is the Anderson-Ketron open water disposal site. Dredged material will not be allowed to be disposed at any other site in Puget Sound. In order to meet DMMP standards for disposal at the Anderson-Ketron open-water disposal site, concentrations of any contaminants would need to be at or below natural sediment background. See WA Department of Ecology Sediment Cleanup User’s Manual, Chapter 10, Table 10-1 for natural background concentrations for Puget Sound (https://apps.ecology.wa.gov/publications/SummaryPages/1209057.html). The draft EIS does not include sediment chemistry for either Capitol Lake or West Bay/Budd Inlet sediment so the assumption that dredged material is suitable for open-water disposal is not supported.</p> <p>b. Costs of open-water disposal of dredged material vs. upland disposal are widely different and this is not included in the analysis.</p> <p>Recommendation. Considering the recent cleanup of PCBs in Capitol Lake and the known contamination in West Bay/Budd Inlet, sediment chemistry for Capitol Lake and West Bay/Budd Inlet needs to be included in this analysis. The WA Department of Ecology Environmental Information Management database (https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database) has existing data for this area that can be easily downloaded for analysis. In addition, see WA Department of Ecology South</p>	<p>I-790-4</p>	<p>Please see Sections 3.5, 4.5, and 5.5 of EIS Supporting Chapters 3.0, 4.0 and 5.0, and the Fish and Wildlife Discipline Report (Attachment 9).</p> <p>The commenter does not raise specific issues regarding the adequacy, accuracy, or completeness of the analysis.</p>

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COMMENT

RESPONSE

I-790-3

Puget Sound Regional Background publication (<https://apps.ecology.wa.gov/publications/SummaryPages/1809117.html>) has information that shows existing sediment concentrations in this area.

I-790-4

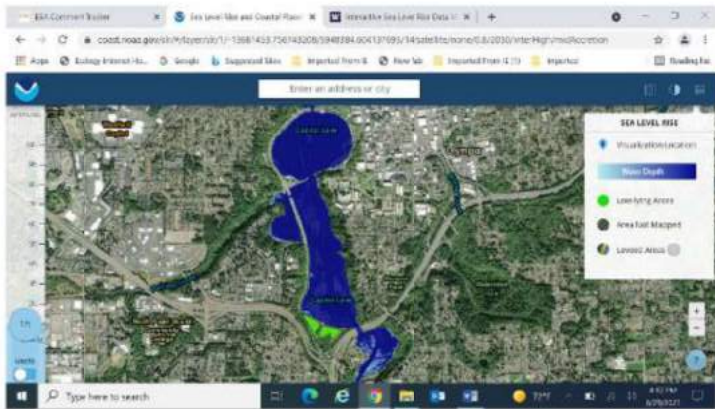
3) Issue – Insufficient analysis of biological impacts. The EIS includes insufficient analysis of biological impacts and/or benefits from each alternative. For example, impacts or benefits to salmon, benthic community, and marine and freshwater aquatic dependent wildlife (e.g., sea birds, bats).

Recommendation. Consult with aquatic and wildlife experts to re-write the EIS to include a more thorough analysis.

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COMMENT

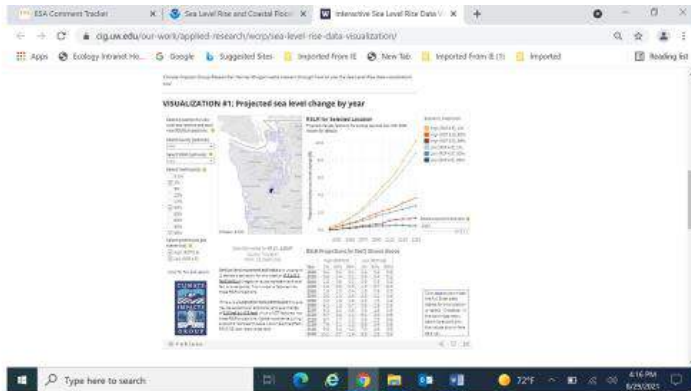
RESPONSE



I-790

COMMENT

RESPONSE



I-791

COMMENT

RESPONSE

I-791-1 | I've been following this issue for some time and it is clear that there is no compelling reason not to restore the estuary. Simply none.

I-791-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-792

COMMENT

RESPONSE

Subject: **EIS Comments**
From: Sarah O'Neal <soneal@uw.edu>
To: <info@capitolakedeschutesestuaryeis.org>
Date: 2021-08-29 23:58



• O'Neal_29Aug2021_CapLake_DEIS.docx (~17 KB)

I-792-1 |

Please see my attached comments.
I sincerely hope you'll reconsider the comment deadline.

Kindly,
Sarah

—
Sarah O'Neal
PhD Candidate
Schindler Lab
School of Aquatic and Fishery Sciences
University of Washington
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Seattle, WA 98105
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I-792-1 | Thank you for your comments. The comment period for comments on the Draft EIS was from June 30 to August 29, 2021. The comment period was extended beyond the 30-day comment period required under SEPA.

I-792

COMMENT

RESPONSE

To Whom It May Concern:

I am a current resident of and business owner in the City of Olympia. I was also born and raised in Olympia, and frequently recreated in Capitol Lake growing up. Midway through completing my Bachelor of Science degree in Conservation Biology at the University of Washington (UW), I began working with the Washington State Department of Ecology (Ecology) evaluating non-native aquatic species invasions, and conducting water quality studies primarily for Total Maximum Daily Load models. That work, which lasted from 1998-2004 included water quality data collection from Capitol Lake, which was already severely impaired two decades ago. After my tenure with Ecology, I received my Master's of Science degree in Freshwater Ecology from the University of Montana's Flathead Lake Biological Station under the mentorship of Dr. Jack Stanford. Following that, I worked for various private and non-governmental organizations monitoring and interpreting data regarding multiple aspects of freshwater ecology and fisheries throughout the Pacific Rim in watersheds inhabited (or formerly inhabited) by Pacific salmon. Currently, I am a PhD Candidate in Aquatic and Fishery Sciences at UW under the advisement of Dr. Daniel Schindler. In addition to deepening my general comprehension of freshwater ecology and the analytical skills important to interpreting it, I've analyzed dozens of Environmental Impact Statements (EISs) for one of several aspects of my dissertation as well as for independent consulting work. For nine years, I've also owned and operated an independent consulting business related to various aspects of freshwater and estuarine ecology in salmon ecosystems. Overall, I believe my collective experience and expertise is uniquely applicable to evaluation of the Capitol Lake – Deschutes Estuary Draft EIS (DEIS).

The DEIS in its current form is not sufficient for finalization without additional opportunities for public comment. The DEIS is insufficient with respect to 1) its lack of identification of a preferred alternative without the opportunity to publicly comment on that alternative; 2) the breadth and depth of data and fundamental principles of freshwater ecology that were (and were not) incorporated in the document; and 3) it's insufficient consideration for indirect, cumulative, and synergistic effects.

- 1) EIS's are consistently long, unwieldy, complicated, and seemingly intended to overwhelm and confuse the stakeholders most invested in their outcome. Tribes, developers, conservationists, and land and yacht club owners simply do not have sufficient financial and/or technical resources to thoroughly review all components of a document of this nature. The document consists of approximately 3,500 pages. Of those, 42 pages comprise the Executive Summary which is what the majority of reviewers and comments will address given the capacity and expertise of reviewers. In other words, most public comments will be based on less than less than 2% of the actual document. In light of that, **the Executive Summary, and even the main body of the EIS itself should more closely reflect/describe the detailed findings of the DEIS attachments.** Moreover, the identification of a preferred alternative would at least allow unpaid stakeholders to focus their reviews on a more manageable body of work.
- 2) Fundamental aspects of freshwater and salmon ecology are ignored in the DEIS. For example, the river continuum concept—arguably THE most fundamental principle of

- I-792-2 Enterprise Services appreciates commenter's detailed review of the Draft EIS.
- I-792-3 Regarding the comment that the Draft EIS is insufficient with respect to its lack of identification of a Preferred Alternative, SEPA provides that a Preferred Alternative can be identified at any time in the EIS process - scoping, draft EIS or final EIS. In accordance with SEPA, opportunities for public comment on all alternatives were provided during scoping and after the release of the Draft EIS. For additional information, see the Global Response for the Preferred Alternative Identification Process.

Regarding the incorporation of fundamental principles of freshwater ecology, the analysis of impacts in the Draft EIS and Final EIS did consider existing and future ecological conditions and functions related to the SEPA element of the environment being addressed. Aspects of ecological functions are addressed in the Water Quality, Fish & Wildlife, and Wetlands sections of the Draft EIS and Final EIS. These were collectively considered as part of the overall evaluation of the alternatives in the Preferred Alternative identification process, relative to environmental sustainability. Enterprise Services has determined that the analysis in the Draft EIS, together with the additional analysis in the Final EIS, meets the requirements of SEPA and are sufficient to make a reasoned decision on EIS alternatives.

Regarding consideration of indirect impacts, indirect impacts were considered alongside direct impacts in the analysis of short-term and long-term impacts. The commenter did not raise a specific concern regarding the inclusion or exclusion of a particular indirect impact of concern to provide a detailed response.

Regarding the consideration of cumulative impacts, cumulative impacts were addressed in EIS Supporting Chapter 6.0. The commenter did not provide a specific concern related to cumulative impacts to provide a more detailed response.

Regarding the length of the EIS, it's recognized that there is often an inherent conflict between the need to prepare sufficiently detailed and defensible EIS documents and the need to manage the size of the documents. A few things were done to manage the length of the main body of the EIS and to help the reader navigate to the sections of most interest to them. For example, the Executive Summary was provided to summarize information and conclusions presented in the EIS, with reference to specific sections of the EIS to find additional information. Detailed technical analysis was included in the discipline report attachments (Attachments 5 through 18), which allowed the

I-792-2

I-792-3

I-792-4

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main body of the EIS to present a shortened summary of the technical analysis.

I-792-4

Although the papers cited may be fundamental to the conceptual evaluation of stream and estuary ecosystems over both the landscape and over time, and they may inform the study of these systems, explicit discussion of these concepts is not required to complete a comparative evaluation of the alternatives based on the evaluation criteria and project goals established for this project, as outlined in the EIS.

I-792

COMMENT

RESPONSE

I-792-4

stream to estuary ecology—is largely ignored throughout the DEIS. In general, the DEIS fails to consider the full body of best available science relevant to the project. While the DEIS does include some relevant, peer-reviewed literature, it largely ignores the most important concepts relevant to this project including:

- a. The River Continuum Concept (Vannote et al. 1980)
- b. The Shifting Habitat Mosaic (Stanford et al. 2005), and
- c. The Portfolio Effect (Schindler et al. 2010).

3) Indirect, cumulative, and synergistic effects of all alternatives are ignored and/or inadequately considered. In general,

- a. Indirect effects are considered further in space or later in time (which for this project is wholly insufficient given the lack of consideration for the entirety of longstanding water quality—including TMDL—data for the entire project area). As one example, the DEIS should include ALL water quality data collected for the study area over time rather than the most recent data that behoove agency goals (for example, the data we collected in the early to mid-2000's should be included in the document, in addition to everything collected before and since).
- b. Cumulative effects are given cursory, if obligatory, consideration in the DEIS. While I understand you may have fulfilled your NEPA requirements in this regard, the cumulative effects of this project are undeniable with respect to salmon recovery and fundamental principles of salmon and river ecology. Moreover—collectively, between legal experts and scientists alike—we simply cannot agree on our ability to measure cumulative effects.
- c. Synergistic effects are allowed, but not required. The best we can do with synergistic effects is to hope we can at LEAST measure the sum of our parts. And with a little luck, give that sum a fair multiplier. As authors, you could have done better.

I-792-5

I don't have the time I'd like to comb through and respond to this EIS. But I would like to reiterate that it is NOT ready for proper and thorough review. Please give us another chance to take a closer look once you have a preferred alternative, and have incorporated some more relevant data.

Thank you kindly,
Sarah O'Neal

I-792-5

See response to Comment I-792-3 regarding the consideration of indirect and cumulative impacts in the EIS. The EIS included water quality data and findings from the Washington State Department of Ecology's (Ecology's) 2015 Water Quality Improvement Report as well as information from other sources such as other Ecology reports, water quality data and reports from Thurston County, and the water quality data collected by the EIS Project Team in 2019 and 2021. In response to comments on the Draft EIS, after additional review of the data, the trend analysis in the Final Water Quality Discipline Report and Final EIS were revised to eliminate 2004 and include only the most recent 10 years of data; 2005 to 2014, which is most reflective of existing/current conditions.

See the Global Response for Water Quality for more information on water quality data used in the Draft EIS and Final EIS. Please also refer to Attachment 21 for more detail on the decision-making process for identifying the Preferred Alternative, which also includes a summary of the alternatives relative to key criteria, like their ability to meet project goals, or relative to overall environmental sustainability.

I-793

COMMENT

RESPONSE

I-793-1 There are few of us today who remember back seventy years to the building of the Fifth Avenue dam. There were multiple reasons for installing the dam, not the least of which was to turn the eye sore of tidal flats into a lake. A lake which could be enjoyed by the entire community both visually and recreationally. Over the years the lake has changed, and we have done little to maintain it as it was originally intended. While it may not be possible to return it to its 1951 condition, it is still possible to return and maintain it as a functioning lake providing both visual and recreational benefits. I strongly encourage the committee to adopt the Managed Lake Alternative.

I-793-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-794

COMMENT

RESPONSE

I-794-1 I'm a frequent "user" of Capitol Lake as myself and/or members of my family go dog walking or jog around the lake almost every day. We very much support the option of keeping the lake in its current form as a lake. The "reflecting pool" idea that Wilder & White had while designing the overall Capitol Campus is greatly enhanced by keeping the lake intact. We are fortunate to have such an incredible Capitol Campus - allowing the lake to revert to being mudflats for much of every day would greatly detract from the Capitol Campus itself and from downtown Olympia. Most cities would love having such a lake as we have today - we shouldn't destroy what others so greatly admire and would want for their own communities.

I-794-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-795

COMMENT

RESPONSE

I-795-1 Please keep it a lake. Its beauty is in not being recreational. I was down there yesterday around sunset and it was so peaceful and serene. Tons of wildlife that wouldn't necessarily hang out on a mud flat. Its a downtown treasure. There's already the East and West Bay mudflats that's enough. Dredging would not be good for the long term.

I-795-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-796

COMMENT

RESPONSE

8-28-2021 - COMMENTS ON CAPITOL LAKE – DESCHUTES ESTUARY

The Capitol Lake – Deschutes Estuary includes the 260-acre waterbody, known as Capitol Lake, located on the Washington State Capitol Campus, adjacent to downtown Olympia, at the base of Puget Sound.

Unfortunately, the decisions during the 1940s prior to the 1949-1951 construction of Capitol Lake (an area transformed into a freshwater lake fed primarily by the Deschutes River after construction of a dam at 5th Avenue) did not include the

current important project goals:

- Improving water quality
- Managing sediment accumulation and future deposition
- Improving ecological functions
- Enhancing community use of the resource

Perhaps a complete scientific understanding of the ecology and resulting ecological impacts were unavailable 70+ years ago or were just ignored in favor of what seemed a beautiful enhancement of the area. In any event, the scope of the costly, unhealthful, and ecologically unsound problems that have developed because of the addition of the lake were not foreseen.

I-796-1

For years—since the 1970s—the Olympia and Washington State Capitol Campus communities have been trying to figure out what to do about those increasing endangerments to the Deschutes River, the lack of an estuary allowing for the mix of fresh and salt water in its importance to the propagation of salmon, and even the health of Washingtonians who had enjoyed a Capitol Lake swimming area before it had to be closed due to toxic bacteria.

The only thoughtful, healthful, and ecological way to fix the Capitol Lake problem is to return it to an estuary, removing the 5th Avenue Dam, creating an approximately 500-foot opening reconnecting Capitol Lake Basin with Budd Inlet, and reintroducing tidal flow that is similar to the historic Deschutes Estuary.

The plan to return Capitol Lake to an estuary will also allow for building a new 5th Avenue Pedestrian Bridge that allows continued use of the popular North Basin loop. In addition, Restoration of boating and fishing is planned to promote resumption of water-based activities.

A Hybrid Alternative does NOT fix the degradation caused by the current Lake configuration that has proliferated and will continue to expand in the absence of the well thought out Estuary Alternative.

I-796-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-797

COMMENT

RESPONSE

I feel very strongly about the balance and community the Dual Estuary/Lake Idea will provide for Olympia, Thurston county and even beyond with ecology efforts worldwide.

It will set a vitally important, non-polarized precedent in a time when we are in dramatically separate camps on so many levels.

Let's not delay any longer in both restoring the estuary and providing a fresh water swimming lake for Olympia residents and visitors.

I support the Freshwater Hybrid Alternative's Decision Durability over all the Lake and Estuary Alternatives.

I-797-1

Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-797-1

I-798

COMMENT

RESPONSE

Thank you for consideration of my comments.

I-798-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I was very happy to learn of this review process and the Draft Environmental Impact Statement (EIS). I agree that a no action alternative for Capitol Lake does not accomplish the project’s objectives and I would prefer an undertaking that addresses issues presented by the lake in its current condition. Like many observers, I perceive Capitol Lake as an unhealthy body of water because of its periodic growth of algae, restrictions on recreation access, and stagnant appearance.

I-798-2 Private parcels extend into the water along the eastern shoreline of the middle and south basins. An easement or acquisition of each of these parcels would be required in order to construct boardwalks in this area, which present significant challenges to the concept. Whereas, the western shoreline, where the boardwalks are proposed, is publicly owned.

I-798-1

Of the options presented in the EIS, I am most excited about the potential restoration of the Deschutes estuary. Every time I visit the Billy Frank Jr. Nisqually National Wildlife Refuge, I marvel at the abundance and diversity of wildlife that the Nisqually River estuary supports. While I recognize that ecosystem enhancements to the Deschutes River will not likely achieve similar levels of success, I would very much appreciate whatever incremental ecological function they can accomplish. I also understand the estuary alternative as an action that would likely reduce the artificial habitat exploitable by the New Zealand mudsnail, and perhaps other invasive species of concern as well. Finally, I would greatly value any incremental benefit tribal populations may realize from estuary restoration.

I-798-2

I have only one minor request for additional study, if it is possible. I would like to know if construction of a pedestrian path or boardwalk on the east side of the middle or south basins is feasible and whether it presents any environmental concerns. Ideally, I would love to see access to the Deschutes estuary become available on the east side from a point south of the Capitol, although I recognize that could be a challenging development.

Again, thank you for consideration of my comments. I very much appreciate the Department of Enterprise Services efforts.

Sincerely,

Rick Applegate

I-799

COMMENT

RESPONSE

I-799-1 | PLEASE. do NOT turn Capitol lake into an estuary! I support Capitol Lake We have put so much money and effort into making Capitol lake and the surrounds beautiful so that all can enjoy. I grew up in Olympia. I grew up swimming in this lake. Every time iam down in Olympia, I take my lunch break there or I walk around the lake at the end of my work day. So wonderful to have this possibility! The park around the lake is fabulous. If it ends up being an estuary, the smell and the ugliness will be incredibly unfortunate. Why would anyone do this? I believe you can figure out a balance to be able to keep the lake as it is. Please do not turn this wonderful lake into an estuary!

I-799-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-800

COMMENT

RESPONSE

I-800-1 | I prefer the estuary option.

I-800-1 | Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-801

COMMENT

RESPONSE

I-801-1 | Restore the estuary!

I-801-1 | Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-802

COMMENT

RESPONSE

Nathaniel Jones
3530 Morse Merryman
Road, SE
Olympia, WA 98501
360 753 5500

Washington Department of Enterprise Services
Ms. Carrie Martin, Environmental Planner
Post Office Box 41476
Olympia, Washington 98504

Dear Ms. Martin:

SUBJECT: Draft Environmental Impact Statement for the Capitol Lake / Deschutes Estuary Long-Term Management Project

With appreciation, I recognize the accomplishment of releasing this weighty Draft EIS. Numerous dedicated teams have contributed to the production of this document and its many appendices. This milestone has allowed for meaningful discussions within the community, knowing that pivotal decisions can now be made and resolution of the vexing issues contained in the Lake/Estuary puzzle may be possible. Thank you for bringing us to this point.

The project area sits within a larger context of bustling urban growth, a verdant watershed, and the stunning beauty of Puget Sound. The interactive connections between these elements are physical, social, economic, and powerfully symbiotic. What happens at the mouth of the Deschutes River carries impact upstream, downstream, and in a concentric pattern across the region, affecting livelihoods, ecological systems, and our understanding of our collective values.

I find that the DEIS does not offer needed context that discusses the relationship between the long-term management of the project area and the environmental health of Puget Sound. The Sound is in trouble — caused by the everyday activities of the 5 million people who live here. Unimpeded population growth, coupled with a contemporary way of life, has produced the loss of habitat, acidification, toxic chemicals, depleted oxygen, untreated runoff, and hardened shorelines, which are crashing the food webs that sustain the Sound.

A responsible long-term management plan must consider navigation, culture, economics, transportation, odor, and utilities but these concerns are no more important than the impact of alternative scenarios on the downstream environment, particularly if that environment is imperiled. Puget Sound's declining health has been a recognized fact for decades. Current progress is not keeping pace with Puget Sound's rate of decline. It is up to us to prioritize the recovery of this great asset. As written, the DEIS ignores the Sound, looking only as far as the southern tip of Budd Inlet. This approach is stunted and irresponsible and misses the greatest opportunities associated with this project.

I-802-1 Consistent with SEPA, the geographic study areas identified in the Draft EIS and Final EIS encompass the areas where the project could result in significant adverse environmental impacts. As such, the study areas varied by environmental resource in terms of geographic extent and of level of analysis. For most resources, the study area was defined to end at West Bay, and for some resources like Water Quality, also East Bay. Although it is correct that the EIS does not include analysis of impacts through the entirety of Puget Sound, there is no information that significant adverse impacts would result from the proposed project in that area.

I-802-1

I-802

COMMENT

RESPONSE

Chapter Four of the DEIS considers the alternative scenario's consistency with various plans and policies. It is proper that the shoreline management plans and climate plans of local governments be carefully considered (and it is clear that the scenarios provide significantly different degrees of consistency with these plans). It seems quite odd then that the document ignores the legislated recovery goals for the Sound, including habitat restoration and water quality improvements.

I-802-2

The Final EIS Summary has been prepared to distill the comprehensive analyses into a range of key points. Please see the Final EIS Summary for a description of improved ecological functions under the Estuary and Hybrid Alternatives. It states that these alternatives would reestablish estuarine wetland and tidelflat habitats that have been greatly diminished and degraded because of historical development patterns. Estuarine wetlands provide water quality, hydrologic, and habitat functions that are particular to their position in the landscape. The mixing of freshwater and saltwater in estuarine environments creates some of the most productive and valuable habitat on earth. In addition to supporting key ecological processes, estuarine conditions would provide productive habitat for shellfish, salmon, other anadromous species, and marine fish in the area, potentially including ESA-listed Chinook salmon (non-hatchery) and steelhead trout.

The water quality conditions of Capitol Lake and Budd Inlet do not meet standards and are not acceptable. A careful reading of the DEIS finds:

- Budd Inlet frequently violates the water quality standard for dissolved oxygen and has a relatively high maximum daily depletion of dissolved oxygen from human-caused sources compared to other South Puget Sound inlets,
- Capitol Lake experiences summertime algal blooms, violations of state standards for dissolved oxygen, pH, and temperature, and frequent violations of total dissolved gas, and
- The creation of Capitol Lake destroyed some of the most productive and valuable habitat on earth including productive habitat for shellfish, salmon, other anadromous species, and marine fish in the area, potentially including non-hatchery Chinook and steelhead trout, as well as the preferred forage and rearing habitat for juvenile salmon and a natural freshwater to saltwater salinity gradient that is physiologically favorable to salmon.

What is particularly concerning is that these findings are not emphasized in the report; instead, they are often buffered with distracting prose. The DEIS needs to be more straightforward in its presentation of the substantial concerns associated with current conditions and the ability of the alternatives to mitigate the situation.

The Final EIS Summary also describes that the Estuary Alternative is the only alternative that could meet water quality standards because it would constitute a 'natural estuary' condition. There is more on the regulatory compliance of the alternatives in Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7).

Please refer to Attachment 21 for a comprehensive review of the alternatives relative to their ability to meet project goals, to result in other environmental impacts or benefits, their relative environmental and economic sustainability, cost impacts, and decision durability.

I-802-2

Finally, I find the enormous cost, poor aesthetics, and questionable sustainability of the hybrid alternative(s) to be a non-starter. The idea of building a 20-foot wall, capable of holding back acres of water, on a deep silt foundation, near a seismic fault would be ludicrous, were it not being taken seriously by policymakers. Those who suggest that this concept has any relation to the Olmsted Brothers design principles, which seek to conserve natural features and promote the natural ecology of a site need to revisit their understanding of the Olmsted legacy on our capitol campus. I find that the DEIS is rather blithe in presenting this alternative as a legitimate contender without a thorough explanation of what is being proposed.

I-802-3

Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-802-3

Thank, you for this opportunity to submit comments on the Draft EIS. This portfolio of technical documents represents a profound volume of serious work. While I have voiced serious concerns with some aspects of the product, I appreciate the great effort involved in assembling and presenting these findings. Thank you.

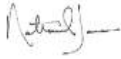
With best regards,

I-802

COMMENT

RESPONSE

Nathaniel Jones
3530 Morse Merryman
Road, SE
Olympia, WA 98501



Nathaniel Jones

I-803

COMMENT

RESPONSE

I prefer the plan to have Capitol Lake become an estuary.

I-803-1 Thank you.

Sue Hedrick

I-803-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-804

COMMENT

RESPONSE

Based on my review of the Draft EIS, it is apparent that either the Hybrid option or the Estuary option should be selected as the preferred alternative. My first choice for the preferred alternative is the Hybrid option, but I am also supportive of the Estuary option. The information and analysis in the Draft EIS shows that the Managed Lake option is not a viable alternative for ecological and economic reasons. The estuary, and its ecological functions, should be restored.

I-804-1

I-804-1 Comment noted. Please see the Global Responses for the Hybrid Alternative and the Preferred Alternative Identification Process.

I-805

	COMMENT	RESPONSE
	RE CAPITOL LAKE PROPOSALS	
I-805-1	There appear to be several issues that either have not been considered or, at least, do not seem be addressed in the summary proposals. The most important are briefly addressed in Section 4.	I-805-1 See response to Comment I-784-1.
	1. UPSTREAM EROSION MANAGEMENT. The State would seem to be in a position to manage or require the management of upstream erosion, rather than just continuing to dredge the result of the eroded materials filling Capitol Lake basin at taxpayer expense. How is this being addressed?	I-805-2 Please see response to Comment I-784-2. I-805-3 Please refer to response to Comment I-784-3.
I-805-2	2. SNAILS For many years Capitol Lake has been closed to public use for the stated reason of the invasive “snails.” All 3 proposals indicate the Lake will be re-opened to public use. How is it now that the Lake will be opened to public use? My last research indicated that the snails have not been controlled or eliminated, but have spread further upstream, Is the State now stating that the snails are not an issue? Or is it a misstatement that the Lake will once again be open for public use?	I-805-4 Comment noted. The EIS provides analysis and disclosure of potential environmental impacts associated with the Capitol Lake – Deschutes Estuary Long-Term Management Project. Analysis of issues listed by the commenter, is beyond the scope of analysis for this EIS.
I-805-3	3. MAINTENANCE PLAN & FUNDING The Lake has not been well maintained. Will a permanent long-term maintenance fund be established to cover the next 50 years of maintenance, or in perpetuity, so the mess that exists now will not happen again?	
	4. ABSENCE OF MEDICAL, SOCIOLOGICAL, MENTAL HEALTH, ETC., EXPERTISE IN PLANNING There are several significant issues not addressed in the proposals that dramatically impact the physical, mental, emotional, and spiritual health of residents of the local communities as well as that of many visitors. Following are a few.	
	4A. Medical science has known for decades the dramatic impact of using ionizing machines to help hospitalized patients heal more rapidly, About 30% faster. Both physical and mental health conditions. The highest amount of healing ions in nature is around moving water. For centuries, indigenous peoples have used moving water as a healing environment for people suffering physical or mental distress. In the case of Capitol Lake, the waves moving across the water contribute to this health benefit. Capitol Lake is the only environment in the Olympia area that can provide this benefit.	
I-805-4	4B. Medical science has also known for decades the importance of light for the health of people. For many people the lack of adequate sunlight and the minimum daily requirement for lumens can lead to a medical diagnosis of SEASONAL AFFECTIVE DISORDER (SAD), both a physical and mental/emotional disorder. Many additional people suffer from what can be considered as low-grade SAD This illness not only impacts the level of well-being of those suffering from it, and their families, but is also correlated with loss of productivity, depression and suicide. In fact, it was a Dr. at the University of Washington who developed what has become known as the “Light Box,” which is now used worldwide, especially in areas where there is insufficient light for people to maintain health or to thrive. In Olympia, with the dark winters due to the cloud cover, and the predominance of forest canopy which further blocks natural light, there is not sufficient light/lumens available for many months out of the typical year. Capitol Lake is the only natural environment where the absence of tree canopy cover, can allow the full penetration of natural light from above (yes, even through the	

I-805

COMMENT

RESPONSE

clouds), and also reflects light from the surface of the water. These can significantly add to the required minimum daily requirement for lumens, and to the health and well-being of people.

4C. As populations become more dense, electronic devices are used longer and more frequently, more people work and are seated in offices, traffic increases, life is more complicated, etc., there is a contagion of increased tension among people and a decrease of healthy, natural, “grounding” opportunities. As the pace of our society continues to increase, which adds stress to people’s lives, illness proliferates. Many health professionals will state that about 90% (or more) of illness is the result of stress. People need a natural place to unwind and remember who they really are. Many societies have built-in practices and places to mediate the toll of stress. The US really does not. Open spaces and moving water have a natural calming and restorative effect on people. Keeping the Lake as open and uncomplicated as possible, can help reduce the ill effects of stress, sedentary work, and add to the overall health, well-being, and productivity of people.

4D. Open, VISUAL space, is a requirement for the health of a significant number of people. People who have grown up where they can see long distances, and whose brains and minds have adapted to that environment need to experience a regular amount of visual space to remain mentally healthy, which also means to remain physically healthy. Without that, these people, many without realizing it, will slowly begin to decline and experience reduced effectiveness in work and living, and health. This also applies to many people who’ve grown up in environments that are heavily forested and/or with extensive cloud cover. This has been recognized in other cultures for centuries. And, in fact, is used as a mental health therapy, when life gets too overwhelming (as also noted in 4C above), i.e., taking the distressed, ill person away from the the overwhelming aspects of their lives, to a place where they can see a far-off, open and uncomplicated, horizon. Olympia, doesn’t really have such a place. The closest would be Capitol Lake if it were kept open, so people could experience the natural, calming, soothing, effects of moving water; uncomplicated open space; healing ions, breezes touching their skin; etc.; all helping them return to a natural and healthy human experience.

4E. Summary: In essence, designing Capitol Lake to be as visually open as possible, with free moving wind and waves, would be the only source in Olympia for the optimal health and healing of people and thereby all aspects of the community. The State of Washington, has the opportunity to make a clear statement that the physical, mental, emotional, and spiritual health of citizens is not only important, but critical to their well-being and to the overall prosperity of the citizens. To address only the 3 proposed designs through engineering and earth science eyes would be not only be short-sighted, but would discount the decades of medical, sociological, psychological, anthropological, etc., research and science, and what has been learned that makes people’s lives work well, feel a sense of fulfillment and happiness, and heal well when ill. Respectfully submitted, Dr. Allen Mote 3402 33rd Way NW Olympia, WA 98502 360-970-8943

I-805-4

I-806

COMMENT

RESPONSE

I-806-1 Having observed the degradation of Capitol Lake over time, and having read much of the draft Environmental Impact statement, I am convinced that it is obvious that the time has finally come to act on the "lake problem". I am in favor of the estuary solution as the most ecologically sound, sustainable, and economical choice.

I-806-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-807

COMMENT

RESPONSE

I-807-1 A LOT has changed since the Capitol Building was designed, and Capitol Lake was dammed up as a reflecting pool. Our attitudes and understandings of nature have changed, as have architecture and design. We know now that it doesn't benefit anyone or any creature to bend and break nature to simply reflect a building, or to create a recreational swimming facility. This is the South Puget Sound, and it is one of the most beautiful places in the world. We need an estuary, we need the tides, just as much as the estuary's inhabitants need us. That's ecology, something that our state is at the forefront of valuing, and an estuary would reflect those values.

I-807-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-808

COMMENT

RESPONSE

I-808-1 After reading the Deschutes Estuary Restoration Team's (DERT) comments....they are so comprehensive, covering so many of my concerns, that I can't imagine making any better case myself for the Estuary option, and why. But seeing as you'd likely count my comments here, with theirs, as just ONE total comment.....I now endeavor to put my own concerns forward. I believe the Estuary option is the only fully reasonable option we can carry into the future. As much as I dearly love to walk around Capitol Lake, and find the Lake a lovely visual.....I also know that it's existence is a false overlay which has

I-808-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-808-2 See the Global Response for Cultural Resources. See also response to Comment T-2-23 regarding coordination with tribes during the development of the EIS.

I-808-3 Comment noted. Please also see Attachment 21, which provides a comprehensive evaluation of the alternatives relative to their ability to meet

I-808

COMMENT

RESPONSE

I-808-1	<p>come with many problems, expensive and environmentally unsustainable. I was much more hopeful about a combo lake/estuary option. But when I viewed the mock-ups and read about that proposal....it was unfortunately visually unacceptable, expensive, and would not accomplish the goals we need for these important bodies of water (Deschutes River, and Puget Sound's Budd Inlet.</p>	<p>project goals, to result in other environmental impacts or benefits, their relative environmental and economic sustainability, cost impacts, and decision durability.</p>
	<p>My main concerns:</p> <p>1) It is clear that the Steh Chass peoples of our region support returning this back to estuary.. There is an imperative for their voices to be dominating the narrative, and the outcome. I am concerned that it seems you did not consult them, to arrive at your proposal....how can this be? We have done irreparable and great harm to the tribes....our region is indistinguishable from the lands and uses they once had here. NOW, we have the opportunity to right one of those wrongs. The salmon and the health of Budd Inlet are crucial for that outcome. This should be of primary importance in this Draft EIS. Please make it so. We made promises to the Tribes, and if we do not keep those promises from treaties, we are worth nothing.....certainly not self-respect.</p>	<p>I-808-4 Comment noted, please see responses to individual comments that describe revisions.</p> <p>I-808-5 This comment is a statement and does not affect the environmental analysis in the Draft EIS.</p>
I-808-2	<p>2) Nature's intelligence, and the costs we incur to ignore it. Capitol Lake has been pretty. But I want to live in and among a place which has as its central focus....the natural order of things. We screw things up when we try to 'manage' major waterways, cut mountaintops off to mine, pollute the air, the water, and the lands. In this case, NATURE dictates an estuary. We should listen to Nature. The tribes voices are so important because they always chose to live in this way, and we have much to learn from them....after so much time marginalizing that voice and that intelligence, to our peril. Follow nature's creation, the immeasurable truth of the tides, the cleansing and renewing perfection of water movement, estuarine mixing of fresh and salt water, the free flow of wild creatures following their timeless intuitive ways. Why is there never this voice included in documents like this? As if the world is a mechanism which we have somehow created, or even figured out We have not. Use Nature's intelligence to return this damaged waterway to its natural state of being.</p>	
I-808-3	<p>3) Costs.. These are all expensive options. Manipulating nature always bears these costs. Now, to fix it, it is a kind of mercy...a blessing that the cheapest alternative is the one which best restores the region. Let's not underestimate the costs which will be incurred for climate change adaptation, other restorations of all kinds, sea level rise, an endless list. Let's take the 'cheapest and best' option.</p>	
I-808-4	<p>4) There are many irregularities, somewhat biased framing, disagreement between the data and the Summary, underlying assumptions. I would refer you to DERT's</p>	

I-808

COMMENT

RESPONSE

I-808-4

points on this....they cover the most important inconsistencies and problems. I was disappointed with a sense of opinion in a document which should be about presenting DATA. What we should be commenting on is the efficacy of the data, but we are left to comment on whether enough of it is contained in the Draft.

5) Budd Inlet.

I-808-5

We have as our waterfront, as our playground....one of the absolutely most toxic and dirty bodies of water in all of Puget Sound. Activities from our past created a toxic mess. Letting nature work a magic we can never hope to accomplish, we now have the opportunity to improve the water quality of the region. This is just so critically important. I should have made it number 1. 6) Salmon, salmon, salmon..... Orcas, The chain of life. Thank you for listening carefully to our concerns on this most important matter!! Sincerely, JJ

I-809

COMMENT

RESPONSE

See attached comments document.

I-809

COMMENT

RESPONSE

Comments on the Capitol Lake – Deschutes Estuary Long-Term Management Project
Draft Environmental Impact Statement (DEIS)

I-809-6

Where to begin? I have been providing technical guidance and comments on “the problems with Capitol Lake” since at least 1991, when I was hired by the Aquatic Resources Division of DNR as a Natural Resources Scientist. Throughout my tenure at DNR I provided technical guidance, specializing in estuarine salmon ecology. I served as a member of the Puget Sound Technical Recovery Team (PS TRT) and numerous other technical advisory teams providing scientific guidance to restoration and salmon recovery practitioners throughout Washington State. To this day, hundreds of restoration projects have been successfully implemented within numerous baywide and watershed scale restoration frameworks I played a significant role in shaping.

For the sake of brevity, I am going to first say I fully agree with the perspective and comments on the Deschutes estuary provided by Squaxin Island Tribe at:

<https://squaxinisoland.org/government/departments/natural-resources/deschutes-estuary/>

Please refer to the above website as background for my additional comments below.

I-809-1

While your project goals are commendable, the DEIS lacks sufficient discussion of how those goals relate to the landscape scale ecosystem processes that drive the current and desired future conditions within and downstream of the project area. Beyond that, the DEIS fails to adequately acknowledge the regional context and meaning of the project area and watershed as a component of the Salish Sea Ecosystem. I can envision eyes rolling and a project manager somewhere saying “that is beyond the scope of this project (i.e., not my problem)”. Before you dismiss this comment, hear me out.

What I see in the proposal is - the failure to adequately describe the ecological settings and processes and how the project alternatives relate. The resulting gaps in the assessment have led to errors of omission and in judgement on the feasibility of desired future conditions outcomes. One such error that has come to light is the misunderstanding between the project proponents and the Port of Olympia regarding the potential for future deeper berthing facilities. The error has called into question the underlying assumptions for maintenance dredging volumes and costs estimates for the two estuarine alternatives. Are the costs actually much less? Further, are there other means of mitigating potential impacts on the Port and marinas that have not yet even been explored? It may make more sense to plan for future reconfiguration of the channel/ facilities interface or even some relocation of facilities in lieu of maintenance dredging.

I see a more problematic manifestation of the lack of vision for what a sustainable future condition may look like in the cumulative impacts section discussions. My impression of the foreseeable actions discussion is they all seem to be conceptual level early stage responses focused on protecting existing built infrastructure from sea level rise. There is no acknowledgement even at this conceptual level that, maybe, the most sustainable and cost-effective foreseeable actions may include some form of pulling back the shoreline to avoid the impending flooding of the low-lying areas. It seems the discussion of the alternatives needs to focus on restoration of the Deschutes estuary as the first step towards a

I-809-6 This response acknowledges the commenter’s position.

I-809-1 The project goals were developed during the Phase 1 planning process described in EIS Supporting Chapter 1.0, and were established by the Work Groups as a common set of goals for long-term management across all alternatives. These goals would be achievable within the area that Enterprise Services manages, which is defined by a long-term lease agreement with the Department of Natural Resources.

Please see the Final EIS Summary for added text regarding the intersection of this project with other agency efforts to improve the Deschutes River Watershed including the water quality improvement planning led by Ecology; the sea level rise planning led by Olympia, LOTT and the Port of Olympia; and sediment remediation in Budd Inlet led by the Port of Olympia. Please refer to Appendix 21 for more detail on how overall ecosystem function was considered as part of the Preferred Alternative identification process.

Note that this project would not preclude future efforts as needed to mitigate sea level rise.

As described in EIS Supporting Chapter 6.0, "foreseeable actions" in the context of a cumulative effects analysis in an EIS are other actions that may overlap in space and time with the proposed project that could result in cumulative effects on the environment. Addressing whether or not these foreseeable actions should occur or be changed is outside of the scope of this EIS. Though, interagency coordination is underway regarding overall health of the Deschutes Watershed and approach to climate resiliency.

As is appropriate for a SEPA EIS, the analysis focused on that areas that could be most directly affected by construction or operation of the project alternatives, and it provides an impartial discussion of significant environmental impacts, and reasonable alternatives and mitigation measures that avoid or minimize adverse environmental impacts.

I-809

COMMENT

RESPONSE

I-809-1

sustainable future condition, given sea level rise is going to happen. Then the adjacent areas will need to plan for how to most cost effectively respond to sea level rise, including perhaps pulling back the shoreline in some places as well as other protection strategies. Legacy problems in adjacent areas needs to not be used as an excuse to constrain projects that will lead to a more sustainable future condition.

A major error of omission is the DEIS failure to meaningfully acknowledge that Percival Creek even exists, much less discuss it as a significant part of the historic Deschutes estuary landscape. That oversight has left a major gap in the subsequent analyses and discussions of the potential alternatives and comparative costs and benefits.

The DEIS identifies the embayment of Capitol Lake west of the Deschutes Parkway including the delta at the mouth of Percival Creek as within the project’s geographic boundaries. However, as far as I can glean from the lack of any discussion and the conceptual maps of the alternatives, the approach to the embayment west of the Deschutes Parkway and the existing Percival Creek delta has been to ignore them and hope nobody notices. It is unacceptable for the project proponent to present project alternatives that so blatantly ignores such a large component historic estuary and existing conditions.

At present, the Deschutes Parkway with the existing culvert forms a dam that has further fragmented the historic estuary. The causeway is a barrier between the western embayment and the adjacent reach of project area. It has and will continue to impede the connectivity of habitat forming processes through the middle and lower reaches of the project area. As such it will continue to manifest continued degraded water quality and sediments transport conditions until that connectivity is adequately addressed.

I-809-2

Over the last 30 years I have observed the delta at the mouth of Percival Creek prograde out from the ravine toward the Deschutes Parkway culvert. Once WDFW abandoned the embayment of Capitol Lake west of the Deschutes Parkway as a rearing pond and pulled the flow training barrier, it seems the change in flow pattern has accelerated isolation of the embayment from the transport of water and sediment inputs from Percival Creek. The DEIS does not address the future condition of the embayment and delta for any of the alternatives. It appears likely that, if ignored, the progradation will soon totally isolate the embayment leading to worsening water quality and aquatic vegetation problems and creating ongoing sediment management problems at and below the culvert.

On the other hand, a proactive approach to integration of the embayment’s water and sediment transport processes within the greater project area could provide substantial benefits to the long-term management approach and benefits. Percival creek was historically a productive salmon spawning tributary to the Deschutes estuary as evidenced by historical artifacts and records of tribal utilization as well as evidence of the productive potential of the stream. In my own experience I have observed the creek accommodate sufficient numbers of natural spawners to suggest it could support self-sustaining chum spawning populations numbering in the thousands.

I-809-3

The DEIS totally misses any recognition there is a major opportunity to restore a chum run and potentially create a Kennedy Creek style salmon spawning stream destination for fishing, viewing and education activities that would be a tremendous enhancement to the community use goal of the project proposal. The EIS needs to address this gap and explore the effective alternatives for restoring the connectivity of the mouth of Percival Creek through the western embayment to the greater project

I-809-2

Hydrodynamics and sediment transport numerical modeling conducted for this project did include Percival Cove and the lower portion of Percival Creek; refer to Attachment 5 of the Final EIS. This will support future design efforts that will consider hydrodynamics and sediment transport within Percival Cove and Percival Creek, to ensure that a hydrologic and ecological connection is maintained. This project does not preclude future work in Percival Cove and Percival Creek, and the regulatory agencies may require creek enhancements as a condition of project permits.

I-809-3

As described in Section 4.5.5 and 4.5.6 of EIS Supporting Chapter 4.0, the Estuary and Hybrid Alternatives would remove the 5th Avenue dam, which would improve migration for salmon and restore estuarine habitat conditions in the basin. As described in EIS Supporting Chapter 2.0, fishing and viewing is supported by project improvements under all alternatives, and interpretive signage may be installed throughout Project Area. While Percival Creek enhancements are not a part of the action alternatives, the project does not preclude future enhancements in Percival Creek that could be undertaken by a separate entity.

I-809

COMMENT

RESPONSE

I-809-3
 area. One obvious approach to accomplish the above is to replace the existing culvert with a culvert or bridge near the southern end of the embayment to support an estuarine tributary channel connection to the middle basin reach of the project area. Such a configuration would allow the Percival Creek delta to continue to prograde into the embayment and gradually form an estuarine marsh habitat corridor.

I-809-4
 Given that restoration of a substantial chum run to Percival Creek is likely very feasible and needs to be fully explored puts the reflection Pond hybrid concept in a less favorable light. Even without the chum early migrant's needs for that area as fully functional and accessible estuarine habitat, the pond still perpetuates the fragmentation and degradation of the historic Deschutes estuary. With the potential for a substantial chum run, the pond presents an unacceptable removal of the potential estuarine habitat for early migrant chum parr and smolts to rear and transition to the broader nearshore environments.

I-809-5
 We claim to value salmon and Orcas. If we truly do, we need to ALL understand and adapt to their ecosystems. We non-natives that have adopted their ecosystems as our new homeland need to learn how to live sustainably within a healthy and more fully functional Salish Sea Eco-region if our grandchildren are to have any chance of having salmon and Orcas in their future here. The site of the historic Deschutes estuary is one of the most feasible large-scale estuarine ecosystem restoration projects available within Puget Sound. Restoring it will significantly contribute to restoring and sustaining the ecological function of the South Sound, including restoring a chum salmon run that could become a destination recreation and ecosystem learning site.

The State Capital site could be a model all citizens of the State of Washington look to for how we have learned to adapt to, and live sustainably in the Salish Sea – home to vibrant populations of salmon and the resident Orcas. It is time the Washington State Department of Enterprise Services (Enterprise Services) got on-board and demonstrated the whole of the State of Washington (as a government entity) is fully committed to recovery of salmon, Orcas and to restoration of the Puget Sound ecosystem. The State of Washington needs to demonstrate leadership as we search for a path forward toward living sustainably in the Salish Sea Ecosystem and the iconic salmon species and Orcas we share it with.

I-809-4 The Draft EIS (Section 4.5.6) acknowledged that for salmon, the estuary provided in the Hybrid Alternative would not be as beneficial when compared to the Estuary Alternative since the full range of estuarine functions would be not be developed over the entire North Basin area.

I-809-5 Thank you for your comment. The comment does not affect the environmental analysis in the EIS.

I-810

COMMENT

RESPONSE

This supercedes comments submitted a few minutes ago...

I-810

COMMENT

RESPONSE

Falka, Greg A. - Capitol Lake - Deschutes Estuary Draft EIS comments

P. 1

Capitol Lake - Deschutes Estuary Draft EIS comments
Submitted by Greg Falka, Olympia, WA. - 29 August 2021

I've lived in Olympia since 1973 and for the past 20 years have been studying bats as a wildlife biologist in Washington and other western states. On the subject of bats I have authored and coauthored peer-reviewed articles, performed field studies, research, and inventories, and assist others across the western states in the pursuit of information on the life history strategies of our different bat species. I am submitting the following comments because two of the alternatives would likely extirpate thousands of reproductive female bats in the south Puget Sound region. My professional analysis and testimony over the years (including comments similar to the ones below submitted during the EIS scoping process) have had little impact on the discussion about the potential impacts on local bat populations. I now feel obligated to be blunt about this will start with the conclusion: *Nobody should expect to find any bats at the historic Woodard Bay roost site if either of the estuary options are constructed.* Additionally, the overall bat population in northern Thurston County would be seriously reduced if Capitol Lake is converted to a salt water or inter-tidal feature.

I-810-1 Thank you for your comments and perspective. In response to these and other comments, the EIS team conducted additional review of available data and re-visited the analysis of impacts on bats. See the Global Response for Fish and Wildlife for information on the bat analysis, and related updates in the Final EIS.

I-810-2 See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

I-810-3 See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

I-810-1

As described in detail below, Capitol Lake is the primary feeding area for: 1) the largest known bat colony in western Washington; 2) a very significant feeding area for another large colony of the same 2 species (Evergreen State College Organic Farm); 3) a large collection of smaller Little brown bat colonies scattered around Cooper Point (over 1,000 bats); and 4) for numerous Big brown and Silver-haired bats from largely unidentified colonies in the surrounding area. Although no study of bats arriving from the areas south of Capitol Lake has occurred, it would be a reasonable assumption that there are bats arriving from other colonies which have not been documented.

Every summer evening the Woodard Bay Yuma bat colony draws a varied collection bat watchers – families, locals with out of town visitors, scout groups, university field trips, K-12 school groups, and local and visiting naturalists. Located on public land and accessible to the public, many people go there specifically to watch the Yuma bats fly out of the old railroad pier at sunset. The Department of Natural Resources has installed several interpretive signs detailing the importance of the colony, describing their natural histories, including the long commutes the colony makes to Capitol Lake. This colony has been at this location since at least the mid 1980s, but the public engagement has increased significantly in the past 10 years.

I-810-2

In the Draft EIS Executive Summary on Page 24, bats are mentioned briefly: *"The Managed Lake Alternative would best support the foraging base for bats..."* Because the largest known nursery colony of bats in western Washington (at Woodard Bay) would likely be wiped out by both of the estuary alternatives, the treatment here seems quite inadequate. To portray the fresh water vs. salt water dilemma as *"would best support"* misses the mark an accurate summary statement would be along the lines of "Capitol Lake is the primary foraging site for the largest known bat nursery colony in western Washington. The Managed Lake Alternative is the only alternative that would support the foraging base for this regionally significant bat colony."

I-810-3

Bats are again mentioned in Section 3, Existing Conditions & Affected Environment under 3.5.2.3: What bats can be found in the study area? The problem is this: *"Capitol Lake appears to be an important feeding area for two bat species in particular, little brown bat and Yuma myotis."* Troubling here is the use of the indefinite *"appears"* rather than stating what has been known for years – that Capitol Lake is the primary foraging habitat for the largest known nursery colony of bats in western Washington state. Because of this critical relationship the WDFW Priority Habitats and Species program has designated and mapped Capitol Lake as

I-810

COMMENT

RESPONSE

[Falxa, Greg A. - Capitol Lake - Deschutes Estuary Draft EIS comments](#)

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I-810-3

Priority Habitat for Yuma bats (*Myotis yumanensis*) and Little brown bats (*Myotis lucifugus*) because of the congregations of foraging bats from nursery colonies in the south Puget Sound region.

I-810-4 The perspective this comment provides is noted and was taken into account in the context of available data and scientific information, and was considered in the impacts analysis. See also the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

I-810-4

This same paragraph states that it is *unknown* what *proportion* of the Woodard Bay bat colony utilizes Capitol Lake. However, during CLAMP and a number of other official Capitol Lake / estuary forums over the past 15 years I have testified and discussed the data showing that during the pup-rearing period of June, July and August, in nearly all cases Capitol Lake is the exclusive foraging location for the mothers nursing their young. Some, possibly most nursing mothers make the trip twice each night, returning to the pier at the Woodard Bay Natural Resource Conservation Area in the middle of the night to nurse the young, then back to Capitol Lake for a 2nd foraging bout before finally returning to the nursery roost before dawn. So, although we cannot quantify a precise *proportion*, we can say that nearly all (if not all) of the nursing mother bats raising their pups at the Woodard Bay colony are flying to Capitol Lake nightly, using it as their primary feeding area.

I-810-5 See the response to Comment I-810-4.

I-810-6 See the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.

I-810-5

This short paragraph on bats ends with *“These bats use Capitol Lake to forage and do not appear to use other smaller lakes and ponds closer to their colonies.”* Yuma myotis bats do not feed at small water bodies like ponds. They feed low over the water at lakes, reservoirs, slow moving rivers (in Thurston Co., the Black River) which need to be paired with roost sites suitable for a couple thousand bats. Capitol Lake is the closest lake to the large Woodard Bay maternity colony. Although there are a few small ponds closer than the lake, they are not significant in bat foraging terms. Even if they did utilize ponds, the total surface area of these small water bodies might support a few dozen bats, not the estimated 4,000 – 5,000 bats which surface-feed at Capitol Lake. No significant foraging by bats from the Woodard Bay or the Evergreen State College Organic Farm colonies has been observed at local ponds. Additionally, salt water and brackish water do not support the aquatic emergent insects that Yuma myotis feed on.

I-810-7 The Draft EIS and Final EIS do describe that significant impacts are considered to be "...elimination of a species group or species of regional importance." See Section 4.5.2 of EIS Supporting Chapter 4.0, and also, Section 3.3.2 of the Fish and Wildlife Discipline Report.

I-810-8 See response to Comment I-810-4.

I-810-6

The statement from [Section 4](#) (quoted below) is an accurate but cursory summary of the issue with bats and the future of the lower Deschutes River basin. I believe that definitive language like this should be used in the EIS in [Section 3](#), along with a more in-depth description of the loss of bats if the lake habitat changes to an inter-tidal basin. As discussed below, the following quote statement doesn't reveal much about the long-term relationships between the large local historic bat nursery colonies and the lake.

“The change to an estuarine environment would eliminate the freshwater lake. This would be a significant impact on bats because of the size of the Woodard Bay colony, its regional importance, its dependence on the freshwater environment of the Capitol Lake Basin for emergent insects, and the elimination of this foraging base.”

I-810-7

In several areas of Section 4 the phrase *significant impact* or *significant negative impact* is used when describing the impact the estuarine alternatives would have on bat populations. One might conclude this means unavoidable reduced populations, but in reality the impact would likely be the collapse of the colonies, in the first year that bats returning from hibernation encounter the loss of Capitol Lake. They return each spring to their natal roost, pregnant and in need of an insect-rich lake for foraging. The notion that they could just move to another lake in the region doesn't follow the realities of their population dynamics – the other lakes are already occupied with the bat population that it can support.

I-810-8

This narrative is not new. My first public testimony describing the relationship between Capitol Lake and the Woodard Bay bat nursery colony was to the CLAMP study group in December of 2003. During the summer 2003 I had secured permitting from WDFW to radio-tagged and track bats at the Woodard Bay nursery for

I-810

COMMENT

RESPONSE

Falka, Greg A. - Capitol Lake - Deschutes Estuary Draft EIS comments

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I-810-8

the purpose of learning the foraging habits of this group. The tracking revealed a solid route of bats flying the unusually long distance from the colony to Capitol Lake, and a high fidelity to the lake. During this first CLAMP public testimony session I informed the group of this important development. To be sure, finding the bats was a surprise to me and to every colleague in the bat world with whom I shared my data. These species of bats were thought to have home ranges of a few miles, not having been previously documented to commute over 7 miles one way to regular foraging grounds. This data was presented at several scientific meetings, including an oral presentation to the North American Symposium for Bat Research in 2008.

For four consecutive summers I continued to radio track these bats during the summers when time allowed. In 2012, under contract from the Dept. of Natural Resources, I did a followup tracking project which verified that Capitol Lake was still the Woodward Bays colony's foraging grounds. This 2012 tracking work verified the earlier observations that the freshwater lake is where this colony foraged every night during their reproductive season. Throughout the CLAMP process I provided the committee with updates on what we were learning about the importance of these colonies and their dependence on Capitol Lake. In spite of these efforts, none of the 4 CLAMP commissioned reports during 2007/8 addressed bats utilizing Capitol Lake. A 2008 summary report authored by the WA Department of Fish and Wildlife (*Implications of Capitol Lake Management for Fish and Wildlife*) mentioned bats a few times, generally lumping them with songbirds. It failed to make any connection between the large regional colonies of Yuma bats and Capitol Lake. It appeared that the report summarized the data from the 4 preceding reports, the ones that did not address bats.

This is discussed in Dr. David Milne's 2015 reporting on the health of Capitol Lake, which acknowledged the association of the large Woodard Bay bat nursery with Capitol Lake (*Capitol Lake - The Healthiest Lake in Thurston County*). I truly hope that Dr. Milne's 2015 analysis was considered during the EIS process record. Additionally, WDFW staff comments on the lake / estuary alternatives may or may not make it through the agency's filtering and consolidation process. If they do, it is likely that much of what I've presented here will be supported, as the biologists who have observed the local bats are aware of the importance of the lake to the large colonies in the greater Olympia area, and the Woodard Bay nursery colony in particular. Regional media have covered the Woodard Bay and Capitol Lake bat phenomena (NW Public Radio, 2 years ago; Seattle Times, 19 years ago; etc) and even in nationally recognized literature (*I've Heard The Vultures Singing*, Lucia Perillo, 2009). Prior to Covid-19 the summer bat walks at Capitol Lake typically attracted overflow crowds.

I truly hope that my comments help guide the consideration of the alternatives. I did not comment on the 'do nothing' option because that has already been eliminated because not dredging the lake, or even the engineered inter-tidal option, will lead to increased flooding in Olympia with serious economic and safety consequences.

Greg Falka
PO Box 1621
Olympia, WA 98507

I-811

COMMENT

RESPONSE

I-811-1 | I ask to keep the lake we don't have the tax dollars to pay for it.

I-811-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-812

I-812-1 | Keep it a lake

COMMENT

RESPONSE

I-812-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-813

Eliza Ghitis
1510 8th Avenue Southwest
Olympia, WA 98502

August 29, 2021

Department of Enterprise Services
Capitol Lake - Deschutes Estuary EIS
PO Box 41476
Olympia, Washington 98504-1476

Re: Comments on the Capitol Lake – Deschutes Estuary Long-Term
Management Project Draft Environmental Impact Statement

Dear Project Team:

Thank you for the opportunity to provide comments on the State
Environmental Policy Act (SEPA) Draft Environmental Impact Statement
(DEIS) for the Capitol Lake – Deschutes Estuary Long-Term Management
Project. I am a Licensed Geologist in Washington and a resident of Olympia.

The DEIS identifies and evaluates three alternatives:

- The Estuary alternative, which removes the 5th Avenue dam and restores estuarine hydrological, geomorphic, and ecological function;
- The Managed Lake alternative, which repairs the deteriorating dam and maintains the artificial Capitol Lake with dredging and other maintenance; and
- The Hybrid alternative, which would create a smaller artificial saltwater or freshwater basin while allowing a portion of the Deschutes River to return to natural function.

While the DEIS does not identify a proposed alternative, I support the Estuary alternative which will enhance the Capitol Campus with natural recreation opportunities while also protecting natural resources and building resilience to the effects of climate change.

The DEIS clearly states that the goals of the Capitol Lake - Deschutes Estuary Long-Term Management Project are to improve water quality, manage sediment accumulation, improve ecological function, and enhance community use of the resource (DEIS, pg. 1-15 - 16). The Estuary alternative will be better suited to meet these goals because of the following:

- It will provide greater reduction of river and tidal flood risk than the No Action or Managed Lake Alternatives (DEIS, pg. 4-6, 6-11).
- Estuarine wetlands are increasingly rare in the region and provide substantial benefit over freshwater deepwater habitats (DEIS, pg. 6-15).
- The estuarine environment of Budd Inlet is critical habitat for Chinook salmon, which are listed as endangered under the Endangered Species

I-813-1

COMMENT

RESPONSE

I-813-1 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-813

COMMENT

RESPONSE

I-813-1

- Act (ESA) and bull trout, which are listed as threatened under the ESA (DEIS, pg. 3-61, 3-63). Juvenile salmon from rivers to the north that were tracked by WDFW and the Squaxin Island Tribe frequently move toward the south when they enter Puget Sound, but the lack of estuarine habitat in the South Sound reduces their success rates.
- Southern resident killer whales (SRKW) were listed as endangered under the ESA in 2005. The Southern Resident Orca Task Force created by Governor Inslee in 2018 recommended increasing the availability of Chinook as one of its overarching goals. The DEIS states that the Estuary alternative would be highly valuable for Chinook, other salmon, and marine fish (DEIS, p. 4-68), and hence beneficial to SRKW (DEIS, 4-70).
 - Restoring estuary function would support shellfish, including crabs (DEIS, pg. 4-69).
 - Aquatic invasive species in Capitol Lake, such as the New Zealand mudsnail, Eurasian watermilfoil, and curly pondweed, would be eliminated by the introduction of saltwater. This would further benefit anadromous and marine fish by replacing invasive aquatic vegetation with salt marsh and tidal habitats (DEIS, pg. 4-69).
 - Although the Estuary alternative would create conditions unfavorable to freshwater fish, none of those present are listed as threatened or endangered by the state or the ESA. In fact, some freshwater fish such as bass, carp, and bullhead are non-native species that prey on native salmonids (DEIS, pg. 4-70).
 - Estuaries improve resilience to the effects of climate change by sequestering carbon in vegetation and substrates and by attenuating flooding.
 - The Estuary alternative would not require treatments for high phosphorous concentration as a groundwater-fed reflecting pool would (DEIS, pg. 2-29).
 - Restoring estuarine conditions would provide greater benefits than the other alternatives for native species that historically used the Project Area (DEIS, pg. 4-68).
 - The long-term sustainability of the Estuary alternative would meet economic goals by precluding future maintenance of the 5th Avenue dam in the Managed Lake alternative and tide gates in the Hybrid alternative.

I-813-2

The characterization of impacts and benefits provided by the Draft EIS and Final EIS provides enough discernable information for decision makers to weigh the project alternatives, including their potential impacts, feasible mitigation measures to reduce impacts, and their ability to meet the proposed project objectives. The Draft EIS and Final EIS describe the goals and anticipated outcomes for adaptive management but does not prescribe specific management activities which are more appropriately defined in coordination with the regulatory agencies during permitting, and as performance standards are established in the design process. Integral to this approach is adapting management practices after construction, as needed, to meet performance standards and permit conditions.

I-813-2

My concerns with the DEIS analysis are listed below:

Adaptive Management Plans

For each action alternative, the DEIS states that adaptive management plans will be developed during the design and permitting process to maintain water quality, improve ecological functions, and manage invasive species

I-813

COMMENT

RESPONSE

I-813-2

(DEIS, pg. 2-5, 2-8, 2-13, 2-53). The adaptive management plan will contribute greatly to the success of the preferred alternative and the alternatives cannot be adequately evaluated without knowing what they would be.

Climate Change

The DEIS fails to present sufficient detail for how climate change will alter environmental conditions during the life of the proposed project. The hydrodynamics and sediment transport model used two storm scenarios—without and with incorporating relative sea level rise (RSLR). Sediment deposition rates were lower with RSLR due to higher water levels in the Capitol Lake Basin reducing current velocities and hence, erosion of sediments in the Middle Basin. The DEIS analysis focuses on the model results without RSLR, because impacts are greater under this scenario (DEIS, pg. 3-13, 4-12). While using the more conservative estimate is understandable in some instances, in this case it is misleading. Sea levels have been rising and will continue to do so at an accelerating rate. The most recent Intergovernmental Panel on Climate Change Sixth Assessment Report (IPCC AR6 2021) concluded that global sea level rise has accelerated since pre-industrial time and it will continue to accelerate in this century.¹ Any analysis of coastal conditions must include RSLR, especially when evaluating the amount of sediment deposition that will occur in navigation areas of Budd Inlet.

I-813-3

Furthermore, in the Pacific Northwest, heavier storms are expected as atmospheric rivers (plumes of moisture from the tropical Pacific Ocean commonly known as the Pineapple Express) are projected to get 26 to 30 percent stronger by 2070.² Consequently, winter flood risk in the region will increase due to heavy precipitation events increasing in both frequency and intensity. The DEIS acknowledges that climate projections indicate a 10 to 30 percent increase in the most extreme 24-hour rainfall periods by mid-century in our region. Such events would increase Deschutes River flows, which could in turn cause more frequent and more severe flooding and higher rates of lakebed elevation change (DEIS, pg. 3-6, 3-7). This would increase the frequency and cost of dredging under the Managed Lake Alternative, but this is not discussed.

I-813-4

Mitigating for Shoreline Armoring

The DEIS neglects to address the environmental impacts of the mechanically stabilized earth retaining wall structure below the new roadway connection from Deschutes Parkway to the roundabout at 4th Avenue W and of the 1,500 cubic yards of riprap to be placed along critical infrastructure to avoid scour from restored tidal action (DEIS, pg. 2-47). Stabilization measures should be designed to support ecological function and use green infrastructure components as much as possible.

I-813-5

I-813-3

The Draft EIS focused on the numerical model results without RSLR when discussing sedimentation because this is the more conservative scenario in terms of sedimentation (compared to RSLR). The numerical model and EIS incorporate climate change projections relative to potential impacts from sea level rise and extreme river flows as part of the future conditions for all alternatives for the other environmental analyses. Detailed results on the difference of water elevations under RSLR can be found in the Hydrodynamics & Sediment Transport Discipline Report.

I-813-4

As noted in Section 4.6 of the Hydrodynamics and Sediment Transport Discipline Report, a +100-year Deschutes River flow was defined as Event #1. The '+100-year river flow' means that the selected river flow was higher than a 100-year flow. Selection of a river flow higher than the 100-year flow was to represent potential increase in flow over the project planning horizon.

Table 2.3.4 of the Draft EIS lists the recurring maintenance dredging information under the Managed Lake Alternative, and it acknowledged that dredge frequency is not fixed at 20 years and may increase due to increase of sedimentation in the North Basin after the South and Middle Basins have reached sediment equilibrium resulting in more sediment passing through the North Basin. The potential increase in river flow rates will also contribute to a more frequent dredging plan under the Managed Lake Alternative and that has been added to Table 2.3.4.

I-813-5

During the project design and permitting phase, the proposed shoreline stabilization would be further refined to minimize wetland loss and to support ecological functions. Overall, under the Estuary and Hybrid Alternatives, these impacts are expected to be offset by the removal of the approximately 3.3 acres of fill in Waters of the U.S. associated with removal of the 5th Avenue Dam. As described in Section 4.6.7 of EIS Supporting Chapter 4.0, mitigation for unavoidable direct and indirect impacts on wetlands would be compensated for at ratios determined by the permitting agencies, if it is determined that the alternative selected is not fully self-mitigating with its overall improvement to ecological function.

I-813

COMMENT

RESPONSE

I-813-6	<p>Insufficient and Inconsistent Time Scales</p> <p>By selecting a 30-year horizon for the DEIS, important and relevant information is ignored. For example, the long-term sediment management over a 30-year period misrepresents the volume of sediment dredged for the Managed Lake alternative over time. The DEIS claims that the amount dredged under the Estuary Alternative is greater than the Managed Lake during the 30-year project time (DEIS, pg. 2-24); however, the Managed Lake dredge events will increase in frequency and quantity over time. In the Managed Lake alternative, more sediment settling in the North Basin over time would require dredging more frequently than the initial 20-year interval and more material would be removed during each dredge event (DEIS, pg. 2-21). Over time, the amount of material removed under the Managed Lake Alternative would be comparable to the other alternatives (DEIS, pg. 2-24).</p>	I-813-6	The 30-year time horizon was identified to provide a consistent evaluation period for all alternatives. This horizon allows enough time for each of the potential alternatives to be constructed, established, and have a period of long-term management that can be evaluated. This project time horizon does not forecast too far into the future, to avoid speculation.
I-813-7	<p>The Thurston County data used to assess long-term water quality and for the alternatives analysis were from 2004 to 2014 (DEIS, pg. 3-18), even though Thurston County collected water quality data in Capitol Lake and other area surface waters, including the Deschutes River, for several decades prior to 2014 (DEIS, pg. 3-21). The rationale for this truncated data set is that strong trends for key parameters were not appropriate to use in characterizing existing conditions (DEIS, pg. 3-19). This decision requires more explanation, particularly because the sediment accumulation analysis for West Bay used data from 1998 to 2020, even though erosion rather than deposition has been observed over the past 9 years (DEIS, pg. 3-11).</p>	I-813-7	Please see the Global Responses for Water Quality regarding the use of the 2004-2014 data set.
I-813-8	<p>Environmental Justice and Tribal Sovereignty</p> <p>When the tribes, in what is now known as western Washington, ceded vast tracts of land in treaties with the United States government in the 1850s, they reserved their rights to protect their way of life. The treaties specifically and purposefully protected their ability to continue to gather, hunt, and fish on and outside the reservations.³ U.S. v. Washington, known as the Boldt decision, affirmed the tribes' treaty fishing rights and established the tribes as co-managers of the resource who retain the right to half of the harvestable salmon returning to Washington waters.⁴ As treaty-protected resources, salmon and steelhead are of vital importance for tribal subsistence, economies, cultures, and spiritual identity.</p>	I-813-8	<p>The commenter does not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS. Tribal treaty rights and treaty protected resources are discussed in Sections 3.5.3, 3.9.1.1, and 4.5.7 of EIS Supporting Chapters 3.0 and 4.0.</p> <p>Tribal values and resources were also incorporated into the process to select a Preferred Alternative as described in Section 1.12 of Final EIS Supporting Chapter 1.0 and the Preferred Alternative Identification (Attachment 21):</p> <ul style="list-style-type: none"> • Each alternative was evaluated relative to tribal resources, which considered abundance of species protected by tribal treaties, access to usual and usual and accustomed fishing areas, and access to areas of cultural and spiritual significance. • Each alternative was also evaluated relative to cultural resources, which considered whether precontact landscapes would or would not be restored or preserved. • The Squaxin Island Tribe was asked to provide numeric and narrative feedback on their ability to support each of the alternatives.
I-813-9	<p>The DEIS cultural resources analysis briefly mentions the cultural and spiritual significance of the Deschutes River to the Squaxin Island Tribe, the Nisqually Indian Tribe, and the Confederated Tribes of the Chehalis Reservation, and the treaty-protected fishery of West Bay. However, far more space in the assessment is allotted to recent history since the construction of Capitol Lake. For perspective, my rather ordinary house in West Olympia predates the 5th Avenue dam by two years, while the treaty tribes have called these lands and waters home for many millennia.</p>	I-813-9	See the Global Response for Cultural Resources.

I-813

COMMENT

RESPONSE

I-813-10	<p>The Cultural Resources Discipline Report states that the Squaxin Island Tribe considers a restored estuary to be "an educational resource to teach about nature, land, and ancestors, as the area once was an important regional hub of indigenous trade and transportation" (Geller et al. 2009:30, as cited on pg. 4-76). However, this and other details of the importance of functioning river and estuary are not covered in the DEIS cultural resources analysis.</p>	I-813-10	<p>The EIS is intended to provide a summary of the detailed analysis presented in the attached discipline reports. However, in response to this comment, this information has been included in the Final EIS Supporting Chapter 3.0, Section 3.9, Cultural Resources. Also, see Sections 3.5 and 4.5, Fish & Wildlife, and Sections 3.6 and 4.6, Wetlands, of EIS Supporting Chapters 3.0 and 4.0 where the functions and values of estuarine systems are described.</p>
I-813-11	<p>Contradictory and Subjective Statements</p> <p>In the water quality assessment, dissolved oxygen and nutrients are emphasized, purportedly because low dissolved oxygen concentrations are a long-term problem in Budd Inlet (pg. 3-20). Other water quality problems, such as temperature, pH, bacteria, and sediment quality, are acknowledged, but covered with less detail (DEIS, pg. 3-20). In addition, the DEIS characterizes Capitol Lake as having "only occasional seasonal violations of water quality standards, primarily associated with slight changes in temperature and dissolved oxygen" (DEIS, pg. ES- 12). However, Capitol Lake has been listed by the state as impaired under the Clean Water Act Section 303(d) due to bacteria and total phosphorus since 1996, as is noted in the DEIS (pg. 3-16). In addition, the largest anthropogenic causes of low dissolved oxygen in Budd Inlet are nutrients and total organic carbon from Capitol Lake (DEIS, pg. 3-25).</p>	I-813-11	<p>Please see responses to water quality comments regarding the focus of this analysis on dissolved oxygen and total organic carbon; and with respect to the additional regulatory compliance section that has been added to the Final EIS (see Section 4.3 of Final EIS Supporting Chapter 4.0 and the Water Quality Discipline Report (Attachment 7)).</p>
I-813-12	<p>The DEIS states that Capitol Lake currently has relatively good water quality for aquatic life and that water quality standards (such as for temperature and dissolved oxygen) are occasionally exceeded, but tempered by the Deschutes River (DEIS, pg. 3-23, 3-26). At the same time, the DEIS claims that water temperature frequently exceeds the 17.5 °C maximum criterion for water temperature, for both surface and bottom waters (DEIS, pg. 3-24).</p>	I-813-12	<p>See the Global Response for Water Quality.</p>
I-813-13	<p>The DEIS purports that Capitol Lake decreases total nitrogen and dissolved inorganic nitrogen (DIN) in Budd Inlet during the summer, and that dam removal would have the effect of increasing total nitrogen and DIN, which would in turn, increase algal production in Budd Inlet (DEIS, pg. 3-37). However, modelling by the Department Ecology describes the process thusly:</p> <p>Capitol Lake receives nitrogen, generally in the form of nitrate, from the Deschutes River and Percival Creek. The computer model of Capitol Lake correctly predicts that the water leaving Capitol Lake has lower nitrate concentrations than the water entering through the Deschutes River during the summer growing season. Monitoring data confirm that nitrate concentrations exiting the lake are lower than those entering the lake during the summer season. Phytoplankton and macrophytes within the lake transform nitrogen from nitrate to organic nitrogen forms. As the plants die and decay, the nitrogen is released back to the water column where it can reach Budd Inlet. A portion of the nitrogen is cycled within the sediments, and some is buried. Capitol Lake</p>	I-813-13	<p>Please see the Global Responses for Water Quality regarding use of the 2015 Ecology Water Quality Improvement Report.</p>

I-813

COMMENT

RESPONSE

I-813-13	<p>decreases nitrate and total nitrogen seasonally, although the majority of this nitrogen still reaches Budd Inlet.³</p>	I-813-14 Please see the Global Responses for Water Quality regarding comparison of Capitol Lake to other lakes in Thurston County.
I-813-14	<p>Multiple comparisons with the water quality of other lakes in Thurston County are included in the DEIS (pg. 13, 2-28, 3-18, 3-20, 3-24), but the scientific reasoning for doing so is unclear. The presence of poor water quality in the vicinity may be due to many factors and cannot be assumed to a natural background condition. This reasoning is further undercut because Capitol Lake is not a natural lake. These comparisons, along with statements about misperceptions of water quality problems (DEIS, pg. ES-12, 3-17, 3.26), seem to be downplaying water quality concerns in Capitol Lake. Is "relatively better than others" being proposed as a legitimate water quality target?</p>	I-813-15 Thank you for your comments. Following the publication of the Draft EIS, the EIS Project Team conducted additional evaluation of available and relevant literature and studies on bats. As part of the reconsideration of potential impacts to bats under all alternatives, the discussion of the No Action Alternative was updated to clarify that the transition to vegetated wetlands could reduce insect foraging opportunities for bats, but most of those impacts would be realized well beyond the 30-year time horizon for the project. As a result, the impacts were clarified to be less than significant under the No Action Alternative. Compared to this gradual transition, the loss of freshwater habitat following removal of the 5th Avenue Dam under the Estuary and Hybrid Alternatives, was determined to be a significant impact. See Section 4.5.2 of Final EIS Supporting Chapter 4.0.
I-813-15	<p>Assessment of Impacts to Bat Populations</p> <p>The DEIS identifies the conversion of Capitol Lake to estuary as a significant impact on the important and substantial Woodard Bay bat colony which feeds at Capitol Lake (DEIS, pg. 4-70). However, the DEIS Fish and Wildlife Discipline Report states that the Middle and South Basins are gradually and passively transitioning to a vegetated wetland, which would substantially reduce the ability of the area to support bats (pg. 4-64). Furthermore, the DEIS neglects to analyze whether the <i>Yuma myotis</i> and little brown myotis bats that predominately form the Woodard Bay colony would use estuarine habitat for foraging. These bat species are known to utilize estuarine habitat in the Columbia River estuary, the San Francisco Bay estuary, the Cowichan River estuary in British Columbia, and the St. Lawrence River estuary in Quebec, Canada.^{6,7,8,9}</p>	See also the Global Response for Fish and Wildlife for information on an expanded review of relevant literature and studies on bats that was conducted following the publication of the Draft EIS, and related updates in the Final EIS.
I-813-16	<p>In conclusion, maintaining a dam purely for aesthetic purposes on a river than can support salmon populations is an outmoded endeavor in light of 21st century challenges such as climate change and human population growth. Dams such as the 5th Avenue Dam create significant barriers to the survival and abundance of salmon species and salmon recovery is critical to our region's ecological, economic, and cultural health.¹⁰ Salmon are also critical to the recovery of the endangered southern resident killer whales. While Washington State makes significant investments in restoring degraded estuarine habitat, it must also fully exercise its authorities to continue to fund and develop actions such as the Estuary alternative that will promote public use, resilience to climate change, and a thriving environment in the Deschutes River and Budd Inlet for generations to come.</p> <p>Sincerely,</p> <p>Eliza Ghitis</p>	I-813-16 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-813

COMMENT

RESPONSE

1 Fox-Kemper, B., H. T. Hewitt, C. Xiao, G. Aðalgeirsdóttir, S. S. Drijfhout, T. L. Edwards, N. R. Golledge, M. Hemer, R. E. Kopp, G. Krinner, A. Mix, D. Notz, S. Nowicki, I. S. Nurhati, L. Ruiz, J-B. Sallée, A. B. A. Slangen, Y. Yu. 2021. Ocean, Cryosphere and Sea Level Change. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [MassonDelmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

2 Warner, M.D., C.E. Mass, and E.P. Salathé. 2014. Changes in winter atmospheric rivers along the North American West Coast in CMIP5 climate models. *Journal of Hydrometeorology* 16: 118-128.

3 United States v. Washington, 873 F. Supp. 1422 at 1430, (W.D. Wash. 1994). Upheld by 9th Cir. in 1998. United States v. Washington, 157 F. 3d 630 (9th Cir. 1998).

4 *Ibid.*

5 Roberts, M., G. Pelletier, and A. Ahmed. 2015. Deschutes River, Capitol Lake, and Budd Inlet Total Maximum Daily Load Study: Supplemental Modeling Scenarios. Washington Department of Ecology Publication 15-03-002.

6 Lewis and Clark National Wildlife Refuge, Facts About Bats. Last Updated: Jan 12, 2015. https://www.fws.gov/Refuge/Lewis_and_clark/wildlife_and_habitat/mammals/bats.html

7 Johnston, D. 2002. Wetlands Regional Monitoring Program Plan, Part 2: Data Collection Protocols Yuma Bat (*Myotis yumanensis*). H. T. Harvey & Associates, San Jose, CA.

8 Cowichan Estuary Restoration and Conservation Association. CERCA Bat Project Operational. June 7. 2021. <https://www.cowichanestuary.com/blogs/>

9 Henry, M., D.W. Thomas, R. Vaudry, M. Carrier. 2002. Foraging Distances and Home Range of Pregnant and Lactating Little Brown Bats (*Myotis Lucifugus*). *Journal of Mammalogy*, Volume 83, Issue 3, August 2002, Pages 767-774, [https://doi.org/10.1644/1545-1542\(2002\)083<0767:FDAHRO>2.0.CO;2](https://doi.org/10.1644/1545-1542(2002)083<0767:FDAHRO>2.0.CO;2)

10 Frank, Derek Red Arrow. 2017. "A Hell of a Complex: The Miscarriages of the Federal Hydropower Licensing Regime," *American Indian Law Journal*: Vol. 6: Iss. 1, Article 5. Available at: <http://digitalcommons.law.seattleu.edu/aij/vol6/iss1/5>

I-814

COMMENT

RESPONSE

I-814-1 | Let it go back to a natural estuary.

I-814-1 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

I-815

COMMENT

RESPONSE

I-815-1 | I support the transformation back to the natural estuary of Capitol Lake as best we can given resources and understanding of the science that supports doing this because the present lake is not helpful to anything other than an occasional reflecting pool picture.

I-815-1 | Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

I-816

COMMENT

RESPONSE

I-816-1 | Growing up in Olympia and spending huge amount of time in my youth both in Capital lake swimming and on Capital lake on boating I am deeply saddened by the horrible state of the current lake and more so with the movement to tear out the dam.
Dredging the lake is the only right thing to do.

If not, sediment will continue into Budd inlet and close off our port, or making dredging there necessary.
Please keep our lake usable, not a swamp.

I-816-1 | This response acknowledges the commenter's position.

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CAPITOL LAKE – DESCHUTES ESTUARY

Long-Term Management Project Environmental Impact Statement

Responses to Comments from the Public Hearing



Index of Comments from the Public Hearing

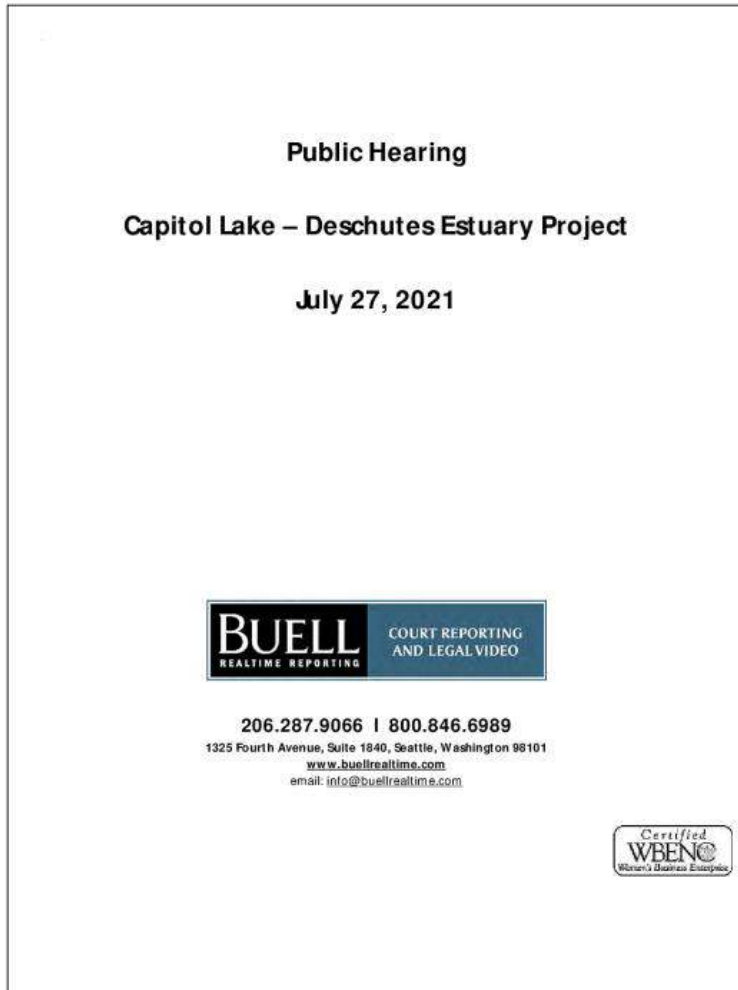
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<u>H-1-7</u>	Parakh Hoon	HEAR- <u>12</u>
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<u>H-1-9</u>	Allen Miller	HEAR- <u>16</u>
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<u>H-1-12</u>	Susan Patnude	HEAR- <u>22</u>
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CAPITOL LAKE
DESCHUTES ESTUARY LONG-TERM MANAGEMENT PROJECT

VIRTUAL PUBLIC HEARING

July 27, 2021
6:30 p.m.

(All participants appearing via videoconference.)

REPORTED BY: CRYSTAL R. McAULIFFE, RPR, CCR, #2121

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1 resources have been allocated by the City to get the
2 encampment under control, I began my own efforts to
3 solve the safety hazard and business the drug camp has
4 become.

5 I started going down to the meth garden
6 weekly to clean up and talk to the trespassing addicts.
7 It became clear that these people were in dire need of
8 help and incapable or unwilling to make the changes
9 necessary to get on their feet.

10 They are either addicted to dangerous
11 narcotics and/or mentally ill. It was at this point
12 that I was inspired to use my property as a means to
13 help bring tax revenue to fund a rehab and mental health
14 facility.

15 It is vital to understand that the
16 construction of the proposed new Fifth Avenue Bridge,
17 Deschutes Parkway Bridge required for the estuary will
18 cost millions. Millions that should be spent protecting
19 business owners and the public, especially those with
20 children from drug abusing homeless.

21 Many people argue that the estuary will save
22 money in comparison to a managed lake scenario because
23 dredging is expensive. This is false because if done
24 correctly a managed lake can be accomplished in a
25 cost-effective manner. Building a sediment trap would

H-1-1

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1 reduce dredging cost by 90 percent and would not turn
2 the staple of downtown Olympia, our city capitol, into a
3 sinking mudflat that deters business.

4 In plainer terms, it's significantly more
5 cost-effective to manage the lake other than the
6 proposed alternative.

7 Already an egregious government overage is
8 going on. I'm a landowner whose land is being used and
9 destroyed by a city-endorsed drug camp. And now the
10 State of Washington wants to take my land without
11 permission and build a bridge to save some fish when we
12 should be focused on saving human lives. It
13 should outrage any homeowner, landowner, or business
14 owner in Washington state.

15 Before we spend millions of taxpayers
16 dollars on this project which will neither improve or
17 grow Olympia, we need to help the people openly dying
18 off of narcotics in the middle of our city. We need to
19 ensure that our children can once again walk and
20 recreate around Capitol Lake without fear of being stuck
21 by an infection heroin needle or exposure to the
22 thriving criminal element of Olympia street culture.
23 There are atrocities happening right under our noses.
24 Underaged prostitution, rape, theft, and ambulances
25 taking bodies that have sitting for days after

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H-1-1

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 1 overdosing.
 2 Downtown Olympia and our waterfront should
 3 be the attraction of our state capitol. Many people
 4 will not frequent our city and support local business
 5 because of the danger associated with the street culture
 6 and drug-abusing homeless.
 7 MS. HAYMAN: Fifteen seconds, Sean.
 8 MR. THREATT: I ask you to use a realistic
 9 and sensible mindset. This project is spending your
 10 money without solving what needs to be solved in
 11 downtown Olympia. Let's instead use the money to
 12 rehabilitate and relocate the homeless and to reclaim
 13 our parks and city streets.

H-1

COMMENT

RESPONSE

H-1-2

14 MR. FALXA: Thank you. My name is Greg
 15 Falxa. I am a wildlife biologist that has been studying
 16 bats in the Olympia area -- sorry, not Olympia. Let me
 17 start over.
 18 I'm a lifelong Olympia. And I've been
 19 studying bats as a wildlife biologist in Western
 20 Washington for the past 20 years. Happy coincidence,
 21 that the largest known colony of bats in Western
 22 Washington is at Woodard Bay four miles from my home.
 23 Bats are mentioned once in the Executive
 24 Summary, very briefly, and again in Section 3, existing
 25 conditions and affected environment under part 3.5.2.3.

H-1-2

See the Global Response for Fish & Wildlife for information on the bat analysis, and related updates in the Final EIS.

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1 What bats can be found in the study area? Okay.

2 Which bats can be found in the study area is
3 not the biggest question is -- to me. What I find is
4 when the most significant deficiencies in the document
5 is -- is a discussion of the colonies that are dependent
6 on Capitol Lake when it comes -- excuse me, the wildlife
7 deficiencies, not overall.

8 As noted in this one short paragraph,
9 Capitol Lake appears to be an important feeding area for
10 two bat species; in particular, little brown and Yuma
11 myotis.

12 I take issue with the use word "appears"
13 rather than stating that the lake is definitively a
14 vital forging habitat. The Washington Department of
15 Fish and Wildlife DHS program has designated years ago
16 and mapped Capitol Lake as a priority habitat for Yuma
17 myotis and little brown myotis because of the large
18 nursery colonies "plural" in the area that congregates
19 and feeds there. The same short paragraph mentions that
20 it is unknown what proportion of the Woodard Bay bat
21 colony of around 3,000 bats utilizes Capitol Lake.

22 However, I've testified on a number of
23 occasions over the past 15 years during clamp hearings,
24 EIS, pre-EIS scoping, et cetera. That every single bat
25 that I have radio tracked -- and that's in 15 or 20

H-1-2

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1 numbers over the years -- from Woodard Bay have used
2 Capitol Lake either exclusively or primarily and mostly
3 exclusively. When? During the months of June, July,
4 and August which is the pup-rearing period in their most
5 important time for nutrient and energies.

6 That's not mentioned. That -- the
7 discussion of that is -- is pretty weak in the document
8 and I really hope that it would be --

9 MS. HAYMAN: 15 seconds.

10 MR. FALXA: -- because of the significance
11 of Capitol Lake to a multiple large colonies. The EIS
12 also questions --

13 MS. HAYMAN: Greg, your time is up.

14 MR. FALXA: -- that are known and been
15 testified previously and I'll submit additional detailed
16 comments in writing.

17 But the whole issue of bats is --

18 MS. HAYMAN: Thank you, Greg.

H-1-2

H-1

COMMENT

RESPONSE

H-1-3

8 Hello. My name is Steve Shanewise and I
9 reside in West Olympia. I would like to start my
10 comments tonight by complimenting the DEIS document
11 structure. If this document's compilation format are
12 not the industry norm, they should be. If you just read
13 the Executive Summary, which is concise and easy to do,
14 it will lead you down a simple clear path to whatever
15 issue concerns you. Congratulations on a job well done.

H-1-4

16 However, although the document structure is
17 a gem, at least some of the detailed analysis
18 assessment. I have submitted written comments on many
19 aspects and I do not wish to address them again here.
20 Instead, I will focus tonight on what is the lynchpin of
21 the whole EIS process; and that is, decision durability.
22 "Decision durability" is a mouthful term
23 that addresses whether or not the stakeholders involved
24 with Capitol Lake will accept the preferred alternative;
25 that is, the community and tribes fight it or support

- H-1-3 Enterprise Services appreciates the commenter's detailed review of the Draft EIS.
- H-1-4 Comment noted. Please see the Global Response for the Preferred Alternative Identification Process.

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H-1-5 This comment is a statement and does not affect the environmental analysis in the Draft EIS.

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H-1-4
1 it. This concept will become incredibly important in
2 the future when it comes time to ask the legislature for
3 a few hundred million dollars to make things happen
4 here. Elected officials are not prone to giving vast
5 sums of taxpayers' dollars to massive infrastructure
6 projects that have massive community opposition. And
7 massive community opposition, which equates to no
8 decision durability.

9 What happened here is the either all -- or
10 all estuary alternatives advanced to become the
11 preferred alternative. In contrast, if the hybrid
12 alternative with a freshwater lake option, otherwise
13 known as "DELI" which stands for "dual estuary lake
14 idea."

H-1-5
15 If this hybrid alternative gets moved
16 forward to become the preferred alternate, many people
17 will come together from both sides to the end this all
18 lake or all estuary war and agree that DELI represents a
19 viable compromise that is the best of both worlds.

20 This joining of both sides to a single 100
21 DELI would push decision durability off the charts when
22 compared to the all lake or all estuary alternatives.

23 And that's the whole point of DELI. If this
24 community cannot ban together under a single common
25 cause funding to make things happen that never happen

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H-1-6 Comment noted. Also see the Global Response for the Preferred Alternative Identification Process.

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1 and we will be stuck with the muck of the lake that we
2 now have for at least a few more decades.

3 In closing, I am an estuary proponent,
4 indeed. I'm a certified professional wetland scientist
5 who completely understands the value of limited currents
6 of estuaries in South Puget Sound.

7 But I sincerely believe that the only way we
8 will ever fix things with the existing Capitol Lake and
9 give an estuary at all is if we do the compromise of
10 DELI. If we can truly bond together as a community so
11 we can fight as one --

12 MS. HAYMAN: 15 seconds.

13 MR. SHANEWISE: -- that it will take to get
14 things done. 85 percent of a restored estuary is
15 infinitely better than zero.

16 Thank you.

H-1-6

H-1

COMMENT

RESPONSE

H-1-7

11 MR. HOON: Thank you for this opportunity to
12 speak. My name is Parakh Hoon. I'm a professor of
13 Political Science at South Puget Sound College. And I
14 recently moved to Olympia and I'm -- during our
15 graduation, we had our graduation ceremony next to the
16 Percival Creek. And as we spoke we wondered what it
17 would take if the creek would be restored.
18 And our other property which is at Tumwater
19 Falls, also which is the distilling program, we wonder
20 what it would take if we connect our students and our
21 faculty to what is actually happening in our waterways.
22 And so when this public hearing was taking
23 place, I realized that this was our opportunity to
24 commit ourselves to acknowledge that we will be able to
25 do or undue the harms of the past. We will be able to

H-1-7

Thank you for your comments. The comments do not raise issues regarding the adequacy, accuracy or completeness of the Draft EIS.

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1 reinvent the Capitol Lake, the Deschutes Estuary
2 Long-Term Management Project in the activities that our
3 students are doing in our community colleges, in our
4 educational institutions so that the governance which
5 the previous person spoke about, the long-term
6 commitment that we have with the community will be
7 embedded if we can ground this in our current
8 institutions and that also include our educational
9 institutions as key stakeholders.

10 So as we work through the Capitol Lake
11 estuary system, I would encourage to reach out to local
12 colleges, especially a community college and St. Martins
13 and Evergreen to include policy scenarios and activities
14 that students can engage with in teams over the years,
15 that we can engage in multiple scenarios, examine their
16 political efficacy, track the construction project and
17 see how our community will take over the long-term care
18 and maintenance.

19 As we work on the jurisdictions between
20 local community, state, and Federal support here too our
21 educational institutions with our faculty and political
22 science and law and support the interlocal agreement.

23 So I end with the land acknowledgement where
24 we say that we recognize our colleges, our South Puget
25 Sound Community College, Evergreen, and St. Martins, our

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17 MS. CARROLL: Hi. My name is Sarah Carroll,
18 and I reside in rural Thurston County. I wish to
19 comment tonight on the saltwater pool proposed within
20 the hybrid alternative.

21 While I'm just a high school graduate from
22 Elma, smart people think I'm smart. And when I listen
23 to experts talk about how the saltwater pool would
24 actually function, it made me wonder why all the papered
25 experts with Ph.D.s working on the EIS team didn't have

H-1-8

Thank you for your comment. The Hybrid Alternative has been modified to include a groundwater-fed freshwater reflecting pool, as described in further detail in Final EIS Supporting Chapter 2.0 and the Global Response for the Hybrid Alternative.

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1 the field sense to see what I clearly do, which is the
2 saltwater pool and the hybrid alternative will simply
3 become a solar oven. This is why. In the summer
4 extreme low tides are diurnal, often in the afternoon.
5 And at such times the saltwater pool would be completely
6 static with no tidal exchange.

7 For example, on June 30th this year the
8 extreme low diurnal tides, both the highs and the lows,
9 would have left the proposed saltwater basin without
10 significant, if any, tidal inputs for possibly 12 hours.
11 This was because the diurnal high that day was only six
12 feet, which is the lowest proposed invert on the tide
13 gates for the saltwater pool. Then during this half day
14 period of completely static mostly shallow water the
15 daytime temperatures soared to record-breaking highs.
16 Temperatures were over 100 degrees that day for many
17 hours and got as high as 108 degrees Fahrenheit.

18 This amount of solar heating with direct
19 sunlight on all parts of the saltwater pool would have
20 dramatically raised water temperatures, especially after
21 12 hours of no fresh tidal inputs. And then when the
22 tides finally would have gotten deep enough to inflow
23 into the saltwater pool that evening, this much cooler
24 Budd Inlet saltwater would have plunged to the bottom
25 and pushed the heated pool water up to the top and back

H-1-8

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1 out into the restored estuary and eventually Budd Inlet.
2 Now, like I said, I'm from Elma and there
3 are not a lot of Ph.D.s walking around on the streets of
4 town, but I'm pretty confident that the vast majority of
5 residents there would completely understand the
6 stupidity of creating a 45-acre saltwater solar oven to
7 heat up a shallow inlet in South Puget Sound in the
8 summer. Thanks.

H-1-8

H-1

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17 MR. MILLER: Good Afternoon. Allen Miller,
18 7510 South Farm Road, Spokane, Washington.
19 Under the State Environmental Policy Act,
20 WAC 197-11-400 requires an analysis of the urban quality
21 historic and cultural resources and the design of the
22 built environment in the Draft Environmental Impact
23 Statement, and it needs to consider the impacts to the
24 Washington State Capitol Campus National Historic
25 District, since Capitol Lake is a significant part of

H-1-9

H-1-9

The elements of Capitol Lake are not within the boundary of the Washington State Capitol Historic District. This prompted the review of Capitol Lake for both individual and historic district (Des Chutes Basin Project) eligibility based on the original design, its intended role relative to the Capitol Campus, and its relationship to the City Beautiful Movement conveyed in the design principles employed by Wilder & White and the Olmsted Brothers for the Washington State Capitol Campus Historic District. DAHP determined that neither the Des Chutes Basin Project nor the Capitol Lake – Deschutes Estuary are eligible for listing in the National Register of Historic Places, as they lacked integrity to convey their original design and intended role. See the Global Response for Cultural Resources for additional information.

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1 that Capitol Campus design by Wilder and White in 1911,
2 and the Olmsted brothers in 1928.

3 The DEIS does not analyze the nationally
4 significant city beautiful movement design principles of
5 the state Capitol Campus which is on the national
6 historic register.

7 It was at Olympia, Washington, that the
8 American renaissance in state capitol building reached
9 its climax, such a collection of classical buildings on
10 a plateau surmounting a green hill, 117 feet above sea
11 level proved an irresistible vision. It would be a
12 spectacular monument with Mount Rainier in one
13 direction, the Olympic range in another, and all
14 mirrored in the blue waters of the lake below.

15 The city-beautiful concept of perfection
16 evolved in the dense urban scenes seemed in the -- seen
17 in these natural landscape of the Pacific Northwest; no
18 architect or designer could have asked for a more
19 splendid setting.

20 Section 106 of the National Historic
21 Preservation Act requires the Draft Environmental Impact
22 Statement to include an analysis of the national
23 historic district and how Capitol Lake is affected.

24 RCW 79.24.720 designates Capitol Lake as a
25 historic facility of the State Capitol and it requires

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H-1-10 Following the Draft EIS, the State Historic Preservation Officer and Washington State Department of Archaeology and Historic Preservation determined that Capitol Lake, as part of the Des Chutes Basin Project, is not eligible for listing on the National Historic Preservation Act. Please see the Global Response for Cultural Resources and Section 4.9 of Final EIS Supporting Chapter 4.0 for more information.

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1 the Department of Enterprise Services to steward Capitol
2 Lake and apply United States Secretary of Interior
3 standards for the treatment of its historic nature.

4 The Draft EIS fails to analyze the necessary
5 dredging and maintenance of Capitol Lake to the
6 standards applied by the Secretary of Interior.

7 The cost of dredging and maintaining Capitol
8 Lake are extremely inflated by only including the cost
9 of disposing the dredged soils upland instead of an
10 in-water disposal.

11 MS. HAYMAN: Fifteen seconds.

12 MR. ALLEN: The Draft EIS on page 7.5 should
13 include the cost of maintaining the historic Capitol
14 Lake with the cost of in-water disposal of the dredge
15 soils. Please abide by these statutes. Thank you.

H-1-10

H-1

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RESPONSE

H-1-11

6 MR. TURBEVILLE: Awesome. Hello. My name
7 is Raskal Turbeville and I live in rural Thurston
8 County.

9 My comments today are about the measured
10 evaluation process, or MEP, for the selection of a
11 saltwater pool over a freshwater one for analysis in the
12 hybrid alternative was made.

13 Quite simply, all of the reasons stated in
14 the MEP for selecting saltwater over freshwater have now
15 been proven false.

16 First, there is an ability to get a
17 groundwater permit. While summarily dismissed is too
18 difficult to obtain that was actually false. In deed it
19 might be one of the easiest permits to get in the state
20 of Washington for two reasons.

21 The use will be passive, non-consumptive and
22 there is no one downstream of the take. These facts
23 eliminate the most difficult permitting hurdles to get
24 over because you don't have to show best use of the
25 water. It's not being used; just borrowed. And you

H-1-11 In response to comments received on the Draft EIS, the Hybrid Alternative has been updated to include a freshwater reflecting pool. A saltwater reflecting pool has been eliminated from further consideration.

Please see associated revisions to Final EIS Supporting Chapter 2.0 and associated updates in the Water Quality section of Final EIS Supporting Chapter 4.0 (Section 4.3) and in the Water Quality Discipline Report (Attachment 7).

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1 don't have to prove the take will harm anyone else's
2 downstream water rights.

3 Second, groundwater supply availability was
4 questioned. The DEIS now states that it would take less
5 than 500,000 gallons a day to supply a freshwater pool,
6 and that this amount is readily available from the
7 shallow aquifer.

8 Third, the phosphorus loading analysis
9 as related to algae blooms is also incorrect. While the
10 groundwater does have moderate amounts of phosphorous,
11 the DEIS describes how this can easily and cheaply be
12 scrubbed out.

13 Plus, the assumption that the saltwater pool
14 will not have algae blooms is simply preposterous. The
15 DEIS clearly states that Budd Inlet waters will create
16 algae blooms in the restored estuary; sometime severely.

17 This difference between the saltwater pool
18 and the estuary is because the pool will be flushed
19 twice daily with tides; however, so will the estuary.
20 And, moreover, the estuary will be completely flushed
21 twice a day while the saltwater pool will only be
22 partially flushed because it will not drain to zero.

23 The saltwater pool will require a habitat
24 management plan in perpetuity to manage algae blooms
25 just like the freshwater option would.

H-1-11

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1 So the freshwater pools were rejected over
2 saltwater because: One, it would be too difficult to
3 get a groundwater permit. False.

4 Two, there would not be enough groundwater
5 available, which is also false three.

6 Three, phosphorous loadings could not be
7 dealt with sufficiently to prevent algae blooms. False.

8 And four, the saltwater pool would not
9 require a habitat management plan to prevent algae
10 blooms, which is also false.

11 Furthermore, while a freshwater pool would
12 provide cool, constant Artesian flows into the restored
13 estuary and eventually Budd Inlet, the saltwater pool
14 would experience dramatic warming on hot summer days
15 with low diurnal tides. Suffice to say that the
16 selection of a saltwater pool over a freshwater pool in
17 the MEP was an abomination of science that needs to be
18 corrected.

19 Finally, there's a solar oven effect someone
20 mentioned earlier of the saltwater pool. The impact
21 would be highly significant to water quality and fish
22 environment --

23 MS. HAYMAN: Fifteen seconds.

24 MR. TURBEVILLE: -- yet it was not mentioned
25 within the MEP. It's assumed that this error was due to

H-1-11

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H-1-12 Consistent with SEPA, the geographic study areas encompass the areas where the project could result in significant adverse environmental impacts. As such, the study areas varied by environmental resource in terms of geographic extent and of level of analysis. For most resources, the study area was defined to end at West Bay, and for some resources like Water Quality, the study area also included East Bay. Note that the Water Quality analysis evaluated data from the outer Budd Inlet station.

Although it is correct that the EIS does not include analysis of impacts farther north, through the entirety of Budd Inlet, there is no information that significant adverse impacts would result from the proposed project in that area.

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H-1-11 1 the fact that none of the experts analyzing the
2 situation even thought of it.
3 Thank you for your time tonight.
4 MS. HAYMAN: Thank you for your comments.
5 All right. We have a number of people on
6 the list who do not appear to be signed in. However,
7 Sue Patnude is not one of those. Sue will be our next
8 speaker.
9 And then Jonathan Frodge will be our speaker
10 after Sue. And then we will see if we have others who
11 are joining the meeting that are on the list that is on
12 the screen.
13 So sue, when you are unmuted, feel free to
14 begin.
15 MS. PATNUDE: Hi there, Susan. Thank you
16 very much for facilitating the hearing tonight. I'll
17 just get right to it here.
18 I'm with the Deschutes Estuary Restoration
19 Team, so there's no question in where I'm going with
20 this. But I would like to ask that the EIS extend the
21 project area that's being studied out to the entire --
22 include the entire Budd Inlet. Right now you're only
23 going out to west bay, and we consider the project area
24 to go out to Boston Harbor. So that's one thing.
25 Also, we would like to ask that there be

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H-1-13

1 a -- a more thorough analysis of the impacts on lot and
2 the economic impacts to rent payers. If law has to
3 increase its discharge of permits, which is likely under
4 the new Puget Sound general permit.

H-1-14

5 We'd also like to get the planning horizon
6 extended. Thirty years, it's just a big why. You know,
7 why 30 years?

8 The dam has already been in place for
9 70 years. The -- the tribal use of the estuary goes
10 back thousands of years. Why 30 years?

H-1-15

11 Also, there's some issues with the salmon --
12 let's see here. There's no mention of the native coho
13 salmon running Percival Creek, for instance. It's been
14 well-documented and should be noted.

15 There used to be quite a bit of fishing
16 there before the dam went in. And also, there's studies
17 of tag juvenile salmon by the Squaxin Island Tribe that
18 have shown that juvenile salmon produced in rivers to
19 the north frequently turned south and they enter Puget
20 Sound and South Puget Sound. And they would be using
21 the Deschutes Estuary significantly.

H-1-16

22 There's also a need to discuss more
23 information on sequestering carbon in the mud flats and
24 the tidal areas and salt marsh vegetation.

25 We would appreciate it if you would go to

H-1-13 See the Global Response for Economics.

H-1-14 The 30-year time horizon was identified to provide a consistent evaluation period for all alternatives. This horizon allows enough time for each of the potential alternatives to be constructed, established, and have a period of long-term management that can be evaluated. This project time horizon does not forecast too far into the future, to avoid speculation.

H-1-15 There is very limited data on the current abundance of coho salmon in Percival Creek. However, in response to this comment some additional information on abundance and distribution was added to Section 4.1 of the Fish and Wildlife Discipline Report. See also the Global Response for Fish and Wildlife.

To the question of the origins of salmon in West Bay, there is information indicating juvenile salmon have been detected in the South Sound, including within Budd Inlet that originate from hatcheries as far north in Puget Sound as the Wallace River, a tributary to the Skykomish River. This is consistent with studies which have shown that both hatchery and wild origin juvenile Chinook salmon frequently migrate for long distances from their natal estuaries to non-natal estuaries. In response to this comment, additional text on estuary function, including use of estuaries by non-natal juvenile salmonids was added to Sections 3.5 and 4.5 of Final EIS Supporting Chapters 3.0 and 4.0, and Section 5.5.1.2 of the Fish and Wildlife Discipline Report.

H-1-16 See the Global Response for Air Quality & Odor regarding the carbon sequestration potential of the alternatives. As described in Section 4.4.3 of EIS Supporting Chapter 4.0, none of the alternatives considered will affect the magnitude or extent of climate change impacts. Differences may occur in the opportunities for adaptation to climate change.

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H-1-17 Please see the Global Responses for Water Quality.

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H-1-16

1 Restore America's Estuary's website and look at issues
2 and ways to mitigate climate change. There's not a
3 whole lot of discussion in the document about climate
4 change, by the way.

H-1-17

5 Also, please talk about how you compare
6 lakes with Capitol Lake, when Capitol Lake is the only
7 lake that has a major river flowing into it. And also
8 how Capitol Lake cannot really be called a lake anymore
9 because of it not meeting lake standards --

10 MS. HAYMAN: Fifteen seconds.

11 MS. PATNUDE: -- for retention time. So
12 those -- those are the biggest issues that we have and
13 the rest will be in our written comments. Thank you.

H-1

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1 MR. FRODGE: Thank you. Good evening. I'm
2 a professional limnologist. I've studied lakes in
3 Washington for 40 years. Currently, I'm a board member
4 of the Puget Sound Keeper Alliance. This evening I'm
5 speaking for myself.

6 I would like to follow up on the previous
7 speaker. I would contend that Capitol Lake is not a
8 lake; it doesn't have lake functions and would be more
9 appropriately called the Capitol reflecting pool.

10 And the current configuration or any -- or
11 the hybrid or the managed lake options have very little
12 chance of maintaining good water quality and probably
13 would use up the dissolved oxygen benefit for Budd Inlet
14 creating a problem there.

15 The marine estuary would restore the -- one
16 of the most rare habitats that we've got around. And
17 not only would I -- I agree extending it out -- the
18 study area out of Boston Harbor, but I would also
19 include the non-point sources coming down from the
20 Deschutes River or none of these options will give us
21 what we want.

22 The Tribal issues are not dealt with in as
23 much strong a language as I think as they should be, and
24 I think that the -- the restoration of the estuary is
25 the most viable option for both the -- the local

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H-1-18

H-1-19

H-1-20

H-1-21

H-1-18 Please see Global Responses for Water Quality.

As described in EIS Supporting Chapter 2.0, adaptive management plans would be developed to meet lake management standards under the Managed Lake and Hybrid Alternatives. The Final EIS also includes additional regulatory analysis to describe the ability of alternatives to meet TMDL allocations based on the recent Draft TMDL for Budd Inlet, released by Ecology in 2022 to address low dissolved oxygen conditions in Budd Inlet.

H-1-19 Regarding the study area boundary, see the response to Comment H-1-12.

Regarding consideration of non-point sources in the Deschutes River, previous studies, historical monitoring data, and recent data collected for this analysis were used to characterize the conditions in both Capitol Lake and Budd Inlet. Key studies reviewed include a 2012 Ecology study with modeling results, Ecology TMDL studies, Thurston County water quality monitoring in the Deschutes River and Capitol Lake, and Ecology water quality monitoring in Budd Inlet. The full description of methodology and information sources is presented in the Water Quality Discipline Report (Attachment 7).

H-1-20 See the Global Response for Cultural Resources.

H-1-21 This response acknowledges the commenter's alternative preference.

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1 environment but the entire Puget Sound environment as
2 well and addresses some of the habitat species issues,
3 water quality issues that we've got Sound-wide, Budd
4 Inlet, and in the local environment. Thank you.

5 MS. HAYMAN: Thank you, Jonathan, appreciate
6 those comments.

7 All right. We currently do not have any of
8 the speakers who are up next on our list, actually in
9 the meeting with us. So going to pause for just a
10 minute and see if any of the attendees who have not yet
11 spoken would like to provide public comment. And if you
12 would, if you could please raise your hand and then we
13 will try to capture those in the order in which those
14 hands are raised and we will give you an opportunity to
15 provide a comment.

16 So I see a hand raised by Zita. Zita, if
17 you would like to unmute, then we would be happy to take
18 your comment.

19 And Keegan you will be next on deck.

20 MS. BAHE: Zita, if you just click the
21 "unmute myself" button that's on top of your screen.

22 MS. ZITA: Yes. Here we go.

23 I want to thank the DEOC Floyd Snider team
24 for doing the great job on the Draft EIS and for
25 facilitating strong public engagement including

H-1-21

H-1-22

H-1-22 We appreciate the commenter bringing this new study to our attention.

As described in Section 2.16.2 of the Hydrodynamics and Sediment Transport Discipline Report, there is considerable uncertainty surrounding the effects of climate change on precipitation and as a result, on streamflow. In addition, there is inherent uncertainty associated with predicting changes in water use and its potential impacts on river baseflow. According to the best available science on climate change, shifts in temperature and precipitation patterns due to climate change in the region are expected to impact streamflow. Projections of future flow conditions in the region indicate a shift toward an earlier freshet period, increases in late-winter and early-spring flows, and reduced streamflow during summer and early-fall months.

The new study mentioned by the commenter is titled "The Effect of Groundwater Pumping on Baseflow in the Deschutes River of Washington State" and seems to be predicting a possible reduction of baseflow due to groundwater pumping. As described in the Hydrodynamics and Sediment Transport Discipline Report, even during the wet season, the majority of sediment is not constantly delivered but rather arrives during large flood events (USGS 2006). Therefore, we do not anticipate that this new study would change approach/findings of the Hydrodynamics and Sediment Transport Discipline Report.

That said, as mentioned in Section 4.2.5.3 of EIS Supporting Chapter 4.0 "if a number of low flow events were observed for a period of time and low sediment deposition was observed, the time between maintenance dredging events could be extended."

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H-1-22

1 tonight's session. There is -- there was a new study
2 done by a master's student at Evergreen last year that
3 indicates that the Deschutes River could reach a
4 critical low flow condition this century. If that would
5 happen due to climate change and due to population
6 pressures and water use. If that happens, low flow in
7 the Deschutes River could result in lower sedimentation
8 rates, and that could affect the sedimentation analyses
9 that could reduce some of the long-term costs for
10 sediments management and that might be something that
11 the EIS Floyd Snider would like to take into
12 consideration.

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1 MR. WULF: All right. Thank you.
 2 Sorry, my name is Keegan Wulf. Sorry,
 3 that's W-u-l-f. I am the president of the downtown
 4 neighborhood association, so this -- this project
 5 borders my neighborhood. And I just wanted to speak
 6 about -- since there was an opportunity -- how important
 7 it is to preserve this habitat and make it available to
 8 future generations and to bring it back from the status
 9 that it is now to a functioning estuary so that future
 10 residents of my neighborhood and current residents of
 11 this neighborhood that regularly go for walks and see
 12 this lake or this body of water, this reflecting pool,
 13 every day or regularly and continue to enjoy the space.
 14 And I support the comments of those of Puget Sound --
 15 the Sound Keepers and of the Deschutes Estuary
 16 Administration team. Thank you.
 17 MS. HAYMAN: Thank you, Keegan. Appreciate
 18 those comments.
 19 Our next speaker is Matthew Karas. When you
 20 are ready.
 21 MR. KARAS: Hello. Thanks for letting me
 22 speak. I just want to emphasize that commenting in
 23 these public first and foremost is a privilege that many
 24 people do not enjoy. So I just want to make everybody
 25 aware that this shouldn't be reflective of everybody

- H-1-23 Comment noted. See also the Global Response for the Preferred Alternative Identification Process.
- H-1-24 This comment is a statement and does not affect the environmental analysis in the EIS. Enterprise Services recognizes the need to provide a variety of options for the public to provide comments on the Draft EIS.

H-1-23

H-1-24

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1 within Olympia, they're all demographics, because,
2 unfortunately, like many things in our society
3 participating in these processes is just not accessible
4 to all people.

H-1-25

5 So after saying that, I think I have many
6 concerns with the document as a whole. But one of them
7 is just the overall tone of the document. It doesn't
8 feel very objective to me. It seems that it really goes
9 out of its way to minimize the potential benefits to
10 water quality and habitat quality and also makes some
11 really bold claims about managing the lake, which I've
12 never read in any other environmental assessment of
13 Capitol Lake and seems to really contradict a lot of
14 studies from the Department of Ecology and Department of
15 Fish and Wildlife that I'm somewhat familiar with.

H-1-26

16 An example of that is in one section where
17 it reads: Despite the -- or it says, "Water quality in
18 the lake is not as bad as some people think it is."
19 That seems like a very subjective way of
20 phrasing that information rather than objectively
21 stating something. And so that's a little bit of a
22 concern. I also have concerns with some of the -- seems
23 like selective culling of information from certain areas
24 such as choosing water quality information from a very
25 short period of time and there's more water quality

H-1-25 The commenter does not raise specific issues regarding the adequacy, accuracy, or completeness of the Draft EIS to allow for a response. The EIS has been reviewed for subjective statements and revisions have been made to provide more objective language, as applicable. For example, the phrase "good sediment quality" was included in the Draft EIS because it was determined to clearly convey a finding and be understandable to a broad audience; however, the Washington State Department of Ecology recommended that this wording be removed due to its subjectivity and revisions have been made to state that the sediment in Capitol Lake "would not require cleanup relative to applicable standards."

H-1-26 Please see the Global Responses for Water Quality.

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1 information for a long period of time that would
 2 contradict some of the findings that are presented in
 3 the DEIS.

4 It seems that the DEIS team didn't really
 5 thoroughly consult or coordinate with a lot of other
 6 agencies that are involved in this processes, such as
 7 Department of Ecology and Department of Fish and
 8 Wildlife and I feel like that's a really grave concern.
 9 Instead, it seems like the approach is to invite these
 10 agencies to respond to DEIS rather than having them,
 11 like, very involved since the beginning of the process.

12 And also it seems like there wasn't much
 13 coordination with the Squaxin Tribe over the cultural
 14 resource analysis. I spoke with somebody from the
 15 Squaxin Tribe recently who said that their cultural
 16 archeologist and people who work in that department were
 17 not consulted whatsoever over at the cultural resource
 18 section. I feel like the idea of labeling the damn and
 19 the lake as a cultural historic site is really, really
 20 atrocious and really celebrates colonial settlerism and
 21 not the rich history of presettle --

22 MS. HAYMAN: Fifteen seconds.

23 MR. KARAS: -- native peoples who have
 24 fished and lived in this area since time and memorial.
 25 So that's one area, along with many others, I think

1 should be addressed.

H-1-27

H-1-28

H-1-27 As described in EIS Supporting Chapter 8.0, Enterprise Services consulted with tribes and local, state, and federal entities throughout development of the EIS. Ecology, WDFW and DNR are members of the Technical Work Group and, therefore, have been consulted regularly throughout the EIS process. In response to comments on the Draft EIS, Enterprise Services also engaged in additional coordination efforts with these agencies on specific topics such as water quality, salmonid use of the Project Area, and potential effects to bat species.

H-1-28 Please see response to Comment T-2-23.