1.0 Introduction, Project Background, & History

Historically, what is now known as Capitol Lake was part of the Deschutes Estuary, where freshwater from the Deschutes River would mix with saltwater from Budd Inlet over expansive tidal flats. The Deschutes Estuary has long-standing cultural and spiritual significance to local tribes, particularly the Squaxin Island Tribe. The Squaxin Island Tribe considers the people and land of Deschutes Estuary as Steh-Chass.

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 waterbody was renamed Capitol Lake. Capitol Lake is the 260-acre waterbody located on the Washington State Capitol Campus, adjacent to downtown Olympia, at the base of Puget Sound. Capitol Lake was designed as part of the Washington State Capitol Campus, and it quickly became an important visual and recreational resource to the community.

It has existed as Capitol Lake for more than 70 years, and for most of that time the community, agencies, and decision-makers have considered how to best manage the resource.

1.1 WHAT IS THE PURPOSE OF THIS PROJECT?

The purpose of the Capitol Lake – Deschutes Estuary Long-Term Management Project is 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. The project is also needed to improve the impaired ecological functions within the

Capitol Lake – Deschutes Estuary and adjacent waters. These efforts would restore and enhance community use of the resource.

1.2 WHY IS AN ENVIRONMENTAL IMPACT STATEMENT NEEDED?

Since construction of the 5th Avenue Dam in 1951, an estimated 35,000 cubic yards of sediment have deposited in Capitol Lake each year, resulting in conditions that are increasingly and visibly shallow. Sediment accumulation has reached up to 13 feet in some areas.

Water quality monitoring began in the 1970s in response to excessive growth of aquatic plants, dense algal mats, and reduced water clarity, which are caused by high nutrient levels in Capitol Lake. In 1985, the swimming beach in Capitol Lake was formally closed because of high bacteria levels, following years of intermittent closures from water quality conditions. The dense community of aquatic plants that has affected aquatic life and recreational use still exists in Capitol Lake today.

Management strategies have been implemented to address aquatic invasive species. There are 15 known plant and animal aquatic invasive species in Capitol Lake. In 2009, the presence of the invasive New Zealand mudsnail resulted in official closure of Capitol Lake to all public uses.

Many of these environmental conditions persist today and active use continues to be restricted. The long-term management project would address the diminished beneficial uses of the waterbody, caused by accumulating sediment, historically poor water quality, algal blooms, and invasive plant and animal species.

Neither short-term actions nor a long-term management alternative can be implemented until the Environmental Impact Statement (EIS) is completed and an alternative is selected for implementation.

1.3 WHAT ALTERNATIVES ARE BEING CONSIDERED?

The EIS evaluates long-term management alternatives for the waterbody. These action alternatives include: a Managed Lake, which would be similar to existing conditions but with additional management actions; an Estuary, which would restore tidal flow more similar to historical conditions; or a Hybrid, which would restore tidal flow but would retain a smaller lake feature. Consistent with

State Environmental Policy Act (SEPA) requirements, the EIS also evaluates a No Action Alternative, which describes what would likely occur if none of the long-term management alternatives are implemented.

1.4 WHAT IS THE PROJECT AREA?

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. 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. This waterbody in the Project Area is referred to as **Capitol Lake – Deschutes Estuary** to reflect both the existing conditions and the ecosystem that existed before construction of the 5th Avenue Dam.

Capitol Lake, or the **Capitol Lake Basin**, extends from the south end at Tumwater Falls in the City of Tumwater to the north end of the 5th Avenue Dam, in the City of Olympia. There are three basins within this waterbody, referred to as the North Basin, Middle Basin, and South Basin. This area, upstream of 5th Avenue, is referred to as Capitol Lake or the Capitol Lake Basin. The Project Area, Capitol Lake – Deschutes Estuary, and Capitol Lake/Capitol Lake Basin are depicted in Figure 1.4.1.

The Project Area does not extend upstream of Tumwater Falls (south) into the Deschutes River because that area would not be affected by the Capitol Lake – Deschutes Estuary Long-Term Management Project. The EIS recognizes, however, that changes upstream in the watershed could affect conditions in the Project Area given the interconnectedness of the system.

Project Area

In the EIS, Project Area refers to the area extending from Tumwater Falls to the northern point of West Bay, including adjacent parks managed by Enterprise Services.

Capitol Lake – Deschutes Estuary

In the EIS, Capitol Lake – Deschutes Estuary refers to the waterbody, which extends from Tumwater Falls to the northern point of West Bay.

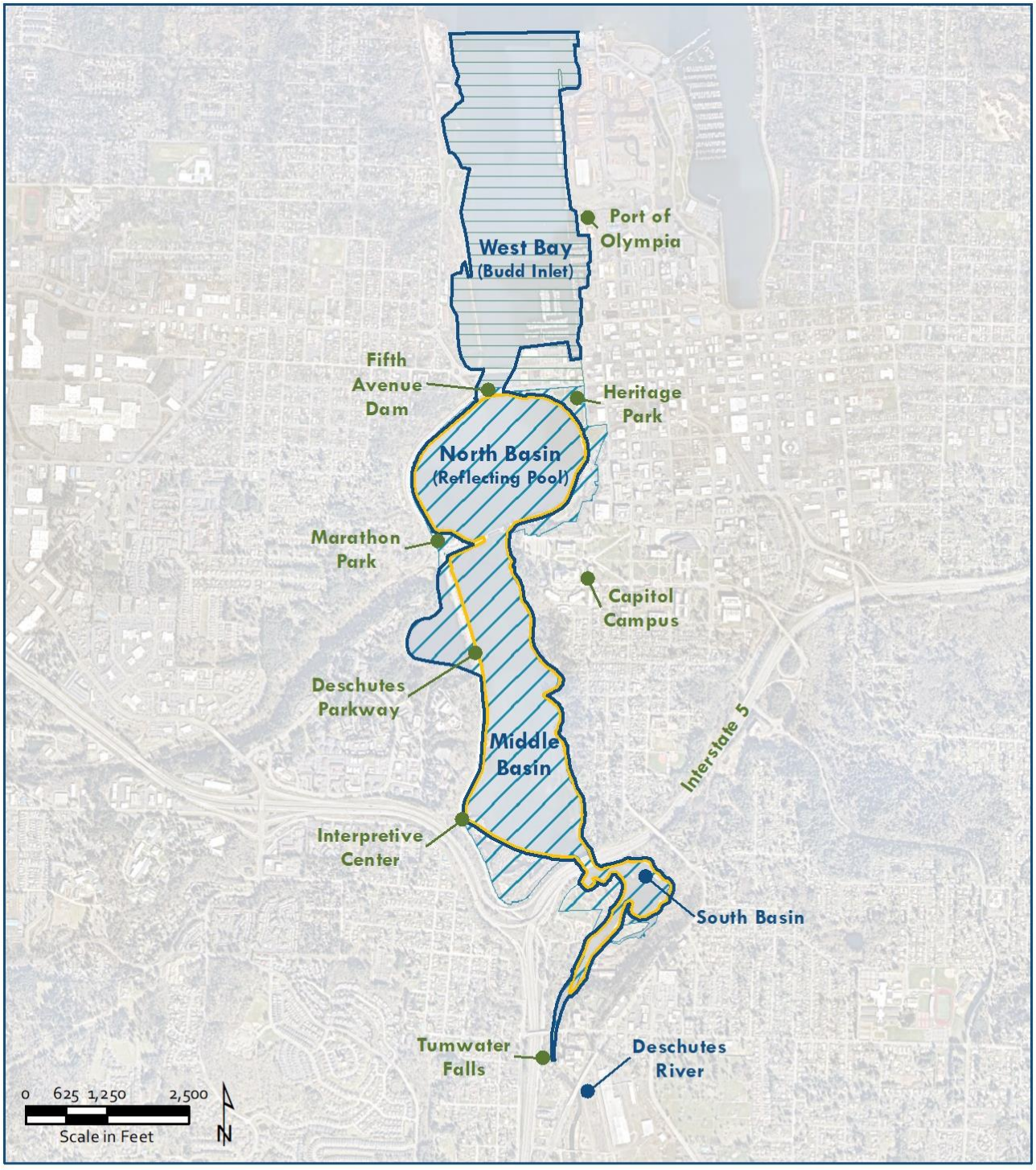
Capitol Lake & Capitol Lake Basin

In the EIS, the terms Capitol Lake and Capitol Lake Basin are used interchangeably and refer the waterbody between Tumwater Falls and 5th Avenue.

1.5 WHO IS THE LEAD AGENCY FOR THE EIS?

Enterprise Services is the lead agency for compliance with the Washington SEPA (Revised Code of Washington (RCW) Chapter 43.21C) and for preparation of the 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.

Figure 1.4.1 Project Area



Legend

- Capitol Lake/ Capitol Lake Basin
- Capitol Lake – Deschutes Estuary
- Project Area (within Enterprise Services Jurisdiction)
- Project Area (outside Enterprise Services Jurisdiction)

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)[1]. The existing lease authorizes Enterprise Services to provide public recreation and operation of parks, public access, public parking areas and lake management activities.

Enterprise Services, as the project proponent and lead agency, has led the process to identify the Preferred Alternative. Enterprise Services considered input from DNR, as the manager of the state aquatic lands, and input from other jurisdictional and agency partners engaged with the EIS. See Section 1.12, How Was a Preferred Alternative Identified & What Was the Decision-Making Process?, for more information.

1.6 WHICH GOVERNMENTAL & AGENCY PARTNERS HAVE BEEN INVOLVED IN THE EIS PROCESS?

Throughout the process to prepare the EIS, Enterprise Services has actively engaged governmental and agency partners that have jurisdiction or regulatory authority within the Project Area, including the Squaxin Island Tribe, DNR, Washington State Department of Ecology (Ecology), Washington State Department of Fish and Wildlife (WDFW), Washington State Department of Archaeology and Historic Preservation (DAHP), Thurston County, City of Olympia, City of Tumwater, Port of Olympia, and LOTT Clean Water Alliance (LOTT). Representatives from these entities comprise the Executive, Technical, and Funding and Governance Work Groups. These Work Groups met several times from mid-2018 through 2020 to provide feedback on a range of substantive topics in support of the effort to scope and conduct technical analyses and prepare the Draft EIS. Enterprise Services shared key project updates to keep stakeholders apprised of project status and to maintain transparency. In mid-2021, Enterprise Services issued the Draft EIS and received input from the Work Groups on the analysis through comment letters and in

[1] Aquatic lands in West Bay, where dredging would occur under the Estuary and Hybrid Alternatives, are managed by the Port of Olympia and private marinas under long-term lease agreements with DNR. These leases are executed individually, with the longest current lease agreement running through 2050.

meetings. In late 2021, Enterprise Services solicited input from the Executive Work Group (and other engaged stakeholders) regarding the relative ability of the long-term management alternatives to achieve long-term support, which is one of the selection criteria for the Preferred Alternative.

These governmental and agency partners have jurisdiction in the Project Area, have expertise concerning environmental conditions within Capitol Lake, and represent the preferences of their constituents. However, throughout the EIS process Enterprise Services did not receive any requests to formally share in the responsibility for the procedural and 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 within 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.

Work Group engagement is discussed in more detail in Chapter 8.0, Engagement with Work Groups, Community Sounding Board, & State Government. Chapter 8.0 also discusses similar engagement with a Community Sounding Board, where a group composed of 25 participants that represent a broad range of interests were engaged to provide information, exchange ideas, and share individual or collective perspectives around substantive project topics.

1.7 WHAT EFFORTS HAVE BEEN MADE BY GOVERNMENTAL & AGENCY PARTNERS TO ADDRESS ENVIRONMENTAL CONDITIONS WITHIN CAPITOL LAKE?

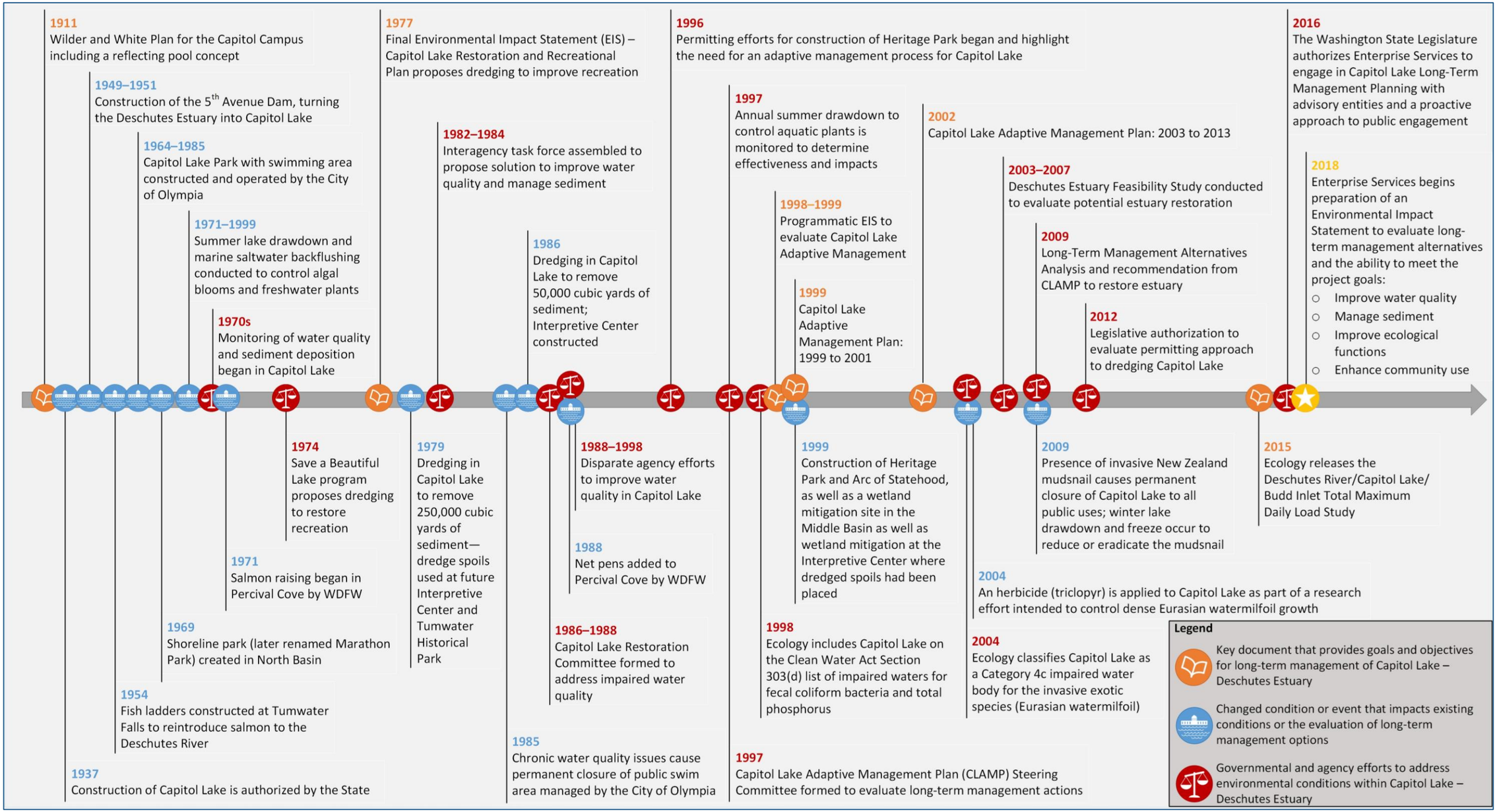
Many of the entities participating in the Work Groups have been engaged in long-term management planning for the Capitol Lake – Deschutes Estuary for almost 50 years—seeking to resolve environmental issues and to make a decision on a comprehensive management approach.

Figure 1.7.1 provides a timeline of key governmental and agency efforts to address changing environmental conditions within Capitol Lake. These efforts are further discussed in this section.

Capitol Lake Studies

More than 350 studies have been commissioned to evaluate environmental conditions within and around Capitol Lake since 1951.

Figure 1.7.1 Timeline of Key Governmental & Agency Efforts before the EIS Related to Management of Capitol Lake – Deschutes Estuary



Water quality sampling began in the **1970s** with documented chronic exceedances of algae, turbidity, and coliform bacteria throughout Capitol Lake. The studies issued by Ecology at that time described these trends as beginning shortly after construction of the 5th Avenue Dam, 20 years earlier. In addition to compromising ecological function, the water quality conditions were impacting recreational use of the resource, resulting in intermittent closures of the City of Olympia-run swimming beach. Also in the 1970s, governmental and agency partners began evaluating concepts to manage ongoing sediment accumulation, which had been noticeably reducing the lake volume. By **1975**, the volume of sediment deposited in Capitol Lake from the Deschutes River since construction of the 5th Avenue Dam was estimated at over 1,000,000 cubic yards (570,000 to 760,000 cubic meters). That volume of sediment is enough to fill approximately 225 to 300 Olympic-size swimming pools.

In **1977**, the Department of General Administration (GA; now part of Enterprise Services), issued a Final Environmental Impact Statement for a dredging project to improve recreational and visual resources and fish production, and to preserve biological and wildlife resources within Capitol Lake. The document was prepared in coordination with federal and local governmental partners and state agencies. To achieve these goals, the Department of General Administration proposed dredging of up to 257,000 cubic yards (200,000 cubic meters) of accumulated sediment to create a sediment trap. Dredging and material placement occurred the following year. The dredged material was placed at the southeast corner of the Middle Basin. (The sediment trap did not function as intended and was eventually abandoned. The dredged material placement area has transitioned into wetlands at the present-day Interpretive Center.) Recurring maintenance dredging was also proposed, at a 2-year frequency, but was never completed.

In **1982**, an interagency task force was assembled by the Governor to address continued concern over environmental conditions within Capitol Lake. Coliform bacteria was frequently exceeding water quality standards and, consequently, public use of the swimming beach was increasingly restricted. High nutrient levels were causing excessive growth of aquatic plants and were reducing beneficial uses of the lake through reduced water clarity and dense algal mats and aquatic weed beds. Sediment deposition was continuing to reduce lake volume.

How does sediment move into Capitol Lake?

The Deschutes River flows over Tumwater Falls and into Capitol Lake. As the water moves downstream, it picks up sediment or collects sediment that is being discharged from the shoreline. Most of the suspended sediment settles out, or deposits, in Capitol Lake, as the water slows down. Percival Creek also moves sediment into Capitol Lake.

The interagency task force evaluated a range of studies and issued a Capitol Lake Restoration Analysis in **1984**. The primary recommendations included long-term water quality monitoring and maintenance dredging programs. These actions were intended to preserve Capitol Lake for fish rearing, flood control, recreation, tourism, aesthetics, and wildlife habitat.

As a result of this analysis, approximately 50,000 cubic yards (38,000 cubic meters) of accumulated sediment were dredged from Capitol Lake in **1986,** and the material was placed in the southeast corner of the Middle Basin (it would eventually be developed into wetland habitat). In approving the permit for this work, the Hearings Examiner for the City of Olympia and Thurston County required the Department of General Administration (now part of the Department of Enterprise Services) to report on the feasibility of implementing a long-term management plan to address environmental conditions within Capitol Lake before any future dredging application. The Squaxin Island Tribe proposed that a process be instituted for the Deschutes River Drainage, which would address concerns with sediment deposition in Capitol Lake. The Squaxin Island Tribe also asked that all affected federal, state, and local agencies work together in a coordinated process to identify the problem and develop a solution.

Later in **1986**, the Department of General Administration, the Cities of Olympia and Tumwater, Thurston County, and the Governor's Office formed a Capitol Lake Restoration Committee to address water quality within Capitol Lake. High nutrient levels were causing dense aquatic vegetation growth and algal blooms. High counts of fecal coliform bacteria and reduced water clarity had resulted in permanent closure of the City of Olympia-run swimming beach at Capitol Lake Park (now Heritage Park). In **1988**, the Restoration Committee jointly issued the Capitol Lake Restoration: Committee Report and Proposed Action Plan. The Action Plan outlined specific measures to improve water quality, citing it as the primary environmental issue that must be addressed. The Action Plan also recommended an interagency committee for long-term monitoring of Capitol Lake. The Action Plan was never adopted due to lack of funding and lack of support for the proposed management approach.

No additional dredging has occurred in Capitol Lake since the 1986 dredge event. Disparate governmental and agency efforts to improve water quality continued throughout the following decade, including:

- Treatment or removal of aquatic vegetation.

- Installation of a siphon at the 5th Avenue Dam to address a depression of oxygen-depleted water in Capitol Lake, which was generating toxic hydrogen sulfide harmful to fish when marine water was intentionally or incidentally backflushed into the North Basin.
- Modification to stormwater discharges to minimize bacterial and other contaminated inputs.
- Regulatory changes to promote improved discharges from the Olympia Brewery.
- Reduced salmon-rearing activities in Percival Cove to minimize resulting nutrient input to Capitol Lake.

In **1997**, the Department of General Administration reconvened a key group of governmental and agency partners to support long-term management planning. This was done in response to a request by the Department of General Administration to construct Heritage Park and to dredge accumulated sediment within the Middle Basin of Capitol Lake. The entities reviewing the permit applications for the Heritage Park project recognized the continued need for a comprehensive management strategy, especially considering the other worsening environmental conditions, including continued growth of dense aquatic vegetation, algal blooms, and increased presence of invasive species, that were not being addressed.

The advisory group that formed in **1997**, and continued in this role through 2009, was referred to as the Capitol Lake Adaptive Management Plan Steering Committee (CLAMP Steering Committee). Shortly after formation, the Steering Committee initiated a high-level (non-project) Environmental Impact Statement process to broadly consider long-term management alternatives and support development of a Capitol Lake Adaptive Management Plan. The Environmental Impact Statement evaluated a lake, a lake/river wetland, an estuary, a combined lake/estuary, and a no action alternative. A Draft Environmental Impact Statement was issued in **1998** and generated a significant number of public comments, increasing community awareness of these planning efforts. In **1999**, a Final Environmental Impact Statement for Capitol Lake Adaptive Management was issued but it did not include a preferred alternative for long-term management. It was intended to support additional discussion by the CLAMP Steering Committee on adaptive management.

CLAMP Steering Committee Members

- City of Olympia
- City of Tumwater
- Department of Ecology
- Department of Fish and Wildlife
- Department of General Administration
- Department of Natural Resources
- Port of Olympia
- Squaxin Island Tribe
- Thurston County

What is a non-project EIS?

Non-project EISs are defined as being broader than specific projects and project actions. Non-project evaluations support an agency review of the bigger picture impacts or benefits of programs, plans, and policies. Comparatively, this project-specific EIS looks at actions that would be taken to construct or operate the action alternatives, while also providing an analysis that can support broader decision-making for management of the Capitol Lake – Deschutes Estuary.

After a review of the construction costs and environmental permits associated with the different management alternatives, as presented in the Final Environmental Impact Statement, the CLAMP Steering Committee agreed to maintain a freshwater lake over the next 10 years. In **2002**, the CLAMP Steering Committee released a specific set of goals for management. The initial set of goals were later amended to include a feasibility analysis to more closely study the concept of estuary restoration.

Exhibit 1.1 CLAMP focus group meeting, 2006 (Source: WDFW)

2003 CLAMP Management Goals

1. Adaptively manage the Capitol Lake Basin.
2. Complete an estuary feasibility study to determine a long-range management decision.
3. Restore earthquake-damaged state infrastructure within the basin.
4. Complete the development of Heritage Park.
5. Expand and enhance public use of state-owned lands and adjacent public spaces within the Capitol Lake area.
6. Develop and implement a flood hazard management strategy for lands adjacent to Capitol Lake.
7. Rehabilitate the fish ladder in the Capitol Lake dam to provide year-round fish passage into and out of Capitol Lake.
8. Relocate the Percival Cove fish rearing operation and rehabilitate Percival Cove for other users.
9. Improve lake edges to be fish, wildlife, and people friendly.
10. Maintain less than 100 resident Canada geese on Capitol Lake.
11. Improve water quality in Capitol Lake to meet state standards.
12. Eliminate the purple loosestrife and Eurasian watermilfoil noxious weed infestations throughout Capitol Lake.
13. Develop and implement a comprehensive sediment management strategy for the Capitol Lake Basin.
14. Communicate with the community, legislators, and the State Capitol Committee on a routine basis regarding Capitol Lake.

The Deschutes Estuary Feasibility Study (DEFS) began in **2003** and was published in **2007**. It evaluated potential biological conditions, developed a computer model to analyze physical processes like water flow and sediment transport, generated cost estimates, and conducted a net benefit analysis. It also considered the challenges of reestablishing an estuarine system in an urban environment. Findings from the DEFS were brought into a **2009** Alternatives Analysis, where a managed lake, estuary, dual basin estuary (or hybrid), and a status quo lake (or no action) were compared. Also in 2009, the waterbody

was closed to all recreational use due to the presence of the invasive New Zealand mudsnail, and it remains closed today.

Invasive Species in Capitol Lake

The need for a long-term management plan was highlighted by environmental conditions that continued to change during the CLAMP process.

In **2001**, an infestation of Eurasian watermilfoil (an invasive aquatic plant species) was discovered within Capitol Lake. This prompted several years of study on the best approach for aquatic plant management—during which time the infestation had spread across the entire lake basin, forming dense stands of vegetation that outcompeted native plants and affected recreation.

In **2004**, following a vote by the CLAMP Steering Committee, an herbicide was applied to manage Eurasian watermilfoil, and was highly effective.

Beginning in **2008**, Enterprise Services implemented a limited program to control a range of invasive and noxious species. This has largely included surveying and manual removal; herbicides have not been applied to Capitol Lake since the application in 2004. Several nuisance and invasive species persist in Capitol Lake.

In **2009**, the invasive New Zealand mudsnail caused permanent closure of the waterbody to all recreational use. It remains closed today to avoid the potential spread of this highly invasive species.

Eurasian watermilfoil

New Zealand mudsnail with a dime for scale (Source: USGS)

Later in **2009** the Steering Committee delivered its recommendation to the Director of the Department of General Administration, recommending an estuary alternative for long-term management. The Steering Committee had voted on a preferred alternative, with five votes cast for an estuary alternative, two votes for a managed lake alternative, one vote as undecided, and no votes for a hybrid alternative. The majority recommendation described environmental benefits of an estuary alternative as greater than those of a managed lake alternative, lower long-term costs, and the potential for federal financial support. The CLAMP Steering Committee included a request to develop a new governing body and an equitable cost-sharing structure among all affected parties. A coordinated sediment

management strategy would be the focus of the new governing structure for the restored estuary.

This recommendation was not advanced by the Department of General Administration to the State Capitol Committee (SCC) for consultation due to the lack of consensus among stakeholders regarding a preferred approach to long-term management. Shortly thereafter, the CLAMP Steering Committee was defunded and disbanded. A long-term management plan was not adopted, and no additional management strategies were implemented within the Capitol Lake Basin. The contrast between approaches to long-term management was mirrored by a growing divide in public opinion on how the resource should be managed.

In **2013,** Enterprise Services commissioned a situation assessment to sythesize the major viewpoints on issues related to long-term management given the continued stalemate within the planning process. The 2014 Situation Assessment for Capitol Lake Management, prepared by The William D. Ruckelshaus Center, described that long-term management "…has many of the hallmarks of a complex public policy challenge: multiple organizations and individuals with vastly different and passonate views and priorities, a set of local issues weighted with history and politics, several government agencies with diverse management responsbilities, and natural hydrological sediment prcesses exacerbating enviromental pressures." The situation assessment also revealed continued concern around the lack of discretionary funds in the state budget to implement and manage a solution. It recommended establishing a common information base, shared goals for long-term management, and a collaborative process to identify a management solution (or management actions).

Concurrent with the situation analysis, and also prompted by the continued visible shallowing of Capitol Lake, the Washington State Legislature provided a small funding allocation through Engrossed Substitute House Bill (ESHB) 5035 for Enterprise Services to begin the process of seeking necessary permits to dredge accumulated sediment. In coordination with governmental partners and agencies, Enterprise Services concluded that process with a determination that dredging and other management actions could not occur within Capitol Lake until a plan for long-term management had been developed and adopted. Enterprise Services understood that in order to obtain the environmental permits required to dredge Capitol Lake, a preferred approach for long-term management would have to be

identified through an EIS, or the permits would not be issued by the governmental and agency partners.

In **2016**, following direction from the Washington State Legislature in ESHB 2380, Enterprise Services reinitiated long-term management planning. Three Work Groups were formed, with representatives of the governmental and agency partners that had participated in this discussion over the past 50 years. An Executive Work Group was convened to provide executive- and policy-level input. A Technical Work Group considered technical topics. A Funding and Governance Work Group evaluated the concept of a shared funding and governance model for long-term management, carrying forward this concept that was introduced during the CLAMP process. The Work Groups were composed of representatives from the same entities that participated in the CLAMP process.

The goal of this 10-month process, referred to as Phase 1 of the Long-Term Planning for Capitol Lake – Deschutes Estuary, was to "make tangible progress on reaching broad agreement on a long-term plan" (per ESHB 2380). Phase 1 was conducted in a manner similar to an expanded scoping process under SEPA that could then be implemented as the first step of an EIS to promote interagency coordination and public participation. There were two key outcomes from Phase 1:

1. The Work Groups established a project purpose and a set of goals for long-term management that are common across all alternatives (Managed Lake, Estuary, and Hybrid Alternatives). This purpose statement is used as the basis to evaluate and screen the project alternatives in the EIS.
2. During the last meeting of the Phase 1 process, the Executive Work Group presented Enterprise Services with a letter of support for Phase 2. Signed by all members, the letter, which accompanied the December 30, 2016, Phase 1 Report on the Capitol Lake/Lower Deschutes Watershed Long-Term Management Planning report, begins, "we are writing jointly, as collaborative partners in the Capitol Lake/Lower Deschutes Watershed long-term management planning effort, to express support for funding the proposed Phase 2 to complete a project-specific Environmental Impact Statement (EIS)."

The EIS is intended to evaluate existing conditions within the Capitol Lake – Deschutes Estuary and to identify specific elements for management based on those conditions, to consider the

What goals from engaged governmental and agency partners would be supported by implementation of a long-term management project?

Implementation of a long-term management project will also improve compliance with other state and local goals and standards:

- Protect and manage state waters
- Protect and restore Puget Sound
- Strengthen the health and resilience of our lands and waters
- Engage communities through recreation and stewardship
- Proactively address conservation challenges
- Protect the resources and ecology of the shoreline
- Increase recreational opportunities for the public in the shoreline
- Promote restoration and enhancement of areas that are biologically and/or aesthetically degraded, while maintaining appropriate use of the shoreline area

effectiveness of alternatives and management strategies in meeting project goals, and to evaluate the cost of the alternatives. This information is needed to objectively develop data on environmental conditions and costs, and to serve as a foundation for making an informed decision regarding a long-term management project. Selection of a preferred alternative informs a range of state and local policy documents and associated actions, like state-led initiatives to improve water quality in the Deschutes River and Budd Inlet, and local policy documents that describe how goals of the Shoreline Master Programs can be achieved. Implementing a long-term management project will improve impaired environmental conditions within the Project Area will also align with the mission of engaged governmental and agencies partners who are charged with environmental stewardship.

1.8 WHAT IS THE PROJECT PURPOSE, AS ESTABLISHED IN PHASE 1?

The statement below was prepared in Phase 1 by the Executive and Technical Work Groups, in collaboration with Enterprise Services. It captures the primary project purpose, with goals common to all alternatives. Since that time, the project name has changed to the Capitol Lake – Deschutes Estuary Long-Term Management Project but the Project Area and intent remain the same.

Purpose Statement from Phase 1

The purpose of the Capitol Lake/Lower Deschutes Watershed Long-Term Management Project is to identify and implement an environmentally and economically sustainable watershed approach that improves water quality, and manages existing sediment accumulation and future deposition. The project is also needed to improve the impaired ecological functions within the existing Capitol Lake basin and adjacent watershed. These efforts would restore and enhance community use of the resource.

The Deschutes estuary has long-standing history with active use and significance to the Squaxin Island Tribe. 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 area use and conditions changed after construction of Capitol Lake in 1951. The Capitol Lake area now supports community events such as the annual Capital Lakefair, organized athletic events, and various other gatherings. The trail system and nearby parks provide continued passive recreational opportunities that maintain the lake's edge as an important recreational center and valued amenity in the south Puget Sound area. With its central location, the area holds historical and personal value for many people.

Although the shoreline remains vibrant, active use of the waterbody has been restricted for more than 30 years due to the degraded water quality and ecological functions. An estimated 35,000 cubic yards of sediment accumulates annually within the lake basin, resulting in increasingly shallow conditions. Capitol Lake was closed to swimming in 1985 due to high bacteria levels. Water draw-down and back-flushing to control algal blooms and freshwater plant growth, due to excessive nutrient loads, continued annually until 1999 and caused temporary impacts to other recreational uses, such as boating and fishing. The presence of invasive species resulted in official closure to all public uses in 2009. Active use of the waterbody continues to be restricted today.

Water quality must be improved to meet federal law and state water quality standards, and to restore aquatic life and recreational uses, which are protected under these regulations. Restoring ecosystem functions would be supported by improved water quality, enhanced fish and wildlife habitat, and management or eradication of invasive species. The project would also include elements to manage sediment within the Capitol Lake/Lower Deschutes Watershed and in adjacent Budd Inlet. These collaborative efforts between the Washington State Department of Enterprise Services and other stakeholders would be compatible with other watershed-wide restoration and improvement plans and would be consistent with the on-going state-led initiative to restore the Puget Sound. Once completed, the project would have a beneficial effect on the ecosystem service value, economic value and community value of the resource.

1.9 WHAT ARE THE GOALS FOR THE LONG-TERM MANAGEMENT ALTERNATIVES?

The Managed Lake, Estuary, and Hybrid Alternatives have been defined using goals from the purpose statement developed in Phase 1. The alternatives are being evaluated for their ability to:

- Improve water quality
- Manage sediment accumulation and future deposition

- Improve ecological functions
- Enhance community use of the resource

As part of the process to identify the Preferred Alternative, Enterprise Services also committed to evaluating the ability of the long-term management alternatives to be environmentally and economically sustainable. These were key considerations included in the purpose statement. (See Chapter 2.0, Project Alternatives & Construction Approach, for more detail on environmental and economic sustainability definitions.)

1.10 HOW WAS THE EIS AUTHORIZED?

In **2018**, the Washington State Legislature directed Enterprise Services to complete the EIS (Phase 2) and authorized funding allowing work to begin in Engrossed Substitute Senate Bill (ESSB) 6095. In 2019, the Washington State Legislature provided additional funding to complete the EIS and required the Final EIS with a preferred alternative be completed in 2022 in ESSB 6248.

The EIS began with an extended 48-day scoping period in summer 2018, which solicited input from tribes, governmental and agency partners, and the community. The EIS continues the work of evaluating long-term management alternatives, closely analyzing potential impacts and benefits across 14 environmental disciplines in support of informed decision-making. The Draft EIS was issued in summer 2021, consistent with ESSB 6248, with an extended 60-day public comment period.

Legislation Since CLAMP in Support of the EIS

- ESHB 5035 (2013 to 2014)
- ESHB 2380 (2015 to 2016)
- ESSB 6095 (2017 to 2018)
- ESSB 6248 (2019 to 2020)

ESSB 6095 (2017 to 2018)

The department [Enterprise Services] shall 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.

ESSB 6248 (2019 to 2020)

The appropriations in this section are provided solely for an environmental impact statement that includes the following alternatives, at a minimum:

a) Managed lake;

b) Hybrid lake; and

c) Estuary.

A draft environmental impact statement with at least the three options in subsection (1) of this section must be submitted to legislative fiscal committees by June 30, 2021. It is the intent of the legislature that a final environmental impact statement that includes identification of a Preferred Alternative for Capitol Lake management must be submitted to legislative fiscal committees by June 30, 2022.

The appropriations are subject to the provisions of section 1034, chapter 298, Laws of 2018.

It is the intent of the legislature to fully fund future capital requests necessary to complete the Capitol Lake long-term management planning in accordance with the provisions of section 1034, chapter 298, Laws of 2018.

1.11 HOW WAS PUBLIC INPUT CONSIDERED ON THE SCOPE OF THE EIS?

Enterprise Services conducted scoping to establish and confirm the focus of the EIS, relating to the alternatives, elements of the affected environment, probable significant impacts, and potential mitigation measures. During scoping, input was solicited from governmental, agency, and tribal partners, as well as the community. Two public scoping meetings were held during a 48-day comment period. Approximately 271 comment submissions that included 935 individual comments were received in the form of web-based comment forms, emails, oral testimonies, and letters as summarized in the Scoping Report. The alternatives and plan for analysis were refined based on scoping input received.

Based on scoping comments and initial project review, certain elements of the environment were not analyzed in the EIS, as described below:

- **Earth:** Sediment transport and sediment quality are analyzed in the EIS; however, other aspects of soils and geology are not analyzed. Although seismic and geotechnical hazards (including ground shaking, liquefaction, landslides, and other hazards) are present throughout the area, impacts under all action alternatives would be less than significant with regulatory compliance, and with implementation of industry

Technical Analyses Conducted for the EIS

- Hydrodynamics and Sediment Transport
- Navigation
- Water Resources
- Wetlands
- Fish and Wildlife
- Air Quality and Odor
- Land Use, Shorelines, and Recreation
- Cultural Resources
- Visual Resources
- Environmental Health
- Transportation
- Public Services and Utilities
- Economics

standards, geotechnical recommendations, and best management practices (BMPs). Erosion and scour potential were considered in the identification of scour protection elements included in the Estuary and Hybrid Alternatives. Analysis of these issues will continue in the design stage.

- **Energy and Natural Resources:** The project does not affect the generation or consumption of energy. Long-term consumption would be limited to recurring maintenance dredging. Such consumption is not considered a significant impact. Energy and natural resource consumption during project construction and operation would be similar under all action alternatives.
- **Noise:** Increased recreational activity (i.e., kayaking, boardwalk use) within the Project Area would result in some level of human-generated noise, but these levels are generally unobtrusive with little anticipated impact on visitor enjoyment or adjacent land uses. Operating equipment, hauling material, and other activities associated with construction would result in potentially disruptive noise to land and recreational use, as well as fish and wildlife. These noise impacts were considered as part of the analyses of Fish and Wildlife, as well as Land Use, Shorelines, and Recreation. No long-term noise beyond minor noise impacts associated with recurring maintenance dredging is expected.

1.12 HOW WAS A PREFERRED ALTERNATIVE IDENTIFIED & WHAT WAS THE DECISION-MAKING PROCESS?

Recognizing the need to move forward from a decades-long political stalemate, Enterprise Services designed the following process to identify a preferred alternative. Through discussions with a range of stakeholders, Enterprise Services has understood and agrees with the notion that further delay in decision-making and implementation of a long-term management plan is not acceptable given the existing environmental impairments and the importance of this waterbody to the community.

The following selection criteria were identified by Enterprise Services as necessary to consider in the process to identify a preferred alternative for long-term management. It is important to note that all three action alternatives are feasible from a technical and regulatory

Can the long-term management alternatives be modified? Were the alternatives modified between the Draft and Final EIS?

Yes, the long-term management alternatives can be modified during the EIS process to better meet the project purpose and goals, as a result of the EIS analyses, public comment on the Draft EIS, or additional technical analyses conducted for the Final EIS. After reviewing public comments on the Draft EIS, Enterprise Services made two substantive changes to the long-term management alternatives:

1. Before demolition of the 5th Avenue Dam under the Estuary and Hybrid Alternatives, a new 5th Avenue Bridge would be constructed to the south and connected to the roadway on either side of the waterbody. This would avoid long-term closure of the corridor, which was a key concern of project stakeholders.
2. The Hybrid Alternative now includes a groundwater-fed, freshwater reflecting pool rather than a saltwater reflecting pool. With adaptive management, this would improve water quality over a saltwater reflecting pool.

perspective (i.e., they have been screened for potential limitations that would make them impossible to permit, construct, or manage), and they all require active and ongoing long-term management. This process moves beyond feasibility to consider the degree to which each alternative meets the following criteria:

- **Performance Against Project Goals**. The degree to which the long-term management alternatives would meet project goals.
- **Other Environmental Disciplines with Significant Findings.** The potential significant impacts and benefits across the other environmental disciplines analyzed in the EIS but not directly associated with the project goals.
- **Environmental Sustainability.** The ability to provide net environmental benefits over a 30-year horizon, considering relative contribution to project goals; resiliency to climate change (including sea level rise); and the level of active management required to achieve the project goals.
- **Economic Sustainability.** Measured by the relative cost-effectiveness in constructing and operating the alternative in a way that would meet the project goals; and the severity of economic impacts if there is a lapse in long-term funding.
- **Construction Impacts.** The duration and magnitude of construction impacts.
- **Decision Durability.** The ability of an alternative to achieve long-term support from local tribes, stakeholders, and communities. Input on this selection criterion was solicited from the engaged tribes, governmental and agency partners, and the Community Sounding Board convened for this project. These groups collectively represent the communities most likely to be affected by this decision.

In early 2021, Enterprise Services solicited input from the Work Groups and Community Sounding Board on this list of selection criteria and their definitions, and the relative importance of each criterion to the identification of a preferred alternative. This feedback resulted in refinements to the criteria definitions reflected above. Enterprise Services also solicited input from the State Capitol Committee (SCC) on the overall process to identify a preferred alternative and received general support. This information was

State Capitol Committee Members

- Governor
- Lieutenant Governor
- Secretary of State
- Commissioner of Public Lands (DNR)

included in the Draft EIS to provide additional opportunity for public comment before it was finalized.

In late 2021, the EIS Project Team reviewed comments received on the Draft EIS and confirmed that no changes were needed to the selection criteria. The EIS Project Team also identified areas of additional analysis needed for the Final EIS, as well as potential changes to EIS findings as a result of that work. Subsequently, the EIS Project Team and Enterprise Services completed an initial evaluation of the long-term management alternatives relative to the established criteria.

1. Subject matter experts from the EIS Project Team, the EIS Management Team, and Enterprise Services independently evaluated each long-term management alternative relative to the technical criteria, which include a range of sub-criteria.
2. The subject matter experts participated in a multi-day workshop, where separate meeting sessions were facilitated by the EIS Management Team to review the long-term management alternatives against each sub-criteria. During these meetings, individual scores and scoring rationale were discussed and, following careful consideration, the subject matter experts recommended a final score for each metric within their discipline-specific evaluation.
3. The EIS Management Team and Enterprise Services participated in a similar workshop during which they discussed scores from the subject matter experts and Enterprise Services, and reached consensus on a score for each metric.
4. Scores from the subject matter experts and Enterprise Services were then averaged, resulting in a single score for each sub-criteria and criteria.

The Estuary Alternative scored highest by a significant margin as described in more detail in Attachment 21.

In early 2022, Enterprise Services announced that the Estuary Alternative was the likely Preferred Alternative. The purpose of announcing the likely Preferred Alternative at that time, before the Final EIS, was to maintain transparency in the process and to allow funding and governance work to continue in support of long-term management of the Preferred Alternative.

Reviewing the comments and responses to comments received on the Draft EIS and the updated technical analyses, Enterprise Services has confirmed that **the Estuary Alternative is the Preferred Alternative for long-term management project because it is expected to best achieve project goals and was determined to be environmentally and economically sustainable**.

The process used to identify the Preferred Alternative is outlined in Figure 1.12.1. See Attachment 21 for additional detail and scoring of the long-term management alternatives.

1.13 WHAT ARE THE NEXT STEPS AFTER THE FINAL EIS?

A conceptual timeline of the long-term management planning process is provided in Figure 1.13.1.

Based on the Final EIS, if Enterprise Services decides to implement the project, a capital budget request would be submitted to the Washington State Legislature for funding to design and permit the Estuary Alternative as the Preferred Alternative. This would allow Enterprise Services to advance conceptual design concepts and complete a full design process for the selected alternative. Enterprise Services would also obtain the federal, state, and local environmental permits required for project construction. Funding for design and permitting, which is referred to as Phase 3, has not yet been appropriated by the Washington State Legislature. Based on the legislative calendar, Phase 3 could begin as early as mid-2023 if funding is appropriated.

Will the project be reviewed under the National Environmental Policy Act (NEPA)?

In order to receive federal permits for implementation of the Preferred Alternative, a NEPA review must be completed. Completion of a NEPA review must also occur before federal funding can be applied to project construction or operation. The U.S. Army Corps of Engineers may conduct the NEPA review as part of the federal permitting process that occurs before construction. The NEPA review may rely on the technical analyses and findings in this SEPA EIS.

Figure 1.12.1 Preferred Alternative Identification Process

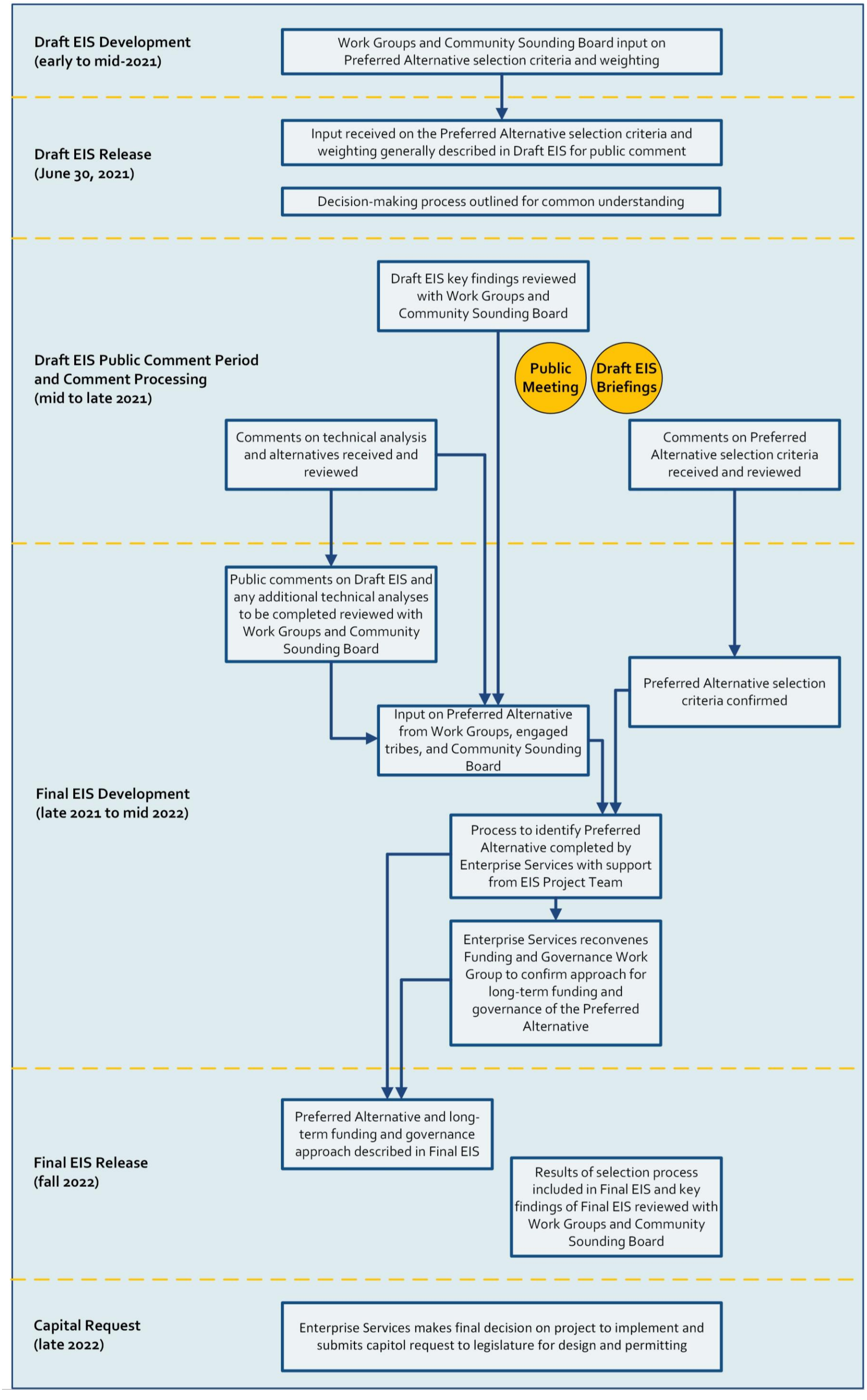
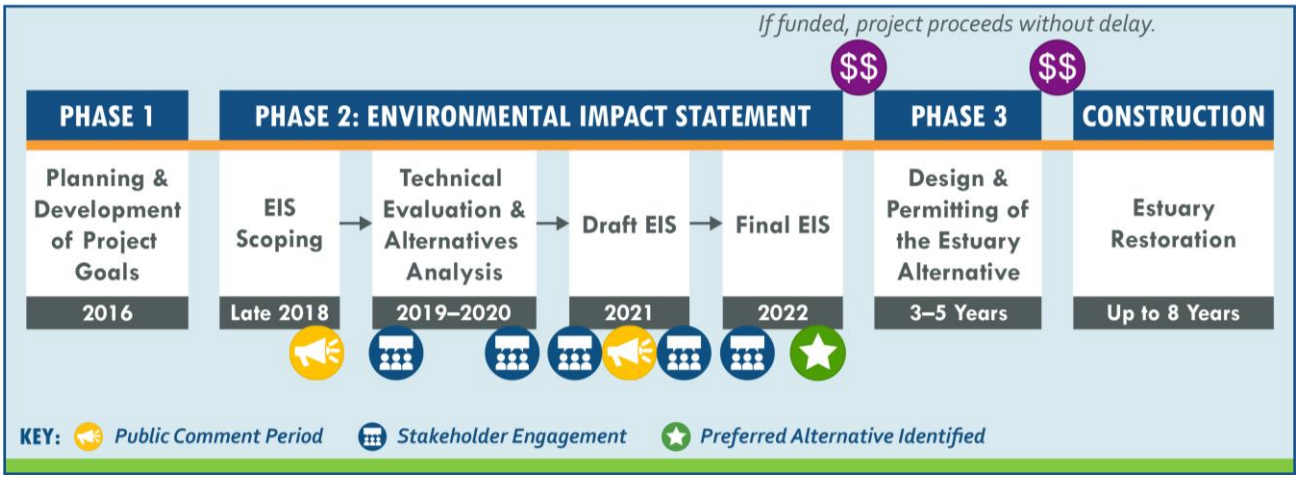


Figure 1.13.1 Long-Term Management Planning Process



A 3- to 5-year duration is assumed for design and permitting for a project of this magnitude. Enterprise Services would commit to ongoing engagement with key project stakeholders throughout Phase 3, and public comment opportunities also exist within the permitting processes. During design and permitting, Enterprise Services would actively pursue construction funding from a variety of sources, including federal, state, and other private and non-profit granting programs.

Construction would begin after design and permitting, and once funding is secured. If there are no delays in this process, construction could begin as early as 2028. Construction of the selected alternative could last up to 8 years. This duration could be compressed depending on design approach and use of innovative construction means and methods identified by the contractor.

After construction, long-term governance of the constructed assets and funding for increased sediment management in West Bay through 2050 would be provided by members of the Funding and Governance Work Group, consistent with areas of conceptual agreement outlined in a Memorandum of Understanding (see Attachment 23) and provided agreement is reached on a formal, binding agreement.

Funding & Governance Work Group Members

- City of Olympia, Director of Public Works and City Manager
- City of Tumwater, City Administrator
- Department of Enterprise Services, Chief Financial Officer
- LOTT Clean Water Alliance, Finance Director and Assistant Executive Director
- Port of Olympia, Director
- Squaxin Island Tribe, Intergovernmental Affairs/Council Liaison
- Thurston County, Treasurer
- Washington Department of Natural Resources, Aquatic Resources Division Manager

1.14 HOW IS THE EIS ORGANIZED?

The EIS provides a description of Managed Lake, Estuary, and Hybrid Alternatives that were evaluated for long-term management, along with a No Action Alternative, as required by SEPA. The supporting chapters provide a summary of the technical analyses that were

completed to support the environmental review of this project, and describe the engagement led by Enterprise Services to promote participation by governmental partners, agencies, and the community throughout this process.

These supporting chapters each focus on a different aspect of the project. In general, following the Draft EIS, revisions have been made to the EIS to provide additional information, update and expand analyses and findings, refine measures to mitigate potentially significant impacts, and correct inadvertent errors.

- **Chapter 1.0, Introduction, Project Background, & History:** Presents an overview of the project history, including past efforts to address environmental conditions at the Capitol Lake – Deschutes Estuary. Provides an understanding of the project purpose and goals, and next steps. Summarizes the process to identify the Estuary Alternative as the Preferred Alternative for long-term management.
- **Chapter 2.0, Project Alternatives & Construction Approach:** Includes an overview of the project alternatives and details the construction activities that would take place under each action alternative.
- **Chapter 3.0, Existing Conditions & Affected Environment:** Describes existing conditions within the Project Area and outlines the 14 environmental disciplines addressed in the EIS.
- **Chapter 4.0, Long-Term Impacts, Benefits, & Mitigation:** Describes the potential long-term impacts and benefits of the project alternatives, including measures to avoid, minimize, or mitigate impacts.
- **Chapter 5.0, Construction Impacts & Mitigation:** Describes short-term impacts within the Project Area that could result from construction of the action alternatives.
- **Chapter 6.0, Cumulative Effects:** Provides information on the potential effect of the Capitol Lake – Deschutes Estuary Long-Term Management Project when combined with other reasonably foreseeable projects.
- **Chapter 7.0, Planning-Level Costs, Funding Approach, & Other Considerations:** Includes planning-level cost estimates for the project alternatives, the approach for

Would the 5th Avenue Dam be removed before the Port of Olympia remediates contaminated sediment in West Bay?

No. Remediation of known contaminated sediment is expected to be completed in West Bay in the next 10 years, based on recent action taken by the Port of Olympia and ongoing coordination with Enterprise Services through the EIS process. The Port of Olympia would lead sediment remediation; it is a separate project to the Capitol Lake – Deschutes Estuary Long-Term Management Project. The soonest the 5th Avenue Dam could be removed under the Estuary Alternative is mid-2030s, occurring several years into Estuary construction, and assuming all funding is secured without delays.

shared long-term funding and governance, and other factors important to decision-making.

- **Chapter 8.0, Engagement with Work Groups, Community Sounding Board, & State Government:** Describes specific engagement efforts with stakeholder groups, including the Executive Work Group, Technical Work Group, Funding and Governance Work Group, and Community Sounding Board and the Executive and Legislative branches of the state government.
- **Chapter 9.0, Permits & Approvals for Project Implementation:** Provides a list of environmental permits and approvals that would be required before construction of the Preferred Alternative.

Additional supplemental materials are also provided. Importantly, a summary of substantive revisions that were made following the Draft EIS are included in bulleted format in the Executive Summary of each discipline report.

- **Attachment 1, List of Abbreviations:** A list of acronyms and abbreviations used in the EIS, and supporting materials, and their definitions.
- **Attachment 2, List of Preparers:** A list of the EIS Project Team and Enterprise Services staff who contributed to the EIS.
- **Attachment 3, Distribution List:** A list of stakeholders who received a copy of the EIS.
- **Attachment 4, References:** Provides a list of references specifically used for the EIS. Discipline-specific references can be found in individual discipline reports (Attachments 5 through 18).
- **Attachment 5, Hydrodynamics and Sediment Transport Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.1, 4.1, and 5.1).
- **Attachment 6, Navigation Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.2, 4.2, and 5.2).
- **Attachment 7, Water Quality Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.3, 4.3, and 5.3).

- **Attachment 8, Aquatic Invasive Species Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.4, 4.4, and 5.4).
- **Attachment 9, Fish and Wildlife Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.5, 4.5, and 5.5).
- **Attachment 10, Wetlands Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.6, 4.6, and 5.6).
- **Attachment 11, Air Quality and Odor Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.7, 4.7, and 5.7).
- **Attachment 12, Land Use, Shorelines, and Recreation Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.8, 4.8, and 5.8).
- **Attachment 13, Cultural Resources Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.9, 4.9, and 5.9).
- **Attachment 14, Visual Resources Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.10, 4.10, and 5.10).
- **Attachment 15, Sediment Quality Discipline Report:** The detailed technical analysis that is summarized as part of the Environmental Health evaluation in Chapters 3.0 through 5.0 (Sections 3.11, 4.11, and 5.11).
- **Attachment 16, Transportation Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.12, 4.12, and 5.12).
- **Attachment 17, Public Services and Utilities Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.13, 4.13, and 5.13).
- **Attachment 18, Economics Discipline Report:** The detailed technical analysis that is summarized in Chapters 3.0 through 5.0 (Sections 3.14, 4.14, and 5.14).

- **Attachment 19, Concepts Screened through the Measurable Evaluation Process:** Provides a brief 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.
- **Attachment 20, Scoping Report:** Describes public comments that were considered as the scope of the EIS was developed.
- **Attachment 21, Preferred Alternative Identification Process:** Provides a summary of the evaluation completed to identify the Preferred Alternative for long-term management.
- **Attachment 22, Draft EIS Comment Responses:** Includes comments received on the Draft EIS, provides responses to all comments received on the Draft EIS, and, where appropriate, includes global responses to address key themes from the Draft EIS comments.
- **Attachment 23, Capitol Lake – Deschutes Estuary Memorandum of Understanding:** Outlines the areas of conceptual agreement for long-term governance of the Estuary Alternative and shared funding through 2050 for sediment management in West Bay.

While this is a project-level EIS, it was prepared at an early stage of design development for the project. This is consistent with rules that intend for SEPA to be "integrated with agency activities at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to seek to resolve potential problems" (WAC 197-11-055). This means that information about the long-term management alternatives is approximate and subject to refinement as the design and construction approach are developed in later project phases. If substantive advancements or changes occur after the EIS, additional environmental review would be completed on those project elements.