

**Capitol Lake – Deschutes Estuary, Construction
 Planning-Level Cost Estimates for Draft EIS
 High-Level Summary**



Alternative	Lower End Probable Cost	Higher End Probable Cost
Managed Lake	\$89 Million	\$160 Million
Estuary	\$131 Million	\$235 Million
Hybrid	\$177 Million	\$319 Million

Planning-level cost estimates are based on conceptual designs for the action alternatives

Planning-level cost estimates are in US Dollars

Planning-level cost estimates are based on unencumbered contractor access to the site

No weather risk included (force majeure)

Cost is based on locally available resources

Escalation expense is included at 3.5% annually

Estimate class based on AACE No. 56R-08

Planning-level cost estimates do not include any associated costs due to hazardous waste

Planning-level cost estimates do not include and fish, bird, or reptile relocation

Planning-level cost estimates do not include biological monitoring

Work conducted internally by the state agency, rather than by the contractor, are not included (e.g., engineering, project management, owners overhead, third party QA/QC, etc.)

State costs for oversight during construction is included in the assumed soft cost allowance

Tax is included at 11%

When reviewing the above planning-level cost estimates, it is important to note the following:

The costs have been developed based on historical and current data using in-house sources, information from previous studies as well as budget price quotations solicited from local suppliers and contractors.

A contingency amount has been included to cover undefined items, due to the level of engineering carried out at this time. The contingency is not a reflection of the accuracy of the estimates but covers items of work which will have to be performed, and elements of costs which will be incurred, but which are not explicitly detailed or described due to the level of investigation, engineering and estimating completed today.

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Item	Description	Quantity	Units	Unit Cost	Subtotal	Total
1	Mobilization/Demobilization					\$1,806,045
	Dredge Mob/Demob	1	LS	\$595,836	\$595,836	
	Dam Overhaul Mob/Demob	1	LS	\$413,675	\$413,675	
	Pile Driving Mob/Demob	1	LS	\$371,979	\$371,979	
	5th Ave Pedestrian Bridge Mob/Demob	1	LS	\$307,598	\$307,598	
	Jet Grouting Mob/Demob	1	LS	\$38,639	\$38,639	
	Rock Revetment Mob/Demob	1	LS	\$19,879	\$19,879	
	Laydown Area	1	LS	\$58,439	\$58,439	
2	Dredge & Fill					\$24,702,962
	Dredge Capitol Lake & Fill Containment Cells	348,000	CY	\$11	\$3,879,414	
	Construct Containment Cells	26,003	LF	\$695	\$18,078,015	
	Habitat Island Grading	47	AC	\$15,413	\$724,434	
	Standby During Work Window Closures	1	LS	\$2,021,099	\$2,021,099	
3	Planting and Boardwalk Construction					\$6,838,221
	Habitat Island Plantings	47	AC	\$48,000	\$2,256,000	
	Boardwalk Construction (subgrade, F&I agg base)	65,000	SF	\$70	\$4,582,221	
4	5th Avenue Dam Overhaul					\$1,654,700
	Recommended Dam Repairs for Overhaul	1	LS	\$1,654,700	\$1,654,700	
5	5th Ave. Pedestrian Bridge					\$1,757,700
	5th Ave. Pedestrian Bridge	1	LS	\$1,757,700	\$1,757,700	
5	Stormwater Pollution Prevention Plan					\$999,595
	SWPPP Measures	1	LS	\$999,595	\$999,595	
11	Jet Grouting					\$1,617,227
	Jet Grouting on 5th Avenue	5,320	CY	\$304	\$1,617,227	
12	Rock Revetment					\$2,359,734
	Rock Revetment on West Bay side of earthen dam	37,500	TON	\$63	\$2,359,734	
13	Arc of Statehood Epoxy Coating					\$22,000
	Epoxy Coating	4,000	SF	\$6	\$22,000	
14	Boat Ramp & Dock					\$10,557
	Boat Ramp & Dock	1	LS	\$10,557	\$10,557	
15	Mitigation Measures					\$417,687
	Mitigation Measures	1	LS	\$417,687	\$417,687	
	Subtotal - Direct Costs					\$42,186,427
16	Construction Indirects					\$24,277,855
	Overhead	1	LS	\$11,363,705	\$11,363,705	
	Bond & Insurance	3.4%	%		\$1,836,770	
	Profit	20%	%		\$11,077,380	
	Subtotal Construction Costs					\$66,464,282
17	Escalation					\$22,099,374
	Escalation (2028 start;3.5% annually; 5yr dur - 2.5yr)	33%	%		\$22,099,374	
18	Contingency					\$13,284,548
	Contingency	15%	%		\$13,284,548	
19	Soft Costs					\$7,970,729
	Construction Management & Program Controls	9%	%		\$7,970,729	
20	Engineering and Permitting					\$8,856,366
	Construction Management & Program Controls	10%	%		\$8,856,366	
	GRAND TOTAL (ROUNDED)					\$118,675,000
21	Class 4 AACE Accuracy					
	Plus	35%	%		\$41,536,250	\$160,211,250
	Minus	-25%	%		-\$29,668,750	\$89,006,250

See following page for important notes related to this planning-level cost estimate.



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Does not include any work at the Arc of Statehood relative to potential flooding.

When reviewing the above estimated costs it is important to note the following:

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Item	Description	Quantity	Units	Unit Cost	Subtotal	Total
1	Mobilization/Demobilization					\$3,649,056
	Dredge Mob/Demob	1	LS	\$595,835.59	\$595,836	
	Pile Driving Mob/Demob	1	LS	\$418,476.88	\$418,477	
	Deschutes Parkway Roadwork Mob/Demob	1	LS	\$53,149.02	\$53,149	
	5th Ave Dam & Embankment Removal Mob/Demob	1	LS	\$180,519.70	\$180,520	
	5th Ave Vehicular Bridge Mob/Demob	1	LS	\$1,922,389.35	\$1,922,389	
	5th Ave Pedestrian Bridge Mob/Demob	1	LS	\$307,597.50	\$307,598	
	Outfall & Low Infrastructure Mob/Demob	1	LS	\$10,656.00	\$10,656	
	Utility Crossing & Opening Mob/Demob	1	LS	\$101,993.35	\$101,993	
	Laydown Area	1	LS	\$58,439.01	\$58,439	
2	Dredge & Fill					\$28,980,293
	Dredge Capitol Lake & Fill Containment Cells	463,000	CY	\$11.15	\$5,161,396	
	Construct Containment Cells	26,003	LF	\$695.23	\$18,078,015	
	Habitat Island Grading	56	AC	\$15,413.50	\$863,156	
	Standby During Work Window Closures	1	LS	\$2,694,798.21	\$2,694,798	
	Excess Material Haul Off	13,000	CY	\$131.92	\$1,714,928	
	Excess Material Tipping Fee	19,500	TON	\$24.00	\$468,000	
3	Deschutes Parkway Reconfiguration					\$1,199,673
	Dirt Excavation (load, haul to landfill, tipping fee)	1,700	CY	\$170.31	\$289,528	
	Dirt Fill (load and haul w/in 10mi of site)	14,300	CY	\$23.57	\$336,982	
	Roadway Construction	77,010	SF	\$5.50	\$423,386	
	Sidewalk Construction	32,650	SF	\$4.59	\$149,778	
4	5th Ave Dam Removal & Embankment Protection					\$3,832,052
	Coffer Cell Construction Around Causeway Cut	1,700	LF	\$345.35	\$587,088	
	Causeway Cut	63,000	CY	\$10.04	\$632,697	
	Coffer Cell Construction Around 5th Ave Dam	1,700	LF	\$223.19	\$379,430	
	5th Ave Dam Demolition	1	LS	\$2,232,835.76	\$2,232,836	
5	Deschutes Parkway Stabilization					\$413,718
	Parkway Stabilization (re-use excavated material)	71,750	CY	\$5.77	\$413,718	
6	5th Ave. Vehicular Bridge					\$11,285,082
	5th Ave Vehicular Bridge	1	LS	\$11,285,082.00	\$11,285,082	
7	5th Ave. Pedestrian Bridge					\$1,757,700
	5th Ave. Pedestrian Bridge	1	LS	\$1,757,700.00	\$1,757,700	
8	Planting and Boardwalk Construction					\$7,336,941
	Habitat Island Plantings	57	AC	\$48,000.00	\$2,754,720	
	Boardwalk Construction	65,000	SF	\$70.50	\$4,582,221	
9	Scour Protection					\$113,116
	Scour Protection	2,000	TON	\$56.56	\$113,116	
10	Outfall & Low Infrastructure Mods					\$863,063
	Outfall Demolition	83	EA	\$8,298.56	\$688,781	
	Construct Outfall	83	EA	\$2,099.78	\$174,282	
11	Utility Crossings & Openings					\$1,019,934
	Utility Demolition	1	LS	\$41,577.50	\$41,578	
	Utility Install	1	LS	\$978,356.03	\$978,356	
12	Stormwater Pollution Prevention Plan					\$1,331,789
	SWPPP Measures	1	LS	\$1,331,788.64	\$1,331,789	
13	Arc of Statehood Epoxy Coating					\$22,000
	Seawall Epoxy Coating	4,000	SF	\$5.50	\$22,000	
14	Boat Ramp & Dock					\$10,557
	Boat Ramp & Dock	1	LS	\$10,557.16	\$10,557	
15	Mitigation Measures					\$618,150
	Mitigation Measures	1	LS	\$618,149.71	\$618,150	
	Subtotal - Direct Costs					\$62,433,121



Item	Description	Quantity	Units	Unit Cost	Subtotal	Total
16	Construction Indirects					\$33,988,073
	Overhead	1	LS	\$15,253,231.61	\$15,253,232	
	Bond & Insurance	3.4%	%		\$2,664,642	
	Profit	20%	%		\$16,070,199	
	Subtotal Construction Costs					\$96,421,194
17	Escalation					\$33,747,418
	Escalation (2028 start;3.5% annually; 6yr dur - 3yr)	35%	%		\$33,747,418	
18	Contingency					\$19,525,292
	Contingency	15%	%		\$19,525,292	
19	Soft Costs					\$11,715,175
	Construction Management & Program Controls	9%	%		\$11,715,175	
20	Engineering and Permitting					\$13,016,861
	Construction Management & Program Controls	10%	%		\$13,016,861	
	GRAND TOTAL (ROUNDED)					\$174,426,000
	Class 4 AACE Accuracy					
	Plus	35%	%		\$61,049,100	\$235,475,100
	Minus	-25%	%		-\$43,606,500	\$130,819,500

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Item	Description	Quantity	Units	Unit Cost	Subtotal	Total
1	Mobilization/Demobilization					\$6,500,341
	Dredge Mob/Demob	1	LS	\$595,835.59	\$595,836	
	Pile Driving Mob/Demob	1	LS	\$418,476.88	\$418,477	
	Deschutes Parkway Roadwork Mob/Demob	1	LS	\$53,149.02	\$53,149	
	5th Ave Dam & Embankment Removal Mob/Demob	1	LS	\$180,519.70	\$180,520	
	5th Ave Vehicular Bridge Mob/Demob	1	LS	\$1,922,389.35	\$1,922,389.35	
	5th Ave Pedestrian Bridge Mob/Demob	1	LS	\$307,597.50	\$307,598	
	Outfall & Low Infrastructure Mob/Demob	1	LS	\$10,656.00	\$10,656	
	Utility Crossing & Opening Mob/Demob	1	LS	\$101,993.35	\$101,993	
	Laydown Area	1	LS	\$58,439.01	\$58,439	
	Reflecting Pool Barrier Wall Mob/Demob	1	LS	\$2,851,284.86	\$2,851,285	
2	Dredge & Fill					\$43,037,492
	Dredge Capitol Lake & Fill Containment Cells	463,000	CY	\$11.15	\$5,161,396	
	Construct Containment Cells	26,003	LF	\$695.23	\$18,078,015	
	Habitat Island Grading	42	AC	\$15,413.52	\$647,368	
	Standby During Work Window Closures	1	LS	\$2,694,798.21	\$2,694,798	
	Excess Material Haul Off	98,000	CY	\$131.92	\$12,927,916	
	Excess Material Tipping Fee	147,000	TON	\$24.00	\$3,528,000	
3	Deschutes Parkway Reconfiguration					\$1,199,673
	Dirt Excavation (load, haul to landfill, tipping fee)	1,700	CY	\$170.31	\$289,528	
	Dirt Fill (load and haul w/in 10mi of site)	14,300	CY	\$23.57	\$336,982	
	Roadway Construction	77,010	SF	\$5.50	\$423,386	
	Sidewalk Construction	32,650	SF	\$4.59	\$149,778	
4	5th Ave Dam Removal & Embankment Protection					\$2,480,326
	Coffer Cell Construction Around Causeway Cut	1,700	LF	\$345.35	\$587,088	
	Causeway Cut	63,000	CY	\$10.04	\$632,697	
	Coffer Cell Construction Around 5th Ave Dam	1,700	LF	\$223.19	\$379,430	
	5th Ave Dam Demolition	1	LS	\$881,110.43	\$881,110	
5	Deschutes Parkway Stabilization					\$413,718
	Parkway Stabilization (re-use excavated material)	71,750	CY	\$5.77	\$413,718	
6	5th Ave. Vehicular Bridge					\$11,285,082
	5th Ave Vehicular Bridge	1	LS	\$11,285,082.00	\$11,285,082	
7	5th Ave. Pedestrian Bridge					\$1,757,700
	5th Ave. Pedestrian Bridge	1	LS	\$1,757,700.00	\$1,757,700	
8	Planting and Boardwalk Construction					\$6,598,221
	Habitat Island Plantings	42	AC	\$48,000.00	\$2,016,000	
	Boardwalk Construction (subgrade, F&I agg base)	65,000	SF	\$70.50	\$4,582,221	
9	Scour Protection					\$113,116
	Scour Protection	2,000	TON	\$56.56	\$113,116	
10	Outfall & Low Infrastructure Modifications					\$863,063
	Outfall Demolition	83	EA	\$8,298.56	\$688,781	
	Construct Outfall	83	EA	\$2,099.78	\$174,282	
11	Utility Crossings & Openings					\$1,019,934
	Utility Demolition	1	LS	\$41,577.50	\$41,578	
	Utility Install	1	LS	\$978,356.03	\$978,356	
12	Stormwater Pollution Prevention Plan					\$1,331,789
	SWPPP Measures	1	LS	\$1,331,788.64	\$1,331,789	
13	Reflecting Pool Wall					\$11,729,194
	Reflecting Pool Wall (saltwater w/ tide gates)	1	LS	\$11,405,139.42	\$11,729,194	
13	Arc of Statehood Epoxy Coating					\$22,000
	Epoxy Coating	4,000	SF	\$5.50	\$22,000	
14	Boat Ramp & Dock					\$10,557
	Boat Ramp & Dock	1	LS	\$10,557.16	\$10,557	
15	Mitigation Measures					\$883,622
	Mitigation Measures	1	LS	\$883,622.04	\$883,622	
	Subtotal - Direct Costs					\$89,245,826



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16	Construction Indirects					\$41,454,778
	Overhead	1	LS	\$16,059,376.08	\$16,059,376	
	Bond & Insurance	3.4%	%		\$3,611,968	
	Profit	20%	%		\$21,783,434	
	Subtotal Construction Costs					\$130,700,604
17	Escalation					\$45,745,212
	Escalation (2028 start;3.5% annually; 6yr dur - 3yr)	35%	%		\$45,745,212	
18	Contingency					\$26,466,872
	Contingency	15%	%		\$26,466,872	
19	Soft Costs					\$15,880,123
	Construction Management & Program Controls	9%	%		\$15,880,123	
20	Engineering and Permitting					\$17,644,582
	Construction Management & Program Controls	10%	%		\$17,644,582	
	GRAND TOTAL (ROUNDED)					\$236,437,000
21	Class 4 AACE Accuracy					
	Plus	35%	%		\$82,752,950	\$319,189,950
	Minus	-25%	%		-\$59,109,250	\$177,327,750

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