

SAN FRANCISCO WATERFRONT COASTAL FLOOD STUDY, CALIFORNIA

APPENDIX C COST ENGINEERING

JULY 2026

USACE TULSA DISTRICT | THE PORT OF SAN FRANCISCO



**US Army Corps
of Engineers** USACE



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Acronyms and Abbreviations

Acronym	Definition
CSRA	Cost and Schedule Risk Analysis
CWCCIS	Civil Works Construction Cost Index System
EIS	Environmental Impact Statement
EWN	Engineering with Nature
FY	Fiscal Year
IFR	Integrated Feasibility Report
MAP	Monitoring and Adaptation Plan
MCACES/MII	Micro-Computer Aided Cost Estimating System, Second Generation
NED	National Economic Development
NFS	Non-Federal Sponsor
OMRR&R	Operations, Maintenance, Repair, Rehabilitation, and Replacement
PDT	Project Delivery Team
PED	Preconstruction Engineering and Design
POA	Period of Analysis
ROM	Rough Order of Magnitude
RSLC	Relative Sea Level Change
S&A	Supervision and Administration
TPCS	Total Project Cost Summary
TSP	Tentatively Selected Plan
USACE	U.S. Army Corps of Engineers

Acronym	Definition
WBS	Work Breakdown Structure
WRDA	Water Resources Development Act

1.0 Introduction

This appendix lists and describes the current working cost estimate as part of the Final Integrated Feasibility Report (IFR) and Environmental Impact Statement (EIS). Included within are details regarding the development of the cost estimate including the scope of work, major assumptions, markups, and contingency development.

Two unique aspects to the plan formulation process affect the cost estimate derivation:

- The Recommended Plan was formulated to function across all relative sea level change (RSLC) scenarios rather than to maximize total net benefits under one identified RSLC scenario, which required additional planning iterations optimally combining measures and strategies from the existing Array of Alternatives.
- The Recommended Plan includes different adaptive Subsequent Actions as risk increases. This creates some uncertainty in the future action to be undertaken and the timing of that action requires consideration of a conceptual range of total costs over 100-year period of analysis (POA).

This appendix describes three distinct types of estimates.

- Costs previously developed for the Array of Alternatives to support plan formulation and evaluation of the Tentatively Selected Plan (TSP) for the Draft IFR/EIS.
- Certified Cost Estimate of the Recommended Plan First Actions, generally considered to deliver flood risk reduction benefits by 2040, which is the same for all potential RSLC scenarios. This estimate represents costs for scope and assumptions refined and further detailed from the TSP. This amount will not deliver the entire benefit stream expected over the 100-year POA but is presented to clarify the First Actions and to inform authorization decisions. It should not be mistaken for an entire project cost.
- Simplified, broad cost estimates of the sum of First Actions and potential Subsequent Actions at the scale that would be necessary under each U.S. Army Corps of Engineers (USACE) RSLC scenarios, such that economic analysis can be conducted for the full 100-year period of analysis.

2.0 Cost Estimate

2.1 General Information

2.1.1 Estimate Structure

For the Draft IFS/EIS Array of Alternatives, TSP, and Recommended Plan, each cost estimate was structured by consistent steps that initially grouped the work into four large geographical areas, or “reaches,” like other efforts in the study. The estimates were then further grouped into sub areas that included mixtures of specific and common features of work. Effort was also taken to organize the estimate per the Civil Works Work Breakdown Structure (WBS) guideline/template.

The project costs were developed in Micro-Computer Aided Cost Estimating System, Second Generation (MCACES 2nd Generation, or MII) cost estimating software. The costs were then summarized in the USACE-developed Total Project Cost Summary (TPCS) spreadsheets. The TPCS are updated regularly to incorporate historic inflation and future escalation rates using the USACE-developed Civil Works Construction Cost Index System (CWCCIS). It is acknowledged that there may be inconsistencies throughout the Main Report and Appendices regarding the use of the term “First Cost.” The “First Action Cost” is the cost of the Recommended Plan and those costs are being certified. If Fiscal Year (FY) 25 First Cost, those costs are derived from the Estimated Cost on the TPCS. If FY26 First Cost is referenced, those costs are derived from the First Cost on the TPCS. If no FY is referenced, it is assumed to be FY26 First Cost.

2.1.2 Seismic and Non-Seismic Estimates

Section 152 of Water Resources Development Act (WRDA) 2020, as amended by Section 8380 of WRDA 2022, provides for the treatment of certain benefits and costs for flood risk management projects in regions of moderate or high seismic hazard. Because the study area is in an area of high seismic hazard, alternatives were formulated with full consideration of applicable USACE engineering design standards needed to address seismic hazards in the study area. In accordance with the provisions of Section 152, as amended, the alternatives were estimated both with and without the scope of work attributed to seismic design requirements due to the seismic hazard present within the study area. For evaluating National Economic Development (NED) benefits and costs, the cost basis is assumed to be the scope of work that is necessary to produce the coastal flood risk management benefits in a region that is not subject to seismic hazards. However, the total project cost for the Recommended Plan includes the scope of work and cost to complete the project in this high seismic region. For the Draft and Final IFR/EIS, two estimates were produced for each alternative and are herein referred to as the “Seismic” and “non-Seismic” costs.

2.2 Acquisition Strategy

For simplicity, it is assumed that each subreach will be advertised as a Full and Open/Unrestricted project. Given the size of the project, there is an opportunity for the project to be broken up into subprojects, and multiple contracts. The risks to the estimated cost and schedule associated with this opportunity were discussed in the Cost and Schedule Risk Assessment (CSRA). The current working estimate assumes one contract.

2.3 Contractor Hierarchy

This estimate assumes the project to have a Prime Contractor subcontracting the work to multiple subcontractors per disciplines of the work.

2.4 Project Markups

- Material Cost Adjustment: 2%
- Escalation: Not included in MII cost estimate model. Escalation applied in the TPCS
- Productivity: Overall 60% to 65%. Varies from 75% for land efforts to 50% for in-water marine work
- Overtime markup: Assumes six 10-hour shifts equal 16.67%
- Sales Tax: 8.625% (San Francisco, California)

2.5 Prime Contractor Markups

- Mobilization/Demobilization: 3%
- JOOH: 15%
- HOOH: 10%
- Profit: 10%
- Bond: 1.5%

2.6 Subcontractor Markups

- SubJOOH: 15%
- SubHOOH: 10%
- Profit: 10%

Cost Contingency: For the Draft IFR/EIS and Array of Alternatives, the Cost Contingency was applied in the TPCS to the features of work and developed through

the Abbreviated Risk Analysis included in Attachment C-11. For the Recommended Plan for the Final IFR/EIS, the Cost Contingency for all items except Lands and Damages is applied in the TPCS and developed through the CSRA. For Lands and Damages, the Cost Contingency is applied as 50% per USACE SWT Real Estate Division. The CSRA Report for this project is included in Attachment C-2.

2.7 Pricing

Pricing for features of work were derived from multiple methods. Some features of work were costed by developing an assumed WBS for each scope of work and applying appropriate MII Cost Book CSI tasks with quantities and appropriate markups. Other features, including ground improvements, were costed by contacting specialized contractors and applying discussed and derived unit costs. Other methods were also used including using previous project unit costs and unit costs provided by USACE Cost Community of Practice, etc. Local vendor pricing was solicited for some materials including ready mix concrete, aggregate stone, sand, and steel sheet piles.

2.8 Cost Sources

Cost sourcing included using the 2024 Cost Book – English, with revised material costs per quotes received and/or production rates as appropriate per estimator's and design engineers' judgment.

The costs for ground improvement work are calculated based on engineered unit costs applied to the determined quantities. The quantities were developed by the Engineering team based on needed improvement area and depth and existing documented knowledge of underground conditions. The unit costs were developed specifically for this project through discussions with local and global qualified ground improvement contractors. These documented discussions regarded assumed and recorded underground conditions including

- Soil types
- Historical fill materials and methods
- Expected groundwater conditions
- Deep soil mixing versus jet grouting and other methods
- Local logistical challenges
- Production rates
- Typical and project-specific ground improvement means and methods
- Onshore versus offshore operations
- Mobilization
- Local challenges to material and equipment availability and handling

- Spoil generation
- Containment and disposal
- Crew sizing
- Staging arrangements

The real estate costs were provided by the Project Delivery Team's (PDT) Real Estate team; the derivation of those costs is discussed in *Appendix F: Real Estate Plan*.

Cultural and Environmental mitigation scopes of work continue to be developed. Costs for these features are included as 1% of construction costs as directed by the PDT.

Preconstruction engineering and design (PED) and construction management supervision and administration (S&A) costs were discussed with the PDT and the predetermined percentages included in the current TPCS sheet were used as a baseline for discussion. Following discussion with the PDT, the PED percentage was set at 20% and S&A percentage set at 10.2%. The combined 30.2% was determined to be reasonable for a project of this size.

2.9 Wage Rates

The cost estimate includes labor rates per State of California Department of Industrial Relations (<http://www.dir.ca.gov>).

2.10 Equipment

- MII Equipment 2024 Region 07 – West

2.11 Material

- 2024 Cost Book – English. Revised material costs, per quotes received for the major and/or various items as noted in the estimate costs items.

2.12 OMRR&R

The PDT Engineering team assumed an annual operations, maintenance, repair, rehabilitation, and replacement (OMRR&R) value equal to 0.5% of the capital cost, where capital cost is the estimated construction cost of the civil works project not including the cost of real estate, relocations, PED, and construction management. Although relocations are capital costs, they are 100% the Non-Federal Sponsor (NFS) responsibility. Therefore, they are not considered an OMRR&R obligation of the civil works project that should be included in the economic evaluation. Over the life of the infrastructure, this estimated annual OMRR&R cost will pay for operation plus inspection, design, and construction of any necessary maintenance, repairs, replacements, or rehabilitations. In comparison with the Array of Alternatives, the PDT assumed a 2% per year OMRR&R rate for Alternative F in Reaches 3 and 4, where the

alternative relied heavily on the operation of water management structures. The OMRR&R percentage for the nonstructural alternative was 0% because it was assumed that private building owners would be responsible for operating and maintaining their nonstructural equipment (flood shields, stop logs, panels, etc.).

2.13 Real Estate Costs

At this initial point of design, real estate costs were estimated for the footprint of the Recommended Plan in accordance with USACE policy as described in *Appendix F: Real Estate Plan*. Real Estate costs listed in this appendix and attachments, specifically the Recommended Plan First Actions TPCS 01 Lands and Damages Account line item, represent costs listed in Table F.1, with the exception of \$99,000 for real estate federal labor costs included in the TPCS 30 PED Account line item. This applies also to the Subsequent Actions TPCS 01 Lands and Damages Account line item with respect to costs listed in Table F.1.

2.14 Monitoring and Adaptation Costs

Adaptive actions will be considered and implemented because of an assessment of the change in risk conditions influenced by RSLC. A Monitoring and Adaptation Plan (MAP) is proposed to evaluate changing conditions and inform future adaptations and is described in Appendix G. In addition, Engineering with Nature (EWN) features are included in the Recommended Plan, need to be monitored, and may also need to be adapted. Details and costs of the MAP will be further developed as part of the design phase for the project. For this report, MAP costs were estimated as a percentage of the construction cost of the project and included in the PED Account.

3.0 Schedule

For the Draft IFR/EIS rough order of magnitude (ROM), construction durations for each alternative were developed through discussion with the PDT Engineering group. ROM durations for the initial action for the alternatives were determined as approximately 10 years for each alternative.

Further discussion with members of the Engineering group highlighted the difficulty of the alternatives' planned construction, and identified the risk involved in assuming these durations that would likely impact time-dependent costs such as contractor overhead.

For the Recommended Plan, a detailed critical path construction schedule was developed based on the assumed sequence of construction tasks, researched productivities, and developed scope and quantities. Several alternatives for the construction schedule were first developed assuming varying levels of concurrent work in the geographical project reaches, resulting in total durations of 15 years, 20 years, and 32 years. The PDT recommended the use of the 32-year duration as the base schedule for the cost estimate and CSRA. To account for an uncertain funding stream, this construction duration assumes there is no concurrent work across multiple

geographic reaches or subreaches. The schedule assumed sequential and concurrent activities within a single reach or subreach. Future development of the implementation approach, Federal and NFS appropriations, and contracting strategy will all impact the construction duration; therefore, a high level of uncertainty will remain prior to the PED phase.

The Recommended Plan proposes an initial and subsequent (adaptive) action over a 100-year POA, and the schedule for the adaptive action is proposed at around year 50 but may vary based upon the evidence of increasing risk in the study area.

4.0 Scope of Work

4.1 Array of Alternatives for the Draft IFR/EIS and TSP

The alternatives analysis required separate cost estimates for Alternatives B, C, D, E, F, and G. Scope and quantity take-offs were developed by the Engineering team including USACE design engineers and cost engineer, as well as design engineers and construction experts from the NFS and the Port of San Francisco. Other methods of determining scope and costs used satellite imagery, discussions with material suppliers and contractors, and discussions with local municipalities with knowledge of previous projects with similar project features. Broad assumptions were made in the work efforts of construction access; temporary laydown areas; acquisition strategy; planning, engineering, and design; construction management; schedule; and risks, which were all discussed with the project Engineering team and applied to the cost estimate. A summary of costs for the Array of Alternatives by reach is provided in Attachment C-8. This preliminary approach was briefly previewed with a representative of the USACE Cost Center of Expertise to produce a cost estimate for Draft IFR/EIS purposes. TPCS sheets for Alternatives B through G Seismic and Non-Seismic are provided in Attachment C-9 and Attachment C-10. The TSP cost estimate was formulated based upon the performance (cost, benefits, and impacts) of the Array of Alternatives under varying levels of RSLC. The TSP combined different scales and alignments of the initial alternatives in the four reaches. To estimate the cost of this plan, a TSP TPCS was created with this selected combination from the Array of Alternatives TPCS sheets. A summary of costs for the TSP by reach is provided in Attachment C-3. TPCS sheets for the TSP Seismic and Non-Seismic for the First Actions and Subsequent Actions are provided in Attachment C-4 through Attachment C-7.

4.2 Recommended Plan

The Recommended Plan was formulated based upon the performance (cost, benefits, and impacts) of the Array of Alternatives under varying levels of RSLC. The Recommended Plan combines different scales and alignments of the initial alternatives in the four reaches and represents costs for scope and assumptions refined and further detailed from the TSP. To estimate the cost of this plan, a detailed MII estimate was completed using scope developed by the Engineering team, and a detailed quantity

take-off developed by the Engineering team and verified by the Cost engineer. Inside the MII estimate, the costs are structured first by geographical reach, then by geographical subreaches, WBS, and work feature. The MII Alternative View feature was used to create alternative WBS summaries as requested by the PDT. For example, MII Alternative Views were created to show cost reports summarized by the features of work to help feed cost data to the CSRA modeling. Subsequent Actions unique to the Intermediate and High RSLC projections were not further engineered or costed between the Draft IFR/EIS and the Final IFR/EIS. Costs for the Subsequent Actions shown in the Final IFR/EIS continue to be based solely on costs developed during the Draft IFR/EIS Array of Alternatives. The only exception to this is that the 01 Lands and Damages costs have been updated per the *Appendix F: Real Estate* Table F.1, and that the Estimated Costs in the Subsequent Actions TPCS have now been escalated to first quarter 2025 by applying inflation factors from the CWCCIS. These Subsequent Actions cost summaries and reports are not intended to be considered Class 3 design or cost estimate level, or to meet USACE Cost Certification or funding requirements. Additionally, it is acknowledged that some inconsistencies remain between cost reporting of the updated Recommended Plan First Actions Costs and the Subsequent Actions costs from the Draft IFR/EIS including, but not limited to, the allocation of costs to the appropriate WBS accounts, unit costs and quantities of certain features of work including ground improvement, and applied contingency (Subsequent Actions TPCS include contingency amounts based on Abbreviated Risk Analysis, and the Recommended Plan TPCS include contingency based on CSRA). For future decisions and funding milestones, the Subsequent Actions design and cost estimate will likely be required to be refined to meet Class 3 level. TPCS sheets for the Recommended Plan are provided in Attachment C-1.

Attachment C-1: Recommended Plan First Actions Total Project Cost Summary (TPCS)

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
PROJECT NO: P2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
WBS NUMBER A	Civil Works Feature & Sub-Feature Description B	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	Program Year (Budget EC): Effective Price Level Date: 2026 1 OCT 25		INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
										Spent Thru: 1-Oct-24 (\$K)	TOTAL FIRST COST (\$K) K				
02	RELOCATIONS	\$890,791	\$320,685	36.0%	\$1,211,476	3.5%	\$921,610	\$331,780	\$1,253,390	\$0	\$1,253,390	84.0%	\$1,696,024	\$610,569	\$2,306,593
06	FISH & WILDLIFE FACILITIES	\$47,600	\$17,136	36.0%	\$64,736	3.8%	\$49,420	\$17,791	\$67,211	\$0	\$67,211	82.1%	\$90,014	\$32,405	\$122,420
10	BREAKWATER & SEAWALLS	\$4,257,995	\$1,532,878	36.0%	\$5,790,874	2.8%	\$4,377,248	\$1,575,809	\$5,953,057	\$0	\$5,953,057	78.1%	\$7,795,618	\$2,806,423	\$10,602,041
13	PUMPING PLANT	\$970,156	\$349,256	36.0%	\$1,319,412	5.2%	\$1,020,931	\$367,535	\$1,388,466	\$0	\$1,388,466	81.4%	\$1,852,264	\$666,815	\$2,519,078
18	CULTURAL RESOURCE PRESERVATION	\$75,829	\$27,299	36.0%	\$103,128	5.2%	\$79,798	\$28,727	\$108,525	\$0	\$108,525	81.4%	\$144,770	\$52,117	\$196,888
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$1,354,221	\$487,519	36.0%	\$1,841,740	5.2%	\$1,425,096	\$513,035	\$1,938,131	\$0	\$1,938,131	89.5%	\$2,699,983	\$971,994	\$3,671,977
19	BUILDINGS, GROUNDS & UTILITIES Reach 1 2065	\$109,786	\$39,523	36.0%	\$149,308	5.2%	\$115,531	\$41,591	\$157,123	\$0	\$157,123	172.3%	\$314,569	\$113,245	\$427,813
CONSTRUCTION ESTIMATE TOTALS:		\$7,706,378	\$2,774,296		\$10,480,674	3.7%	\$7,989,635	\$2,876,269	\$10,865,903	\$0	\$10,865,903	82.7%	\$14,593,242	\$5,253,567	\$19,846,809
01	LANDS AND DAMAGES	\$2,367,208	\$1,183,604	50.0%	\$3,550,812	3.9%	\$2,459,352	\$1,229,676	\$3,689,028	\$0	\$3,689,028	64.0%	\$4,032,656	\$2,016,328	\$6,048,984
30	PLANNING, ENGINEERING & DESIGN	\$1,537,488	\$553,505	36.0%	\$2,090,994	3.2%	\$1,587,395	\$571,472	\$2,158,866	\$0	\$2,158,866	91.1%	\$3,033,092	\$1,091,931	\$4,125,024
31	CONSTRUCTION MANAGEMENT	\$782,197	\$281,591	36.0%	\$1,063,788	3.2%	\$807,587	\$290,731	\$1,098,318	\$0	\$1,098,318	108.6%	\$1,684,762	\$606,514	\$2,291,276
PROJECT COST TOTALS:		\$12,393,272	\$4,792,996	38.7%	\$17,186,268		\$12,843,968	\$4,968,147	\$17,812,115	\$0	\$17,812,115	81.4%	\$23,343,752	\$8,968,341	\$32,312,093

- CHIEF, COST ENGINEERING, xxx
- PROJECT MANAGER, xxx
- CHIEF, REAL ESTATE, xxx
- CHIEF, PLANNING, xxx
- CHIEF, ENGINEERING, xxx
- CHIEF, OPERATIONS, xxx
- CHIEF, CONSTRUCTION, xxx
- CHIEF, CONTRACTING,xxx
- CHIEF, PM-PB, xxxx
- CHIEF, DPM, xxx

ESTIMATED TOTAL PROJECT COST: \$32,312,093

Attachment C-2: Recommended Plan First Actions Cost and Schedule Risk Analysis (CSRA) Report

**** TOTAL PROJECT COST SUMMARY ****

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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25						
WBS NUMBER	Civil Works Feature & Sub-Feature Description	RISK BASEI				ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
		COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)									
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
02	Reach 1.a													
	RELOCATIONS	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
06	FISH & WILDLIFE FACILITIES	\$6,500	\$2,340	36.0%	\$8,840	3.8%	\$6,749	\$2,430	\$9,179	2051Q1	90.1%	\$12,829	\$4,618	\$17,447
10	BREAKWATER & SEAWALLS	\$43,188	\$15,548	36.0%	\$58,736	2.8%	\$44,398	\$15,983	\$60,381	2051Q1	90.1%	\$84,395	\$30,382	\$114,777
13	PUMPING PLANT	\$12,507	\$4,502	36.0%	\$17,009	5.2%	\$13,161	\$4,738	\$17,899	2051Q1	90.1%	\$25,017	\$9,006	\$34,024
18	CULTURAL RESOURCE PRESERVATION	\$2,016	\$726	36.0%	\$2,742	5.2%	\$2,122	\$764	\$2,885	2051Q1	90.1%	\$4,033	\$1,452	\$5,485
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$36,135	\$13,009	36.0%	\$49,143	5.2%	\$38,026	\$13,689	\$51,715	2051Q1	90.1%	\$72,282	\$26,022	\$98,304
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$109,786	\$39,523	36.0%	\$149,308	5.2%	\$115,531	\$41,591	\$157,123	2065Q1	172.3%	\$314,569	\$113,245	\$427,813
CONSTRUCTION ESTIMATE TOTALS:		\$210,131	\$75,647	36.0%	\$285,779		\$219,987	\$79,195	\$299,182			\$513,125	\$184,725	\$697,850
01	LANDS AND DAMAGES	\$463,183	\$231,591	50.0%	\$694,774	3.9%	\$481,212	\$240,606	\$721,818	2048Q2	77.2%	\$852,490	\$426,245	\$1,278,735
30	PLANNING, ENGINEERING & DESIGN	\$41,921	\$15,092		\$57,013		\$43,282	\$15,582	\$58,863			\$88,332	\$31,800	\$120,132
1.8%	Project Management	\$3,677	\$1,324	36.0%	\$5,001	3.2%	\$3,797	\$1,367	\$5,163	2048Q2	100.9%	\$7,627	\$2,746	\$10,373
0.7%	Planning & Environmental Compliance	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
10.5%	Engineering & Design	\$22,064	\$7,943	36.0%	\$30,007	3.2%	\$22,780	\$8,201	\$30,981	2048Q2	100.9%	\$45,763	\$16,475	\$62,238
0.7%	Reviews, ATRs, IEPRs, VE	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
0.7%	Life Cycle Updates (cost, schedule, risks)	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
0.7%	Contracting & Reprographics	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
2.1%	Engineering During Construction	\$4,413	\$1,589	36.0%	\$6,001	3.2%	\$4,556	\$1,640	\$6,196	2051Q1	119.1%	\$9,982	\$3,593	\$13,575
1.4%	Planning During Construction	\$2,942	\$1,059	36.0%	\$4,001	3.2%	\$3,037	\$1,093	\$4,131	2051Q1	119.1%	\$6,655	\$2,396	\$9,050
0.7%	Adaptive Management & Monitoring	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
0.7%	Project Operations	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
	Real Estate (All Federal Labor)	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT	\$21,328	\$7,678		\$29,007		\$22,021	\$7,927	\$29,948			\$48,245	\$17,368	\$65,614
7.0%	Construction Management	\$14,709	\$5,295	36.0%	\$20,005	3.2%	\$15,187	\$5,467	\$20,654	2051Q1	119.1%	\$33,273	\$11,978	\$45,251
1.4%	Project Operation:	\$2,942	\$1,059	36.0%	\$4,001	3.2%	\$3,037	\$1,093	\$4,131	2051Q1	119.1%	\$6,655	\$2,396	\$9,050
1.8%	Project Management	\$3,677	\$1,324	36.0%	\$5,001	3.2%	\$3,797	\$1,367	\$5,163	2051Q1	119.1%	\$8,318	\$2,995	\$11,313
CONTRACT COST TOTALS:		\$736,564	\$330,008		\$1,066,572		\$766,501	\$366,819	\$1,109,811			\$1,502,193	\$660,138	\$2,162,331

**** TOTAL PROJECT COST SUMMARY ****

Printed:12/10/2025
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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25						
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
02	Reach 2.a													
	RELOCATIONS	\$168,139	\$60,530	36.0%	\$228,669	3.5%	\$173,957	\$62,624	\$236,581	2055Q1	110.6%	\$366,423	\$131,912	\$498,336
	FISH & WILDLIFE FACILITIES	\$2,503	\$901	36.0%	\$3,404	3.8%	\$2,599	\$936	\$3,534	2055Q1	110.6%	\$5,474	\$1,971	\$7,445
	BREAKWATER & SEAWALLS	\$450,538	\$162,194	36.0%	\$612,732	2.8%	\$463,157	\$166,736	\$629,893	2055Q1	110.6%	\$975,600	\$351,216	\$1,326,816
	PUMPING PLANT	\$48,798	\$17,567	36.0%	\$66,366	5.2%	\$51,352	\$18,487	\$69,839	2055Q1	110.6%	\$108,169	\$38,941	\$147,109
	CULTURAL RESOURCE PRESERVATION	\$7,364	\$2,651	36.0%	\$10,015	5.2%	\$7,749	\$2,790	\$10,539	2055Q1	110.6%	\$16,323	\$5,876	\$22,199
	BUILDINGS, GROUNDS & UTILITIES 2040	\$68,907	\$24,806	36.0%	\$93,713	5.2%	\$72,513	\$26,105	\$98,618	2055Q1	110.6%	\$152,742	\$54,987	\$207,730
	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$746,250	\$268,650	36.0%	\$1,014,900		\$771,327	\$277,678	\$1,049,004			\$1,624,732	\$584,903	\$2,209,635
01	LANDS AND DAMAGES	\$301,364	\$150,682	50.0%	\$452,046	3.9%	\$313,094	\$156,547	\$469,642	2051Q3	92.6%	\$602,966	\$301,483	\$904,449
30	PLANNING, ENGINEERING & DESIGN	\$148,881	\$53,598		\$202,479		\$153,714	\$55,338	\$209,051			\$349,115	\$125,683	\$474,798
1.8%	Project Management	\$13,059	\$4,701	36.0%	\$17,761	3.2%	\$13,483	\$4,854	\$18,337	2051Q3	122.6%	\$30,010	\$10,803	\$40,813
0.7%	Planning & Environmental Compliance	\$5,224	\$1,881	36.0%	\$7,104	3.2%	\$5,393	\$1,942	\$7,335	2051Q3	122.6%	\$12,004	\$4,321	\$16,325
10.5%	Engineering & Design	\$78,356	\$28,208	36.0%	\$106,564	3.2%	\$80,900	\$29,124	\$110,023	2051Q3	122.6%	\$180,058	\$64,821	\$244,878
0.7%	Reviews, ATRs, IEPRs, VE	\$5,224	\$1,881	36.0%	\$7,104	3.2%	\$5,393	\$1,942	\$7,335	2051Q3	122.6%	\$12,004	\$4,321	\$16,325
0.7%	Life Cycle Updates (cost, schedule, risks)	\$5,224	\$1,881	36.0%	\$7,104	3.2%	\$5,393	\$1,942	\$7,335	2051Q3	122.6%	\$12,004	\$4,321	\$16,325
0.7%	Contracting & Reprographics	\$5,224	\$1,881	36.0%	\$7,104	3.2%	\$5,393	\$1,942	\$7,335	2051Q3	122.6%	\$12,004	\$4,321	\$16,325
2.1%	Engineering During Construction	\$15,671	\$5,642	36.0%	\$21,313	3.2%	\$16,180	\$5,825	\$22,005	2055Q1	148.5%	\$40,209	\$14,475	\$54,684
1.4%	Planning During Construction	\$10,447	\$3,761	36.0%	\$14,209	3.2%	\$10,787	\$3,883	\$14,670	2055Q1	148.5%	\$26,806	\$9,650	\$36,456
0.7%	Adaptive Management & Monitoring	\$5,224	\$1,881	36.0%	\$7,104	3.2%	\$5,393	\$1,942	\$7,335	2051Q3	122.6%	\$12,004	\$4,321	\$16,325
0.7%	Project Operations	\$5,224	\$1,881	36.0%	\$7,104	3.2%	\$5,393	\$1,942	\$7,335	2051Q3	122.6%	\$12,004	\$4,321	\$16,325
	Real Estate (All Federal Labor)	\$4	\$2	50.0%	\$6	3.2%	\$4	\$2	\$7	2051Q3	122.6%	\$10	\$5	\$15
31	CONSTRUCTION MANAGEMENT	\$75,744	\$27,268		\$103,012		\$78,203	\$28,153	\$106,356			\$194,342	\$69,963	\$264,305
7.0%	Construction Management	\$52,237	\$18,805	36.0%	\$71,043	3.2%	\$53,933	\$19,416	\$73,349	2055Q1	148.5%	\$134,029	\$48,250	\$182,279
1.4%	Project Operation:	\$10,447	\$3,761	36.0%	\$14,209	3.2%	\$10,787	\$3,883	\$14,670	2055Q1	148.5%	\$26,806	\$9,650	\$36,456
1.8%	Project Management	\$13,059	\$4,701	36.0%	\$17,761	3.2%	\$13,483	\$4,854	\$18,337	2055Q1	148.5%	\$33,507	\$12,063	\$45,570
CONTRACT COST TOTALS:		\$1,272,239	\$500,198		\$1,772,437		\$1,316,338	\$601,206	\$1,834,053			\$2,771,155	\$1,082,032	\$3,853,187

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25						
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
02	Reach 2.b													
	RELOCATIONS	\$160,499	\$57,779	36.0%	\$218,278	3.5%	\$166,051	\$59,779	\$225,830	2043Q4	57.8%	\$262,111	\$94,360	\$356,471
06	FISH & WILDLIFE FACILITIES	\$2,295	\$826	36.0%	\$3,122	3.8%	\$2,383	\$858	\$3,241	2043Q4	57.8%	\$3,762	\$1,354	\$5,116
10	BREAKWATER & SEAWALLS	\$672,440	\$242,078	36.0%	\$914,518	2.8%	\$691,273	\$248,858	\$940,131	2043Q4	57.9%	\$1,091,176	\$392,823	\$1,483,999
13	PUMPING PLANT	\$44,748	\$16,109	36.0%	\$60,857	5.2%	\$47,090	\$16,952	\$64,042	2043Q4	57.8%	\$74,331	\$26,759	\$101,090
18	CULTURAL RESOURCE PRESERVATION	\$13,560	\$4,882	36.0%	\$18,442	5.2%	\$14,270	\$5,137	\$19,407	2043Q4	57.8%	\$22,525	\$8,109	\$30,634
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$478,336	\$172,201	36.0%	\$650,537	5.2%	\$503,370	\$181,213	\$684,584	2043Q4	57.8%	\$794,565	\$286,043	\$1,080,608
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$1,371,878	\$493,876	36.0%	\$1,865,754		\$1,424,437	\$512,797	\$1,937,235			\$2,248,469	\$809,449	\$3,057,918
01	LANDS AND DAMAGES	\$276,349	\$138,175	50.0%	\$414,524	3.9%	\$287,106	\$143,553	\$430,659	2038Q3	37.9%	\$396,045	\$198,022	\$594,067
30	PLANNING, ENGINEERING & DESIGN	\$273,694	\$98,530		\$372,224		\$282,578	\$101,728	\$384,306			\$431,830	\$155,460	\$587,290
1.8%	Project Management	\$24,008	\$8,643	36.0%	\$32,651	3.2%	\$24,787	\$8,923	\$33,711	2038Q3	48.3%	\$36,747	\$13,229	\$49,977
0.7%	Planning & Environmental Compliance	\$9,603	\$3,457	36.0%	\$13,060	3.2%	\$9,915	\$3,569	\$13,484	2038Q3	48.3%	\$14,699	\$5,292	\$19,991
10.5%	Engineering & Design	\$144,047	\$51,857	36.0%	\$195,904	3.2%	\$148,723	\$53,540	\$202,263	2038Q3	48.3%	\$220,485	\$79,374	\$299,859
0.7%	Reviews, ATRs, IEPs, VE	\$9,603	\$3,457	36.0%	\$13,060	3.2%	\$9,915	\$3,569	\$13,484	2038Q3	48.3%	\$14,699	\$5,292	\$19,991
0.7%	Life Cycle Updates (cost, schedule, risks)	\$9,603	\$3,457	36.0%	\$13,060	3.2%	\$9,915	\$3,569	\$13,484	2038Q3	48.3%	\$14,699	\$5,292	\$19,991
0.7%	Contracting & Reprographics	\$9,603	\$3,457	36.0%	\$13,060	3.2%	\$9,915	\$3,569	\$13,484	2038Q3	48.3%	\$14,699	\$5,292	\$19,991
2.1%	Engineering During Construction	\$28,809	\$10,371	36.0%	\$39,181	3.2%	\$29,745	\$10,708	\$40,453	2043Q4	74.3%	\$51,839	\$18,662	\$70,501
1.4%	Planning During Construction	\$19,206	\$6,914	36.0%	\$26,121	3.2%	\$19,830	\$7,139	\$26,968	2043Q4	74.3%	\$34,559	\$12,441	\$47,001
0.7%	Adaptive Management & Monitoring	\$9,603	\$3,457	36.0%	\$13,060	3.2%	\$9,915	\$3,569	\$13,484	2038Q3	48.3%	\$14,699	\$5,292	\$19,991
0.7%	Project Operations	\$9,603	\$3,457	36.0%	\$13,060	3.2%	\$9,915	\$3,569	\$13,484	2038Q3	48.3%	\$14,699	\$5,292	\$19,991
	Real Estate (All Federal Labor)	\$4	\$2	50.0%	\$6	3.2%	\$4	\$2	\$6	2038Q3	48.3%	\$6	\$3	\$9
31	CONSTRUCTION MANAGEMENT	\$139,246	\$50,128		\$189,374		\$143,765	\$51,756	\$195,521			\$250,554	\$90,200	\$340,754
7.0%	Construction Management	\$96,031	\$34,571	36.0%	\$130,603	3.2%	\$99,149	\$35,693	\$134,842	2043Q4	74.3%	\$172,796	\$62,207	\$235,003
1.4%	Project Operation:	\$19,206	\$6,914	36.0%	\$26,121	3.2%	\$19,830	\$7,139	\$26,968	2043Q4	74.3%	\$34,559	\$12,441	\$47,001
1.8%	Project Management	\$24,008	\$8,643	36.0%	\$32,651	3.2%	\$24,787	\$8,923	\$33,711	2043Q4	74.3%	\$43,199	\$15,552	\$58,751
CONTRACT COST TOTALS:		\$2,061,166	\$780,709		\$2,841,876		\$2,137,887	\$963,319	\$2,947,721			\$3,326,898	\$1,253,130	\$4,580,028

**** TOTAL PROJECT COST SUMMARY ****

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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 2.c														
02	RELOCATIONS	\$81,737	\$29,425	36.0%	\$111,162	3.5%	\$84,564	\$30,443	\$115,008	2032Q2	17.5%	\$99,354	\$35,767	\$135,121
06	FISH & WILDLIFE FACILITIES	\$2,167	\$780	36.0%	\$2,947	3.8%	\$2,250	\$810	\$3,060	2032Q2	17.5%	\$2,643	\$952	\$3,595
10	BREAKWATER & SEAWALLS	\$359,771	\$129,518	36.0%	\$489,289	2.8%	\$369,847	\$133,145	\$502,992	2032Q2	17.5%	\$434,530	\$156,431	\$590,960
13	PUMPING PLANT	\$42,240	\$15,207	36.0%	\$57,447	5.2%	\$44,451	\$16,002	\$60,453	2032Q2	17.5%	\$52,225	\$18,801	\$71,026
18	CULTURAL RESOURCE PRESERVATION	\$5,324	\$1,917	36.0%	\$7,241	5.2%	\$5,603	\$2,017	\$7,620	2032Q2	17.5%	\$6,583	\$2,370	\$8,952
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$48,671	\$17,522	36.0%	\$66,193	5.2%	\$51,219	\$18,439	\$69,658	2032Q2	17.5%	\$60,176	\$21,663	\$81,839
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$539,910	\$194,368	36.0%	\$734,278		\$557,934	\$200,856	\$758,790			\$655,510	\$235,984	\$891,494
01	LANDS AND DAMAGES	\$260,864	\$130,432	50.0%	\$391,296	3.9%	\$271,018	\$135,509	\$406,528	2029Q2	8.8%	\$294,816	\$147,408	\$442,224
30	PLANNING, ENGINEERING & DESIGN	\$107,716	\$38,778		\$146,494		\$111,212	\$40,037	\$151,249			\$125,058	\$45,022	\$170,080
1.8%	Project Management	\$9,448	\$3,401	36.0%	\$12,850	3.2%	\$9,755	\$3,512	\$13,267	2029Q2	10.5%	\$10,782	\$3,882	\$14,664
0.7%	Planning & Environmental Compliance	\$3,779	\$1,361	36.0%	\$5,140	3.2%	\$3,902	\$1,405	\$5,307	2029Q2	10.5%	\$4,313	\$1,553	\$5,866
10.5%	Engineering & Design	\$56,691	\$20,409	36.0%	\$77,099	3.2%	\$58,531	\$21,071	\$79,602	2029Q2	10.5%	\$64,693	\$23,290	\$87,983
0.7%	Reviews, ATRs, IEPRs, VE	\$3,779	\$1,361	36.0%	\$5,140	3.2%	\$3,902	\$1,405	\$5,307	2029Q2	10.5%	\$4,313	\$1,553	\$5,866
0.7%	Life Cycle Updates (cost, schedule, risks)	\$3,779	\$1,361	36.0%	\$5,140	3.2%	\$3,902	\$1,405	\$5,307	2029Q2	10.5%	\$4,313	\$1,553	\$5,866
0.7%	Contracting & Reprographics	\$3,779	\$1,361	36.0%	\$5,140	3.2%	\$3,902	\$1,405	\$5,307	2029Q2	10.5%	\$4,313	\$1,553	\$5,866
2.1%	Engineering During Construction	\$11,338	\$4,082	36.0%	\$15,420	3.2%	\$11,706	\$4,214	\$15,920	2032Q2	21.5%	\$14,221	\$5,120	\$19,340
1.4%	Planning During Construction	\$7,559	\$2,721	36.0%	\$10,280	3.2%	\$7,804	\$2,809	\$10,614	2032Q2	21.5%	\$9,481	\$3,413	\$12,894
0.7%	Adaptive Management & Monitoring	\$3,779	\$1,361	36.0%	\$5,140	3.2%	\$3,902	\$1,405	\$5,307	2029Q2	10.5%	\$4,313	\$1,553	\$5,866
0.7%	Project Operations	\$3,779	\$1,361	36.0%	\$5,140	3.2%	\$3,902	\$1,405	\$5,307	2029Q2	10.5%	\$4,313	\$1,553	\$5,866
	Real Estate (All Federal Labor)	\$4	\$2	50.0%	\$6	3.2%	\$4	\$2	\$6	2029Q2	10.5%	\$4	\$2	\$6
31	CONSTRUCTION MANAGEMENT	\$54,801	\$19,728		\$74,529		\$56,580	\$20,369	\$76,948			\$68,734	\$24,744	\$93,479
7.0%	Construction Management	\$37,794	\$13,606	36.0%	\$51,399	3.2%	\$39,020	\$14,047	\$53,068	2032Q2	21.5%	\$47,403	\$17,065	\$64,468
1.4%	Project Operation:	\$7,559	\$2,721	36.0%	\$10,280	3.2%	\$7,804	\$2,809	\$10,614	2032Q2	21.5%	\$9,481	\$3,413	\$12,894
1.8%	Project Management	\$9,448	\$3,401	36.0%	\$12,850	3.2%	\$9,755	\$3,512	\$13,267	2032Q2	21.5%	\$11,851	\$4,266	\$16,117
CONTRACT COST TOTALS:		\$963,291	\$383,306		\$1,346,598		\$996,744	\$457,177	\$1,393,515			\$1,144,119	\$453,158	\$1,597,276

**** TOTAL PROJECT COST SUMMARY ****

Printed:12/10/2025
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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 3.a														
02	RELOCATIONS	\$90,309	\$32,511	36.0%	\$122,820	3.5%	\$93,434	\$33,636	\$127,070	2058Q4	132.0%	\$216,748	\$78,029	\$294,778
06	FISH & WILDLIFE FACILITIES	\$5,086	\$1,831	36.0%	\$6,916	3.8%	\$5,280	\$1,901	\$7,181	2058Q4	132.0%	\$12,249	\$4,409	\$16,658
10	BREAKWATER & SEAWALLS	\$521,099	\$187,595	36.0%	\$708,694	2.8%	\$535,693	\$192,849	\$728,542	2058Q4	132.0%	\$1,242,711	\$447,376	\$1,690,086
13	PUMPING PLANT	\$144,621	\$52,064	36.0%	\$196,684	5.2%	\$152,190	\$54,788	\$206,978	2058Q4	132.0%	\$353,052	\$127,099	\$480,150
18	CULTURAL RESOURCE PRESERVATION	\$7,776	\$2,799	36.0%	\$10,575	5.2%	\$8,183	\$2,946	\$11,129	2058Q4	132.0%	\$18,983	\$6,834	\$25,817
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$21,565	\$7,764	36.0%	\$29,329	5.2%	\$22,694	\$8,170	\$30,864	2058Q4	132.0%	\$52,646	\$18,952	\$71,598
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$790,455	\$284,564	36.0%	\$1,075,019		\$817,473	\$294,290	\$1,111,763			\$1,896,388	\$682,700	\$2,579,087
01	LANDS AND DAMAGES	\$111,897	\$55,948	50.0%	\$167,845	3.9%	\$116,252	\$58,126	\$174,378	2055Q4	114.8%	\$249,697	\$124,849	\$374,546
30	PLANNING, ENGINEERING & DESIGN	\$157,696	\$56,770		\$214,466		\$162,815	\$58,613	\$221,428			\$421,499	\$151,740	\$573,238
1.8%	Project Management	\$13,833	\$4,980	36.0%	\$18,813	3.2%	\$14,282	\$5,142	\$19,423	2055Q4	154.5%	\$36,342	\$13,083	\$49,425
0.7%	Planning & Environmental Compliance	\$5,533	\$1,992	36.0%	\$7,525	3.2%	\$5,713	\$2,057	\$7,769	2055Q4	154.5%	\$14,537	\$5,233	\$19,770
10.5%	Engineering & Design	\$82,998	\$29,879	36.0%	\$112,877	3.2%	\$85,692	\$30,849	\$116,541	2055Q4	154.5%	\$218,050	\$78,498	\$296,548
0.7%	Reviews, ATRs, IEPRs, VE	\$5,533	\$1,992	36.0%	\$7,525	3.2%	\$5,713	\$2,057	\$7,769	2055Q4	154.5%	\$14,537	\$5,233	\$19,770
0.7%	Life Cycle Updates (cost, schedule, risks)	\$5,533	\$1,992	36.0%	\$7,525	3.2%	\$5,713	\$2,057	\$7,769	2055Q4	154.5%	\$14,537	\$5,233	\$19,770
0.7%	Contracting & Reprographics	\$5,533	\$1,992	36.0%	\$7,525	3.2%	\$5,713	\$2,057	\$7,769	2055Q4	154.5%	\$14,537	\$5,233	\$19,770
2.1%	Engineering During Construction	\$16,600	\$5,976	36.0%	\$22,575	3.2%	\$17,138	\$6,170	\$23,308	2058Q4	179.7%	\$47,932	\$17,256	\$65,188
1.4%	Planning During Construction	\$11,066	\$3,984	36.0%	\$15,050	3.2%	\$11,426	\$4,113	\$15,539	2058Q4	179.7%	\$31,955	\$11,504	\$43,458
0.7%	Adaptive Management & Monitoring	\$5,533	\$1,992	36.0%	\$7,525	3.2%	\$5,713	\$2,057	\$7,769	2055Q4	154.5%	\$14,537	\$5,233	\$19,770
0.7%	Project Operations	\$5,533	\$1,992	36.0%	\$7,525	3.2%	\$5,713	\$2,057	\$7,769	2055Q4	154.5%	\$14,537	\$5,233	\$19,770
	Real Estate (All Federal Labor)	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT	\$80,231	\$28,883		\$109,114		\$82,835	\$29,821	\$112,656			\$231,671	\$83,402	\$315,073
7.0%	Construction Management	\$55,332	\$19,919	36.0%	\$75,251	3.2%	\$57,128	\$20,566	\$77,694	2058Q4	179.7%	\$159,773	\$57,518	\$217,292
1.4%	Project Operation:	\$11,066	\$3,984	36.0%	\$15,050	3.2%	\$11,426	\$4,113	\$15,539	2058Q4	179.7%	\$31,955	\$11,504	\$43,458
1.8%	Project Management	\$13,833	\$4,980	36.0%	\$18,813	3.2%	\$14,282	\$5,142	\$19,423	2058Q4	179.7%	\$39,943	\$14,380	\$54,323
CONTRACT COST TOTALS:		\$1,140,279	\$426,166		\$1,566,445		\$1,179,375	\$529,284	\$1,620,225			\$2,799,256	\$1,042,690	\$3,841,945

**** TOTAL PROJECT COST SUMMARY ****

Printed:12/10/2025
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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 3.b														
02	RELOCATIONS	\$60,264	\$21,695	36.0%	\$81,959	3.5%	\$62,349	\$22,446	\$84,795	2035Q3	27.7%	\$79,632	\$28,668	\$108,300
06	FISH & WILDLIFE FACILITIES	\$5,105	\$1,838	36.0%	\$6,943	3.8%	\$5,301	\$1,908	\$7,209	2035Q3	27.7%	\$6,770	\$2,437	\$9,207
10	BREAKWATER & SEAWALLS	\$339,052	\$122,059	36.0%	\$461,111	2.8%	\$348,548	\$125,477	\$474,025	2035Q3	27.7%	\$445,168	\$160,261	\$605,429
13	PUMPING PLANT	\$145,184	\$52,266	36.0%	\$197,450	5.2%	\$152,782	\$55,002	\$207,784	2035Q3	27.7%	\$195,133	\$70,248	\$265,382
18	CULTURAL RESOURCE PRESERVATION	\$5,445	\$1,960	36.0%	\$7,405	5.2%	\$5,730	\$2,063	\$7,793	2035Q3	27.7%	\$7,318	\$2,635	\$9,953
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$555,050	\$199,818	36.0%	\$754,868		\$574,709	\$206,895	\$781,605			\$734,022	\$264,248	\$998,270
01	LANDS AND DAMAGES	\$112,332	\$56,166	50.0%	\$168,498	3.9%	\$116,704	\$58,352	\$175,057	2032Q2	17.5%	\$137,115	\$68,557	\$205,672
30	PLANNING, ENGINEERING & DESIGN	\$110,732	\$39,864		\$150,596		\$114,327	\$41,158	\$155,484			\$141,549	\$50,958	\$192,506
1.8%	Project Management	\$9,713	\$3,497	36.0%	\$13,210	3.2%	\$10,029	\$3,610	\$13,639	2032Q2	21.5%	\$12,183	\$4,386	\$16,569
0.7%	Planning & Environmental Compliance	\$3,885	\$1,399	36.0%	\$5,284	3.2%	\$4,011	\$1,444	\$5,456	2032Q2	21.5%	\$4,873	\$1,754	\$6,628
10.5%	Engineering & Design	\$58,280	\$20,981	36.0%	\$79,261	3.2%	\$60,172	\$21,662	\$81,834	2032Q2	21.5%	\$73,098	\$26,315	\$99,414
0.7%	Reviews, ATRs, IEPRs, VE	\$3,885	\$1,399	36.0%	\$5,284	3.2%	\$4,011	\$1,444	\$5,456	2032Q2	21.5%	\$4,873	\$1,754	\$6,628
0.7%	Life Cycle Updates (cost, schedule, risks)	\$3,885	\$1,399	36.0%	\$5,284	3.2%	\$4,011	\$1,444	\$5,456	2032Q2	21.5%	\$4,873	\$1,754	\$6,628
0.7%	Contracting & Reprographics	\$3,885	\$1,399	36.0%	\$5,284	3.2%	\$4,011	\$1,444	\$5,456	2032Q2	21.5%	\$4,873	\$1,754	\$6,628
2.1%	Engineering During Construction	\$11,656	\$4,196	36.0%	\$15,852	3.2%	\$12,034	\$4,332	\$16,367	2035Q3	34.8%	\$16,217	\$5,838	\$22,055
1.4%	Planning During Construction	\$7,771	\$2,797	36.0%	\$10,568	3.2%	\$8,023	\$2,888	\$10,911	2035Q3	34.8%	\$10,811	\$3,892	\$14,703
0.7%	Adaptive Management & Monitoring	\$3,885	\$1,399	36.0%	\$5,284	3.2%	\$4,011	\$1,444	\$5,456	2032Q2	21.5%	\$4,873	\$1,754	\$6,628
0.7%	Project Operations	\$3,885	\$1,399	36.0%	\$5,284	3.2%	\$4,011	\$1,444	\$5,456	2032Q2	21.5%	\$4,873	\$1,754	\$6,628
	Real Estate (All Federal Labor)	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT	\$56,338	\$20,282		\$76,619		\$58,166	\$20,940	\$79,106			\$78,381	\$28,217	\$106,598
7.0%	Construction Management	\$38,853	\$13,987	36.0%	\$52,841	3.2%	\$40,115	\$14,441	\$54,556	2035Q3	34.8%	\$54,056	\$19,460	\$73,516
1.4%	Project Operation:	\$7,771	\$2,797	36.0%	\$10,568	3.2%	\$8,023	\$2,888	\$10,911	2035Q3	34.8%	\$10,811	\$3,892	\$14,703
1.8%	Project Management	\$9,713	\$3,497	36.0%	\$13,210	3.2%	\$10,029	\$3,610	\$13,639	2035Q3	34.8%	\$13,514	\$4,865	\$18,379
CONTRACT COST TOTALS:		\$834,452	\$316,129		\$1,150,581		\$863,907	\$389,443	\$1,191,252			\$1,091,067	\$411,980	\$1,503,047

**** TOTAL PROJECT COST SUMMARY ****

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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
	Reach 3.c													
02	RELOCATIONS	\$49,744	\$17,908	36.0%	\$67,652	3.5%	\$51,465	\$18,527	\$69,992	2051Q3	92.6%	\$99,113	\$35,681	\$134,793
06	FISH & WILDLIFE FACILITIES	\$3,631	\$1,307	36.0%	\$4,938	3.8%	\$3,770	\$1,357	\$5,127	2051Q3	92.6%	\$7,260	\$2,614	\$9,874
10	BREAKWATER & SEAWALLS	\$187,712	\$67,576	36.0%	\$255,288	2.8%	\$192,969	\$69,469	\$262,438	2051Q3	92.6%	\$371,626	\$133,785	\$505,411
13	PUMPING PLANT	\$103,260	\$37,174	36.0%	\$140,434	5.2%	\$108,665	\$39,119	\$147,784	2051Q3	92.6%	\$209,269	\$75,337	\$284,606
18	CULTURAL RESOURCE PRESERVATION	\$3,424	\$1,233	36.0%	\$4,657	5.2%	\$3,604	\$1,297	\$4,901	2051Q3	92.6%	\$6,940	\$2,498	\$9,438
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$1,723	\$620	36.0%	\$2,344	5.2%	\$1,813	\$653	\$2,466	2051Q3	92.6%	\$3,492	\$1,257	\$4,750
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$349,495	\$125,818	36.0%	\$475,313		\$362,286	\$130,423	\$492,709			\$697,700	\$251,172	\$948,872
01	LANDS AND DAMAGES	\$79,895	\$39,948	50.0%	\$119,843	3.9%	\$83,005	\$41,502	\$124,507	2048Q2	77.2%	\$147,047	\$73,524	\$220,571
30	PLANNING, ENGINEERING & DESIGN	\$69,724	\$25,101		\$94,825		\$71,987	\$25,915	\$97,903			\$147,356	\$53,048	\$200,404
1.8%	Project Management	\$6,116	\$2,202	36.0%	\$8,318	3.2%	\$6,315	\$2,273	\$8,588	2048Q2	100.9%	\$12,686	\$4,567	\$17,253
0.7%	Planning & Environmental Compliance	\$2,446	\$881	36.0%	\$3,327	3.2%	\$2,526	\$909	\$3,435	2048Q2	100.9%	\$5,074	\$1,827	\$6,901
10.5%	Engineering & Design	\$36,697	\$13,211	36.0%	\$49,908	3.2%	\$37,888	\$13,640	\$51,528	2048Q2	100.9%	\$76,115	\$27,401	\$103,516
0.7%	Reviews, ATRs, IEPRs, VE	\$2,446	\$881	36.0%	\$3,327	3.2%	\$2,526	\$909	\$3,435	2048Q2	100.9%	\$5,074	\$1,827	\$6,901
0.7%	Life Cycle Updates (cost, schedule, risks)	\$2,446	\$881	36.0%	\$3,327	3.2%	\$2,526	\$909	\$3,435	2048Q2	100.9%	\$5,074	\$1,827	\$6,901
0.7%	Contracting & Reprographics	\$2,446	\$881	36.0%	\$3,327	3.2%	\$2,526	\$909	\$3,435	2048Q2	100.9%	\$5,074	\$1,827	\$6,901
2.1%	Engineering During Construction	\$7,339	\$2,642	36.0%	\$9,982	3.2%	\$7,578	\$2,728	\$10,306	2051Q3	122.6%	\$16,865	\$6,072	\$22,937
1.4%	Planning During Construction	\$4,893	\$1,761	36.0%	\$6,654	3.2%	\$5,052	\$1,819	\$6,870	2051Q3	122.6%	\$11,244	\$4,048	\$15,291
0.7%	Adaptive Management & Monitoring	\$2,446	\$881	36.0%	\$3,327	3.2%	\$2,526	\$909	\$3,435	2048Q2	100.9%	\$5,074	\$1,827	\$6,901
0.7%	Project Operations	\$2,446	\$881	36.0%	\$3,327	3.2%	\$2,526	\$909	\$3,435	2048Q2	100.9%	\$5,074	\$1,827	\$6,901
	Real Estate (All Federal Labor)	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT	\$35,474	\$12,771		\$48,244		\$36,625	\$13,185	\$49,810			\$81,516	\$29,346	\$110,862
7.0%	Construction Management	\$24,465	\$8,807	36.0%	\$33,272	3.2%	\$25,259	\$9,093	\$34,352	2051Q3	122.6%	\$56,218	\$20,239	\$76,457
1.4%	Project Operation:	\$4,893	\$1,761	36.0%	\$6,654	3.2%	\$5,052	\$1,819	\$6,870	2051Q3	122.6%	\$11,244	\$4,048	\$15,291
1.8%	Project Management	\$6,116	\$2,202	36.0%	\$8,318	3.2%	\$6,315	\$2,273	\$8,588	2051Q3	122.6%	\$14,055	\$5,060	\$19,114
CONTRACT COST TOTALS:		\$534,588	\$203,637		\$738,225		\$553,903	\$250,126	\$764,929			\$1,073,619	\$407,090	\$1,480,709

**** TOTAL PROJECT COST SUMMARY ****

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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 4.a														
02	RELOCATIONS	\$125,502	\$45,181	36.0%	\$170,682	3.5%	\$129,844	\$46,744	\$176,588	2061Q4	150.6%	\$325,325	\$117,117	\$442,442
06	FISH & WILDLIFE FACILITIES	\$6,718	\$2,418	36.0%	\$9,137	3.8%	\$6,975	\$2,511	\$9,486	2061Q4	150.6%	\$17,476	\$6,291	\$23,767
10	BREAKWATER & SEAWALLS	\$513,761	\$184,954	36.0%	\$698,715	2.8%	\$528,150	\$190,134	\$718,284	2061Q4	150.6%	\$1,323,288	\$476,384	\$1,799,671
13	PUMPING PLANT	\$141,819	\$51,055	36.0%	\$192,874	5.2%	\$149,241	\$53,727	\$202,968	2061Q4	150.6%	\$373,925	\$134,613	\$508,538
18	CULTURAL RESOURCE PRESERVATION	\$11,350	\$4,086	36.0%	\$15,436	5.2%	\$11,944	\$4,300	\$16,243	2061Q4	150.6%	\$29,925	\$10,773	\$40,698
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$353,888	\$127,400	36.0%	\$481,288	5.2%	\$372,410	\$134,067	\$506,477	2061Q4	150.6%	\$933,075	\$335,907	\$1,268,982
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$1,153,038	\$415,094	36.0%	1,568,132		\$1,198,563	\$431,483	\$1,630,046			\$3,003,013	\$1,081,085	\$4,084,098
01	LANDS AND DAMAGES	\$251,797	\$125,899	50.0%	\$ 377,696	3.9%	\$261,598	\$130,799	\$392,397	2058Q4	132.0%	\$606,861	\$303,431	\$910,292
30	PLANNING, ENGINEERING & DESIGN	\$230,049	\$82,820		\$312,869		\$237,516	\$85,508	\$323,025			\$675,826	\$243,305	\$919,131
1.8%	Project Management	\$20,178	\$7,264	36.0%	\$27,442	3.2%	\$20,833	\$7,500	\$28,333	2058Q4	179.7%	\$58,265	\$20,976	\$79,241
0.7%	Planning & Environmental Compliance	\$8,071	\$2,906	36.0%	\$10,977	3.2%	\$8,333	\$3,000	\$11,333	2058Q4	179.7%	\$23,306	\$8,390	\$31,696
10.5%	Engineering & Design	\$121,069	\$43,585	36.0%	\$164,654	3.2%	\$124,999	\$45,000	\$169,998	2058Q4	179.7%	\$349,593	\$125,853	\$475,446
0.7%	Reviews, ATRs, IEPRs, VE	\$8,071	\$2,906	36.0%	\$10,977	3.2%	\$8,333	\$3,000	\$11,333	2058Q4	179.7%	\$23,306	\$8,390	\$31,696
0.7%	Life Cycle Updates (cost, schedule, risks)	\$8,071	\$2,906	36.0%	\$10,977	3.2%	\$8,333	\$3,000	\$11,333	2058Q4	179.7%	\$23,306	\$8,390	\$31,696
0.7%	Contracting & Reprographics	\$8,071	\$2,906	36.0%	\$10,977	3.2%	\$8,333	\$3,000	\$11,333	2058Q4	179.7%	\$23,306	\$8,390	\$31,696
2.1%	Engineering During Construction	\$24,214	\$8,717	36.0%	\$32,931	3.2%	\$25,000	\$9,000	\$34,000	2061Q4	207.4%	\$76,848	\$27,665	\$104,513
1.4%	Planning During Construction	\$16,143	\$5,811	36.0%	\$21,954	3.2%	\$16,667	\$6,000	\$22,666	2061Q4	207.4%	\$51,232	\$18,443	\$69,675
0.7%	Adaptive Management & Monitoring	\$8,071	\$2,906	36.0%	\$10,977	3.2%	\$8,333	\$3,000	\$11,333	2058Q4	179.7%	\$23,306	\$8,390	\$31,696
0.7%	Project Operations	\$8,071	\$2,906	36.0%	\$10,977	3.2%	\$8,333	\$3,000	\$11,333	2058Q4	179.7%	\$23,306	\$8,390	\$31,696
	Real Estate (All Federal Labor)	\$18	\$9	50.0%	\$27	3.2%	\$18	\$9	\$28	2058Q4	179.7%	\$52	\$26	\$77
31	CONSTRUCTION MANAGEMENT	\$117,033	\$42,132		\$159,165		\$120,832	\$43,500	\$164,332			\$371,431	\$133,715	\$505,146
7.0%	Construction Management	\$80,713	\$29,057	36.0%	109,769	3.2%	\$83,333	\$30,000	\$113,332	2061Q4	207.4%	\$256,159	\$92,217	\$348,377
1.4%	Project Operation:	\$16,143	\$5,811	36.0%	21,954	3.2%	\$16,667	\$6,000	\$22,666	2061Q4	207.4%	\$51,232	\$18,443	\$69,675
1.8%	Project Management	\$20,178	\$7,264	36.0%	27,442	3.2%	\$20,833	\$7,500	\$28,333	2061Q4	207.4%	\$64,040	\$23,054	\$87,094
CONTRACT COST TOTALS:		\$1,751,917	\$665,944		\$2,417,862		\$1,818,510	\$820,298	\$2,509,800			\$4,657,131	\$1,761,535	\$6,418,666

**** TOTAL PROJECT COST SUMMARY ****

Printed:12/10/2025
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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 4.b														
02	RELOCATIONS	\$90,899	\$32,724	36.0%	\$123,623	3.5%	\$94,044	\$33,856	\$127,900	2038Q4	38.8%	\$130,568	\$47,005	\$177,573
06	FISH & WILDLIFE FACILITIES	\$8,677	\$3,124	36.0%	\$11,801	3.8%	\$9,009	\$3,243	\$12,252	2038Q4	38.8%	\$12,508	\$4,503	\$17,010
10	BREAKWATER & SEAWALLS	\$772,854	\$278,228	36.0%	\$1,051,082	2.8%	\$794,500	\$286,020	\$1,080,520	2038Q4	38.8%	\$1,103,066	\$397,104	\$1,500,169
13	PUMPING PLANT	\$183,174	\$65,943	36.0%	\$249,117	5.2%	\$192,761	\$69,394	\$262,154	2038Q4	38.8%	\$267,623	\$96,344	\$363,967
18	CULTURAL RESOURCE PRESERVATION	\$10,771	\$3,877	36.0%	\$14,648	5.2%	\$11,334	\$4,080	\$15,415	2038Q4	38.8%	\$15,736	\$5,665	\$21,401
19	BUILDINGS, GROUNDS & UTILITIES	\$30,146	\$10,853	36.0%	\$40,999	5.2%	\$31,724	\$11,421	\$43,145	2038Q4	38.8%	\$44,045	\$15,856	\$59,901
19	BUILDINGS, GROUNDS & UTILITIES	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$1,096,522	\$394,748	36.0%	\$1,491,270		\$1,133,372	\$408,014	\$1,541,386			\$1,573,546	\$566,476	\$2,140,022
01	LANDS AND DAMAGES	\$325,222	\$162,611	50.0%	\$487,834	3.9%	\$337,882	\$168,941	\$506,823	2035Q3	27.7%	\$431,544	\$215,772	\$647,316
30	PLANNING, ENGINEERING & DESIGN	\$218,779	\$78,764		\$297,543		\$225,881	\$81,320	\$307,201			\$310,212	\$111,681	\$421,893
1.8%	Project Management	\$19,189	\$6,908	36.0%	\$26,097	3.2%	\$19,812	\$7,132	\$26,944	2035Q3	34.8%	\$26,697	\$9,611	\$36,308
0.7%	Planning & Environmental Compliance	\$7,676	\$2,763	36.0%	\$10,439	3.2%	\$7,925	\$2,853	\$10,778	2035Q3	34.8%	\$10,679	\$3,844	\$14,523
10.5%	Engineering & Design	\$115,135	\$41,449	36.0%	\$156,583	3.2%	\$118,872	\$42,794	\$161,666	2035Q3	34.8%	\$160,185	\$57,666	\$217,851
0.7%	Reviews, ATRs, IEPRs, VE	\$7,676	\$2,763	36.0%	\$10,439	3.2%	\$7,925	\$2,853	\$10,778	2035Q3	34.8%	\$10,679	\$3,844	\$14,523
0.7%	Life Cycle Updates (cost, schedule, risks)	\$7,676	\$2,763	36.0%	\$10,439	3.2%	\$7,925	\$2,853	\$10,778	2035Q3	34.8%	\$10,679	\$3,844	\$14,523
0.7%	Contracting & Reprographics	\$7,676	\$2,763	36.0%	\$10,439	3.2%	\$7,925	\$2,853	\$10,778	2035Q3	34.8%	\$10,679	\$3,844	\$14,523
2.1%	Engineering During Construction	\$23,027	\$8,290	36.0%	\$31,317	3.2%	\$23,774	\$8,559	\$32,333	2038Q4	49.5%	\$35,534	\$12,792	\$48,327
1.4%	Planning During Construction	\$15,351	\$5,526	36.0%	\$20,878	3.2%	\$15,850	\$5,706	\$21,555	2038Q4	49.5%	\$23,690	\$8,528	\$32,218
0.7%	Adaptive Management & Monitoring	\$7,676	\$2,763	36.0%	\$10,439	3.2%	\$7,925	\$2,853	\$10,778	2035Q3	34.8%	\$10,679	\$3,844	\$14,523
0.7%	Project Operations	\$7,676	\$2,763	36.0%	\$10,439	3.2%	\$7,925	\$2,853	\$10,778	2035Q3	34.8%	\$10,679	\$3,844	\$14,523
	Real Estate (All Federal Labor)	\$23	\$12	50.0%	\$35	3.2%	\$24	\$12	\$36	2035Q3	34.8%	\$32	\$16	\$48
31	CONSTRUCTION MANAGEMENT	\$111,297	\$40,067		\$151,364		\$114,910	\$41,367	\$156,277			\$171,750	\$61,830	\$233,580
7.0%	Construction Management	\$76,757	\$27,632	36.0%	\$104,389	3.2%	\$79,248	\$28,529	\$107,777	2038Q4	49.5%	\$118,448	\$42,641	\$161,089
1.4%	Project Operation:	\$15,351	\$5,526	36.0%	\$20,878	3.2%	\$15,850	\$5,706	\$21,555	2038Q4	49.5%	\$23,690	\$8,528	\$32,218
1.8%	Project Management	\$19,189	\$6,908	36.0%	\$26,097	3.2%	\$19,812	\$7,132	\$26,944	2038Q4	49.5%	\$29,612	\$10,660	\$40,272
CONTRACT COST TOTALS:		\$1,751,820	\$676,190		\$2,428,010		\$1,812,044	\$822,330	\$2,511,686			\$2,487,051	\$955,759	\$3,442,810

**** TOTAL PROJECT COST SUMMARY ****

Printed:12/10/2025
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**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 4.c														
02	RELOCATIONS	\$63,699	\$22,931	36.0%	\$86,630	3.5%	\$65,902	\$23,725	\$89,627	2048Q2	77.2%	\$116,749	\$42,030	\$158,779
06	FISH & WILDLIFE FACILITIES	\$4,917	\$1,770	36.0%	\$6,688	3.8%	\$5,105	\$1,838	\$6,943	2048Q2	77.2%	\$9,044	\$3,256	\$12,300
10	BREAKWATER & SEAWALLS	\$397,580	\$143,129	36.0%	\$540,709	2.8%	\$408,715	\$147,137	\$555,852	2048Q2	77.2%	\$724,060	\$260,662	\$984,722
13	PUMPING PLANT	\$103,806	\$37,370	36.0%	\$141,176	5.2%	\$109,238	\$39,326	\$148,564	2048Q2	77.2%	\$193,521	\$69,667	\$263,188
18	CULTURAL RESOURCE PRESERVATION	\$8,799	\$3,168	36.0%	\$11,967	5.2%	\$9,260	\$3,334	\$12,593	2048Q2	77.2%	\$16,404	\$5,906	\$22,310
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$314,848	\$113,345	36.0%	\$428,194	5.2%	\$331,326	\$119,278	\$450,604	2048Q2	77.2%	\$586,960	\$211,305	\$798,265
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$893,649	\$321,714	36.0%	\$1,215,363		\$929,547	\$334,637	\$1,264,184			\$1,646,738	\$592,826	\$2,239,564
01	LANDS AND DAMAGES	\$184,305	\$92,153	50.0%	\$276,458	3.9%	\$191,479	\$95,740	\$287,219	2045Q2	64.0%	\$314,074	\$157,037	\$471,112
30	PLANNING, ENGINEERING & DESIGN	\$178,296	\$64,188		\$242,484		\$184,083	\$66,272	\$250,355			\$342,316	\$123,237	\$465,553
1.8%	Project Management	\$15,639	\$5,630	36.0%	\$21,269	3.2%	\$16,146	\$5,813	\$21,959	2045Q2	82.8%	\$29,512	\$10,624	\$40,137
0.7%	Planning & Environmental Compliance	\$6,256	\$2,252	36.0%	\$8,508	3.2%	\$6,459	\$2,325	\$8,784	2045Q2	82.8%	\$11,805	\$4,250	\$16,055
10.5%	Engineering & Design	\$93,833	\$33,780	36.0%	\$127,613	3.2%	\$96,879	\$34,876	\$131,755	2045Q2	82.8%	\$177,074	\$63,747	\$240,821
0.7%	Reviews, ATRs, IEPRs, VE	\$6,256	\$2,252	36.0%	\$8,508	3.2%	\$6,459	\$2,325	\$8,784	2045Q2	82.8%	\$11,805	\$4,250	\$16,055
0.7%	Life Cycle Updates (cost, schedule, risks)	\$6,256	\$2,252	36.0%	\$8,508	3.2%	\$6,459	\$2,325	\$8,784	2045Q2	82.8%	\$11,805	\$4,250	\$16,055
0.7%	Contracting & Reprographics	\$6,256	\$2,252	36.0%	\$8,508	3.2%	\$6,459	\$2,325	\$8,784	2045Q2	82.8%	\$11,805	\$4,250	\$16,055
2.1%	Engineering During Construction	\$18,767	\$6,756	36.0%	\$25,523	3.2%	\$19,376	\$6,975	\$26,351	2048Q2	100.9%	\$38,925	\$14,013	\$52,938
1.4%	Planning During Construction	\$12,511	\$4,504	36.0%	\$17,015	3.2%	\$12,917	\$4,650	\$17,567	2048Q2	100.9%	\$25,950	\$9,342	\$35,292
0.7%	Adaptive Management & Monitoring	\$6,256	\$2,252	36.0%	\$8,508	3.2%	\$6,459	\$2,325	\$8,784	2045Q2	82.8%	\$11,805	\$4,250	\$16,055
0.7%	Project Operations	\$6,256	\$2,252	36.0%	\$8,508	3.2%	\$6,459	\$2,325	\$8,784	2045Q2	82.8%	\$11,805	\$4,250	\$16,055
	Real Estate (All Federal Labor)	\$13	\$7	50.0%	\$20	3.2%	\$13	\$7	\$20	2045Q2	82.8%	\$25	\$12	\$37
31	CONSTRUCTION MANAGEMENT	\$90,705	\$32,654		\$123,359		\$93,650	\$33,714	\$127,364			\$188,136	\$67,729	\$255,865
7.0%	Construction Management	\$62,555	\$22,520	36.0%	\$85,075	3.2%	\$64,586	\$23,251	\$87,837	2048Q2	100.9%	\$129,749	\$46,710	\$176,458
1.4%	Project Operation:	\$12,511	\$4,504	36.0%	\$17,015	3.2%	\$12,917	\$4,650	\$17,567	2048Q2	100.9%	\$25,950	\$9,342	\$35,292
1.8%	Project Management	\$15,639	\$5,630	36.0%	\$21,269	3.2%	\$16,146	\$5,813	\$21,959	2048Q2	100.9%	\$32,437	\$11,677	\$44,115
CONTRACT COST TOTALS:		\$1,346,956	\$510,709		\$1,857,664		\$1,398,760	\$630,348	\$1,929,122			\$2,491,264	\$940,829	\$3,432,093

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
PROJECT NO: P2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
WBS NUMBER A	Civil Works Feature & Sub-Feature Description B	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	Program Year (Budget EC): Effective Price Level Date:		INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
										2026 1 OCT 25	Spent Thru: 1-Oct-24 (\$K)				
02	RELOCATIONS	\$890,791	\$320,685	36.0%	\$1,211,476	3.5%	\$921,610	\$331,780	\$1,253,390		\$0	83.6%	\$1,692,501	\$609,300	\$2,301,801
06	FISH & WILDLIFE FACILITIES	\$47,600	\$17,136	36.0%	\$64,736	3.8%	\$49,420	\$17,791	\$67,211		\$0	81.3%	\$89,602	\$32,257	\$121,859
10	BREAKWATER & SEAWALLS	\$2,149,965	\$773,987	36.0%	\$2,923,952	2.8%	\$2,210,179	\$795,664	\$3,005,843		\$0	79.8%	\$3,974,554	\$1,430,839	\$5,405,393
13	PUMPING PLANT	\$970,156	\$349,256	36.0%	\$1,319,412	5.2%	\$1,020,931	\$367,535	\$1,388,466		\$0	81.0%	\$1,847,819	\$665,215	\$2,513,034
18	CULTURAL RESOURCE PRESERVATION	\$54,749	\$19,710	36.0%	\$74,459	5.2%	\$57,615	\$20,741	\$78,356		\$0	83.2%	\$105,540	\$37,994	\$143,534
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$1,354,221	\$487,519	36.0%	\$1,841,740	5.2%	\$1,425,096	\$513,035	\$1,938,131		\$0	89.2%	\$2,696,456	\$970,724	\$3,667,181
19	BUILDINGS, GROUNDS & UTILITIES Reach 1 2065	\$109,786	\$39,523	36.0%	\$149,308	5.2%	\$115,531	\$41,591	\$157,123		\$0	172.3%	\$314,569	\$113,245	\$427,813
CONSTRUCTION ESTIMATE TOTALS:		\$5,577,267	\$2,007,816		\$7,585,084	4.0%	\$5,800,382	\$2,088,137	\$7,888,519		\$0	84.8%	\$10,721,040	\$3,859,575	\$14,580,615
01	LANDS AND DAMAGES	\$2,367,208	\$1,183,604	50.0%	\$3,550,812	3.9%	\$2,459,352	\$1,229,676	\$3,689,028		\$0	63.1%	\$4,010,026	\$2,005,013	\$6,015,039
30	PLANNING, ENGINEERING & DESIGN	\$1,112,731	\$400,592	36.0%	\$1,513,323	3.2%	\$1,148,850	\$413,595	\$1,562,445		\$0	93.2%	\$2,219,244	\$798,945	\$3,018,190
31	CONSTRUCTION MANAGEMENT	\$566,093	\$203,793	36.0%	\$769,886	3.2%	\$584,468	\$210,408	\$794,876		\$0	111.0%	\$1,233,493	\$444,057	\$1,677,551
PROJECT COST TOTALS:		\$9,623,299	\$3,795,806	39.4%	\$13,419,105		\$9,993,051	\$3,941,817	\$13,934,868		\$0	81.5%	\$18,183,804	\$7,107,591	\$25,291,394

- CHIEF, COST ENGINEERING, xxx
- PROJECT MANAGER, xxx
- CHIEF, REAL ESTATE, xxx
- CHIEF, PLANNING, xxx
- CHIEF, ENGINEERING, xxx
- CHIEF, OPERATIONS, xxx
- CHIEF, CONSTRUCTION, xxx
- CHIEF, CONTRACTING,xxx
- CHIEF, PM-PB, xxxx
- CHIEF, DPM, xxx

ESTIMATED TOTAL PROJECT COST: \$25,291,394

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25						
WBS NUMBER	Civil Works Feature & Sub-Feature Description	RISK BASEI				ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
		COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)									
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
02	Reach 1.a													
	RELOCATIONS	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
06	FISH & WILDLIFE FACILITIES	\$6,500	\$2,340	36.0%	\$8,840	3.8%	\$6,749	\$2,430	\$9,179	2051Q1	90.1%	\$12,829	\$4,618	\$17,447
10	BREAKWATER & SEAWALLS	\$43,188	\$15,548	36.0%	\$58,736	2.8%	\$44,398	\$15,983	\$60,381	2051Q1	90.1%	\$84,395	\$30,382	\$114,777
13	PUMPING PLANT	\$12,507	\$4,502	36.0%	\$17,009	5.2%	\$13,161	\$4,738	\$17,899	2051Q1	90.1%	\$25,017	\$9,006	\$34,024
18	CULTURAL RESOURCE PRESERVATION	\$2,016	\$726	36.0%	\$2,742	5.2%	\$2,122	\$764	\$2,885	2051Q1	90.1%	\$4,033	\$1,452	\$5,485
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$36,135	\$13,009	36.0%	\$49,143	5.2%	\$38,026	\$13,689	\$51,715	2051Q1	90.1%	\$72,282	\$26,022	\$98,304
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$109,786	\$39,523	36.0%	\$149,308	5.2%	\$115,531	\$41,591	\$157,123	2065Q1	172.3%	\$314,569	\$113,245	\$427,813
CONSTRUCTION ESTIMATE TOTALS:		\$210,131	\$75,647	36.0%	\$285,779		\$219,987	\$79,195	\$299,182			\$513,125	\$184,725	\$697,850
01	LANDS AND DAMAGES	\$463,183	\$231,591	50.0%	\$694,774	3.9%	\$481,212	\$240,606	\$721,818	2048Q2	77.2%	\$852,490	\$426,245	\$1,278,735
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$3,677	\$1,324	36.0%	\$5,001	3.2%	\$3,797	\$1,367	\$5,163	2048Q2	100.9%	\$7,627	\$2,746	\$10,373
0.7%	Planning & Environmental Compliance	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
10.5%	Engineering & Design	\$22,064	\$7,943	36.0%	\$30,007	3.2%	\$22,780	\$8,201	\$30,981	2048Q2	100.9%	\$45,763	\$16,475	\$62,238
0.7%	Reviews, ATRs, IEPRs, VE	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
0.7%	Life Cycle Updates (cost, schedule, risks)	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
0.7%	Contracting & Reprographics	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
2.1%	Engineering During Construction	\$4,413	\$1,589	36.0%	\$6,001	3.2%	\$4,556	\$1,640	\$6,196	2051Q1	119.1%	\$9,982	\$3,593	\$13,575
1.4%	Planning During Construction	\$2,942	\$1,059	36.0%	\$4,001	3.2%	\$3,037	\$1,093	\$4,131	2051Q1	119.1%	\$6,655	\$2,396	\$9,050
0.7%	Adaptive Management & Monitoring	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
0.7%	Project Operations	\$1,471	\$530	36.0%	\$2,000	3.2%	\$1,519	\$547	\$2,065	2048Q2	100.9%	\$3,051	\$1,098	\$4,149
	Real Estate (All Federal Labor)	\$0	\$0	0.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$14,709	\$5,295	36.0%	\$20,005	3.2%	\$15,187	\$5,467	\$20,654	2051Q1	119.1%	\$33,273	\$11,978	\$45,251
1.4%	Project Operation:	\$2,942	\$1,059	36.0%	\$4,001	3.2%	\$3,037	\$1,093	\$4,131	2051Q1	119.1%	\$6,655	\$2,396	\$9,050
1.8%	Project Management	\$3,677	\$1,324	36.0%	\$5,001	3.2%	\$3,797	\$1,367	\$5,163	2051Q1	119.1%	\$8,318	\$2,995	\$11,313
CONTRACT COST TOTALS:		\$736,564	\$330,008		\$1,066,572		\$766,501	\$343,310	\$1,109,811			\$1,502,193	\$660,138	\$2,162,331

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25						
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
02	Reach 2.a RELOCATIONS	\$168,139	\$60,530	36.0%	\$228,669	3.5%	\$173,957	\$62,624	\$236,581	2055Q1	110.6%	\$366,423	\$131,912	\$498,336
06	FISH & WILDLIFE FACILITIES	\$2,503	\$901	36.0%	\$3,404	3.8%	\$2,599	\$936	\$3,534	2055Q1	110.6%	\$5,474	\$1,971	\$7,445
10	BREAKWATER & SEAWALLS	\$298,634	\$107,508	36.0%	\$406,142	2.8%	\$306,997	\$110,519	\$417,517	2055Q1	110.6%	\$646,664	\$232,799	\$879,463
13	PUMPING PLANT	\$48,798	\$17,567	36.0%	\$66,366	5.2%	\$51,352	\$18,487	\$69,839	2055Q1	110.6%	\$108,169	\$38,941	\$147,109
18	CULTURAL RESOURCE PRESERVATION	\$5,845	\$2,104	36.0%	\$7,949	5.2%	\$6,151	\$2,214	\$8,365	2055Q1	110.6%	\$12,956	\$4,664	\$17,620
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$68,907	\$24,806	36.0%	\$93,713	5.2%	\$72,513	\$26,105	\$98,618	2055Q1	110.6%	\$152,742	\$54,987	\$207,730
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$592,826	\$213,417	36.0%	\$806,243		\$613,569	\$220,885	\$834,454			\$1,292,429	\$465,274	\$1,757,703
01	LANDS AND DAMAGES	\$301,364	\$150,682	50.0%	\$452,046	3.9%	\$313,094	\$156,547	\$469,642	2051Q3	92.6%	\$602,966	\$301,483	\$904,449
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$10,374	\$3,735	36.0%	\$14,109	3.2%	\$10,711	\$3,856	\$14,567	2051Q3	122.6%	\$23,840	\$8,582	\$32,422
0.7%	Planning & Environmental Compliance	\$4,150	\$1,494	36.0%	\$5,644	3.2%	\$4,284	\$1,542	\$5,827	2051Q3	122.6%	\$9,536	\$3,433	\$12,969
10.5%	Engineering & Design	\$62,247	\$22,409	36.0%	\$84,656	3.2%	\$64,267	\$23,136	\$87,403	2051Q3	122.6%	\$143,039	\$51,494	\$194,533
0.7%	Reviews, ATRs, IEPRs, VE	\$4,150	\$1,494	36.0%	\$5,644	3.2%	\$4,284	\$1,542	\$5,827	2051Q3	122.6%	\$9,536	\$3,433	\$12,969
0.7%	Life Cycle Updates (cost, schedule, risks)	\$4,150	\$1,494	36.0%	\$5,644	3.2%	\$4,284	\$1,542	\$5,827	2051Q3	122.6%	\$9,536	\$3,433	\$12,969
0.7%	Contracting & Reprographics	\$4,150	\$1,494	36.0%	\$5,644	3.2%	\$4,284	\$1,542	\$5,827	2051Q3	122.6%	\$9,536	\$3,433	\$12,969
2.1%	Engineering During Construction	\$12,449	\$4,482	36.0%	\$16,931	3.2%	\$12,853	\$4,627	\$17,481	2055Q1	148.5%	\$31,942	\$11,499	\$43,441
1.4%	Planning During Construction	\$8,300	\$2,988	36.0%	\$11,287	3.2%	\$8,569	\$3,085	\$11,654	2055Q1	148.5%	\$21,295	\$7,666	\$28,961
0.7%	Adaptive Management & Monitoring	\$4,150	\$1,494	36.0%	\$5,644	3.2%	\$4,284	\$1,542	\$5,827	2051Q3	122.6%	\$9,536	\$3,433	\$12,969
0.7%	Project Operations	\$4,150	\$1,494	36.0%	\$5,644	3.2%	\$4,284	\$1,542	\$5,827	2051Q3	122.6%	\$9,536	\$3,433	\$12,969
	Real Estate (All Federal Labor)	\$4	\$2	50.0%	\$6	3.2%	\$4	\$2	\$7	2051Q3	122.6%	\$10	\$5	\$15
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$41,498	\$14,939	36.0%	\$56,437	3.2%	\$42,845	\$15,424	\$58,269	2055Q1	148.5%	\$106,474	\$38,330	\$144,804
1.4%	Project Operation:	\$8,300	\$2,988	36.0%	\$11,287	3.2%	\$8,569	\$3,085	\$11,654	2055Q1	148.5%	\$21,295	\$7,666	\$28,961
1.8%	Project Management	\$10,374	\$3,735	36.0%	\$14,109	3.2%	\$10,711	\$3,856	\$14,567	2055Q1	148.5%	\$26,618	\$9,583	\$36,201
CONTRACT COST TOTALS:		\$1,072,635	\$428,340		\$1,500,975		\$1,110,900	\$443,758	\$1,554,658			\$2,327,123	\$922,181	\$3,249,304

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25						
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
02	Reach 2.b													
	RELOCATIONS	\$160,499	\$57,779	36.0%	\$218,278	3.5%	\$166,051	\$59,779	\$225,830	2043Q4	57.8%	\$262,111	\$94,360	\$356,471
06	FISH & WILDLIFE FACILITIES	\$2,295	\$826	36.0%	\$3,122	3.8%	\$2,383	\$858	\$3,241	2043Q4	57.8%	\$3,762	\$1,354	\$5,116
10	BREAKWATER & SEAWALLS	\$418,854	\$150,787	36.0%	\$569,641	2.8%	\$430,584	\$155,010	\$585,595	2043Q4	57.9%	\$679,678	\$244,684	\$924,363
13	PUMPING PLANT	\$44,748	\$16,109	36.0%	\$60,857	5.2%	\$47,090	\$16,952	\$64,042	2043Q4	57.8%	\$74,331	\$26,759	\$101,090
18	CULTURAL RESOURCE PRESERVATION	\$11,024	\$3,969	36.0%	\$14,993	5.2%	\$11,601	\$4,176	\$15,778	2043Q4	57.8%	\$18,313	\$6,593	\$24,905
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$478,336	\$172,201	36.0%	\$650,537	5.2%	\$503,370	\$181,213	\$684,584	2043Q4	57.8%	\$794,565	\$286,043	\$1,080,608
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$1,115,756	\$401,672	36.0%	\$1,517,428		\$1,161,080	\$417,989	\$1,579,069			\$1,832,759	\$659,793	\$2,492,552
01	LANDS AND DAMAGES	\$276,349	\$138,175	50.0%	\$414,524	3.9%	\$287,106	\$143,553	\$430,659	2038Q3	37.9%	\$396,045	\$198,022	\$594,067
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$19,526	\$7,029	36.0%	\$26,555	3.2%	\$20,160	\$7,257	\$27,417	2038Q3	48.3%	\$29,887	\$10,759	\$40,646
0.7%	Planning & Environmental Compliance	\$7,810	\$2,812	36.0%	\$10,622	3.2%	\$8,064	\$2,903	\$10,967	2038Q3	48.3%	\$11,955	\$4,304	\$16,258
10.5%	Engineering & Design	\$117,154	\$42,176	36.0%	\$159,330	3.2%	\$120,957	\$43,545	\$164,502	2038Q3	48.3%	\$179,321	\$64,556	\$243,877
0.7%	Reviews, ATRs, IEPs, VE	\$7,810	\$2,812	36.0%	\$10,622	3.2%	\$8,064	\$2,903	\$10,967	2038Q3	48.3%	\$11,955	\$4,304	\$16,258
0.7%	Life Cycle Updates (cost, schedule, risks)	\$7,810	\$2,812	36.0%	\$10,622	3.2%	\$8,064	\$2,903	\$10,967	2038Q3	48.3%	\$11,955	\$4,304	\$16,258
0.7%	Contracting & Reprographics	\$7,810	\$2,812	36.0%	\$10,622	3.2%	\$8,064	\$2,903	\$10,967	2038Q3	48.3%	\$11,955	\$4,304	\$16,258
2.1%	Engineering During Construction	\$23,431	\$8,435	36.0%	\$31,866	3.2%	\$24,191	\$8,709	\$32,900	2043Q4	74.3%	\$42,161	\$15,178	\$57,339
1.4%	Planning During Construction	\$15,621	\$5,623	36.0%	\$21,244	3.2%	\$16,128	\$5,806	\$21,934	2043Q4	74.3%	\$28,107	\$10,119	\$38,226
0.7%	Adaptive Management & Monitoring	\$7,810	\$2,812	36.0%	\$10,622	3.2%	\$8,064	\$2,903	\$10,967	2038Q3	48.3%	\$11,955	\$4,304	\$16,258
0.7%	Project Operations	\$7,810	\$2,812	36.0%	\$10,622	3.2%	\$8,064	\$2,903	\$10,967	2038Q3	48.3%	\$11,955	\$4,304	\$16,258
	Real Estate (All Federal Labor)	\$4	\$2	50.0%	\$6	3.2%	\$4	\$2	\$6	2038Q3	48.3%	\$6	\$3	\$9
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$78,103	\$28,117	36.0%	\$106,220	3.2%	\$80,638	\$29,030	\$109,668	2043Q4	74.3%	\$140,536	\$50,593	\$191,129
1.4%	Project Operation:	\$15,621	\$5,623	36.0%	\$21,244	3.2%	\$16,128	\$5,806	\$21,934	2043Q4	74.3%	\$28,107	\$10,119	\$38,226
1.8%	Project Management	\$19,526	\$7,029	36.0%	\$26,555	3.2%	\$20,160	\$7,257	\$27,417	2043Q4	74.3%	\$35,134	\$12,648	\$47,782
CONTRACT COST TOTALS:		\$1,727,951	\$660,752		\$2,388,703		\$1,794,934	\$686,372	\$2,481,306			\$2,783,792	\$1,057,612	\$3,841,404

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 2.c														
02	RELOCATIONS	\$81,737	\$29,425	36.0%	\$111,162	3.5%	\$84,564	\$30,443	\$115,008	2032Q2	17.5%	\$99,354	\$35,767	\$135,121
06	FISH & WILDLIFE FACILITIES	\$2,167	\$780	36.0%	\$2,947	3.8%	\$2,250	\$810	\$3,060	2032Q2	17.5%	\$2,643	\$952	\$3,595
10	BREAKWATER & SEAWALLS	\$170,305	\$61,310	36.0%	\$231,615	2.8%	\$175,075	\$63,027	\$238,102	2032Q2	17.5%	\$205,694	\$74,050	\$279,743
13	PUMPING PLANT	\$42,240	\$15,207	36.0%	\$57,447	5.2%	\$44,451	\$16,002	\$60,453	2032Q2	17.5%	\$52,225	\$18,801	\$71,026
18	CULTURAL RESOURCE PRESERVATION	\$3,430	\$1,235	36.0%	\$4,664	5.2%	\$3,609	\$1,299	\$4,908	2032Q2	17.5%	\$4,240	\$1,526	\$5,767
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$48,671	\$17,522	36.0%	\$66,193	5.2%	\$51,219	\$18,439	\$69,658	2032Q2	17.5%	\$60,176	\$21,663	\$81,839
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$348,550	\$125,478	36.0%	\$474,028		\$361,168	\$130,020	\$491,188			\$424,331	\$152,759	\$577,090
01	LANDS AND DAMAGES	\$260,864	\$130,432	50.0%	\$391,296	3.9%	\$271,018	\$135,509	\$406,528	2029Q2	8.8%	\$294,816	\$147,408	\$442,224
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$6,100	\$2,196	36.0%	\$8,295	3.2%	\$6,298	\$2,267	\$8,565	2029Q2	10.5%	\$6,961	\$2,506	\$9,466
0.7%	Planning & Environmental Compliance	\$2,440	\$878	36.0%	\$3,318	3.2%	\$2,519	\$907	\$3,426	2029Q2	10.5%	\$2,784	\$1,002	\$3,787
10.5%	Engineering & Design	\$36,598	\$13,175	36.0%	\$49,773	3.2%	\$37,786	\$13,603	\$51,388	2029Q2	10.5%	\$41,764	\$15,035	\$56,799
0.7%	Reviews, ATRs, IEPRs, VE	\$2,440	\$878	36.0%	\$3,318	3.2%	\$2,519	\$907	\$3,426	2029Q2	10.5%	\$2,784	\$1,002	\$3,787
0.7%	Life Cycle Updates (cost, schedule, risks)	\$2,440	\$878	36.0%	\$3,318	3.2%	\$2,519	\$907	\$3,426	2029Q2	10.5%	\$2,784	\$1,002	\$3,787
0.7%	Contracting & Reprographics	\$2,440	\$878	36.0%	\$3,318	3.2%	\$2,519	\$907	\$3,426	2029Q2	10.5%	\$2,784	\$1,002	\$3,787
2.1%	Engineering During Construction	\$7,320	\$2,635	36.0%	\$9,955	3.2%	\$7,557	\$2,721	\$10,278	2032Q2	21.5%	\$9,181	\$3,305	\$12,486
1.4%	Planning During Construction	\$4,880	\$1,757	36.0%	\$6,636	3.2%	\$5,038	\$1,814	\$6,852	2032Q2	21.5%	\$6,120	\$2,203	\$8,324
0.7%	Adaptive Management & Monitoring	\$2,440	\$878	36.0%	\$3,318	3.2%	\$2,519	\$907	\$3,426	2029Q2	10.5%	\$2,784	\$1,002	\$3,787
0.7%	Project Operations	\$2,440	\$878	36.0%	\$3,318	3.2%	\$2,519	\$907	\$3,426	2029Q2	10.5%	\$2,784	\$1,002	\$3,787
	Real Estate (All Federal Labor)	\$4	\$2	50.0%	\$6	3.2%	\$4	\$2	\$6	2029Q2	10.5%	\$4	\$2	\$6
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$24,398	\$8,783	36.0%	\$33,182	3.2%	\$25,190	\$9,069	\$34,259	2032Q2	21.5%	\$30,602	\$11,017	\$41,619
1.4%	Project Operation:	\$4,880	\$1,757	36.0%	\$6,636	3.2%	\$5,038	\$1,814	\$6,852	2032Q2	21.5%	\$6,120	\$2,203	\$8,324
1.8%	Project Management	\$6,100	\$2,196	36.0%	\$8,295	3.2%	\$6,298	\$2,267	\$8,565	2032Q2	21.5%	\$7,650	\$2,754	\$10,405
CONTRACT COST TOTALS:		\$714,331	\$293,681		\$1,008,012		\$740,509	\$304,526	\$1,045,035			\$844,256	\$345,207	\$1,189,462

**** TOTAL PROJECT COST SUMMARY ****

Printed:12/10/2025
Page 17 of 22

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 3.a														
02	RELOCATIONS	\$90,309	\$32,511	36.0%	\$122,820	3.5%	\$93,434	\$33,636	\$127,070	2058Q4	132.0%	\$216,748	\$78,029	\$294,778
06	FISH & WILDLIFE FACILITIES	\$5,086	\$1,831	36.0%	\$6,916	3.8%	\$5,280	\$1,901	\$7,181	2058Q4	132.0%	\$12,249	\$4,409	\$16,658
10	BREAKWATER & SEAWALLS	\$388,918	\$140,011	36.0%	\$528,929	2.8%	\$399,811	\$143,932	\$543,742	2058Q4	132.0%	\$927,488	\$333,896	\$1,261,384
13	PUMPING PLANT	\$144,621	\$52,064	36.0%	\$196,684	5.2%	\$152,190	\$54,788	\$206,978	2058Q4	132.0%	\$353,052	\$127,099	\$480,150
18	CULTURAL RESOURCE PRESERVATION	\$6,454	\$2,323	36.0%	\$8,778	5.2%	\$6,792	\$2,445	\$9,237	2058Q4	132.0%	\$15,756	\$5,672	\$21,428
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$21,565	\$7,764	36.0%	\$29,329	5.2%	\$22,694	\$8,170	\$30,864	2058Q4	132.0%	\$52,646	\$18,952	\$71,598
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$656,953	\$236,503	36.0%	\$893,456		\$680,200	\$244,872	\$925,072			\$1,577,939	\$568,058	\$2,145,997
01	LANDS AND DAMAGES	\$111,897	\$55,948	50.0%	\$167,845	3.9%	\$116,252	\$58,126	\$174,378	2055Q4	114.8%	\$249,697	\$124,849	\$374,546
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$11,497	\$4,139	36.0%	\$15,635	3.2%	\$11,870	\$4,273	\$16,143	2055Q4	154.5%	\$30,204	\$10,873	\$41,077
0.7%	Planning & Environmental Compliance	\$4,599	\$1,656	36.0%	\$6,254	3.2%	\$4,748	\$1,709	\$6,457	2055Q4	154.5%	\$12,082	\$4,349	\$16,431
10.5%	Engineering & Design	\$68,980	\$24,833	36.0%	\$93,813	3.2%	\$71,219	\$25,639	\$96,858	2055Q4	154.5%	\$181,223	\$65,240	\$246,464
0.7%	Reviews, ATRs, IEPRs, VE	\$4,599	\$1,656	36.0%	\$6,254	3.2%	\$4,748	\$1,709	\$6,457	2055Q4	154.5%	\$12,082	\$4,349	\$16,431
0.7%	Life Cycle Updates (cost, schedule, risks)	\$4,599	\$1,656	36.0%	\$6,254	3.2%	\$4,748	\$1,709	\$6,457	2055Q4	154.5%	\$12,082	\$4,349	\$16,431
0.7%	Contracting & Reprographics	\$4,599	\$1,656	36.0%	\$6,254	3.2%	\$4,748	\$1,709	\$6,457	2055Q4	154.5%	\$12,082	\$4,349	\$16,431
2.1%	Engineering During Construction	\$13,796	\$4,967	36.0%	\$18,763	3.2%	\$14,244	\$5,128	\$19,372	2058Q4	179.7%	\$39,837	\$14,341	\$54,178
1.4%	Planning During Construction	\$9,197	\$3,311	36.0%	\$12,508	3.2%	\$9,496	\$3,419	\$12,914	2058Q4	179.7%	\$26,558	\$9,561	\$36,119
0.7%	Adaptive Management & Monitoring	\$4,599	\$1,656	36.0%	\$6,254	3.2%	\$4,748	\$1,709	\$6,457	2055Q4	154.5%	\$12,082	\$4,349	\$16,431
0.7%	Project Operations	\$4,599	\$1,656	36.0%	\$6,254	3.2%	\$4,748	\$1,709	\$6,457	2055Q4	154.5%	\$12,082	\$4,349	\$16,431
	Real Estate (All Federal Labor)	\$0	\$0	0.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$45,987	\$16,555	36.0%	\$62,542	3.2%	\$47,479	\$17,093	\$64,572	2058Q4	179.7%	\$132,789	\$47,804	\$180,593
1.4%	Project Operation:	\$9,197	\$3,311	36.0%	\$12,508	3.2%	\$9,496	\$3,419	\$12,914	2058Q4	179.7%	\$26,558	\$9,561	\$36,119
1.8%	Project Management	\$11,497	\$4,139	36.0%	\$15,635	3.2%	\$11,870	\$4,273	\$16,143	2058Q4	179.7%	\$33,197	\$11,951	\$45,148
CONTRACT COST TOTALS:		\$966,592	\$363,639		\$1,330,231		\$1,000,613	\$376,496	\$1,377,109			\$2,370,491	\$888,334	\$3,258,825

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 3.b														
02	RELOCATIONS	\$60,264	\$21,695	36.0%	\$81,959	3.5%	\$62,349	\$22,446	\$84,795	2038Q4	38.8%	\$86,564	\$31,163	\$117,727
06	FISH & WILDLIFE FACILITIES	\$5,105	\$1,838	36.0%	\$6,943	3.8%	\$5,301	\$1,908	\$7,209	2038Q4	38.8%	\$7,359	\$2,649	\$10,008
10	BREAKWATER & SEAWALLS	\$105,847	\$38,105	36.0%	\$143,951	2.8%	\$108,811	\$39,172	\$147,983	2038Q4	38.8%	\$151,071	\$54,386	\$205,456
13	PUMPING PLANT	\$145,184	\$52,266	36.0%	\$197,450	5.2%	\$152,782	\$55,002	\$207,784	2038Q4	38.8%	\$212,118	\$76,362	\$288,480
18	CULTURAL RESOURCE PRESERVATION	\$3,113	\$1,121	36.0%	\$4,234	5.2%	\$3,276	\$1,179	\$4,455	2038Q4	38.8%	\$4,548	\$1,637	\$6,185
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$319,513	\$115,025	36.0%	\$434,537		\$332,519	\$119,707	\$452,225			\$461,660	\$166,197	\$627,857
01	LANDS AND DAMAGES	\$112,332	\$56,166	50.0%	\$168,498	3.9%	\$116,704	\$58,352	\$175,057	2035Q3	27.7%	\$149,055	\$74,528	\$223,583
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$5,591	\$2,013	36.0%	\$7,604	3.2%	\$5,773	\$2,078	\$7,851	2035Q3	34.8%	\$7,779	\$2,801	\$10,580
0.7%	Planning & Environmental Compliance	\$2,237	\$805	36.0%	\$3,042	3.2%	\$2,309	\$831	\$3,140	2035Q3	34.8%	\$3,112	\$1,120	\$4,232
10.5%	Engineering & Design	\$33,549	\$12,078	36.0%	\$45,626	3.2%	\$34,638	\$12,470	\$47,107	2035Q3	34.8%	\$46,676	\$16,803	\$63,479
0.7%	Reviews, ATRs, IEPRs, VE	\$2,237	\$805	36.0%	\$3,042	3.2%	\$2,309	\$831	\$3,140	2035Q3	34.8%	\$3,112	\$1,120	\$4,232
0.7%	Life Cycle Updates (cost, schedule, risks)	\$2,237	\$805	36.0%	\$3,042	3.2%	\$2,309	\$831	\$3,140	2035Q3	34.8%	\$3,112	\$1,120	\$4,232
0.7%	Contracting & Reprographics	\$2,237	\$805	36.0%	\$3,042	3.2%	\$2,309	\$831	\$3,140	2035Q3	34.8%	\$3,112	\$1,120	\$4,232
2.1%	Engineering During Construction	\$6,710	\$2,416	36.0%	\$9,125	3.2%	\$6,928	\$2,494	\$9,421	2038Q4	49.5%	\$10,354	\$3,728	\$14,082
1.4%	Planning During Construction	\$4,473	\$1,610	36.0%	\$6,084	3.2%	\$4,618	\$1,663	\$6,281	2038Q4	49.5%	\$6,903	\$2,485	\$9,388
0.7%	Adaptive Management & Monitoring	\$2,237	\$805	36.0%	\$3,042	3.2%	\$2,309	\$831	\$3,140	2035Q3	34.8%	\$3,112	\$1,120	\$4,232
0.7%	Project Operations	\$2,237	\$805	36.0%	\$3,042	3.2%	\$2,309	\$831	\$3,140	2035Q3	34.8%	\$3,112	\$1,120	\$4,232
	Real Estate (All Federal Labor)	\$0	\$0	0.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$22,366	\$8,052	36.0%	\$30,418	3.2%	\$23,092	\$8,313	\$31,405	2038Q4	49.5%	\$34,514	\$12,425	\$46,939
1.4%	Project Operation:	\$4,473	\$1,610	36.0%	\$6,084	3.2%	\$4,618	\$1,663	\$6,281	2038Q4	49.5%	\$6,903	\$2,485	\$9,388
1.8%	Project Management	\$5,591	\$2,013	36.0%	\$7,604	3.2%	\$5,773	\$2,078	\$7,851	2038Q4	49.5%	\$8,629	\$3,106	\$11,735
CONTRACT COST TOTALS:		\$528,018	\$205,813		\$733,831		\$548,518	\$213,805	\$762,323			\$751,143	\$291,279	\$1,042,423

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

Recommended Plan / Chief's Report

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 3.c														
02	RELOCATIONS	\$49,744	\$17,908	36.0%	\$67,652	3.5%	\$51,465	\$18,527	\$69,992	2051Q3	92.6%	\$99,113	\$35,681	\$134,793
06	FISH & WILDLIFE FACILITIES	\$3,631	\$1,307	36.0%	\$4,938	3.8%	\$3,770	\$1,357	\$5,127	2051Q3	92.6%	\$7,260	\$2,614	\$9,874
10	BREAKWATER & SEAWALLS	\$33,564	\$12,083	36.0%	\$45,647	2.8%	\$34,504	\$12,421	\$46,925	2051Q3	92.6%	\$66,449	\$23,922	\$90,370
13	PUMPING PLANT	\$103,260	\$37,174	36.0%	\$140,434	5.2%	\$108,665	\$39,119	\$147,784	2051Q3	92.6%	\$209,269	\$75,337	\$284,606
18	CULTURAL RESOURCE PRESERVATION	\$1,883	\$678	36.0%	\$2,561	5.2%	\$1,981	\$713	\$2,695	2051Q3	92.6%	\$3,816	\$1,374	\$5,190
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$1,723	\$620	36.0%	\$2,344	5.2%	\$1,813	\$653	\$2,466	2051Q3	92.6%	\$3,492	\$1,257	\$4,750
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$193,806	\$69,770	36.0%	\$263,576		\$202,199	\$72,791	\$274,990			\$389,399	\$140,184	\$529,583
01	LANDS AND DAMAGES	\$79,895	\$39,948	50.0%	\$119,843	3.9%	\$83,005	\$41,502	\$124,507	2048Q2	77.2%	\$147,047	\$73,524	\$220,571
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$3,392	\$1,221	36.0%	\$4,613	3.2%	\$3,502	\$1,261	\$4,762	2048Q2	100.9%	\$7,035	\$2,532	\$9,567
0.7%	Planning & Environmental Compliance	\$1,357	\$488	36.0%	\$1,845	3.2%	\$1,401	\$504	\$1,905	2048Q2	100.9%	\$2,814	\$1,013	\$3,827
10.5%	Engineering & Design	\$20,350	\$7,326	36.0%	\$27,675	3.2%	\$21,010	\$7,564	\$28,574	2048Q2	100.9%	\$42,208	\$15,195	\$57,403
0.7%	Reviews, ATRs, IEPRs, VE	\$1,357	\$488	36.0%	\$1,845	3.2%	\$1,401	\$504	\$1,905	2048Q2	100.9%	\$2,814	\$1,013	\$3,827
0.7%	Life Cycle Updates (cost, schedule, risks)	\$1,357	\$488	36.0%	\$1,845	3.2%	\$1,401	\$504	\$1,905	2048Q2	100.9%	\$2,814	\$1,013	\$3,827
0.7%	Contracting & Reprographics	\$1,357	\$488	36.0%	\$1,845	3.2%	\$1,401	\$504	\$1,905	2048Q2	100.9%	\$2,814	\$1,013	\$3,827
2.1%	Engineering During Construction	\$4,070	\$1,465	36.0%	\$5,535	3.2%	\$4,202	\$1,513	\$5,715	2051Q3	122.6%	\$9,352	\$3,367	\$12,719
1.4%	Planning During Construction	\$2,713	\$977	36.0%	\$3,690	3.2%	\$2,801	\$1,008	\$3,810	2051Q3	122.6%	\$6,235	\$2,245	\$8,480
0.7%	Adaptive Management & Monitoring	\$1,357	\$488	36.0%	\$1,845	3.2%	\$1,401	\$504	\$1,905	2048Q2	100.9%	\$2,814	\$1,013	\$3,827
0.7%	Project Operations	\$1,357	\$488	36.0%	\$1,845	3.2%	\$1,401	\$504	\$1,905	2048Q2	100.9%	\$2,814	\$1,013	\$3,827
	Real Estate (All Federal Labor)	\$0	\$0	0.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$13,566	\$4,884	36.0%	\$18,450	3.2%	\$14,007	\$5,042	\$19,049	2051Q3	122.6%	\$31,175	\$11,223	\$42,398
1.4%	Project Operation:	\$2,713	\$977	36.0%	\$3,690	3.2%	\$2,801	\$1,008	\$3,810	2051Q3	122.6%	\$6,235	\$2,245	\$8,480
1.8%	Project Management	\$3,392	\$1,221	36.0%	\$4,613	3.2%	\$3,502	\$1,261	\$4,762	2051Q3	122.6%	\$7,794	\$2,806	\$10,599
CONTRACT COST TOTALS:		\$332,036	\$130,718		\$462,754		\$345,433	\$135,976	\$481,409			\$663,363	\$259,397	\$922,760

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 4.a														
02	RELOCATIONS	\$125,502	\$45,181	36.0%	\$170,682	3.5%	\$129,844	\$46,744	\$176,588	2061Q4	150.6%	\$325,325	\$117,117	\$442,442
06	FISH & WILDLIFE FACILITIES	\$6,718	\$2,418	36.0%	\$9,137	3.8%	\$6,975	\$2,511	\$9,486	2061Q4	150.6%	\$17,476	\$6,291	\$23,767
10	BREAKWATER & SEAWALLS	\$196,759	\$70,833	36.0%	\$267,592	2.8%	\$202,270	\$72,817	\$275,087	2061Q4	150.6%	\$506,790	\$182,444	\$689,234
13	PUMPING PLANT	\$141,819	\$51,055	36.0%	\$192,874	5.2%	\$149,241	\$53,727	\$202,968	2061Q4	150.6%	\$373,925	\$134,613	\$508,538
18	CULTURAL RESOURCE PRESERVATION	\$8,180	\$2,945	36.0%	\$11,124	5.2%	\$8,608	\$3,099	\$11,707	2061Q4	150.6%	\$21,567	\$7,764	\$29,331
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$353,888	\$127,400	36.0%	\$481,288	5.2%	\$372,410	\$134,067	\$506,477	2061Q4	150.6%	\$933,075	\$335,907	\$1,268,982
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$832,866	\$299,832	36.0%	1,132,698		\$869,347	\$312,965	\$1,182,312			\$2,178,157	\$784,137	\$2,962,294
01	LANDS AND DAMAGES	\$251,797	\$125,899	50.0%	\$ 377,696	3.9%	\$261,598	\$130,799	\$392,397	2058Q4	132.0%	\$606,861	\$303,431	\$910,292
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$14,575	\$5,247	36.0%	\$19,822	3.2%	\$15,048	\$5,417	\$20,466	2058Q4	179.7%	\$42,086	\$15,151	\$57,238
0.7%	Planning & Environmental Compliance	\$5,830	\$2,099	36.0%	\$7,929	3.2%	\$6,019	\$2,167	\$8,186	2058Q4	179.7%	\$16,835	\$6,060	\$22,895
10.5%	Engineering & Design	\$87,451	\$31,482	36.0%	\$118,933	3.2%	\$90,290	\$32,504	\$122,794	2058Q4	179.7%	\$252,519	\$90,907	\$343,425
0.7%	Reviews, ATRs, IEPRs, VE	\$5,830	\$2,099	36.0%	\$7,929	3.2%	\$6,019	\$2,167	\$8,186	2058Q4	179.7%	\$16,835	\$6,060	\$22,895
0.7%	Life Cycle Updates (cost, schedule, risks)	\$5,830	\$2,099	36.0%	\$7,929	3.2%	\$6,019	\$2,167	\$8,186	2058Q4	179.7%	\$16,835	\$6,060	\$22,895
0.7%	Contracting & Reprographics	\$5,830	\$2,099	36.0%	\$7,929	3.2%	\$6,019	\$2,167	\$8,186	2058Q4	179.7%	\$16,835	\$6,060	\$22,895
2.1%	Engineering During Construction	\$17,490	\$6,296	36.0%	\$23,787	3.2%	\$18,058	\$6,501	\$24,559	2061Q4	207.4%	\$55,509	\$19,983	\$75,492
1.4%	Planning During Construction	\$11,660	\$4,198	36.0%	\$15,858	3.2%	\$12,039	\$4,334	\$16,373	2061Q4	207.4%	\$37,006	\$13,322	\$50,328
0.7%	Adaptive Management & Monitoring	\$5,830	\$2,099	36.0%	\$7,929	3.2%	\$6,019	\$2,167	\$8,186	2058Q4	179.7%	\$16,835	\$6,060	\$22,895
0.7%	Project Operations	\$5,830	\$2,099	36.0%	\$7,929	3.2%	\$6,019	\$2,167	\$8,186	2058Q4	179.7%	\$16,835	\$6,060	\$22,895
	Real Estate (All Federal Labor)	\$18	\$9	50.0%	\$27	3.2%	\$18	\$9	\$28	2058Q4	179.7%	\$52	\$26	\$77
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$58,301	\$20,988	36.0%	79,289	3.2%	\$60,193	\$21,669	\$81,863	2061Q4	207.4%	\$185,030	\$66,611	\$251,640
1.4%	Project Operation:	\$11,660	\$4,198	36.0%	15,858	3.2%	\$12,039	\$4,334	\$16,373	2061Q4	207.4%	\$37,006	\$13,322	\$50,328
1.8%	Project Management	\$14,575	\$5,247	36.0%	19,822	3.2%	\$15,048	\$5,417	\$20,466	2061Q4	207.4%	\$46,257	\$16,653	\$62,910
CONTRACT COST TOTALS:		\$1,335,373	\$515,988		1,851,362		\$1,389,794	\$536,952	\$1,926,746			\$3,541,490	\$1,359,904	\$4,901,394

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

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LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

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DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 4.b														
02	RELOCATIONS	\$90,899	\$32,724	36.0%	\$123,623	3.5%	\$94,044	\$33,856	\$127,900	2035Q3	27.7%	\$120,113	\$43,241	\$163,354
06	FISH & WILDLIFE FACILITIES	\$8,677	\$3,124	36.0%	\$11,801	3.8%	\$9,009	\$3,243	\$12,252	2035Q3	27.7%	\$11,506	\$4,142	\$15,648
10	BREAKWATER & SEAWALLS	\$380,063	\$136,823	36.0%	\$516,886	2.8%	\$390,707	\$140,655	\$531,362	2035Q3	27.7%	\$499,015	\$179,645	\$678,660
13	PUMPING PLANT	\$183,174	\$65,943	36.0%	\$249,117	5.2%	\$192,761	\$69,394	\$262,154	2035Q3	27.7%	\$246,194	\$88,630	\$334,824
18	CULTURAL RESOURCE PRESERVATION	\$6,843	\$2,463	36.0%	\$9,306	5.2%	\$7,201	\$2,592	\$9,793	2035Q3	27.7%	\$9,197	\$3,311	\$12,508
19	BUILDINGS, GROUNDS & UTILITIES	\$30,146	\$10,853	36.0%	\$40,999	5.2%	\$31,724	\$11,421	\$43,145	2035Q3	27.7%	\$40,518	\$14,587	\$55,105
19	BUILDINGS, GROUNDS & UTILITIES	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$699,802	\$251,929	36.0%	\$951,731		\$725,446	\$261,161	\$986,606			\$926,544	\$333,556	\$1,260,099
01	LANDS AND DAMAGES	\$325,222	\$162,611	50.0%	\$487,834	3.9%	\$337,882	\$168,941	\$506,823	2032Q2	17.5%	\$396,973	\$198,487	\$595,460
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$12,247	\$4,409	36.0%	\$16,655	3.2%	\$12,644	\$4,552	\$17,196	2032Q2	21.5%	\$15,360	\$5,530	\$20,890
0.7%	Planning & Environmental Compliance	\$4,899	\$1,764	36.0%	\$6,662	3.2%	\$5,058	\$1,821	\$6,878	2032Q2	21.5%	\$6,144	\$2,212	\$8,356
10.5%	Engineering & Design	\$73,479	\$26,453	36.0%	\$99,932	3.2%	\$75,864	\$27,311	\$103,176	2032Q2	21.5%	\$92,162	\$33,178	\$125,340
0.7%	Reviews, ATRs, IEPRs, VE	\$4,899	\$1,764	36.0%	\$6,662	3.2%	\$5,058	\$1,821	\$6,878	2032Q2	21.5%	\$6,144	\$2,212	\$8,356
0.7%	Life Cycle Updates (cost, schedule, risks)	\$4,899	\$1,764	36.0%	\$6,662	3.2%	\$5,058	\$1,821	\$6,878	2032Q2	21.5%	\$6,144	\$2,212	\$8,356
0.7%	Contracting & Reprographics	\$4,899	\$1,764	36.0%	\$6,662	3.2%	\$5,058	\$1,821	\$6,878	2032Q2	21.5%	\$6,144	\$2,212	\$8,356
2.1%	Engineering During Construction	\$14,696	\$5,291	36.0%	\$19,986	3.2%	\$15,173	\$5,462	\$20,635	2035Q3	34.8%	\$20,446	\$7,361	\$27,807
1.4%	Planning During Construction	\$9,797	\$3,527	36.0%	\$13,324	3.2%	\$10,115	\$3,641	\$13,757	2035Q3	34.8%	\$13,631	\$4,907	\$18,538
0.7%	Adaptive Management & Monitoring	\$4,899	\$1,764	36.0%	\$6,662	3.2%	\$5,058	\$1,821	\$6,878	2032Q2	21.5%	\$6,144	\$2,212	\$8,356
0.7%	Project Operations	\$4,899	\$1,764	36.0%	\$6,662	3.2%	\$5,058	\$1,821	\$6,878	2032Q2	21.5%	\$6,144	\$2,212	\$8,356
	Real Estate (All Federal Labor)	\$23	\$12	50.0%	\$35	3.2%	\$24	\$12	\$36	2032Q2	21.5%	\$29	\$14	\$43
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$48,986	\$17,635	36.0%	\$66,621	3.2%	\$50,576	\$18,207	\$68,784	2035Q3	34.8%	\$68,153	\$24,535	\$92,689
1.4%	Project Operation:	\$9,797	\$3,527	36.0%	\$13,324	3.2%	\$10,115	\$3,641	\$13,757	2035Q3	34.8%	\$13,631	\$4,907	\$18,538
1.8%	Project Management	\$12,247	\$4,409	36.0%	\$16,655	3.2%	\$12,644	\$4,552	\$17,196	2035Q3	34.8%	\$17,038	\$6,134	\$23,172
CONTRACT COST TOTALS:		\$1,235,688	\$490,382		\$1,726,070		\$1,280,829	\$508,405	\$1,789,235			\$1,600,832	\$631,880	\$2,232,711

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: San Francisco Waterfront Study
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report;

DISTRICT: Tulsa District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 12/8/2025

Recommended Plan / Chief's Report

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: Effective Price Level:		17-Apr-25 1-Oct-24		Program Year (Budget EC): Effective Price Level Date:		2026 1 OCT 25		FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Mid-Point Date	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
Reach 4.c														
02	RELOCATIONS	\$63,699	\$22,931	36.0%	\$86,630	3.5%	\$65,902	\$23,725	\$89,627	2048Q2	77.2%	\$116,749	\$42,030	\$158,779
06	FISH & WILDLIFE FACILITIES	\$4,917	\$1,770	36.0%	\$6,688	3.8%	\$5,105	\$1,838	\$6,943	2048Q2	77.2%	\$9,044	\$3,256	\$12,300
10	BREAKWATER & SEAWALLS	\$113,834	\$40,980	36.0%	\$154,814	2.8%	\$117,022	\$42,128	\$159,150	2048Q2	77.2%	\$207,311	\$74,632	\$281,942
13	PUMPING PLANT	\$103,806	\$37,370	36.0%	\$141,176	5.2%	\$109,238	\$39,326	\$148,564	2048Q2	77.2%	\$193,521	\$69,667	\$263,188
18	CULTURAL RESOURCE PRESERVATION	\$5,962	\$2,146	36.0%	\$8,108	5.2%	\$6,274	\$2,259	\$8,532	2048Q2	77.2%	\$11,114	\$4,001	\$15,116
19	BUILDINGS, GROUNDS & UTILITIES 2040	\$314,848	\$113,345	36.0%	\$428,194	5.2%	\$331,326	\$119,278	\$450,604	2048Q2	77.2%	\$586,960	\$211,305	\$798,265
19	BUILDINGS, GROUNDS & UTILITIES 2065	\$0	\$0	36.0%	\$0	0.0%	\$0	\$0	\$0	0	0.0%	\$0	\$0	\$0
CONSTRUCTION ESTIMATE TOTALS:		\$607,065	\$218,544	36.0%	\$825,609		\$634,868	\$228,553	\$863,421			\$1,124,699	\$404,892	\$1,529,590
01	LANDS AND DAMAGES	\$184,305	\$92,153	50.0%	\$276,458	3.9%	\$191,479	\$95,740	\$287,219	2045Q2	64.0%	\$314,074	\$157,037	\$471,112
30	PLANNING, ENGINEERING & DESIGN													
1.8%	Project Management	\$10,624	\$3,825	36.0%	\$14,448	3.2%	\$10,968	\$3,949	\$14,917	2045Q2	82.8%	\$20,048	\$7,217	\$27,265
0.7%	Planning & Environmental Compliance	\$4,249	\$1,530	36.0%	\$5,779	3.2%	\$4,387	\$1,579	\$5,967	2045Q2	82.8%	\$8,019	\$2,887	\$10,906
10.5%	Engineering & Design	\$63,742	\$22,947	36.0%	\$86,689	3.2%	\$65,811	\$23,692	\$89,503	2045Q2	82.8%	\$120,289	\$43,304	\$163,592
0.7%	Reviews, ATRs, IEPs, VE	\$4,249	\$1,530	36.0%	\$5,779	3.2%	\$4,387	\$1,579	\$5,967	2045Q2	82.8%	\$8,019	\$2,887	\$10,906
0.7%	Life Cycle Updates (cost, schedule, risks)	\$4,249	\$1,530	36.0%	\$5,779	3.2%	\$4,387	\$1,579	\$5,967	2045Q2	82.8%	\$8,019	\$2,887	\$10,906
0.7%	Contracting & Reprographics	\$4,249	\$1,530	36.0%	\$5,779	3.2%	\$4,387	\$1,579	\$5,967	2045Q2	82.8%	\$8,019	\$2,887	\$10,906
2.1%	Engineering During Construction	\$12,748	\$4,589	36.0%	\$17,338	3.2%	\$13,162	\$4,738	\$17,901	2048Q2	100.9%	\$26,442	\$9,519	\$35,961
1.4%	Planning During Construction	\$8,499	\$3,060	36.0%	\$11,559	3.2%	\$8,775	\$3,159	\$11,934	2048Q2	100.9%	\$17,628	\$6,346	\$23,974
0.7%	Adaptive Management & Monitoring	\$4,249	\$1,530	36.0%	\$5,779	3.2%	\$4,387	\$1,579	\$5,967	2045Q2	82.8%	\$8,019	\$2,887	\$10,906
0.7%	Project Operations	\$4,249	\$1,530	36.0%	\$5,779	3.2%	\$4,387	\$1,579	\$5,967	2045Q2	82.8%	\$8,019	\$2,887	\$10,906
	Real Estate (All Federal Labor)	\$13	\$7	50.0%	\$20	3.2%	\$13	\$7	\$20	2045Q2	82.8%	\$25	\$12	\$37
31	CONSTRUCTION MANAGEMENT													
7.0%	Construction Management	\$42,495	\$15,298	36.0%	\$57,793	3.2%	\$43,874	\$15,795	\$59,669	2048Q2	100.9%	\$88,140	\$31,730	\$119,870
1.4%	Project Operation:	\$8,499	\$3,060	36.0%	\$11,559	3.2%	\$8,775	\$3,159	\$11,934	2048Q2	100.9%	\$17,628	\$6,346	\$23,974
1.8%	Project Management	\$10,624	\$3,825	36.0%	\$14,448	3.2%	\$10,968	\$3,949	\$14,917	2048Q2	100.9%	\$22,035	\$7,933	\$29,968
CONTRACT COST TOTALS:		\$974,110	\$376,484		\$1,350,595		\$1,015,019	\$392,216	\$1,407,235			\$1,799,122	\$691,658	\$2,490,780

Attachment C-3: TSP Cost Summary

August 18, 2023

Attachment C-3: Total Net Benefits Plan Cost Estimate Summary

San Francisco Waterfront Study

Cost Estimating Update

Maximum Total Net Benefits Plan

Cost Estimator: Jay Thomas, USACE-LRL-ED-M-C

- Cost estimates drafted according to currently developed scope of work
- Cost estimates should be considered Class IV/V
- DQC review comments are incorporated. ATR reviews have not been performed
- Contingencies has been applied in accordance with the performed Abbreviated Risk Analysis

- Costs for Inland Drainage work per USACE design scope are included
- Cost estimates do not include Real Estate costs
- Costs to raise all the piers are not included in the alternatives.
- First Costs have escalation markups applied to FY26

** Some Second Action Costs are shown as 2040 and 2065. These will be revised once Section Action timing is further defined.

All costs listed below are x \$1,000

		Total Net Benefits Plan First Action <u>(Low, Intermediate, and High Curves)</u>	
		Estimated Cost (FY24)	First Cost (FY26)
TOTAL with Seismic		\$13,555,229	\$14,661,782
Seismic Costs including PED and Const Management		\$9,417,078	\$10,186,488
TOTAL Non-Seismic		\$4,138,151	\$4,475,294
01 Lands and Damages		\$91,688	\$99,276
2040 Subtotal		\$4,046,463	\$4,376,018
2040 REACH 01		\$52,391	\$56,727
2040 REACH 02		\$2,530,772	\$2,740,217
2040 REACH 03		\$307,455	\$332,900
2040 REACH 04		\$546,242	\$591,450
2040 PED		\$397,964	\$427,420
2040 CONST MANAGEMENT		\$211,640	\$227,304

Attachment C-4: TSP First Actions TPCS - Seismic Cost

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NC P2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Total Net Benefits Plan - FIRST ACTION (SEISMIC)

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
	REACH 01 Alt. B 2040														
02	40 Overall Structures Floodproofing Conc.	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
19	40 REACH 01 Demolition of Bldgs/Structur	\$991	\$701	70.7%	\$1,692	8.3%	\$1,073	\$759	\$1,832	\$0	\$1,832	43.2%	\$1,537	\$1,087	\$2,624
19	40 REACH 01 Floodproofing Structures	\$6,289	\$5,766	91.7%	\$12,055	8.3%	\$6,810	\$6,243	\$13,053	\$0	\$13,053	43.2%	\$9,754	\$8,942	\$18,697
	REACH 02 Alt. G 2040														
02	40 Overall Structures Floodproofing Conc.	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
02	40 Overall Utility Relocations	\$35,274	\$93,314	264.5%	\$128,588	8.3%	\$38,193	\$101,037	\$139,230	\$0	\$139,230	43.2%	\$54,707	\$144,725	\$199,432
02	40 Overall Structure Floodproofing	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 Overall Seismic Ground Improvements	\$874,494	\$1,339,943	153.2%	\$2,214,437	8.3%	\$946,866	\$1,450,835	\$2,397,702	\$0	\$2,397,702	43.2%	\$1,356,290	\$2,078,176	\$3,434,466
02	40 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Transportation Corridor	\$294,092	\$239,699	81.5%	\$533,791	8.3%	\$318,431	\$259,536	\$577,968	\$0	\$577,968	43.2%	\$456,120	\$371,759	\$827,879
02	40 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 02 Berms/Fill	\$8,683	\$6,176	71.1%	\$14,859	8.3%	\$9,402	\$6,687	\$16,089	\$0	\$16,089	43.2%	\$13,467	\$9,579	\$23,046
10	40 REACH 02 Ground Improvement/DSM	\$215,083	\$329,561	153.2%	\$544,644	8.3%	\$232,883	\$356,835	\$589,718	\$0	\$589,718	43.2%	\$333,582	\$511,131	\$844,712
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$124,518	\$68,903	55.3%	\$193,421	8.3%	\$134,823	\$74,605	\$209,428	\$0	\$209,428	43.2%	\$193,120	\$106,865	\$299,985
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Wharf Replacement	\$282,623	\$186,466	66.0%	\$469,089	8.3%	\$306,012	\$201,898	\$507,910	\$0	\$507,910	43.2%	\$438,332	\$289,198	\$727,530
10	40 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Temp Raise/Relocate Repla	\$241,177	\$222,927	92.4%	\$464,104	8.3%	\$261,137	\$241,377	\$502,514	\$0	\$502,514	43.2%	\$374,052	\$345,747	\$719,799
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 02 Remaining Construction Item	\$18,109	\$13,548	74.8%	\$31,657	8.3%	\$19,608	\$14,669	\$34,277	\$0	\$34,277	43.2%	\$28,086	\$21,013	\$49,099
	REACH 03 Alt. D 2040														
02	40 Overall Structures Floodproofing Conc.	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	40 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	43.2%	\$2,477	\$6,554	\$9,031
10	40 Overall Seismic Ground Improvements	\$392,731	\$601,762	153.2%	\$994,493	8.3%	\$425,233	\$651,563	\$1,076,796	\$0	\$1,076,796	43.2%	\$609,104	\$933,299	\$1,542,402
10	40 Overall Seismic Transportation Corridor	\$41,867	\$34,123	81.5%	\$75,990	8.3%	\$45,331	\$36,947	\$82,279	\$0	\$82,279	43.2%	\$64,933	\$52,923	\$117,856

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$1,453	\$907	62.4%	\$2,360	8.3%	\$1,574	\$982	\$2,556	\$0	\$2,556	43.2%	\$2,254	\$1,406	\$3,661
11	40 REACH 03 Berms/Fill	\$11,406	\$8,113	71.1%	\$19,519	8.3%	\$12,350	\$8,784	\$21,134	\$0	\$21,134	43.2%	\$17,690	\$12,582	\$30,272
10	40 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$280	\$155	55.3%	\$435	8.3%	\$303	\$168	\$471	\$0	\$471	43.2%	\$434	\$240	\$674
11	40 REACH 03 Anchored Walls/T-Wall	\$12,958	\$10,848	83.7%	\$23,806	8.3%	\$14,030	\$11,746	\$25,776	\$0	\$25,776	43.2%	\$20,096	\$16,825	\$36,921
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Wharf Replacement	\$29,312	\$19,339	66.0%	\$48,650	8.3%	\$31,737	\$20,939	\$52,677	\$0	\$52,677	43.2%	\$45,461	\$29,994	\$75,454
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drain	\$69,918	\$72,154	103.2%	\$142,072	8.3%	\$75,704	\$78,126	\$153,830	\$0	\$153,830	43.2%	\$108,439	\$111,907	\$220,346
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$9,267	\$5,852	63.1%	\$15,118	8.3%	\$10,034	\$6,336	\$16,369	\$0	\$16,369	43.2%	\$14,372	\$9,076	\$23,448
10	40 REACH 03 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Demolition of Bldgs/Structu	\$69	\$49	70.7%	\$118	8.3%	\$75	\$53	\$128	\$0	\$128	43.2%	\$107	\$76	\$183
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 03 Remaining Construction It	\$8,841	\$6,614	74.8%	\$15,455	8.3%	\$9,573	\$7,162	\$16,734	\$0	\$16,734	43.2%	\$13,712	\$10,258	\$23,970
REACH 04 Alt. D 2040															
02	40 Overall Structures Floodproofing Conc.	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	43.2%	\$11,561	\$30,583	\$42,144
10	40 Overall Seismic Ground Improvements	\$1,832,745	\$2,808,223	153.2%	\$4,640,969	8.3%	\$1,984,421	\$3,040,629	\$5,025,050	\$0	\$5,025,050	43.2%	\$2,842,483	\$4,355,395	\$7,197,878
10	40 Overall Seismic Transportation Corrido	\$195,377	\$159,242	81.5%	\$354,619	8.3%	\$211,546	\$172,420	\$383,967	\$0	\$383,967	43.2%	\$303,019	\$246,975	\$549,993
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 04 Plantings/EWN	\$13,243	\$8,262	62.4%	\$21,505	8.3%	\$14,339	\$8,946	\$23,285	\$0	\$23,285	43.2%	\$20,539	\$12,814	\$33,353
11	40 REACH 04 Berms/Fill	\$15,990	\$11,373	71.1%	\$27,363	8.3%	\$17,314	\$12,314	\$29,628	\$0	\$29,628	43.2%	\$24,800	\$17,639	\$42,439
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$11,533	\$6,382	55.3%	\$17,915	8.3%	\$12,487	\$6,910	\$19,397	\$0	\$19,397	43.2%	\$17,887	\$9,898	\$27,784
11	40 REACH 04 Anchored Walls/T-Wall	\$5,765	\$4,826	83.7%	\$10,591	8.3%	\$6,242	\$5,226	\$11,467	\$0	\$11,467	43.2%	\$8,940	\$7,485	\$16,425
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Wharf Replacement	\$170,489	\$112,483	66.0%	\$282,972	8.3%	\$184,598	\$121,792	\$306,391	\$0	\$306,391	43.2%	\$264,418	\$174,455	\$438,874
10	40 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 04 Pump Stations/Interior Drain	\$68,526	\$70,718	103.2%	\$139,244	8.3%	\$74,197	\$76,571	\$150,768	\$0	\$150,768	43.2%	\$106,280	\$109,680	\$215,960
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$1,610	\$1,016	63.1%	\$2,626	8.3%	\$1,743	\$1,101	\$2,843	\$0	\$2,843	43.2%	\$2,496	\$1,576	\$4,073
10	40 REACH 04 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 04 Armoring	\$3,117	\$1,661	53.3%	\$4,778	8.3%	\$3,375	\$1,799	\$5,173	\$0	\$5,173	43.2%	\$4,834	\$2,576	\$7,410
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Demolition of Bldgs/Structu	\$3,029	\$2,143	70.7%	\$5,172	8.3%	\$3,280	\$2,320	\$5,600	\$0	\$5,600	43.2%	\$4,698	\$3,324	\$8,021
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 04 Remaining Construction It	\$3,949	\$2,954	74.8%	\$6,903	8.3%	\$4,276	\$3,199	\$7,475	\$0	\$7,475	43.2%	\$6,125	\$4,582	\$10,707
CONSTRUCTION ESTIMATE TOTALS:		\$5,127,141	\$6,590,226		\$11,717,367	8.3%	\$5,551,460	\$7,135,628	\$12,687,088	\$0	\$12,687,088	43.2%	\$7,951,904	\$10,221,065	\$18,172,969
01	REACH 01 LANDS AND DAMAGES	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	REACH 02 LANDS AND DAMAGES	\$380	\$190	50.0%	\$570	8.3%	\$411	\$206	\$617	\$0	\$617	7.3%	\$442	\$221	\$662

**** TOTAL PROJECT COST SUMMARY ****

01	REACH 03 LANDS AND DAMAGES	\$3,252	\$1,626	50.0%	\$4,878	8.3%	\$3,521	\$1,761	\$5,282	\$0	\$5,282	7.3%	\$3,780	\$1,890	\$5,669
01	REACH 04 LANDS AND DAMAGES	\$57,493	\$28,747	50.0%	\$86,240	8.3%	\$62,251	\$31,126	\$93,377	\$0	\$93,377	7.3%	\$66,821	\$33,411	\$100,232
30	REACH 01 PLANNING, ENGINEERING &	\$3,910	\$2,191	56.0%	\$6,101	7.4%	\$4,200	\$2,353	\$6,553	\$0	\$6,553	11.3%	\$4,674	\$2,619	\$7,293
30	REACH 02 PLANNING, ENGINEERING &	\$309,138	\$173,194	56.0%	\$482,331	7.4%	\$332,019	\$186,013	\$518,031	\$0	\$518,031	11.3%	\$369,522	\$207,023	\$576,545
30	REACH 03 PLANNING, ENGINEERING &	\$85,142	\$47,701	56.0%	\$132,843	7.4%	\$91,444	\$51,231	\$142,675	\$0	\$142,675	11.3%	\$101,773	\$57,018	\$158,791
30	REACH 04 PLANNING, ENGINEERING &	\$332,428	\$186,242	56.0%	\$518,669	7.4%	\$357,033	\$200,027	\$557,059	\$0	\$557,059	11.3%	\$397,361	\$222,620	\$619,981
31	REACH 01 CONSTRUCTION MANAGEM	\$1,989	\$1,255	63.1%	\$3,245	7.4%	\$2,137	\$1,348	\$3,485	\$0	\$3,485	35.5%	\$2,895	\$1,826	\$4,721
31	REACH 02 CONSTRUCTION MANAGEM	\$157,281	\$99,226	63.1%	\$256,507	7.4%	\$168,922	\$106,571	\$275,492	\$0	\$275,492	35.5%	\$228,862	\$144,386	\$373,248
31	REACH 03 CONSTRUCTION MANAGEM	\$43,318	\$27,329	63.1%	\$70,646	7.4%	\$46,524	\$29,351	\$75,875	\$0	\$75,875	35.5%	\$63,033	\$39,766	\$102,799
31	REACH 04 CONSTRUCTION MANAGEM	\$169,130	\$106,702	63.1%	\$275,832	7.4%	\$181,648	\$114,599	\$296,248	\$0	\$296,248	35.5%	\$246,104	\$155,264	\$401,368
PROJECT COST TOTALS:		\$6,290,602	\$7,264,627	115.5%	\$13,555,229		\$6,801,569	\$7,860,212	\$14,661,782	\$0	\$14,661,782	40.0%	\$9,437,169	\$11,087,109	\$20,524,278

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$20,524,278

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

Attachment C-5: TSP First Actions
TPCS – Non-Seismic Cost

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NC P2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Total Net Benefits Plan - FIRST ACTION (NON-SEISMIC)

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
	REACH 01 Alt B 2040														
02	40 Overall Structures Floodproofing Conc.	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
19	40 REACH 01 Demolition of Bldgs/Structur	\$991	\$701	70.7%	\$1,692	8.3%	\$1,073	\$759	\$1,832	\$0	\$1,832	43.2%	\$1,537	\$1,087	\$2,624
19	40 REACH 01 Floodproofing Structures	\$6,289	\$5,766	91.7%	\$12,055	8.3%	\$6,810	\$6,243	\$13,053	\$0	\$13,053	43.2%	\$9,754	\$8,942	\$18,697
	REACH 02 Alt. G 2040														
02	40 Overall Structures Floodproofing Conc.	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
02	40 Overall Utility Relocations	\$35,274	\$93,314	264.5%	\$128,588	8.3%	\$38,193	\$101,037	\$139,230	\$0	\$139,230	43.2%	\$54,707	\$144,725	\$199,432
02	40 Overall Structure Floodproofing	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 Overall Seismic Ground Improvements	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Transportation Corridor	\$294,092	\$239,699	81.5%	\$533,791	8.3%	\$318,431	\$259,536	\$577,968	\$0	\$577,968	43.2%	\$456,120	\$371,759	\$827,879
02	40 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 02 Berms/Fill	\$8,683	\$6,176	71.1%	\$14,859	8.3%	\$9,402	\$6,687	\$16,089	\$0	\$16,089	43.2%	\$13,467	\$9,579	\$23,046
10	40 REACH 02 Ground Improvement/DSM	\$215,083	\$329,561	153.2%	\$544,644	8.3%	\$232,883	\$356,835	\$589,718	\$0	\$589,718	43.2%	\$333,582	\$511,131	\$844,712
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$124,518	\$68,903	55.3%	\$193,421	8.3%	\$134,823	\$74,605	\$209,428	\$0	\$209,428	43.2%	\$193,120	\$106,865	\$299,985
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Wharf Replacement	\$282,623	\$186,466	66.0%	\$469,089	8.3%	\$306,012	\$201,898	\$507,910	\$0	\$507,910	43.2%	\$438,332	\$289,198	\$727,530
10	40 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Temp Raise/Relocate Repla	\$241,177	\$222,927	92.4%	\$464,104	8.3%	\$261,137	\$241,377	\$502,514	\$0	\$502,514	43.2%	\$374,052	\$345,747	\$719,799
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 02 Remaining Construction Item	\$18,109	\$13,548	74.8%	\$31,657	8.3%	\$19,608	\$14,669	\$34,277	\$0	\$34,277	43.2%	\$28,086	\$21,013	\$49,099
	REACH 03 Alt. D 2040														
02	40 Overall Structures Floodproofing Conc.	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	40 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	43.2%	\$2,477	\$6,554	\$9,031
10	40 Overall Seismic Ground Improvements	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 Overall Seismic Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$1,453	\$907	62.4%	\$2,360	8.3%	\$1,574	\$982	\$2,556	\$0	\$2,556	43.2%	\$2,254	\$1,406	\$3,661
11	40 REACH 03 Berms/Fill	\$11,406	\$8,113	71.1%	\$19,519	8.3%	\$12,350	\$8,784	\$21,134	\$0	\$21,134	43.2%	\$17,690	\$12,582	\$30,272
10	40 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$280	\$155	55.3%	\$435	8.3%	\$303	\$168	\$471	\$0	\$471	43.2%	\$434	\$240	\$674
11	40 REACH 03 Anchored Walls/T-Wall	\$12,958	\$10,848	83.7%	\$23,806	8.3%	\$14,030	\$11,746	\$25,776	\$0	\$25,776	43.2%	\$20,096	\$16,825	\$36,921
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Wharf Replacement	\$29,312	\$19,339	66.0%	\$48,650	8.3%	\$31,737	\$20,939	\$52,677	\$0	\$52,677	43.2%	\$45,461	\$29,994	\$75,454
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drain	\$69,918	\$72,154	103.2%	\$142,072	8.3%	\$75,704	\$78,126	\$153,830	\$0	\$153,830	43.2%	\$108,439	\$111,907	\$220,346
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$9,267	\$5,852	63.1%	\$15,118	8.3%	\$10,034	\$6,336	\$16,369	\$0	\$16,369	43.2%	\$14,372	\$9,076	\$23,448
10	40 REACH 03 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Demolition of Bldgs/Structu	\$69	\$49	70.7%	\$118	8.3%	\$75	\$53	\$128	\$0	\$128	43.2%	\$107	\$76	\$183
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 03 Remaining Construction It	\$8,841	\$6,614	74.8%	\$15,455	8.3%	\$9,573	\$7,162	\$16,734	\$0	\$16,734	43.2%	\$13,712	\$10,258	\$23,970
REACH 04 Alt. D 2040															
02	40 Overall Structures Floodproofing Conc.	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	43.2%	\$11,561	\$30,583	\$42,144
10	40 Overall Seismic Ground Improvements	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 Overall Seismic Transportation Corrido	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 04 Plantings/EWN	\$13,243	\$8,262	62.4%	\$21,505	8.3%	\$14,339	\$8,946	\$23,285	\$0	\$23,285	43.2%	\$20,539	\$12,814	\$33,353
11	40 REACH 04 Berms/Fill	\$15,990	\$11,373	71.1%	\$27,363	8.3%	\$17,314	\$12,314	\$29,628	\$0	\$29,628	43.2%	\$24,800	\$17,639	\$42,439
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$11,533	\$6,382	55.3%	\$17,915	8.3%	\$12,487	\$6,910	\$19,397	\$0	\$19,397	43.2%	\$17,887	\$9,898	\$27,784
11	40 REACH 04 Anchored Walls/T-Wall	\$5,765	\$4,826	83.7%	\$10,591	8.3%	\$6,242	\$5,226	\$11,467	\$0	\$11,467	43.2%	\$8,940	\$7,485	\$16,425
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Wharf Replacement	\$170,489	\$112,483	66.0%	\$282,972	8.3%	\$184,598	\$121,792	\$306,391	\$0	\$306,391	43.2%	\$264,418	\$174,455	\$438,874
10	40 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 04 Pump Stations/Interior Drain	\$68,526	\$70,718	103.2%	\$139,244	8.3%	\$74,197	\$76,571	\$150,768	\$0	\$150,768	43.2%	\$106,280	\$109,680	\$215,960
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$1,610	\$1,016	63.1%	\$2,626	8.3%	\$1,743	\$1,101	\$2,843	\$0	\$2,843	43.2%	\$2,496	\$1,576	\$4,073
10	40 REACH 04 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 04 Armoring	\$3,117	\$1,661	53.3%	\$4,778	8.3%	\$3,375	\$1,799	\$5,173	\$0	\$5,173	43.2%	\$4,834	\$2,576	\$7,410
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Demolition of Bldgs/Structu	\$3,029	\$2,143	70.7%	\$5,172	8.3%	\$3,280	\$2,320	\$5,600	\$0	\$5,600	43.2%	\$4,698	\$3,324	\$8,021
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 04 Remaining Construction It	\$3,949	\$2,954	74.8%	\$6,903	8.3%	\$4,276	\$3,199	\$7,475	\$0	\$7,475	43.2%	\$6,125	\$4,582	\$10,707
CONSTRUCTION ESTIMATE TOTALS:		\$1,789,927	\$1,646,932		\$3,436,860	8.3%	\$1,938,062	\$1,783,233	\$3,721,294	\$0	\$3,721,294	43.2%	\$2,776,075	\$2,554,298	\$5,330,374
01	REACH 01 LANDS AND DAMAGES	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	REACH 02 LANDS AND DAMAGES	\$380	\$190	50.0%	\$570	8.3%	\$411	\$206	\$617	\$0	\$617	7.3%	\$442	\$221	\$662

**** TOTAL PROJECT COST SUMMARY ****

01	REACH 03 LANDS AND DAMAGES	\$3,252	\$1,626	50.0%	\$4,878	8.3%	\$3,521	\$1,761	\$5,282	\$0	\$5,282	7.3%	\$3,780	\$1,890	\$5,669
01	REACH 04 LANDS AND DAMAGES	\$57,493	\$28,747	50.0%	\$86,240	8.3%	\$62,251	\$31,126	\$93,377	\$0	\$93,377	7.3%	\$66,821	\$33,411	\$100,232
30	REACH 01 PLANNING, ENGINEERING &	\$3,910	\$2,191	56.0%	\$6,101	7.4%	\$4,200	\$2,353	\$6,553	\$0	\$6,553	11.3%	\$4,674	\$2,619	\$7,293
30	REACH 02 PLANNING, ENGINEERING &	\$184,522	\$103,378	56.0%	\$287,900	7.4%	\$198,180	\$111,030	\$309,210	\$0	\$309,210	11.3%	\$220,565	\$123,571	\$344,136
30	REACH 03 PLANNING, ENGINEERING &	\$23,212	\$13,004	56.0%	\$36,216	7.4%	\$24,930	\$13,967	\$38,897	\$0	\$38,897	11.3%	\$27,746	\$15,544	\$43,290
30	REACH 04 PLANNING, ENGINEERING &	\$43,420	\$24,326	56.0%	\$67,746	7.4%	\$46,634	\$26,127	\$72,761	\$0	\$72,761	11.3%	\$51,902	\$29,078	\$80,979
31	REACH 01 CONSTRUCTION MANAGEM	\$1,989	\$1,255	63.1%	\$3,245	7.4%	\$2,137	\$1,348	\$3,485	\$0	\$3,485	35.5%	\$2,895	\$1,826	\$4,721
31	REACH 02 CONSTRUCTION MANAGEM	\$93,880	\$59,227	63.1%	\$153,107	7.4%	\$100,828	\$63,611	\$164,440	\$0	\$164,440	35.5%	\$136,606	\$86,183	\$222,789
31	REACH 03 CONSTRUCTION MANAGEM	\$11,810	\$7,450	63.1%	\$19,260	7.4%	\$12,684	\$8,002	\$20,686	\$0	\$20,686	35.5%	\$17,184	\$10,841	\$28,026
31	REACH 04 CONSTRUCTION MANAGEM	\$22,091	\$13,937	63.1%	\$36,028	7.4%	\$23,726	\$14,968	\$38,695	\$0	\$38,695	35.5%	\$32,145	\$20,280	\$52,425
PROJECT COST TOTALS:		\$2,235,887	\$1,902,264	85.1%	\$4,138,151		\$2,417,564	\$2,057,730	\$4,475,294	\$0	\$4,475,294	39.0%	\$3,340,834	\$2,879,762	\$6,220,596

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$6,220,596

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

Attachment C-6: TSP Subsequent Actions - High TPCS - Seismic Cost

PROJECT: SFWS
PROJECT N CP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Total Net Benefits Plan - SECOND ACTION HIGH (SEISMIC) Estimated Costs escalated to 2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC): Effective Price Level Date:					Spent Thru: 1-Oct-24 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	2026 1 OCT 25						
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O	
	REACH 01 Alt G 2040 & 2090															
02	Reach 01 40 Overall Structures Floodproofing	\$21,277	\$19,506	91.7%	\$40,783	2.6%	\$21,830	\$20,013	\$41,843		\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	Reach 01 40 Overall Utility Relocations	\$7,024	\$18,581	264.5%	\$25,604	2.6%	\$7,206	\$19,064	\$26,270		\$0	\$26,270	43.2%	\$10,322	\$27,307	\$37,629
02	Reach 01 40 Overall Structure Floodproofing	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 01 40 Overall Seismic Ground Improve	\$174,128	\$266,807	153.2%	\$440,934	2.6%	\$178,654	\$273,743	\$452,397		\$0	\$452,397	43.2%	\$255,904	\$392,109	\$648,012
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$52,210	\$42,554	81.5%	\$94,764	2.6%	\$53,568	\$43,660	\$97,228		\$0	\$97,228	43.2%	\$76,730	\$62,539	\$139,269
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$4,011	\$2,853	71.1%	\$6,863	2.6%	\$4,115	\$2,927	\$7,042		\$0	\$7,042	43.2%	\$5,894	\$4,192	\$10,086
10	40 REACH 01 Ground Improvement/DSM	\$132,642	\$203,241	153.2%	\$335,883	2.6%	\$136,090	\$208,524	\$344,614		\$0	\$344,614	43.2%	\$194,935	\$298,690	\$493,625
10	40 REACH 01 Cantilever Walls/Pile Caps/Con	\$67,942	\$37,596	55.3%	\$105,538	2.6%	\$69,708	\$38,574	\$108,282		\$0	\$108,282	43.2%	\$99,850	\$55,253	\$155,102
11	40 REACH 01 Anchored Walls/T-Wall	\$16,941	\$14,184	83.7%	\$31,125	2.6%	\$17,382	\$14,552	\$31,934		\$0	\$31,934	43.2%	\$24,897	\$20,845	\$45,742
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$93,051	\$61,392	66.0%	\$154,443	2.6%	\$95,469	\$62,988	\$158,457		\$0	\$158,457	43.2%	\$136,750	\$90,224	\$226,974
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drainage	\$24,940	\$25,738	103.2%	\$50,678	2.6%	\$25,589	\$26,407	\$51,996		\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Replace	\$66,057	\$61,058	92.4%	\$127,115	2.6%	\$67,774	\$62,646	\$130,420		\$0	\$130,420	43.2%	\$97,079	\$89,733	\$186,813
02	40 REACH 01 Demolition of Bldgs/Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 01 Remaining Construction Items	\$11,527	\$8,624	74.8%	\$20,152	2.6%	\$11,827	\$8,848	\$20,675		\$0	\$20,675	43.2%	\$16,941	\$12,674	\$29,616
02	90 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	90 Overall Seismic Ground Improvements	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$2,279	\$1,621	71.1%	\$3,900	2.6%	\$2,338	\$1,663	\$4,001		\$0	\$4,001	416.9%	\$12,087	\$8,597	\$20,685
10	90 REACH 01 Ground Improvement/DSM	\$23,193	\$35,538	153.2%	\$58,732	2.6%	\$23,796	\$36,462	\$60,258		\$0	\$60,258	416.9%	\$123,011	\$188,483	\$311,494
10	90 REACH 01 Cantilever Walls/Pile Caps/Con	\$2,962	\$1,639	55.3%	\$4,602	2.6%	\$3,039	\$1,682	\$4,721		\$0	\$4,721	416.9%	\$15,712	\$8,694	\$24,406
11	90 REACH 01 Anchored Walls/T-Wall	\$16,941	\$14,184	83.7%	\$31,125	2.6%	\$17,382	\$14,552	\$31,934		\$0	\$31,934	416.9%	\$89,851	\$75,225	\$165,076
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

10	90 REACH 01 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 01 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	90 REACH 01 Pump Stations/Interior Drainage	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 01 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	90 REACH 01 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 01 Temp Raise/Relocate Replace	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 01 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	90 REACH 01 Remaining Construction Items	\$3,563	\$2,666	74.8%	\$6,229	2.6%	\$3,656	\$2,735	\$6,391	\$0	\$6,391	416.9%	\$18,898	\$14,139	\$33,037
REACH 02 Alt G 2090															
02	Reach 02 90 Overall Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	Reach 02 90 Overall Seismic Ground Improve	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 02 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	90 REACH 02 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	90 REACH 02 Berms/Fill	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Cantilever Walls/Pile Caps/Con	\$4,492	\$2,485	55.3%	\$6,977	2.6%	\$4,608	\$2,550	\$7,158	\$0	\$7,158	416.9%	\$23,822	\$13,182	\$37,004
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Pump Stations/Interior Drainage	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	90 REACH 02 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	90 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 02 Temp Raise/Relocate Replace	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 02 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	90 REACH 02 Remaining Construction Items	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
REACH 03 Alt. E 2040 & 2090															
02	Reach 03 40 Overall Structures Floodproofing	\$18,774	\$17,211	91.7%	\$35,985	2.6%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	Reach 03 40 Overall Utility Relocations	\$5,689	\$15,050	264.5%	\$20,739	2.6%	\$5,837	\$15,441	\$21,279	\$0	\$21,279	43.2%	\$8,361	\$22,118	\$30,479
10	Reach 03 40 Overall Seismic Ground Improve	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	Reach 03 40 Overall Seismic Transportation C	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Transportation Corridor	\$265,454	\$216,357	81.5%	\$481,811	2.6%	\$272,354	\$221,981	\$494,335	\$0	\$494,335	43.2%	\$390,119	\$317,965	\$708,084
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$48,470	\$30,241	62.4%	\$78,711	2.6%	\$49,730	\$31,027	\$80,757	\$0	\$80,757	43.2%	\$71,234	\$44,443	\$115,677
11	40 REACH 03 Berms/Fill	\$75,090	\$53,408	71.1%	\$128,499	2.6%	\$77,043	\$54,797	\$131,840	\$0	\$131,840	43.2%	\$110,355	\$78,490	\$188,846
10	40 REACH 03 Ground Improvement/DSM	\$194,799	\$298,481	153.2%	\$493,280	2.6%	\$199,863	\$306,240	\$506,102	\$0	\$506,102	43.2%	\$286,283	\$438,657	\$724,941
10	40 REACH 03 Cantilever Walls/Pile Caps/Con	\$13,609	\$7,531	55.3%	\$21,140	2.6%	\$13,963	\$7,726	\$21,689	\$0	\$21,689	43.2%	\$20,000	\$11,067	\$31,068
11	40 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Combi-Wall (Offshore)	\$672,365	\$710,556	105.7%	\$1,382,921	2.6%	\$689,843	\$729,027	\$1,418,870	\$0	\$1,418,870	43.2%	\$988,131	\$1,044,257	\$2,032,388
10	40 REACH 03 Wharf Replacement	\$242,657	\$160,098	66.0%	\$402,755	2.6%	\$248,965	\$164,260	\$413,225	\$0	\$413,225	43.2%	\$356,618	\$235,286	\$591,903
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drainage	\$141,933	\$146,473	103.2%	\$288,406	2.6%	\$145,623	\$150,282	\$295,905	\$0	\$295,905	43.2%	\$208,590	\$215,263	\$423,853

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 03 Roller Gate/Vehicle Barriers	\$7,879	\$4,975	63.1%	\$12,854	2.6%	\$8,084	\$5,105	\$13,188	\$0	\$13,188	43.2%	\$11,579	\$7,312	\$18,891
10	40 REACH 03 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Temp Raise/Relocate Replace	\$274,775	\$253,983	92.4%	\$528,757	2.6%	\$281,918	\$260,585	\$542,502	\$0	\$542,502	43.2%	\$403,818	\$373,261	\$777,079
02	40 REACH 03 Demolition of Bldgs/Structures	\$1,024	\$725	70.7%	\$1,749	2.6%	\$1,051	\$744	\$1,795	\$0	\$1,795	43.2%	\$1,506	\$1,065	\$2,571
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 03 Remaining Construction Items	\$13,826	\$10,344	74.8%	\$24,170	2.6%	\$14,185	\$10,613	\$24,798	\$0	\$24,798	43.2%	\$20,319	\$15,202	\$35,521
10	90 Overall Utility Relocations	\$2,529	\$6,689	264.5%	\$9,217	2.6%	\$2,594	\$6,863	\$9,457	\$0	\$9,457	416.9%	\$13,410	\$35,476	\$48,887
02	90 REACH 03 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Bridge Replacement	\$135,253	\$200,839	148.5%	\$336,092	2.6%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	416.9%	\$717,340	\$1,065,184	\$1,782,524
06	90 REACH 03 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 03 Berms/Fill	\$22,895	\$16,284	71.1%	\$39,180	2.6%	\$23,491	\$16,708	\$40,199	\$0	\$40,199	416.9%	\$121,430	\$86,367	\$207,797
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Cantilever Walls/Pile Caps/Con	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Wharf Replacement	\$242,087	\$159,722	66.0%	\$401,809	2.6%	\$248,380	\$163,874	\$412,254	\$0	\$412,254	416.9%	\$1,283,953	\$847,113	\$2,131,066
10	90 REACH 03 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 03 Pump Stations/Interior Drainage	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Temp Raise/Relocate Replace	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Demolition of Bldgs/Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 03 Remaining Construction Items	\$22,695	\$16,979	74.8%	\$39,674	2.6%	\$23,285	\$17,420	\$40,705	\$0	\$40,705	416.9%	\$120,366	\$90,052	\$210,418
REACH 04 Alt. E 2040 & 2090															
02	Reach 04 40 Overall Structures Floodproofing	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Utility Relocations	\$11,800	\$31,215	264.5%	\$43,015	2.6%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	43.2%	\$17,341	\$45,875	\$63,216
10	Reach 04 40 Overall Seismic Ground Improve	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 04 40 Overall Seismic Transportation C	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 04 Plantings/EWN	\$27,233	\$16,991	62.4%	\$44,224	2.6%	\$27,941	\$17,433	\$45,374	\$0	\$45,374	43.2%	\$40,023	\$24,971	\$64,993
11	40 REACH 04 Berms/Fill	\$82,541	\$58,707	71.1%	\$141,248	2.6%	\$84,687	\$60,234	\$144,920	\$0	\$144,920	43.2%	\$121,304	\$86,278	\$207,582
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/Con	\$241,325	\$133,540	55.3%	\$374,865	2.6%	\$247,599	\$137,011	\$384,610	\$0	\$384,610	43.2%	\$354,660	\$196,254	\$550,915
11	40 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Wharf Replacement	\$769,539	\$507,719	66.0%	\$1,277,258	2.6%	\$789,544	\$520,917	\$1,310,461	\$0	\$1,310,461	43.2%	\$1,130,942	\$746,161	\$1,877,103
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drainage	\$273,146	\$281,883	103.2%	\$555,029	2.6%	\$280,248	\$289,212	\$569,460	\$0	\$569,460	43.2%	\$401,426	\$414,267	\$815,692
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$2,216	\$1,399	63.1%	\$3,615	2.6%	\$2,273	\$1,435	\$3,709	\$0	\$3,709	43.2%	\$3,256	\$2,056	\$5,312
10	40 REACH 04 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Replace	\$568,359	\$525,351	92.4%	\$1,093,710	2.6%	\$583,134	\$539,008	\$1,122,141	\$0	\$1,122,141	43.2%	\$835,279	\$772,073	\$1,607,352
02	40 REACH 04 Demolition of Bldgs/Structures	\$1,399	\$990	70.7%	\$2,389	2.6%	\$1,435	\$1,016	\$2,451	\$0	\$2,451	43.2%	\$2,056	\$1,455	\$3,511

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction Items	\$21,701	\$16,236	74.8%	\$37,937	2.6%	\$22,265	\$16,658	\$38,923	\$0	\$38,923	43.2%	\$31,893	\$23,861	\$55,754
10	90 Overall Utility Relocations	\$11,800	\$31,215	264.5%	\$43,015	2.6%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	416.9%	\$62,582	\$165,556	\$228,138
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Bridge Replacement	\$76,985	\$114,315	148.5%	\$191,300	2.6%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	416.9%	\$408,302	\$606,291	\$1,014,594
06	90 REACH 04 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 04 Berms/Fill	\$17,540	\$12,475	71.1%	\$30,015	2.6%	\$17,996	\$12,800	\$30,795	\$0	\$30,795	416.9%	\$93,026	\$66,165	\$159,190
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/Con	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 04 Pump Stations/Interior Drainage	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Temp Raise/Relocate Replace	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 04 Remaining Construction Items	\$138,833	\$103,868	74.8%	\$242,701	2.6%	\$142,442	\$106,568	\$249,010	\$0	\$249,010	416.9%	\$736,326	\$550,882	\$1,287,209
CONSTRUCTION ESTIMATE TOTALS:		\$5,371,400	\$4,982,116		\$10,353,516	2.6%	\$5,511,033	\$5,111,630	\$10,622,663	\$0	\$10,622,663	95.4%	\$10,670,025	\$10,084,395	\$20,754,421
01	LANDS AND DAMAGES	\$2,043,362	\$1,021,681	50.0%	\$3,065,043	2.6%	\$2,096,479	\$1,048,239	\$3,144,718	\$0	\$3,144,718	270.3%	\$7,762,599	\$3,881,299	\$11,643,898
30	REACH 01 PLANNING, ENGINEERING & DE	\$102,698	\$57,536	56.0%	\$160,234	2.2%	\$104,957	\$58,802	\$163,760	\$0	\$163,760	201.2%	\$316,093	\$177,090	\$493,183
30	REACH 02 PLANNING, ENGINEERING & DE	\$640	\$359	56.0%	\$999	2.2%	\$654	\$366	\$1,021	\$0	\$1,021	201.2%	\$1,970	\$1,104	\$3,074
30	REACH 03 PLANNING, ENGINEERING & DE	\$342,338	\$191,789	56.0%	\$534,127	2.2%	\$349,869	\$196,008	\$545,878	\$0	\$545,878	201.2%	\$1,053,662	\$590,297	\$1,643,960
30	REACH 04 PLANNING, ENGINEERING & DE	\$319,829	\$179,184	56.0%	\$499,013	2.2%	\$326,866	\$183,126	\$509,991	\$0	\$509,991	201.2%	\$984,398	\$551,506	\$1,535,904
31	REACH 01 CONSTRUCTION MANAGEMENT	\$52,250	\$32,964	63.1%	\$85,214	2.2%	\$53,399	\$33,689	\$87,088	\$0	\$87,088	266.3%	\$195,589	\$123,394	\$318,983
31	REACH 02 CONSTRUCTION MANAGEMENT	\$326	\$205	63.1%	\$531	2.2%	\$333	\$210	\$543	\$0	\$543	266.3%	\$1,219	\$769	\$1,988
31	REACH 03 CONSTRUCTION MANAGEMENT	\$174,131	\$109,857	63.1%	\$283,988	2.2%	\$177,962	\$112,274	\$290,235	\$0	\$290,235	266.3%	\$651,828	\$411,230	\$1,063,058
31	REACH 04 CONSTRUCTION MANAGEMENT	\$162,720	\$102,658	63.1%	\$265,378	2.2%	\$166,300	\$104,916	\$271,216	\$0	\$271,216	266.3%	\$609,115	\$384,282	\$993,397
PROJECT COST TOTALS:		\$8,569,694	\$6,678,348	77.9%	\$15,248,042		\$8,787,852	\$6,849,261	\$15,637,113	\$0	\$15,637,113	145.9%	\$22,246,497	\$16,205,368	\$38,451,866

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$38,451,866

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

_____	CHIEF, ENGINEERING, xxx
_____	CHIEF, OPERATIONS, xxx
_____	CHIEF, CONSTRUCTION, xxx
_____	CHIEF, CONTRACTING,xxx
_____	CHIEF, PM-PB, xxxx
_____	CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT:	SFWS	DISTRICT:	SWT	PREPARED:	8/4/2023
LOCATION:	San Francisco, CA	POC:	CHIEF, COST ENGINEERING, xxx		
This Estimate reflects the scope and schedule in report; Alternatives Analysis					

Attachment C-7: TSP Subsequent Actions – High TPCS - Non-Seismic Cost

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NC P2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Total Net Benefits Plan - SECOND ACTION HIGH (NON-SEISMIC) Estimated Costs escalated to 2025

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS	Civil Works	COST	CNTG	CNTG	TOTAL	ESC	COST	CNTG	TOTAL	Spent Thru:	TOTAL	INFLATED	COST	CNTG	FULL
NUMBER	Feature & Sub-Feature Description	(\$K)	(\$K)	(%)	(\$K)	(%)	(\$K)	(\$K)	(\$K)	1-Oct-24	FIRST COST	(%)	(\$K)	(\$K)	(\$K)
A	B	C	D	E	F	G	H	I	J	(\$K)	K	L	M	N	O
	REACH 01 Alt G 2040 & 2090														
02	Reach 01 40 Overall Structures Floodproo	\$21,277	\$19,506	91.7%	\$40,783	2.6%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	Reach 01 40 Overall Utility Relocations	\$7,024	\$18,581	264.5%	\$25,604	2.6%	\$7,206	\$19,064	\$26,270	\$0	\$26,270	43.2%	\$10,322	\$27,307	\$37,629
02	Reach 01 40 Overall Structure Floodproofi	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 01 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$52,210	\$42,554	81.5%	\$94,764	2.6%	\$53,568	\$43,660	\$97,228	\$0	\$97,228	43.2%	\$76,730	\$62,539	\$139,269
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$4,011	\$2,853	71.1%	\$6,863	2.6%	\$4,115	\$2,927	\$7,042	\$0	\$7,042	43.2%	\$5,894	\$4,192	\$10,086
10	40 REACH 01 Ground Improvement/DSM	\$132,642	\$203,241	153.2%	\$335,883	2.6%	\$136,090	\$208,524	\$344,614	\$0	\$344,614	43.2%	\$194,935	\$298,690	\$493,625
10	40 REACH 01 Cantilever Walls/Pile Caps/	\$67,942	\$37,596	55.3%	\$105,538	2.6%	\$69,708	\$38,574	\$108,282	\$0	\$108,282	43.2%	\$99,850	\$55,253	\$155,102
11	40 REACH 01 Anchored Walls/T-Wall	\$16,941	\$14,184	83.7%	\$31,125	2.6%	\$17,382	\$14,552	\$31,934	\$0	\$31,934	43.2%	\$24,897	\$20,845	\$45,742
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$93,051	\$61,392	66.0%	\$154,443	2.6%	\$95,469	\$62,988	\$158,457	\$0	\$158,457	43.2%	\$136,750	\$90,224	\$226,974
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$24,940	\$25,738	103.2%	\$50,678	2.6%	\$25,589	\$26,407	\$51,996	\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$66,057	\$61,058	92.4%	\$127,115	2.6%	\$67,774	\$62,646	\$130,420	\$0	\$130,420	43.2%	\$97,079	\$89,733	\$186,813
02	40 REACH 01 Demolition of Bldgs/Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 01 Remaining Construction Ite	\$11,527	\$8,624	74.8%	\$20,152	2.6%	\$11,827	\$8,848	\$20,675	\$0	\$20,675	43.2%	\$16,941	\$12,674	\$29,616
02	90 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 Overall Seismic Ground Improvements	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$2,279	\$1,621	71.1%	\$3,900	2.6%	\$2,338	\$1,663	\$4,001	\$0	\$4,001	416.9%	\$12,087	\$8,597	\$20,685
10	90 REACH 01 Ground Improvement/DSM	\$23,193	\$35,538	153.2%	\$58,732	2.6%	\$23,796	\$36,462	\$60,258	\$0	\$60,258	416.9%	\$123,011	\$188,483	\$311,494
10	90 REACH 01 Cantilever Walls/Pile Caps/	\$2,962	\$1,639	55.3%	\$4,602	2.6%	\$3,039	\$1,682	\$4,721	\$0	\$4,721	416.9%	\$15,712	\$8,694	\$24,406

**** TOTAL PROJECT COST SUMMARY ****

11	90 REACH 01 Anchored Walls/T-Wall	\$16,941	\$14,184	83.7%	\$31,125	2.6%	\$17,382	\$14,552	\$31,934	\$0	\$31,934	416.9%	\$89,851	\$75,225	\$165,076
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 01 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 01 Remaining Construction Item	\$3,563	\$2,666	74.8%	\$6,229	2.6%	\$3,656	\$2,735	\$6,391	\$0	\$6,391	416.9%	\$18,898	\$14,139	\$33,037
REACH 02 Alt G 2090															
02	Reach 02 90 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 02 90 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	90 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 02 Berms/Fill	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/	\$4,492	\$2,485	55.3%	\$6,977	2.6%	\$4,608	\$2,550	\$7,158	\$0	\$7,158	416.9%	\$23,822	\$13,182	\$37,004
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Item	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
REACH 03 Alt. E 2040 & 2090															
02	Reach 03 40 Overall Structures Floodproo	\$18,774	\$17,211	91.7%	\$35,985	2.6%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	Reach 03 40 Overall Utility Relocations	\$5,689	\$15,050	264.5%	\$20,739	2.6%	\$5,837	\$15,441	\$21,279	\$0	\$21,279	43.2%	\$8,361	\$22,118	\$30,479
10	Reach 03 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 03 40 Overall Seismic Transportati	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Transportation Corridor	\$265,454	\$216,357	81.5%	\$481,811	2.6%	\$272,354	\$221,981	\$494,335	\$0	\$494,335	43.2%	\$390,119	\$317,965	\$708,084
02	40 REACH 03 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 03 Plantings/EWN	\$48,470	\$30,241	62.4%	\$78,711	2.6%	\$49,730	\$31,027	\$80,757	\$0	\$80,757	43.2%	\$71,234	\$44,443	\$115,677
11	40 REACH 03 Berms/Fill	\$75,090	\$53,408	71.1%	\$128,499	2.6%	\$77,043	\$54,797	\$131,840	\$0	\$131,840	43.2%	\$110,355	\$78,490	\$188,846
10	40 REACH 03 Ground Improvement/DSM	\$194,799	\$298,481	153.2%	\$493,280	2.6%	\$199,863	\$306,240	\$506,102	\$0	\$506,102	43.2%	\$286,283	\$438,657	\$724,941
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$13,609	\$7,531	55.3%	\$21,140	2.6%	\$13,963	\$7,726	\$21,689	\$0	\$21,689	43.2%	\$20,000	\$11,067	\$31,068
11	40 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Combi-Wall (Offshore)	\$672,365	\$710,556	105.7%	\$1,382,921	2.6%	\$689,843	\$729,027	\$1,418,870	\$0	\$1,418,870	43.2%	\$988,131	\$1,044,257	\$2,032,388

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 03 Wharf Replacement	\$242,657	\$160,098	66.0%	\$402,755	2.6%	\$248,965	\$164,260	\$413,225	\$0	\$413,225	43.2%	\$356,618	\$235,286	\$591,903
10	40 REACH 03 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 03 Pump Stations/Interior Drain	\$141,933	\$146,473	103.2%	\$288,406	2.6%	\$145,623	\$150,282	\$295,905	\$0	\$295,905	43.2%	\$208,590	\$215,263	\$423,853
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$7,879	\$4,975	63.1%	\$12,854	2.6%	\$8,084	\$5,105	\$13,188	\$0	\$13,188	43.2%	\$11,579	\$7,312	\$18,891
10	40 REACH 03 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Temp Raise/Relocate Repla	\$274,775	\$253,983	92.4%	\$528,757	2.6%	\$281,918	\$260,585	\$542,502	\$0	\$542,502	43.2%	\$403,818	\$373,261	\$777,079
02	40 REACH 03 Demolition of Bldgs/Structur	\$1,024	\$725	70.7%	\$1,749	2.6%	\$1,051	\$744	\$1,795	\$0	\$1,795	43.2%	\$1,506	\$1,065	\$2,571
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 03 Remaining Construction Item	\$13,826	\$10,344	74.8%	\$24,170	2.6%	\$14,185	\$10,613	\$24,798	\$0	\$24,798	43.2%	\$20,319	\$15,202	\$35,521
10	90 Overall Utility Relocations	\$2,529	\$6,689	264.5%	\$9,217	2.6%	\$2,594	\$6,863	\$9,457	\$0	\$9,457	416.9%	\$13,410	\$35,476	\$48,887
02	90 REACH 03 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Bridge Replacement	\$135,253	\$200,839	148.5%	\$336,092	2.6%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	416.9%	\$717,340	\$1,065,184	\$1,782,524
06	90 REACH 03 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 03 Berms/Fill	\$22,895	\$16,284	71.1%	\$39,180	2.6%	\$23,491	\$16,708	\$40,199	\$0	\$40,199	416.9%	\$121,430	\$86,367	\$207,797
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Cantilever Walls/Pile Caps/	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Wharf Replacement	\$242,087	\$159,722	66.0%	\$401,809	2.6%	\$248,380	\$163,874	\$412,254	\$0	\$412,254	416.9%	\$1,283,953	\$847,113	\$2,131,066
10	90 REACH 03 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 03 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 03 Remaining Construction Item	\$22,695	\$16,979	74.8%	\$39,674	2.6%	\$23,285	\$17,420	\$40,705	\$0	\$40,705	416.9%	\$120,366	\$90,052	\$210,418
REACH 04 Alt. E 2040 & 2090															
02	Reach 04 40 Overall Structures Floodproo	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Utility Relocations	\$11,800	\$31,215	264.5%	\$43,015	2.6%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	43.2%	\$17,341	\$45,875	\$63,216
10	Reach 04 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 04 40 Overall Seismic Transportati	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 04 Plantings/EWN	\$27,233	\$16,991	62.4%	\$44,224	2.6%	\$27,941	\$17,433	\$45,374	\$0	\$45,374	43.2%	\$40,023	\$24,971	\$64,993
11	40 REACH 04 Berms/Fill	\$82,541	\$58,707	71.1%	\$141,248	2.6%	\$84,687	\$60,234	\$144,920	\$0	\$144,920	43.2%	\$121,304	\$86,278	\$207,582
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$241,325	\$133,540	55.3%	\$374,865	2.6%	\$247,599	\$137,011	\$384,610	\$0	\$384,610	43.2%	\$354,660	\$196,254	\$550,915
11	40 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Wharf Replacement	\$769,539	\$507,719	66.0%	\$1,277,258	2.6%	\$789,544	\$520,917	\$1,310,461	\$0	\$1,310,461	43.2%	\$1,130,942	\$746,161	\$1,877,103
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$273,146	\$281,883	103.2%	\$555,029	2.6%	\$280,248	\$289,212	\$569,460	\$0	\$569,460	43.2%	\$401,426	\$414,267	\$815,692
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$2,216	\$1,399	63.1%	\$3,615	2.6%	\$2,273	\$1,435	\$3,709	\$0	\$3,709	43.2%	\$3,256	\$2,056	\$5,312

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Repla	\$568,359	\$525,351	92.4%	\$1,093,710	2.6%	\$583,134	\$539,008	\$1,122,141	\$0	\$1,122,141	43.2%	\$835,279	\$772,073	\$1,607,352
02	40 REACH 04 Demolition of Bldgs/Structur	\$1,399	\$990	70.7%	\$2,389	2.6%	\$1,435	\$1,016	\$2,451	\$0	\$2,451	43.2%	\$2,056	\$1,455	\$3,511
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction It	\$21,701	\$16,236	74.8%	\$37,937	2.6%	\$22,265	\$16,658	\$38,923	\$0	\$38,923	43.2%	\$31,893	\$23,861	\$55,754
10	90 Overall Utility Relocations	\$11,800	\$31,215	264.5%	\$43,015	2.6%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	416.9%	\$62,582	\$165,556	\$228,138
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Bridge Replacement	\$76,985	\$114,315	148.5%	\$191,300	2.6%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	416.9%	\$408,302	\$606,291	\$1,014,594
06	90 REACH 04 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 04 Berms/Fill	\$17,540	\$12,475	71.1%	\$30,015	2.6%	\$17,996	\$12,800	\$30,795	\$0	\$30,795	416.9%	\$93,026	\$66,165	\$159,190
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 04 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 04 Remaining Construction It	\$138,833	\$103,868	74.8%	\$242,701	2.6%	\$142,442	\$106,568	\$249,010	\$0	\$249,010	416.9%	\$736,326	\$550,882	\$1,287,209
CONSTRUCTION ESTIMATE TOTALS:		\$5,197,272	\$4,715,309		\$9,912,581	2.6%	\$5,332,379	\$4,837,887	\$10,170,267	\$0	\$10,170,267	97.7%	\$10,414,121	\$9,692,287	\$20,106,408
01	LANDS AND DAMAGES	\$2,043,362	\$1,021,681	50.0%	\$3,065,043	2.6%	\$2,096,479	\$1,048,239	\$3,144,718	\$0	\$3,144,718	270.3%	\$7,762,599	\$3,881,299	\$11,643,898
30	REACH 01 PLANNING, ENGINEERING &	\$77,885	\$43,635	56.0%	\$121,520	2.2%	\$79,598	\$44,595	\$124,193	\$0	\$124,193	201.2%	\$239,721	\$134,303	\$374,024
30	REACH 02 PLANNING, ENGINEERING &	\$640	\$359	56.0%	\$999	2.2%	\$654	\$366	\$1,021	\$0	\$1,021	201.2%	\$1,970	\$1,104	\$3,074
30	REACH 03 PLANNING, ENGINEERING &	\$342,338	\$191,789	56.0%	\$534,127	2.2%	\$349,869	\$196,008	\$545,878	\$0	\$545,878	201.2%	\$1,053,662	\$590,297	\$1,643,960
30	REACH 04 PLANNING, ENGINEERING &	\$319,829	\$179,184	56.0%	\$499,013	2.2%	\$326,866	\$183,126	\$509,991	\$0	\$509,991	201.2%	\$984,398	\$551,506	\$1,535,904
31	REACH 01 CONSTRUCTION MANAGEM	\$39,626	\$24,999	63.1%	\$64,625	2.2%	\$40,497	\$25,549	\$66,047	\$0	\$66,047	266.3%	\$148,332	\$93,581	\$241,912
31	REACH 02 CONSTRUCTION MANAGEM	\$326	\$205	63.1%	\$531	2.2%	\$333	\$210	\$543	\$0	\$543	266.3%	\$1,219	\$769	\$1,988
31	REACH 03 CONSTRUCTION MANAGEM	\$174,131	\$109,857	63.1%	\$283,988	2.2%	\$177,962	\$112,274	\$290,235	\$0	\$290,235	266.3%	\$651,828	\$411,230	\$1,063,058
31	REACH 04 CONSTRUCTION MANAGEM	\$162,720	\$102,658	63.1%	\$265,378	2.2%	\$166,300	\$104,916	\$271,216	\$0	\$271,216	266.3%	\$609,115	\$384,282	\$993,397
PROJECT COST TOTALS:		\$8,358,129	\$6,389,676	76.4%	\$14,747,804		\$8,570,937	\$6,553,171	\$15,124,108	\$0	\$15,124,108	148.7%	\$21,866,965	\$15,740,659	\$37,607,623

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$37,607,623

PROJECT MANAGER, xxx

**** TOTAL PROJECT COST SUMMARY ****

	CHIEF, REAL ESTATE, xxx
	CHIEF, PLANNING, xxx
	CHIEF, ENGINEERING, xxx
	CHIEF, OPERATIONS, xxx
	CHIEF, CONSTRUCTION, xxx
	CHIEF, CONTRACTING,xxx
	CHIEF, PM-PB, xxxx
	CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT:	SFWS	DISTRICT:	SWT	PREPARED:	8/4/2023
LOCATION:	San Francisco, CA	POC:	CHIEF, COST ENGINEERING, xxx		
This Estimate reflects the scope and schedule in report; Alternatives Analysis					

Attachment C- 8: Array of Alternatives B-G Cost Summary

San Francisco Waterfront Study

Cost Estimating Update

Alternatives B, C, D, E, F, G

Cost Estimator: Jay Thomas, USACE-LRL-ED-M-C

- Cost estimates drafted according to currently developed scope of work
- Cost estimates should be considered Class IV/V
- DQC review comments are incorporated. ATR reviews have not been performed
- Contingencies has been applied in accordance with the performed Abbreviated Risk Analysis

- Costs for Inland Drainage work per USACE design scope are included
- Cost estimates do not include Real Estate costs
- Costs to raise all the piers are not included in the alternatives.
- First Costs have escalation markups applied to FY26

All costs listed below are x \$1,000

All costs listed below are x \$1,000

All costs listed below are x \$1,000

All costs listed below are x \$1,000

	Alternative B (High Curve)		Alternative B (Intermediate Curve)		Alternative C		Alternative D		Alternative E		Alternative F		Alternative G	
	Estimated Cost (FY23)	First Cost (FY26)	Estimated Cost (FY23)	First Cost (FY26)	Estimated Cost (FY23)	First Cost (FY26)	Estimated Cost (FY23)	First Cost (FY26)	Estimated Cost (FY23)	First Cost (FY26)	Estimated Cost (FY23)	First Cost (FY26)	Estimated Cost (FY23)	First Cost (FY26)
TOTAL with Siesmic	\$0	\$0	\$0	\$0	\$11,615,917	\$12,564,530	\$14,946,798	\$16,166,835	\$28,903,145	\$31,259,661	\$20,867,336	\$22,570,642	\$15,532,005	\$16,800,516
Seismic Costs incldng PED and Const Management	\$0	\$0	\$0	\$0	\$10,154,132	\$10,983,694	\$10,154,132	\$10,983,694	\$10,154,132	\$10,983,694	\$5,222,057	\$5,648,557	\$5,718,162	\$6,185,464
TOTAL Non-Seismic	\$6,186,505	\$6,689,749	\$1,027,844	\$1,111,533	\$1,461,785	\$1,580,837	\$4,792,665	\$5,183,142	\$18,749,012	\$20,275,967	\$15,645,279	\$16,922,086	\$9,813,843	\$10,615,052
01 Lands and Damages	\$0	\$0	\$0	\$0	\$29,787	\$32,252	\$108,833	\$117,840	\$149,033	\$161,367	\$144,383	\$156,332	\$1,311,008	\$1,419,510
	\$942,125	\$1,018,842	\$403,981	\$436,880	\$1,431,998	\$1,548,584	\$1,274,720	\$1,378,482	\$15,657,495	\$16,932,567	\$12,711,150	\$13,748,626	\$7,331,891	\$7,929,292
2040 Subtotal	\$0	\$0	\$0	\$0	\$48,524	\$52,540	\$48,523.68	\$52,539.51	\$72,786	\$78,809	\$169,833	\$183,888	\$242,618	\$262,698
2040 Assumed Utilities	\$0	\$0	\$0	\$0	\$113,660	\$123,067	\$113,660.25	\$123,066.81	\$113,660	\$123,067	\$216,167	\$234,057	\$172,288	\$186,546
2040 Structure Floodproofing	\$67,243	\$72,808	\$13,747	\$14,884	\$95,151	\$103,026	\$64,492.98	\$69,830.59	\$2,729,634	\$2,955,538	\$1,666,551	\$1,804,474	\$877,985	\$950,647
2040 REACH 01	\$93,065	\$100,767	\$17,557	\$19,010	\$47,649	\$51,593	\$63,003.82	\$68,218.19	\$3,380,760	\$3,660,551	\$6,296,675	\$6,817,783	\$2,361,266	\$2,556,684
2040 REACH 02	\$536,543	\$580,947	\$271,120	\$293,558	\$340,242	\$368,401	\$267,533.72	\$289,675.28	\$3,643,474	\$3,945,007	\$2,124,502	\$2,300,325	\$1,547,698	\$1,675,786
2040 REACH 03	\$101,836	\$110,264	\$40,470	\$43,819	\$566,449	\$613,328	\$519,069.12	\$562,027.51	\$3,345,199	\$3,622,049	\$580,134	\$628,146	\$1,056,481	\$1,143,917
2040 REACH 04	\$93,641	\$100,572	\$39,879	\$42,831	\$143,832	\$154,477	\$129,543.99	\$139,132.31	\$1,548,487	\$1,663,100	\$1,081,918	\$1,161,997	\$700,842	\$752,716
2040 PED	\$49,799	\$53,485	\$21,208	\$22,778	\$76,491	\$82,152	\$68,892.31	\$73,991.44	\$823,495	\$884,447	\$575,371	\$617,957	\$372,712	\$400,299
2040 CONST MANAGEMENT	\$1,654,181	\$1,788,712	\$193,616	\$209,383	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2065 Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 Assumed Utilities	\$45,180	\$48,919	\$1,477	\$1,599	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 01	\$462,335	\$500,598	\$84,184	\$91,151	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 02	\$702,720	\$760,877	\$59,348	\$64,259	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 03	\$173,005	\$187,323	\$19,249	\$20,842	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 04	\$176,876	\$189,968	\$19,166	\$20,584	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 PED	\$94,064	\$101,026	\$10,192	\$10,947	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 CONST MANAGEMENT	\$2,358,374	\$2,550,170	\$280,542	\$303,379	\$0	\$0	\$3,409,113	\$3,686,819	\$2,942,484	\$3,182,034	\$2,789,747	\$3,017,128	\$1,170,944	\$1,266,250
2090 Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$48,523.68	\$52,539.51	\$72,786	\$78,809	\$97,047	\$105,079	\$97,047	\$105,079
2090 Assumed Utilities	\$227,747	\$246,595	\$31,726	\$34,352	\$0	\$0	\$323,089.46	\$349,828.36	\$401,878	\$435,137	\$21,255	\$23,014	\$99,104	\$107,306
2090 REACH 01	\$526,769	\$570,365	\$19,757	\$21,392	\$0	\$0	\$1,075,161.15	\$1,164,141.08	\$800,140	\$866,359	\$18,284	\$19,798	\$6,611	\$7,158
2090 REACH 02	\$1,025,664	\$1,110,549	\$149,122	\$161,463	\$0	\$0	\$826,083.24	\$894,450.34	\$773,935	\$837,986	\$1,079,418	\$1,168,753	\$296,596	\$321,143
2090 REACH 03	\$191,264	\$207,094	\$36,324	\$39,330	\$0	\$0	\$629,287.37	\$681,368.30	\$439,689	\$476,078	\$1,173,019	\$1,270,101	\$488,221	\$528,628
2090 REACH 04	\$252,597	\$271,293	\$28,472	\$30,579	\$0	\$0	\$330,960.90	\$355,457.26	\$296,419	\$318,359	\$261,602	\$280,964	\$119,704	\$128,564
2090 PED	\$134,333	\$144,275	\$15,141	\$16,262	\$0	\$0	\$176,007.09	\$189,034.41	\$157,637	\$169,305	\$139,121	\$149,419	\$63,659	\$68,371
2090 CONST MANAGEMENT	\$1,231,825	\$1,332,025	\$149,705	\$161,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2115 Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 Assumed Utilities	\$143,779	\$155,678	\$40,260	\$43,592	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 01	\$310,721	\$336,436	\$7,700	\$8,337	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 02	\$433,059	\$468,899	\$58,425	\$63,260	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 03	\$144,506	\$156,466	\$20,104	\$21,767	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 04	\$130,408	\$140,061	\$15,156	\$16,278	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 PED	\$69,352	\$74,485	\$8,060	\$8,657	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0

**Attachment C-9: Array of Alternatives B-G
TPCS –Seismic**

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative B High Curve - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Floodproofing Structures	\$35,081	\$32,162	91.7%	\$67,243	8.3%	\$37,985	\$34,823	\$72,808	\$0	\$72,808	43.2%	\$54,409	\$49,881	\$104,290
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$48,553	\$44,512	91.7%	\$93,065	8.3%	\$52,571	\$48,196	\$100,767	\$0	\$100,767	43.2%	\$75,303	\$69,035	\$144,338
02	40 REACH 03 Demolition of Bldgs/Structur	\$26,487	\$18,739	70.7%	\$45,226	8.3%	\$28,679	\$20,290	\$48,969	\$0	\$48,969	43.2%	\$41,080	\$29,063	\$70,143
02	40 REACH 03 Floodproofing Structures	\$256,325	\$234,991	91.7%	\$491,317	8.3%	\$277,539	\$254,439	\$531,978	\$0	\$531,978	43.2%	\$397,546	\$364,458	\$762,004
02	40 REACH 04 Demolition of Bldgs/Structur	\$14,594	\$10,325	70.7%	\$24,919	8.3%	\$15,802	\$11,179	\$26,981	\$0	\$26,981	43.2%	\$22,634	\$16,013	\$38,647
02	40 REACH 04 Floodproofing Structures	\$40,128	\$36,789	91.7%	\$76,917	8.3%	\$43,449	\$39,833	\$83,283	\$0	\$83,283	43.2%	\$62,237	\$57,057	\$119,294
02	65 REACH 01 Demolition of Bldgs/Structur	\$11,645	\$8,239	70.7%	\$19,884	8.3%	\$12,609	\$8,921	\$21,530	\$0	\$21,530	172.1%	\$34,311	\$24,275	\$58,586
02	65 REACH 01 Floodproofing Structures	\$13,197	\$12,099	91.7%	\$25,296	8.3%	\$14,289	\$13,100	\$27,389	\$0	\$27,389	172.1%	\$38,883	\$35,646	\$74,529
02	65 REACH 02 Demolition of Bldgs/Structur	\$261,070	\$184,703	70.7%	\$445,772	8.3%	\$282,676	\$199,989	\$482,665	\$0	\$482,665	172.1%	\$769,195	\$544,194	\$1,313,390
02	65 REACH 02 Floodproofing Structures	\$8,641	\$7,922	91.7%	\$16,563	8.3%	\$9,356	\$8,577	\$17,933	\$0	\$17,933	172.1%	\$25,459	\$23,340	\$48,799
02	65 REACH 03 Demolition of Bldgs/Structur	\$336,772	\$238,261	70.7%	\$575,033	8.3%	\$364,643	\$257,980	\$622,623	\$0	\$622,623	172.1%	\$992,239	\$701,994	\$1,694,233
02	65 REACH 03 Floodproofing Structures	\$66,616	\$61,071	91.7%	\$127,687	8.3%	\$72,129	\$66,126	\$138,255	\$0	\$138,255	172.1%	\$196,272	\$179,936	\$376,208
02	65 REACH 04 Demolition of Bldgs/Structur	\$67,219	\$47,556	70.7%	\$114,775	8.3%	\$72,782	\$51,492	\$124,274	\$0	\$124,274	172.1%	\$198,048	\$140,116	\$338,164
02	65 REACH 04 Floodproofing Structures	\$30,379	\$27,851	91.7%	\$58,230	8.3%	\$32,894	\$30,156	\$63,050	\$0	\$63,050	172.1%	\$89,508	\$82,058	\$171,566
02	90 REACH 01 Demolition of Bldgs/Structur	\$102,461	\$72,489	70.7%	\$174,950	8.3%	\$110,940	\$78,489	\$189,429	\$0	\$189,429	417%	\$573,485	\$405,732	\$979,217
02	90 REACH 01 Floodproofing Structures	\$27,545	\$25,252	91.7%	\$52,797	8.3%	\$29,824	\$27,342	\$57,166	\$0	\$57,166	417%	\$154,170	\$141,338	\$295,509
02	90 REACH 02 Demolition of Bldgs/Structur	\$286,333	\$202,576	70.7%	\$488,909	8.3%	\$310,030	\$219,342	\$529,372	\$0	\$529,372	417%	\$1,602,640	\$1,133,844	\$2,736,484
02	90 REACH 02 Floodproofing Structures	\$19,752	\$18,108	91.7%	\$37,860	8.3%	\$21,386	\$19,606	\$40,993	\$0	\$40,993	417%	\$110,553	\$101,352	\$211,905
02	90 REACH 03 Demolition of Bldgs/Structur	\$524,400	\$371,005	70.7%	\$895,406	8.3%	\$567,800	\$401,710	\$969,510	\$0	\$969,510	417%	\$2,935,132	\$2,076,562	\$5,011,694
02	90 REACH 03 Floodproofing Structures	\$67,957	\$62,301	91.7%	\$130,258	8.3%	\$73,581	\$67,457	\$141,039	\$0	\$141,039	417%	\$380,365	\$348,707	\$729,072
02	90 REACH 04 Demolition of Bldgs/Structur	\$72,127	\$51,029	70.7%	\$123,156	8.3%	\$78,096	\$55,252	\$133,348	\$0	\$133,348	417%	\$403,704	\$285,615	\$689,319
02	90 REACH 04 Floodproofing Structures	\$35,533	\$32,576	91.7%	\$68,108	8.3%	\$38,474	\$35,271	\$73,745	\$0	\$73,745	417%	\$198,882	\$182,329	\$381,211
02	15 REACH 01 Demolition of Bldgs/Structur	\$59,399	\$42,024	70.7%	\$101,423	8.3%	\$64,315	\$45,502	\$109,817	\$0	\$109,817	884%	\$633,108	\$447,915	\$1,081,023
02	15 REACH 01 Floodproofing Structures	\$22,098	\$20,258	91.7%	\$42,356	8.3%	\$23,926	\$21,935	\$45,862	\$0	\$45,862	884%	\$235,529	\$215,926	\$451,455
02	15 REACH 02 Demolition of Bldgs/Structur	\$150,809	\$106,695	70.7%	\$257,504	8.3%	\$163,290	\$115,525	\$278,816	\$0	\$278,816	884%	\$1,607,408	\$1,137,217	\$2,744,626
02	15 REACH 02 Floodproofing Structures	\$27,764	\$25,453	91.7%	\$53,216	8.3%	\$30,061	\$27,559	\$57,621	\$0	\$57,621	884%	\$295,920	\$271,290	\$567,210
02	15 REACH 03 Demolition of Bldgs/Structur	\$177,744	\$125,752	70.7%	\$303,496	8.3%	\$192,455	\$136,159	\$328,613	\$0	\$328,613	884%	\$1,894,499	\$1,340,330	\$3,234,829
02	15 REACH 03 Floodproofing Structures	\$67,594	\$61,968	91.7%	\$129,563	8.3%	\$73,188	\$67,097	\$140,285	\$0	\$140,285	884%	\$720,458	\$660,493	\$1,380,951
02	15 REACH 04 Demolition of Bldgs/Structur	\$52,569	\$37,191	70.7%	\$89,760	8.3%	\$56,919	\$40,269	\$97,189	\$0	\$97,189	884%	\$560,305	\$396,407	\$956,712
02	15 REACH 04 Floodproofing Structures	\$28,562	\$26,185	91.7%	\$54,746	8.3%	\$30,926	\$28,352	\$59,277	\$0	\$59,277	884%	\$304,428	\$279,090	\$583,518

**** TOTAL PROJECT COST SUMMARY ****

CONSTRUCTION ESTIMATE TOTALS:		\$2,939,354	\$2,246,082		\$5,185,436	8.3%	\$3,182,616	\$2,431,968	\$5,614,584	\$0	\$5,614,584	387.1%	\$15,607,711	\$11,741,214	\$27,348,925
01	40 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	65 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	15 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
30	40 PLANNING, ENGINEERING & DESIGN	\$60,017	\$33,624	56.0%	\$93,641	7.4%	\$64,459	\$36,113	\$100,572	\$0	\$100,572	11.3%	\$71,740	\$40,192	\$111,932
30	65 PLANNING, ENGINEERING & DESIGN	\$113,364	\$63,512	56.0%	\$176,876	7.4%	\$121,755	\$68,213	\$189,968	\$0	\$189,968	86.3%	\$226,821	\$127,076	\$353,897
30	90 PLANNING, ENGINEERING & DESIGN	\$161,895	\$90,701	56.0%	\$252,597	7.4%	\$173,878	\$97,415	\$271,293	\$0	\$271,293	203.4%	\$527,524	\$295,544	\$823,068
30	15 PLANNING, ENGINEERING & DESIGN	\$83,582	\$46,826	56.0%	\$130,408	7.4%	\$89,768	\$50,292	\$140,061	\$0	\$140,061	386.6%	\$436,843	\$244,740	\$681,583
31	40 CONSTRUCTION MANAGEMENT	\$30,535	\$19,264	63.1%	\$49,799	7.4%	\$32,795	\$20,690	\$53,485	\$0	\$53,485	35.5%	\$44,432	\$28,031	\$72,463
31	65 CONSTRUCTION MANAGEMENT	\$57,677	\$36,387	63.1%	\$94,064	7.4%	\$61,946	\$39,081	\$101,026	\$0	\$101,026	123.3%	\$138,297	\$87,250	\$225,547
31	90 CONSTRUCTION MANAGEMENT	\$82,368	\$51,965	63.1%	\$134,333	7.4%	\$88,464	\$55,811	\$144,275	\$0	\$144,275	266.3%	\$324,022	\$204,421	\$528,444
31	15 CONSTRUCTION MANAGEMENT	\$42,524	\$26,828	63.1%	\$69,352	7.4%	\$45,672	\$28,814	\$74,485	\$0	\$74,485	586.4%	\$313,469	\$197,763	\$511,232
PROJECT COST TOTALS:		\$3,571,316	\$2,615,190	73.2%	\$6,186,505		\$3,861,353	\$2,828,396	\$6,689,749	\$0	\$6,689,749	358.3%	\$17,690,859	\$12,966,232	\$30,657,091

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$30,657,091

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT:	SFWS	DISTRICT:	SWT	PREPARED:	8/4/2023
LOCATION:	San Francisco, CA	POC:	CHIEF, COST ENGINEERING, xxx		
This Estimate reflects the scope and schedule in report; Alternatives Analysis					

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative B Intermediate Curve - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	40 REACH 01 Demolition of Bldgs/Structur	\$991	\$701	70.7%	\$1,692	8.3%	\$1,073	\$759	\$1,832	\$0	\$1,832	43.2%	\$1,537	\$1,087	\$2,624
02	40 REACH 01 Floodproofing Structures	\$6,289	\$5,766	91.7%	\$12,055	8.3%	\$6,810	\$6,243	\$13,053	\$0	\$13,053	43.2%	\$9,754	\$8,942	\$18,697
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$9,160	\$8,397	91.7%	\$17,557	8.3%	\$9,918	\$9,092	\$19,010	\$0	\$19,010	43.2%	\$14,206	\$13,024	\$27,230
02	40 REACH 03 Demolition of Bldgs/Structur	\$2,199	\$1,556	70.7%	\$3,756	8.3%	\$2,381	\$1,685	\$4,066	\$0	\$4,066	43.2%	\$3,411	\$2,413	\$5,825
02	40 REACH 03 Floodproofing Structures	\$139,487	\$127,877	91.7%	\$267,364	8.3%	\$151,031	\$138,460	\$289,491	\$0	\$289,491	43.2%	\$216,336	\$198,330	\$414,666
02	40 REACH 04 Demolition of Bldgs/Structur	\$1,161	\$821	70.7%	\$1,982	8.3%	\$1,257	\$889	\$2,146	\$0	\$2,146	43.2%	\$1,801	\$1,274	\$3,075
02	40 REACH 04 Floodproofing Structures	\$20,079	\$18,408	91.7%	\$38,487	8.3%	\$21,741	\$19,931	\$41,672	\$0	\$41,672	43.2%	\$31,142	\$28,550	\$59,692
02	65 REACH 01 Demolition of Bldgs/Structur	\$63	\$45	70.7%	\$108	8.3%	\$69	\$49	\$117	\$0	\$117	172.1%	\$187	\$132	\$319
02	65 REACH 01 Floodproofing Structures	\$714	\$655	91.7%	\$1,369	8.3%	\$773	\$709	\$1,482	\$0	\$1,482	172.1%	\$2,104	\$1,929	\$4,033
02	65 REACH 02 Demolition of Bldgs/Structur	\$722	\$511	70.7%	\$1,233	8.3%	\$782	\$553	\$1,335	\$0	\$1,335	172.1%	\$2,128	\$1,505	\$3,633
02	65 REACH 02 Floodproofing Structures	\$43,276	\$39,674	91.7%	\$82,951	8.3%	\$46,858	\$42,958	\$89,816	\$0	\$89,816	172.1%	\$127,506	\$116,894	\$244,400
02	65 REACH 03 Demolition of Bldgs/Structur	\$40	\$29	70.7%	\$69	8.3%	\$44	\$31	\$75	\$0	\$75	172.1%	\$119	\$84	\$203
02	65 REACH 03 Floodproofing Structures	\$30,926	\$28,352	91.7%	\$59,279	8.3%	\$33,486	\$30,699	\$64,185	\$0	\$64,185	172.1%	\$91,119	\$83,535	\$174,655
02	65 REACH 04 Demolition of Bldgs/Structur	\$3,817	\$2,701	70.7%	\$6,518	8.3%	\$4,133	\$2,924	\$7,057	\$0	\$7,057	172.1%	\$11,247	\$7,957	\$19,204
02	65 REACH 04 Floodproofing Structures	\$6,642	\$6,089	91.7%	\$12,731	8.3%	\$7,192	\$6,593	\$13,785	\$0	\$13,785	172.1%	\$19,570	\$17,941	\$37,510
02	90 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Floodproofing Structures	\$16,552	\$15,174	91.7%	\$31,726	8.3%	\$17,922	\$16,430	\$34,352	\$0	\$34,352	417%	\$92,644	\$84,933	\$177,577
02	90 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$10,307	\$9,450	91.7%	\$19,757	8.3%	\$11,160	\$10,232	\$21,392	\$0	\$21,392	417%	\$57,692	\$52,890	\$110,582
02	90 REACH 03 Demolition of Bldgs/Structur	\$26,403	\$18,680	70.7%	\$45,082	8.3%	\$28,588	\$20,225	\$48,813	\$0	\$48,813	417%	\$147,779	\$104,552	\$252,331
02	90 REACH 03 Floodproofing Structures	\$54,279	\$49,761	91.7%	\$104,040	8.3%	\$58,771	\$53,879	\$112,650	\$0	\$112,650	417%	\$303,805	\$278,519	\$582,323
02	90 REACH 04 Demolition of Bldgs/Structur	\$14,336	\$10,142	70.7%	\$24,478	8.3%	\$15,522	\$10,982	\$26,504	\$0	\$26,504	417%	\$80,239	\$56,768	\$137,007
02	90 REACH 04 Floodproofing Structures	\$6,180	\$5,666	91.7%	\$11,846	8.3%	\$6,692	\$6,135	\$12,826	\$0	\$12,826	417%	\$34,591	\$31,712	\$66,303
02	15 REACH 01 Demolition of Bldgs/Structur	\$11,262	\$7,967	70.7%	\$19,229	8.3%	\$12,194	\$8,627	\$20,821	\$0	\$20,821	884%	\$120,033	\$84,922	\$204,955
02	15 REACH 01 Floodproofing Structures	\$10,972	\$10,059	91.7%	\$21,031	8.3%	\$11,880	\$10,891	\$22,772	\$0	\$22,772	884%	\$116,948	\$107,214	\$224,161
02	15 REACH 02 Demolition of Bldgs/Structur	\$621	\$439	70.7%	\$1,060	8.3%	\$672	\$475	\$1,147	\$0	\$1,147	884%	\$6,615	\$4,680	\$11,295
02	15 REACH 02 Floodproofing Structures	\$3,464	\$3,176	91.7%	\$6,640	8.3%	\$3,751	\$3,439	\$7,189	\$0	\$7,189	884%	\$36,923	\$33,849	\$70,772
02	15 REACH 03 Demolition of Bldgs/Structur	\$29	\$20	70.7%	\$49	8.3%	\$31	\$22	\$53	\$0	\$53	884%	\$304	\$215	\$520
02	15 REACH 03 Floodproofing Structures	\$30,456	\$27,921	91.7%	\$58,376	8.3%	\$32,976	\$30,231	\$63,208	\$0	\$63,208	884%	\$324,613	\$297,595	\$622,207
02	15 REACH 04 Demolition of Bldgs/Structur	\$8,031	\$5,682	70.7%	\$13,712	8.3%	\$8,695	\$6,152	\$14,847	\$0	\$14,847	884%	\$85,595	\$60,557	\$146,152
02	15 REACH 04 Floodproofing Structures	\$3,334	\$3,057	91.7%	\$6,391	8.3%	\$3,610	\$3,310	\$6,920	\$0	\$6,920	884%	\$35,540	\$32,582	\$68,122

**** TOTAL PROJECT COST SUMMARY ****

CONSTRUCTION ESTIMATE TOTALS:		\$461,793	\$408,776		\$870,569	8.3%	\$500,011	\$442,606	\$942,618	\$0	\$942,618	291.5%	\$1,975,486	\$1,714,586	\$3,690,072
01	40 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	65 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	15 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
30	40 PLANNING, ENGINEERING & DESIGN	\$25,560	\$14,320	56.0%	\$39,879	7.4%	\$27,452	\$15,380	\$42,831	\$0	\$42,831	11.3%	\$30,552	\$17,117	\$47,669
30	65 PLANNING, ENGINEERING & DESIGN	\$12,284	\$6,882	56.0%	\$19,166	7.4%	\$13,193	\$7,391	\$20,584	\$0	\$20,584	86.3%	\$24,578	\$13,770	\$38,347
30	90 PLANNING, ENGINEERING & DESIGN	\$18,248	\$10,223	56.0%	\$28,472	7.4%	\$19,599	\$10,980	\$30,579	\$0	\$30,579	203.4%	\$59,460	\$33,312	\$92,772
30	15 PLANNING, ENGINEERING & DESIGN	\$9,714	\$5,442	56.0%	\$15,156	7.4%	\$10,433	\$5,845	\$16,278	\$0	\$16,278	386.6%	\$50,770	\$28,444	\$79,214
31	40 CONSTRUCTION MANAGEMENT	\$13,004	\$8,204	63.1%	\$21,208	7.4%	\$13,967	\$8,811	\$22,778	\$0	\$22,778	35.5%	\$18,922	\$11,938	\$30,860
31	65 CONSTRUCTION MANAGEMENT	\$6,250	\$3,943	63.1%	\$10,192	7.4%	\$6,712	\$4,235	\$10,947	\$0	\$10,947	123.3%	\$14,985	\$9,454	\$24,440
31	90 CONSTRUCTION MANAGEMENT	\$9,284	\$5,857	63.1%	\$15,141	7.4%	\$9,971	\$6,291	\$16,262	\$0	\$16,262	266.3%	\$36,522	\$23,041	\$59,564
31	15 CONSTRUCTION MANAGEMENT	\$4,942	\$3,118	63.1%	\$8,060	7.4%	\$5,308	\$3,349	\$8,657	\$0	\$8,657	586.4%	\$36,432	\$22,984	\$59,416
PROJECT COST TOTALS:		\$561,079	\$466,765	83.2%	\$1,027,844		\$606,646	\$504,888	\$1,111,533	\$0	\$1,111,533	270.9%	\$2,247,708	\$1,874,646	\$4,122,354

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$4,122,354

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative C Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	40 REACH 01 Overall Structures Floodpro	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	40 REACH 02 Overall Structures Floodpro	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
02	40 REACH 03 Overall Structures Floodpro	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	40 REACH 04 Overall Structures Floodpro	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Overall Utility Relocations	\$666	\$1,761	264.5%	\$2,426	8.3%	\$721	\$1,906	\$2,627	\$0	\$2,627	43.2%	\$1,032	\$2,731	\$3,763
02	40 REACH 02 Overall Utility Relocations	\$3,594	\$9,507	264.5%	\$13,101	8.3%	\$3,891	\$10,294	\$14,186	\$0	\$14,186	43.2%	\$5,574	\$14,746	\$20,320
02	40 REACH 03 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	43.2%	\$2,477	\$6,554	\$9,031
02	40 REACH 04 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	43.2%	\$11,561	\$30,583	\$42,144
10	40 REACH 01 Overall Seismic Ground Imp	\$163,638	\$250,734	153.2%	\$414,372	8.3%	\$177,180	\$271,485	\$448,665	\$0	\$448,665	43.2%	\$253,793	\$388,875	\$642,668
10	40 REACH 02 Overall Seismic Ground Imp	\$883,645	\$1,353,965	153.2%	\$2,237,610	8.3%	\$956,775	\$1,466,018	\$2,422,792	\$0	\$2,422,792	43.2%	\$1,370,483	\$2,099,922	\$3,470,405
10	40 REACH 03 Overall Seismic Ground Imp	\$392,731	\$601,762	153.2%	\$994,493	8.3%	\$425,233	\$651,563	\$1,076,796	\$0	\$1,076,796	43.2%	\$609,104	\$933,299	\$1,542,402
10	40 REACH 04 Overall Seismic Ground Imp	\$1,832,745	\$2,808,223	153.2%	\$4,640,969	8.3%	\$1,984,421	\$3,040,629	\$5,025,050	\$0	\$5,025,050	43.2%	\$2,842,483	\$4,355,395	\$7,197,878
10	40 REACH 01 Overall Seismic Transportat	\$17,444	\$14,218	81.5%	\$31,662	8.3%	\$18,888	\$15,395	\$34,283	\$0	\$34,283	43.2%	\$27,055	\$22,051	\$49,107
02	40 REACH 02 Overall Seismic Transportat	\$94,200	\$76,777	81.5%	\$170,977	8.3%	\$101,996	\$83,131	\$185,127	\$0	\$185,127	43.2%	\$146,098	\$119,077	\$265,175
02	40 REACH 03 Overall Seismic Transportat	\$41,867	\$34,123	81.5%	\$75,990	8.3%	\$45,331	\$36,947	\$82,279	\$0	\$82,279	43.2%	\$64,933	\$52,923	\$117,856
02	40 REACH 04 Overall Seismic Transportat	\$195,377	\$159,242	81.5%	\$354,619	8.3%	\$211,547	\$172,420	\$383,967	\$0	\$383,967	43.2%	\$303,019	\$246,974	\$549,993
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$4,118	\$3,356	81.5%	\$7,474	8.3%	\$4,458	\$3,634	\$8,092	\$0	\$8,092	43.2%	\$6,386	\$5,205	\$11,591
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$724	\$515	71.1%	\$1,239	8.3%	\$784	\$557	\$1,341	\$0	\$1,341	43.2%	\$1,123	\$799	\$1,921
10	40 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Cantilever Walls/Pile Caps/A	\$5,622	\$3,111	55.3%	\$8,734	8.3%	\$6,088	\$3,369	\$9,456	\$0	\$9,456	43.2%	\$8,720	\$4,825	\$13,545
11	40 REACH 01 Anchored Walls/T-Wall	\$18,023	\$15,089	83.7%	\$33,113	8.3%	\$19,515	\$16,338	\$35,853	\$0	\$35,853	43.2%	\$27,953	\$23,403	\$51,356
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$3,322	\$3,428	103.2%	\$6,751	8.3%	\$3,597	\$3,712	\$7,309	\$0	\$7,309	43.2%	\$5,152	\$5,317	\$10,470
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$365	\$231	63.1%	\$596	8.3%	\$395	\$250	\$645	\$0	\$645	43.2%	\$566	\$358	\$924
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$12,463	\$11,520	92.4%	\$23,983	8.3%	\$13,495	\$12,473	\$25,968	\$0	\$25,968	43.2%	\$19,330	\$17,867	\$37,197
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 01 Remaining Construction Iter	\$7,587	\$5,676	74.8%	\$13,263	8.3%	\$8,215	\$6,146	\$14,361	\$0	\$14,361	43.2%	\$11,767	\$8,804	\$20,571
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 02 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 02 Berms/Fill	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$8,178	\$4,525	55.3%	\$12,703	8.3%	\$8,855	\$4,900	\$13,754	\$0	\$13,754	43.2%	\$12,683	\$7,018	\$19,702
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Pump Stations/Interior Drain	\$4,509	\$4,653	103.2%	\$9,162	8.3%	\$4,882	\$5,038	\$9,921	\$0	\$9,921	43.2%	\$6,993	\$7,217	\$14,211
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$5,475	\$3,458	63.1%	\$8,933	8.3%	\$5,929	\$3,744	\$9,672	\$0	\$9,672	43.2%	\$8,492	\$5,363	\$13,855
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 02 Remaining Construction Iter	\$9,639	\$7,212	74.8%	\$16,851	8.3%	\$10,437	\$7,808	\$18,245	\$0	\$18,245	43.2%	\$14,950	\$11,185	\$26,135
02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Transportation Corridor	\$7,219	\$5,884	81.5%	\$13,104	8.3%	\$7,817	\$6,371	\$14,188	\$0	\$14,188	43.2%	\$11,197	\$9,126	\$20,323
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 03 Berms/Fill	\$10,173	\$7,236	71.1%	\$17,409	8.3%	\$11,015	\$7,835	\$18,850	\$0	\$18,850	43.2%	\$15,778	\$11,222	\$27,001
10	40 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$6,581	\$3,641	55.3%	\$10,222	8.3%	\$7,125	\$3,943	\$11,068	\$0	\$11,068	43.2%	\$10,206	\$5,648	\$15,854
11	40 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Wharf Replacement	\$50,091	\$33,049	66.0%	\$83,140	8.3%	\$54,236	\$35,784	\$90,020	\$0	\$90,020	43.2%	\$77,688	\$51,256	\$128,945
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drain	\$69,920	\$72,156	103.2%	\$142,076	8.3%	\$75,706	\$78,128	\$153,835	\$0	\$153,835	43.2%	\$108,442	\$111,910	\$220,352
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$10,879	\$6,870	63.1%	\$17,749	8.3%	\$11,779	\$7,438	\$19,218	\$0	\$19,218	43.2%	\$16,873	\$10,655	\$27,528
10	40 REACH 03 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Demolition of Bldgs/Structur	\$974	\$689	70.7%	\$1,664	8.3%	\$1,055	\$746	\$1,801	\$0	\$1,801	43.2%	\$1,511	\$1,069	\$2,580
02	40 REACH 03 Floodproofing Structures	\$15,609	\$14,309	91.7%	\$29,918	8.3%	\$16,900	\$15,494	\$32,394	\$0	\$32,394	43.2%	\$24,208	\$22,193	\$46,401
ALL	40 REACH 03 Remaining Construction Iter	\$14,279	\$10,683	74.8%	\$24,961	8.3%	\$15,460	\$11,567	\$27,027	\$0	\$27,027	43.2%	\$22,146	\$16,568	\$38,714
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Bridge Replacement	\$29,576	\$43,917	148.5%	\$73,493	8.3%	\$32,023	\$47,552	\$79,575	\$0	\$79,575	43.2%	\$45,870	\$68,113	\$113,983
06	40 REACH 04 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 04 Berms/Fill	\$9,339	\$6,642	71.1%	\$15,981	8.3%	\$10,112	\$7,192	\$17,304	\$0	\$17,304	43.2%	\$14,484	\$10,302	\$24,786
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$3,287	\$1,819	55.3%	\$5,106	8.3%	\$3,559	\$1,970	\$5,529	\$0	\$5,529	43.2%	\$5,098	\$2,821	\$7,919
11	40 REACH 04 Anchored Walls/T-Wall	\$20,517	\$17,177	83.7%	\$37,695	8.3%	\$22,215	\$18,599	\$40,815	\$0	\$40,815	43.2%	\$31,821	\$26,641	\$58,462
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$170,499	\$112,490	66.0%	\$282,989	8.3%	\$184,609	\$121,799	\$306,409	\$0	\$306,409	43.2%	\$264,434	\$174,466	\$438,899
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$68,529	\$70,721	103.2%	\$139,249	8.3%	\$74,200	\$76,574	\$150,774	\$0	\$150,774	43.2%	\$106,284	\$109,684	\$215,968
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Demolition of Bldgs/Structur	\$2,713	\$1,919	70.7%	\$4,632	8.3%	\$2,937	\$2,078	\$5,015	\$0	\$5,015	43.2%	\$4,207	\$2,976	\$7,184
02	40 REACH 04 Floodproofing Structures	\$864	\$793	91.7%	\$1,657	8.3%	\$936	\$858	\$1,794	\$0	\$1,794	43.2%	\$1,341	\$1,229	\$2,570
ALL	40 REACH 04 Remaining Construction Iter	\$3,230	\$2,417	74.8%	\$5,647	8.3%	\$3,498	\$2,617	\$6,114	\$0	\$6,114	43.2%	\$5,010	\$3,748	\$8,758
CONSTRUCTION ESTIMATE TOTALS:		\$4,268,560	\$5,863,807		\$10,132,367	8.3%	\$4,621,823	\$6,349,091	\$10,970,914	\$0	\$10,970,914	43.2%	\$6,620,294	\$9,094,431	\$15,714,725
01	40 LANDS AND DAMAGES Reach 01	\$2,679	\$1,340	50.0%	\$4,019	8.3%	\$2,901	\$1,450	\$4,351	\$0	\$4,351	7.3%	\$3,114	\$1,557	\$4,670
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$869	\$435	50.0%	\$1,304	8.3%	\$941	\$470	\$1,411	\$0	\$1,411	7.3%	\$1,010	\$505	\$1,515
01	40 LANDS AND DAMAGES Reach 04	\$16,310	\$8,155	50.0%	\$24,465	8.3%	\$17,660	\$8,830	\$26,490	\$0	\$26,490	7.3%	\$18,956	\$9,478	\$28,434
30	REACH 01 40 PLANNING, ENGINEERING	\$36,214	\$20,289	56.0%	\$56,503	7.4%	\$38,894	\$21,791	\$60,685	\$0	\$60,685	11.3%	\$43,288	\$24,252	\$67,540
30	REACH 02 40 PLANNING, ENGINEERING	\$146,859	\$82,277	56.0%	\$229,136	7.4%	\$157,729	\$88,367	\$246,096	\$0	\$246,096	11.3%	\$175,545	\$98,348	\$273,893
30	REACH 03 40 PLANNING, ENGINEERING	\$91,159	\$51,071	56.0%	\$142,230	7.4%	\$97,906	\$54,851	\$152,757	\$0	\$152,757	11.3%	\$108,965	\$61,047	\$170,012
30	REACH 04 40 PLANNING, ENGINEERING	\$334,039	\$187,144	56.0%	\$521,183	7.4%	\$358,763	\$200,996	\$559,759	\$0	\$559,759	11.3%	\$399,286	\$223,699	\$622,985
31	REACH 01 40 CONSTRUCTION MANAGI	\$18,425	\$11,624	63.1%	\$30,049	7.4%	\$19,788	\$12,484	\$32,273	\$0	\$32,273	35.5%	\$26,810	\$16,914	\$43,724
31	REACH 02 40 CONSTRUCTION MANAGI	\$74,718	\$47,138	63.1%	\$121,856	7.4%	\$80,248	\$50,627	\$130,875	\$0	\$130,875	35.5%	\$108,723	\$68,592	\$177,315
31	REACH 03 40 CONSTRUCTION MANAGI	\$46,379	\$29,260	63.1%	\$75,639	7.4%	\$49,812	\$31,426	\$81,237	\$0	\$81,237	35.5%	\$67,487	\$42,576	\$110,063
31	REACH 04 40 CONSTRUCTION MANAGI	\$169,949	\$107,219	63.1%	\$277,168	7.4%	\$182,528	\$115,155	\$297,683	\$0	\$297,683	35.5%	\$247,296	\$156,016	\$403,312
PROJECT COST TOTALS:		\$5,206,159	\$6,409,759	123.1%	\$11,615,917		\$5,628,993	\$6,935,538	\$12,564,531	\$0	\$12,564,531	40.2%	\$7,820,773	\$9,797,416	\$17,618,189

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$17,618,189

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

_____ CHIEF, CONTRACTING,xxx

_____ CHIEF, PM-PB, xxxx

_____ CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative D Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	40 REACH 01 Overall Structures Floodpro	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	40 REACH 02 Overall Structures Floodpro	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
02	40 REACH 03 Overall Structures Floodpro	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	40 REACH 04 Overall Structures Floodpro	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Overall Utility Relocations	\$666	\$1,761	264.5%	\$2,426	8.3%	\$721	\$1,906	\$2,627	\$0	\$2,627	43.2%	\$1,032	\$2,731	\$3,763
02	40 REACH 02 Overall Utility Relocations	\$3,594	\$9,507	264.5%	\$13,101	8.3%	\$3,891	\$10,294	\$14,186	\$0	\$14,186	43.2%	\$5,574	\$14,746	\$20,320
02	40 REACH 03 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	43.2%	\$2,477	\$6,554	\$9,031
02	40 REACH 04 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	43.2%	\$11,561	\$30,583	\$42,144
10	40 REACH 01 Overall Seismic Ground Imp	\$163,638	\$250,734	153.2%	\$414,372	8.3%	\$177,180	\$271,485	\$448,665	\$0	\$448,665	43.2%	\$253,793	\$388,875	\$642,668
10	40 REACH 02 Overall Seismic Ground Imp	\$883,645	\$1,353,965	153.2%	\$2,237,610	8.3%	\$956,775	\$1,466,018	\$2,422,792	\$0	\$2,422,792	43.2%	\$1,370,483	\$2,099,922	\$3,470,405
10	40 REACH 03 Overall Seismic Ground Imp	\$392,731	\$601,762	153.2%	\$994,493	8.3%	\$425,233	\$651,563	\$1,076,796	\$0	\$1,076,796	43.2%	\$609,104	\$933,299	\$1,542,402
10	40 REACH 04 Overall Seismic Ground Imp	\$1,832,745	\$2,808,223	153.2%	\$4,640,969	8.3%	\$1,984,421	\$3,040,629	\$5,025,050	\$0	\$5,025,050	43.2%	\$2,842,483	\$4,355,395	\$7,197,878
10	40 REACH 01 Overall Seismic Transportat	\$17,444	\$14,218	81.5%	\$31,662	8.3%	\$18,888	\$15,395	\$34,283	\$0	\$34,283	43.2%	\$27,055	\$22,051	\$49,107
10	40 REACH 02 Overall Seismic Transportat	\$94,200	\$76,777	81.5%	\$170,977	8.3%	\$101,996	\$83,131	\$185,127	\$0	\$185,127	43.2%	\$146,098	\$119,077	\$265,175
10	40 REACH 03 Overall Seismic Transportat	\$41,867	\$34,123	81.5%	\$75,990	8.3%	\$45,331	\$36,947	\$82,279	\$0	\$82,279	43.2%	\$64,933	\$52,923	\$117,856
10	40 REACH 04 Overall Seismic Transportat	\$195,377	\$159,242	81.5%	\$354,619	8.3%	\$211,546	\$172,420	\$383,967	\$0	\$383,967	43.2%	\$303,019	\$246,975	\$549,993
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$996	\$709	71.1%	\$1,705	8.3%	\$1,079	\$767	\$1,846	\$0	\$1,846	43.2%	\$1,545	\$1,099	\$2,645
10	40 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Cantilever Walls/Pile Caps/A	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Anchored Walls/T-Wall	\$19,280	\$16,142	83.7%	\$35,422	8.3%	\$20,876	\$17,478	\$38,354	\$0	\$38,354	43.2%	\$29,903	\$25,035	\$54,938
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$3,322	\$3,428	103.2%	\$6,749	8.3%	\$3,596	\$3,711	\$7,308	\$0	\$7,308	43.2%	\$5,152	\$5,316	\$10,468
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$4,396	\$4,063	92.4%	\$8,459	8.3%	\$4,760	\$4,399	\$9,159	\$0	\$9,159	43.2%	\$6,818	\$6,302	\$13,119
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$1,774	\$1,626	91.7%	\$3,400	8.3%	\$1,921	\$1,761	\$3,681	\$0	\$3,681	43.2%	\$2,751	\$2,522	\$5,273
ALL	40 REACH 01 Remaining Construction Iter	\$5,009	\$3,748	74.8%	\$8,757	8.3%	\$5,424	\$4,058	\$9,482	\$0	\$9,482	43.2%	\$7,769	\$5,813	\$13,582
02	40 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 02 Berms/Fill	\$5,535	\$3,937	71.1%	\$9,472	8.3%	\$5,994	\$4,263	\$10,256	\$0	\$10,256	43.2%	\$8,585	\$6,106	\$14,691
10	40 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Cantilever Walls/Pile Caps/W	\$554	\$306	55.3%	\$860	8.3%	\$599	\$332	\$931	\$0	\$931	43.2%	\$859	\$475	\$1,334
11	40 REACH 02 Anchored Walls/T-Wall	\$18,617	\$15,587	83.7%	\$34,204	8.3%	\$20,158	\$16,877	\$37,035	\$0	\$37,035	43.2%	\$28,874	\$24,174	\$53,048
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Pump Stations/Interior Drain	\$4,509	\$4,653	103.2%	\$9,161	8.3%	\$4,882	\$5,038	\$9,920	\$0	\$9,920	43.2%	\$6,993	\$7,216	\$14,209
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$261	\$240	91.7%	\$501	8.3%	\$283	\$260	\$543	\$0	\$543	43.2%	\$406	\$372	\$777
ALL	40 REACH 02 Remaining Construction Iter	\$5,037	\$3,768	74.8%	\$8,805	8.3%	\$5,453	\$4,080	\$9,533	\$0	\$9,533	43.2%	\$7,812	\$5,844	\$13,656
02	40 REACH 03 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 03 Plantings/EWN	\$1,453	\$907	62.4%	\$2,360	8.3%	\$1,574	\$982	\$2,556	\$0	\$2,556	43.2%	\$2,254	\$1,406	\$3,661
11	40 REACH 03 Berms/Fill	\$11,406	\$8,113	71.1%	\$19,519	8.3%	\$12,350	\$8,784	\$21,134	\$0	\$21,134	43.2%	\$17,690	\$12,582	\$30,272
10	40 REACH 03 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Cantilever Walls/Pile Caps/W	\$280	\$155	55.3%	\$435	8.3%	\$303	\$168	\$471	\$0	\$471	43.2%	\$434	\$240	\$674
11	40 REACH 03 Anchored Walls/T-Wall	\$12,958	\$10,848	83.7%	\$23,806	8.3%	\$14,030	\$11,746	\$25,776	\$0	\$25,776	43.2%	\$20,096	\$16,825	\$36,921
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Wharf Replacement	\$29,312	\$19,339	66.0%	\$48,650	8.3%	\$31,737	\$20,939	\$52,677	\$0	\$52,677	43.2%	\$45,461	\$29,994	\$75,454
10	40 REACH 03 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 03 Pump Stations/Interior Drain	\$69,918	\$72,154	103.2%	\$142,072	8.3%	\$75,704	\$78,126	\$153,830	\$0	\$153,830	43.2%	\$108,439	\$111,907	\$220,346
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$9,267	\$5,852	63.1%	\$15,118	8.3%	\$10,034	\$6,336	\$16,369	\$0	\$16,369	43.2%	\$14,372	\$9,076	\$23,448
10	40 REACH 03 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Demolition of Bldgs/Structur	\$69	\$49	70.7%	\$118	8.3%	\$75	\$53	\$128	\$0	\$128	43.2%	\$107	\$76	\$183
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 03 Remaining Construction Iter	\$8,841	\$6,614	74.8%	\$15,455	8.3%	\$9,573	\$7,162	\$16,734	\$0	\$16,734	43.2%	\$13,712	\$10,258	\$23,970
02	40 REACH 04 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 04 Plantings/EWN	\$13,243	\$8,262	62.4%	\$21,505	8.3%	\$14,339	\$8,946	\$23,285	\$0	\$23,285	43.2%	\$20,539	\$12,814	\$33,353
11	40 REACH 04 Berms/Fill	\$15,990	\$11,373	71.1%	\$27,363	8.3%	\$17,314	\$12,314	\$29,628	\$0	\$29,628	43.2%	\$24,800	\$17,639	\$42,439
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/W	\$11,533	\$6,382	55.3%	\$17,915	8.3%	\$12,487	\$6,910	\$19,397	\$0	\$19,397	43.2%	\$17,887	\$9,898	\$27,784
11	40 REACH 04 Anchored Walls/T-Wall	\$5,765	\$4,826	83.7%	\$10,591	8.3%	\$6,242	\$5,226	\$11,467	\$0	\$11,467	43.2%	\$8,940	\$7,485	\$16,425
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

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10	40 REACH 04 Wharf Replacement	\$170,489	\$112,483	66.0%	\$282,972	8.3%	\$184,598	\$121,792	\$306,391	\$0	\$306,391	43.2%	\$264,418	\$174,455	\$438,874
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$68,526	\$70,718	103.2%	\$139,244	8.3%	\$74,197	\$76,571	\$150,768	\$0	\$150,768	43.2%	\$106,280	\$109,680	\$215,960
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$1,610	\$1,016	63.1%	\$2,626	8.3%	\$1,743	\$1,101	\$2,843	\$0	\$2,843	43.2%	\$2,496	\$1,576	\$4,073
10	40 REACH 04 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$3,117	\$1,661	53.3%	\$4,778	8.3%	\$3,375	\$1,799	\$5,173	\$0	\$5,173	43.2%	\$4,834	\$2,576	\$7,410
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Demolition of Bldgs/Structur	\$3,029	\$2,143	70.7%	\$5,172	8.3%	\$3,280	\$2,320	\$5,600	\$0	\$5,600	43.2%	\$4,698	\$3,324	\$8,021
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction Iter	\$3,949	\$2,954	74.8%	\$6,903	8.3%	\$4,276	\$3,199	\$7,475	\$0	\$7,475	43.2%	\$6,125	\$4,582	\$10,707
0	0	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Overall Utility Relocations	\$4,526	\$11,972	264.5%	\$16,498	8.3%	\$4,900	\$12,963	\$17,863	\$0	\$17,863	416.9%	\$25,331	\$67,011	\$92,342
02	90 REACH 02 Overall Utility Relocations	\$4,792	\$12,677	264.5%	\$17,469	8.3%	\$5,188	\$13,726	\$18,914	\$0	\$18,914	416.9%	\$26,821	\$70,953	\$97,773
02	90 REACH 03 Overall Utility Relocations	\$3,993	\$10,564	264.5%	\$14,557	8.3%	\$4,324	\$11,438	\$15,762	\$0	\$15,762	416.9%	\$22,351	\$59,127	\$81,478
02	90 REACH 04 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$4,672	\$3,323	71.1%	\$7,995	8.3%	\$5,058	\$3,598	\$8,656	\$0	\$8,656	416.9%	\$26,149	\$18,598	\$44,747
10	90 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Cantilever Walls/Pile Caps/W	\$1,819	\$1,006	55.3%	\$2,825	8.3%	\$1,969	\$1,090	\$3,059	\$0	\$3,059	416.9%	\$10,180	\$5,633	\$15,813
11	90 REACH 01 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Wharf Replacement	\$88,170	\$58,172	66.0%	\$146,342	8.3%	\$95,467	\$62,986	\$158,453	\$0	\$158,453	416.9%	\$493,497	\$325,595	\$819,092
10	90 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 01 Pump Stations/Interior Drain	\$21,963	\$22,665	103.2%	\$44,628	8.3%	\$23,781	\$24,541	\$48,322	\$0	\$48,322	416.9%	\$122,929	\$126,861	\$249,790
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 01 Temp Raise/Relocate Repla	\$62,594	\$57,857	92.4%	\$120,451	8.3%	\$67,774	\$62,645	\$130,419	\$0	\$130,419	416.9%	\$350,344	\$323,834	\$674,178
02	90 REACH 01 Demolition of Bldgs/Structur	\$497	\$352	70.7%	\$848	8.3%	\$538	\$381	\$919	\$0	\$919	416.9%	\$2,781	\$1,968	\$4,749
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Iter	\$8,382	\$6,271	74.8%	\$14,653	8.3%	\$9,076	\$6,790	\$15,866	\$0	\$15,866	416.9%	\$46,916	\$35,100	\$82,016
02	90 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	90 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 02 Berms/Fill	\$4,316	\$3,069	71.1%	\$7,385	8.3%	\$4,673	\$3,323	\$7,996	\$0	\$7,996	416.9%	\$24,155	\$17,180	\$41,335
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/W	\$2,355	\$1,303	55.3%	\$3,658	8.3%	\$2,550	\$1,411	\$3,961	\$0	\$3,961	416.9%	\$13,180	\$7,293	\$20,473
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Wharf Replacement	\$282,616	\$186,462	66.0%	\$469,078	8.3%	\$306,005	\$201,893	\$507,898	\$0	\$507,898	416.9%	\$1,581,833	\$1,043,646	\$2,625,479
10	90 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Pump Stations/Interior Drain	\$53,443	\$55,152	103.2%	\$108,595	8.3%	\$57,866	\$59,717	\$117,583	\$0	\$117,583	416.9%	\$299,126	\$308,694	\$607,820
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 02 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

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02	90 REACH 02 Temp Raise/Relocate Repla	\$241,177	\$222,927	92.4%	\$464,104	8.3%	\$261,137	\$241,376	\$502,513	\$0	\$502,513	416.9%	\$1,349,895	\$1,247,748	\$2,597,643
02	90 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Iter	\$4,398	\$3,290	74.8%	\$7,689	8.3%	\$4,762	\$3,563	\$8,325	\$0	\$8,325	416.9%	\$24,617	\$18,417	\$43,034
02	90 REACH 03 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Bridge Replacement	\$128,162	\$190,309	148.5%	\$318,472	8.3%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	416.9%	\$717,340	\$1,065,184	\$1,782,524
06	90 REACH 03 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	90 REACH 03 Berms/Fill	\$8,953	\$6,368	71.1%	\$15,322	8.3%	\$9,695	\$6,895	\$16,590	\$0	\$16,590	416.9%	\$50,114	\$35,643	\$85,757
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Cantilever Walls/Pile Caps/A	\$2,697	\$1,493	55.3%	\$4,190	8.3%	\$2,920	\$1,616	\$4,537	\$0	\$4,537	416.9%	\$15,097	\$8,354	\$23,451
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Wharf Replacement	\$83,104	\$54,830	66.0%	\$137,934	8.3%	\$89,982	\$59,367	\$149,349	\$0	\$149,349	416.9%	\$465,142	\$306,887	\$772,029
10	90 REACH 03 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 03 Pump Stations/Interior Drain	\$76,870	\$79,329	103.2%	\$156,199	8.3%	\$83,232	\$85,894	\$169,126	\$0	\$169,126	416.9%	\$430,250	\$444,013	\$874,263
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 03 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 03 Temp Raise/Relocate Repla	\$94,853	\$87,676	92.4%	\$182,529	8.3%	\$102,703	\$94,932	\$197,635	\$0	\$197,635	416.9%	\$530,904	\$490,731	\$1,021,635
02	90 REACH 03 Demolition of Bldgs/Structur	\$341	\$241	70.7%	\$582	8.3%	\$369	\$261	\$630	\$0	\$630	416.9%	\$1,908	\$1,350	\$3,258
02	90 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 03 Remaining Construction Iter	\$6,211	\$4,647	74.8%	\$10,857	8.3%	\$6,725	\$5,031	\$11,756	\$0	\$11,756	416.9%	\$34,762	\$26,007	\$60,769
02	90 REACH 04 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Bridge Replacement	\$72,949	\$108,322	148.5%	\$181,271	8.3%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	416.9%	\$408,302	\$606,291	\$1,014,594
06	90 REACH 04 Plantings/EWN	\$7,149	\$4,460	62.4%	\$11,609	8.3%	\$7,741	\$4,829	\$12,570	\$0	\$12,570	416.9%	\$40,013	\$24,965	\$64,978
11	90 REACH 04 Berms/Fill	\$4,864	\$3,459	71.1%	\$8,323	8.3%	\$5,266	\$3,746	\$9,012	\$0	\$9,012	416.9%	\$27,223	\$19,363	\$46,586
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/A	\$5,076	\$2,809	55.3%	\$7,884	8.3%	\$5,496	\$3,041	\$8,537	\$0	\$8,537	416.9%	\$28,409	\$15,720	\$44,129
11	90 REACH 04 Anchored Walls/T-Wall	\$2,482	\$2,078	83.7%	\$4,559	8.3%	\$2,687	\$2,250	\$4,936	\$0	\$4,936	416.9%	\$13,889	\$11,628	\$25,518
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	90 REACH 04 Pump Stations/Interior Drain	\$201,326	\$207,766	103.2%	\$409,092	8.3%	\$217,988	\$224,961	\$442,949	\$0	\$442,949	416.9%	\$1,126,846	\$1,162,892	\$2,289,738
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 REACH 04 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	90 REACH 04 Armoring	\$525	\$280	53.3%	\$805	8.3%	\$569	\$303	\$872	\$0	\$872	416.9%	\$2,940	\$1,567	\$4,507
02	90 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 REACH 04 Demolition of Bldgs/Structur	\$374	\$265	70.7%	\$639	8.3%	\$405	\$287	\$692	\$0	\$692	416.9%	\$2,094	\$1,481	\$3,575
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	90 REACH 04 Remaining Construction Iter	\$2,920	\$2,185	74.8%	\$5,105	8.3%	\$3,162	\$2,366	\$5,528	\$0	\$5,528	416.9%	\$16,345	\$12,229	\$28,574
CONSTRUCTION ESTIMATE TOTALS:		\$5,692,865	\$7,206,255		\$12,899,120	8.3%	\$6,164,004	\$7,802,640	\$13,966,644	\$0	\$13,966,644	127.3%	\$14,852,310	\$16,896,075	\$31,748,385
01	40 LANDS AND DAMAGES Reach 01	\$4,094	\$2,047	50.0%	\$6,141	8.3%	\$4,433	\$2,216	\$6,649	\$0	\$6,649	7.3%	\$4,758	\$2,379	\$7,137
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$3,252	\$1,626	50.0%	\$4,878	8.3%	\$3,521	\$1,761	\$5,282	\$0	\$5,282	7.3%	\$3,780	\$1,890	\$5,669

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 04	\$57,493	\$28,747	50.0%	\$86,240	8.3%	\$62,251	\$31,126	\$93,377	\$0	\$93,377	7.3%	\$66,821	\$33,411	\$100,232
01	90 LANDS AND DAMAGES Reach 01	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$2,302	\$1,151	50.0%	\$3,453	8.3%	\$2,493	\$1,246	\$3,739	\$0	\$3,739	275.1%	\$9,350	\$4,675	\$14,025
01	90 LANDS AND DAMAGES Reach 04	\$5,414	\$2,707	50.0%	\$8,121	8.3%	\$5,862	\$2,931	\$8,793	\$0	\$8,793	275.1%	\$21,990	\$10,995	\$32,986
30	REACH 01 40 PLANNING, ENGINEERING	\$33,728	\$18,896	56.0%	\$52,624	7.4%	\$36,224	\$20,295	\$56,519	\$0	\$56,519	11.3%	\$40,316	\$22,587	\$62,903
30	REACH 02 40 PLANNING, ENGINEERING	\$147,815	\$82,813	56.0%	\$230,628	7.4%	\$158,756	\$88,943	\$247,698	\$0	\$247,698	11.3%	\$176,688	\$98,989	\$275,677
30	REACH 03 40 PLANNING, ENGINEERING	\$85,142	\$47,701	56.0%	\$132,843	7.4%	\$91,444	\$51,231	\$142,675	\$0	\$142,675	11.3%	\$101,773	\$57,018	\$158,791
30	REACH 04 40 PLANNING, ENGINEERING	\$332,428	\$186,242	56.0%	\$518,669	7.4%	\$357,033	\$200,027	\$557,059	\$0	\$557,059	11.3%	\$397,361	\$222,620	\$619,981
30	REACH 01 90 PLANNING, ENGINEERING	\$26,254	\$14,709	56.0%	\$40,963	7.4%	\$28,197	\$15,798	\$43,995	\$0	\$43,995	203.4%	\$85,547	\$47,928	\$133,475
30	REACH 02 90 PLANNING, ENGINEERING	\$85,711	\$48,019	56.0%	\$133,730	7.4%	\$92,055	\$51,573	\$143,628	\$0	\$143,628	203.4%	\$279,282	\$156,467	\$435,749
30	REACH 03 90 PLANNING, ENGINEERING	\$57,739	\$32,348	56.0%	\$90,087	7.4%	\$62,012	\$34,742	\$96,755	\$0	\$96,755	203.4%	\$188,138	\$105,404	\$293,542
30	REACH 04 90 PLANNING, ENGINEERING	\$42,417	\$23,764	56.0%	\$66,181	7.4%	\$45,557	\$25,523	\$71,080	\$0	\$71,080	203.4%	\$138,213	\$77,434	\$215,647
31	REACH 01 40 CONSTRUCTION MANAGE	\$17,160	\$10,826	63.1%	\$27,986	7.4%	\$18,430	\$11,627	\$30,057	\$0	\$30,057	35.5%	\$24,969	\$15,753	\$40,722
31	REACH 02 40 CONSTRUCTION MANAGE	\$75,204	\$47,445	63.1%	\$122,649	7.4%	\$80,770	\$50,957	\$131,727	\$0	\$131,727	35.5%	\$109,431	\$69,039	\$178,469
31	REACH 03 40 CONSTRUCTION MANAGE	\$43,318	\$27,329	63.1%	\$70,646	7.4%	\$46,524	\$29,351	\$75,875	\$0	\$75,875	35.5%	\$63,033	\$39,766	\$102,799
31	REACH 04 40 CONSTRUCTION MANAGE	\$169,130	\$106,702	63.1%	\$275,832	7.4%	\$181,648	\$114,599	\$296,248	\$0	\$296,248	35.5%	\$246,104	\$155,264	\$401,368
31	REACH 01 90 CONSTRUCTION MANAGE	\$13,357	\$8,427	63.1%	\$21,784	7.4%	\$14,346	\$9,051	\$23,397	\$0	\$23,397	266.3%	\$52,546	\$33,151	\$85,696
31	REACH 02 90 CONSTRUCTION MANAGE	\$43,607	\$27,511	63.1%	\$71,118	7.4%	\$46,835	\$29,547	\$76,382	\$0	\$76,382	266.3%	\$171,544	\$108,225	\$279,769
31	REACH 03 90 CONSTRUCTION MANAGE	\$29,376	\$18,533	63.1%	\$47,909	7.4%	\$31,550	\$19,905	\$51,455	\$0	\$51,455	266.3%	\$115,560	\$72,905	\$188,466
31	REACH 04 90 CONSTRUCTION MANAGE	\$21,581	\$13,615	63.1%	\$35,196	7.4%	\$23,178	\$14,623	\$37,801	\$0	\$37,801	266.3%	\$84,895	\$53,559	\$138,454
PROJECT COST TOTALS:		\$6,989,386	\$7,957,411	113.8%	\$14,946,798		\$7,557,123	\$8,609,711	\$16,166,834	\$0	\$16,166,834	119.7%	\$17,234,409	\$18,285,532	\$35,519,941

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$35,519,941

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

DISTRICT: SWT

LOCATION: San Francisco, CA

POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative E Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
WBS NUMBER A	Civil Works Feature & Sub-Feature Description B	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	Program Year (Budget EC): Effective Price Level Date:				2026 1 OCT 25		INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
						ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K) K				
02	40 Reach 01 Overall Structures Floodproo	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	40 Reach 02 Overall Structures Floodproo	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
02	40 Reach 03 Overall Structures Floodproo	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	40 Reach 04 Overall Structures Floodproo	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 Reach 01 Overall Utility Relocations	\$998	\$2,641	264.5%	\$3,639	8.3%	\$1,081	\$2,860	\$3,940	\$0	\$3,940	43.2%	\$1,548	\$4,096	\$5,644
02	40 Reach 02 Overall Utility Relocations	\$5,391	\$14,261	264.5%	\$19,652	8.3%	\$5,837	\$15,441	\$21,279	\$0	\$21,279	43.2%	\$8,361	\$22,118	\$30,479
02	40 Reach 03 Overall Utility Relocations	\$2,396	\$6,338	264.5%	\$8,734	8.3%	\$2,594	\$6,863	\$9,457	\$0	\$9,457	43.2%	\$3,716	\$9,830	\$13,546
02	40 Reach 04 Overall Utility Relocations	\$11,181	\$29,579	264.5%	\$40,760	8.3%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	43.2%	\$17,341	\$45,875	\$63,216
10	40 Reach 01 Overall Seismic Ground Impr	\$163,638	\$250,734	153.2%	\$414,372	8.3%	\$177,180	\$271,485	\$448,665	\$0	\$448,665	43.2%	\$253,793	\$388,875	\$642,668
10	40 Reach 02 Overall Seismic Ground Impr	\$883,645	\$1,353,965	153.2%	\$2,237,610	8.3%	\$956,775	\$1,466,018	\$2,422,792	\$0	\$2,422,792	43.2%	\$1,370,483	\$2,099,922	\$3,470,405
10	40 Reach 03 Overall Seismic Ground Impr	\$392,731	\$601,762	153.2%	\$994,493	8.3%	\$425,233	\$651,563	\$1,076,796	\$0	\$1,076,796	43.2%	\$609,104	\$933,299	\$1,542,402
10	40 Reach 04 Overall Seismic Ground Impr	\$1,832,745	\$2,808,223	153.2%	\$4,640,969	8.3%	\$1,984,421	\$3,040,629	\$5,025,050	\$0	\$5,025,050	43.2%	\$2,842,483	\$4,355,395	\$7,197,878
10	40 Reach 01 Overall Seismic Transportati	\$17,444	\$14,218	81.5%	\$31,662	8.3%	\$18,888	\$15,395	\$34,283	\$0	\$34,283	43.2%	\$27,055	\$22,051	\$49,107
10	40 Reach 02 Overall Seismic Transportati	\$94,200	\$76,777	81.5%	\$170,977	8.3%	\$101,996	\$83,131	\$185,127	\$0	\$185,127	43.2%	\$146,098	\$119,077	\$265,175
10	40 Reach 03 Overall Seismic Transportati	\$41,867	\$34,123	81.5%	\$75,990	8.3%	\$45,331	\$36,947	\$82,279	\$0	\$82,279	43.2%	\$64,933	\$52,923	\$117,856
10	40 Reach 04 Overall Seismic Transportati	\$195,377	\$159,242	81.5%	\$354,619	8.3%	\$211,546	\$172,420	\$383,967	\$0	\$383,967	43.2%	\$303,019	\$246,975	\$549,993
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$261,048	\$212,766	81.5%	\$473,814	8.3%	\$282,652	\$230,375	\$513,027	\$0	\$513,027	43.2%	\$404,870	\$329,988	\$734,858
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$22,472	\$14,020	62.4%	\$36,492	8.3%	\$24,331	\$15,181	\$39,512	\$0	\$39,512	43.2%	\$34,852	\$21,745	\$56,597
11	40 REACH 01 Berms/Fill	\$23,645	\$16,818	71.1%	\$40,463	8.3%	\$25,602	\$18,210	\$43,812	\$0	\$43,812	43.2%	\$36,673	\$26,083	\$62,756
10	40 REACH 01 Ground Improvement/DSM	\$136,009	\$208,400	153.2%	\$344,410	8.3%	\$147,265	\$225,647	\$372,913	\$0	\$372,913	43.2%	\$210,943	\$323,217	\$534,160
10	40 REACH 01 Cantilever Walls/Pile Caps/	\$363	\$201	55.3%	\$564	8.3%	\$393	\$217	\$610	\$0	\$610	43.2%	\$563	\$311	\$874
11	40 REACH 01 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Combi-Wall (Offshore)	\$430,035	\$454,461	105.7%	\$884,497	8.3%	\$465,625	\$492,072	\$957,697	\$0	\$957,697	43.2%	\$666,960	\$704,844	\$1,371,804
10	40 REACH 01 Wharf Replacement	\$238,547	\$157,386	66.0%	\$395,933	8.3%	\$258,289	\$170,411	\$428,700	\$0	\$428,700	43.2%	\$369,972	\$244,097	\$614,069
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$23,633	\$24,389	103.2%	\$48,022	8.3%	\$25,589	\$26,407	\$51,996	\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Struct	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$253,288	\$234,121	92.4%	\$487,409	8.3%	\$274,250	\$253,497	\$527,747	\$0	\$527,747	43.2%	\$392,835	\$363,109	\$755,943
02	40 REACH 01 Demolition of Bldgs/Structu	\$853	\$603	70.7%	\$1,456	8.3%	\$924	\$653	\$1,577	\$0	\$1,577	43.2%	\$1,323	\$936	\$2,259

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 01 Remaining Construction Items	\$9,482	\$7,094	74.8%	\$16,576	8.3%	\$10,267	\$7,681	\$17,947	\$0	\$17,947	43.2%	\$14,706	\$11,002	\$25,708
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Transportation Corridor	\$375,095	\$305,720	81.5%	\$680,815	8.3%	\$406,138	\$331,021	\$737,159	\$0	\$737,159	43.2%	\$581,751	\$474,154	\$1,055,904
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 02 Plantings/EWN	\$29,136	\$18,178	62.4%	\$47,314	8.3%	\$31,547	\$19,682	\$51,229	\$0	\$51,229	43.2%	\$45,188	\$28,193	\$73,381
11	40 REACH 02 Berms/Fill	\$24,839	\$17,667	71.1%	\$42,506	8.3%	\$26,895	\$19,129	\$46,023	\$0	\$46,023	43.2%	\$38,524	\$27,400	\$65,924
10	40 REACH 02 Ground Improvement/DSM	\$136,689	\$209,441	153.2%	\$346,130	8.3%	\$148,001	\$226,774	\$374,775	\$0	\$374,775	43.2%	\$211,996	\$324,831	\$536,827
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$31,380	\$17,365	55.3%	\$48,745	8.3%	\$33,977	\$18,802	\$52,779	\$0	\$52,779	43.2%	\$48,669	\$26,931	\$75,600
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Combi-Wall (Offshore)	\$432,200	\$456,749	105.7%	\$888,949	8.3%	\$467,968	\$494,549	\$962,518	\$0	\$962,518	43.2%	\$670,318	\$708,392	\$1,378,709
10	40 REACH 02 Wharf Replacement	\$265,459	\$175,142	66.0%	\$440,601	8.3%	\$287,428	\$189,637	\$477,065	\$0	\$477,065	43.2%	\$411,712	\$271,635	\$683,347
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Temp Raise/Relocate Replac	\$391,856	\$362,204	92.4%	\$754,061	8.3%	\$424,287	\$392,181	\$816,467	\$0	\$816,467	43.2%	\$607,747	\$561,758	\$1,169,505
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 02 Remaining Construction Items	\$12,551	\$9,390	74.8%	\$21,940	8.3%	\$13,589	\$10,167	\$23,756	\$0	\$23,756	43.2%	\$19,465	\$14,563	\$34,028
02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Transportation Corridor	\$251,537	\$205,014	81.5%	\$456,551	8.3%	\$272,354	\$221,981	\$494,335	\$0	\$494,335	43.2%	\$390,119	\$317,965	\$708,084
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 03 Plantings/EWN	\$45,929	\$28,655	62.4%	\$74,585	8.3%	\$49,730	\$31,027	\$80,757	\$0	\$80,757	43.2%	\$71,234	\$44,443	\$115,677
11	40 REACH 03 Berms/Fill	\$71,154	\$50,608	71.1%	\$121,762	8.3%	\$77,043	\$54,797	\$131,840	\$0	\$131,840	43.2%	\$110,355	\$78,490	\$188,846
10	40 REACH 03 Ground Improvement/DSM	\$184,587	\$282,833	153.2%	\$467,419	8.3%	\$199,863	\$306,240	\$506,102	\$0	\$506,102	43.2%	\$286,283	\$438,657	\$724,941
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$12,896	\$7,136	55.3%	\$20,032	8.3%	\$13,963	\$7,726	\$21,689	\$0	\$21,689	43.2%	\$20,000	\$11,067	\$31,068
11	40 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Combi-Wall (Offshore)	\$637,116	\$673,305	105.7%	\$1,310,421	8.3%	\$689,843	\$729,027	\$1,418,870	\$0	\$1,418,870	43.2%	\$988,131	\$1,044,257	\$2,032,388
10	40 REACH 03 Wharf Replacement	\$229,936	\$151,705	66.0%	\$381,641	8.3%	\$248,965	\$164,260	\$413,225	\$0	\$413,225	43.2%	\$356,618	\$235,286	\$591,903
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 03 Pump Stations/Interior Drain	\$134,492	\$138,795	103.2%	\$273,287	8.3%	\$145,623	\$150,282	\$295,905	\$0	\$295,905	43.2%	\$208,590	\$215,263	\$423,853
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$7,466	\$4,714	63.1%	\$12,180	8.3%	\$8,084	\$5,105	\$13,188	\$0	\$13,188	43.2%	\$11,579	\$7,312	\$18,891
10	40 REACH 03 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Temp Raise/Relocate Replac	\$260,369	\$240,667	92.4%	\$501,036	8.3%	\$281,918	\$260,585	\$542,502	\$0	\$542,502	43.2%	\$403,818	\$373,261	\$777,079
02	40 REACH 03 Demolition of Bldgs/Structur	\$971	\$687	70.7%	\$1,658	8.3%	\$1,051	\$744	\$1,795	\$0	\$1,795	43.2%	\$1,506	\$1,065	\$2,571
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 03 Remaining Construction Items	\$13,101	\$9,801	74.8%	\$22,902	8.3%	\$14,185	\$10,613	\$24,798	\$0	\$24,798	43.2%	\$20,319	\$15,202	\$35,521
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 04 Plantings/EWN	\$25,805	\$16,100	62.4%	\$41,906	8.3%	\$27,941	\$17,433	\$45,374	\$0	\$45,374	43.2%	\$40,023	\$24,971	\$64,993
11	40 REACH 04 Berms/Fill	\$78,214	\$55,630	71.1%	\$133,843	8.3%	\$84,687	\$60,234	\$144,920	\$0	\$144,920	43.2%	\$121,304	\$86,278	\$207,582
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$228,674	\$126,539	55.3%	\$355,213	8.3%	\$247,599	\$137,011	\$384,610	\$0	\$384,610	43.2%	\$354,660	\$196,254	\$550,915
11	40 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$729,196	\$481,102	66.0%	\$1,210,298	8.3%	\$789,544	\$520,917	\$1,310,461	\$0	\$1,310,461	43.2%	\$1,130,942	\$746,161	\$1,877,103
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drainage	\$258,827	\$267,106	103.2%	\$525,932	8.3%	\$280,248	\$289,212	\$569,460	\$0	\$569,460	43.2%	\$401,426	\$414,267	\$815,692
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$2,099	\$1,326	63.1%	\$3,425	8.3%	\$2,273	\$1,435	\$3,709	\$0	\$3,709	43.2%	\$3,256	\$2,056	\$5,312
10	40 REACH 04 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Replacement	\$538,562	\$497,809	92.4%	\$1,036,371	8.3%	\$583,134	\$539,008	\$1,122,141	\$0	\$1,122,141	43.2%	\$835,279	\$772,073	\$1,607,352
02	40 REACH 04 Demolition of Bldgs/Structures	\$1,326	\$938	70.7%	\$2,264	8.3%	\$1,435	\$1,016	\$2,451	\$0	\$2,451	43.2%	\$2,056	\$1,455	\$3,511
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction Items	\$20,564	\$15,385	74.8%	\$35,948	8.3%	\$22,265	\$16,658	\$38,923	\$0	\$38,923	43.2%	\$31,893	\$23,861	\$55,754
0		\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 Reach 01 Overall Utility Relocations	\$998	\$2,641	264.5%	\$3,639	8.3%	\$1,081	\$2,860	\$3,940	\$0	\$3,940	417%	\$5,588	\$14,782	\$20,369
10	90 Reach 02 Overall Utility Relocations	\$5,391	\$14,261	264.5%	\$19,652	8.3%	\$5,837	\$15,441	\$21,278	\$0	\$21,278	417%	\$30,173	\$79,822	\$109,995
10	90 Reach 03 Overall Utility Relocations	\$2,396	\$6,338	264.5%	\$8,734	8.3%	\$2,594	\$6,863	\$9,457	\$0	\$9,457	417%	\$13,410	\$35,476	\$48,887
10	90 Reach 04 Overall Utility Relocations	\$11,181	\$29,579	264.5%	\$40,760	8.3%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	417%	\$62,582	\$165,556	\$228,138
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$3,437	\$2,445	71.1%	\$5,882	8.3%	\$3,722	\$2,647	\$6,368	\$0	\$6,368	417%	\$19,238	\$13,683	\$32,920
10	90 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Cantilever Walls/Pile Caps/	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 01 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Wharf Replacement	\$238,585	\$157,411	66.0%	\$395,997	8.3%	\$258,330	\$170,439	\$428,769	\$0	\$428,769	417%	\$1,335,387	\$881,048	\$2,216,436
10	90 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 01 Pump Stations/Interior Drainage	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Temp Raise/Relocate Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Demolition of Bldgs/Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Items	\$18,183	\$13,604	74.8%	\$31,787	8.3%	\$19,688	\$14,730	\$34,418	\$0	\$34,418	417%	\$101,775	\$76,143	\$177,918
02	90 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 02 Berms/Fill	\$17,999	\$12,802	71.1%	\$30,801	8.3%	\$19,489	\$13,861	\$33,350	\$0	\$33,350	417%	\$100,743	\$71,654	\$172,397
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Combi-Wall (Offshore)	\$125,547	\$132,678	105.7%	\$258,226	8.3%	\$135,937	\$143,659	\$279,596	\$0	\$279,596	417%	\$702,702	\$742,616	\$1,445,318
10	90 REACH 02 Wharf Replacement	\$265,389	\$175,095	66.0%	\$440,484	8.3%	\$287,352	\$189,586	\$476,938	\$0	\$476,938	417%	\$1,485,409	\$980,029	\$2,465,438
10	90 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Pump Stations/Interior Drainage	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	90 REACH 02 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Demolition of Bldgs/Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Ite	\$22,219	\$16,623	74.8%	\$38,842	8.3%	\$24,058	\$17,999	\$42,057	\$0	\$42,057	417%	\$124,362	\$93,041	\$217,403
02	90 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Bridge Replacement	\$128,162	\$190,309	148.5%	\$318,472	8.3%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	417%	\$717,340	\$1,065,184	\$1,782,524
06	90 REACH 03 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 03 Berms/Fill	\$21,695	\$15,431	71.1%	\$37,126	8.3%	\$23,491	\$16,708	\$40,199	\$0	\$40,199	417%	\$121,430	\$86,367	\$207,797
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Wharf Replacement	\$229,396	\$151,348	66.0%	\$380,744	8.3%	\$248,380	\$163,874	\$412,254	\$0	\$412,254	417%	\$1,283,953	\$847,113	\$2,131,066
10	90 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 03 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Demolition of Bldgs/Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 03 Remaining Construction Ite	\$21,505	\$16,089	74.8%	\$37,594	8.3%	\$23,285	\$17,420	\$40,705	\$0	\$40,705	417%	\$120,366	\$90,052	\$210,418
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Bridge Replacement	\$72,949	\$108,322	148.5%	\$181,271	8.3%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	417%	\$408,302	\$606,291	\$1,014,594
06	90 REACH 04 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 04 Berms/Fill	\$16,620	\$11,821	71.1%	\$28,442	8.3%	\$17,996	\$12,800	\$30,795	\$0	\$30,795	417%	\$93,026	\$66,165	\$159,190
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 04 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Large Gates/Closure Struct	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Demolition of Bldgs/Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 04 Remaining Construction Ite	\$131,554	\$98,422	74.8%	\$229,976	8.3%	\$142,442	\$106,568	\$249,010	\$0	\$249,010	417%	\$736,326	\$550,882	\$1,287,209
CONSTRUCTION ESTIMATE TOTALS:		\$11,919,503	\$12,775,130		\$24,694,633	8.3%	\$12,905,956	\$13,832,393	\$26,738,349	\$0	\$26,738,349	80.9%	\$23,880,854	\$24,487,721	\$48,368,575
01	40 LANDS AND DAMAGES Reach 01	\$2,997	\$1,499	50.0%	\$4,496	8.3%	\$3,245	\$1,623	\$4,868	\$0	\$4,868	7.3%	\$3,483	\$1,742	\$5,225
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$15,127	\$7,564	50.0%	\$22,691	8.3%	\$16,379	\$8,189	\$24,568	\$0	\$24,568	7.3%	\$17,581	\$8,791	\$26,372

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 04	\$32,660	\$16,330	50.0%	\$48,990	8.3%	\$35,363	\$17,682	\$53,045	\$0	\$53,045	7.3%	\$37,959	\$18,979	\$56,938
01	90 LANDS AND DAMAGES Reach 01	\$558	\$279	50.0%	\$837	8.3%	\$604	\$302	\$906	\$0	\$906	275.1%	\$2,266	\$1,133	\$3,400
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$34,081	\$17,041	50.0%	\$51,122	8.3%	\$36,902	\$18,451	\$55,352	\$0	\$55,352	275.1%	\$138,429	\$69,214	\$207,643
01	90 LANDS AND DAMAGES Reach 04	\$13,932	\$6,966	50.0%	\$20,898	8.3%	\$15,085	\$7,543	\$22,628	\$0	\$22,628	275.1%	\$56,588	\$28,294	\$84,883
30	REACH 01 40 PLANNING, ENGINEERING	\$228,230	\$127,865	56.0%	\$356,096	7.4%	\$245,123	\$137,330	\$382,452	\$0	\$382,452	11.3%	\$272,811	\$152,841	\$425,652
30	REACH 02 40 PLANNING, ENGINEERING	\$392,983	\$220,168	56.0%	\$613,150	7.4%	\$422,070	\$236,463	\$658,533	\$0	\$658,533	11.3%	\$469,744	\$263,173	\$732,917
30	REACH 03 40 PLANNING, ENGINEERING	\$328,368	\$183,967	56.0%	\$512,335	7.4%	\$352,672	\$197,584	\$550,256	\$0	\$550,256	11.3%	\$392,508	\$219,902	\$612,410
30	REACH 04 40 PLANNING, ENGINEERING	\$558,966	\$313,159	56.0%	\$872,126	7.4%	\$600,339	\$336,338	\$936,677	\$0	\$936,677	11.3%	\$668,149	\$374,329	\$1,042,478
30	REACH 01 90 PLANNING, ENGINEERING	\$34,630	\$19,402	56.0%	\$54,032	7.4%	\$37,194	\$20,838	\$58,031	\$0	\$58,031	203.4%	\$112,841	\$63,219	\$176,059
30	REACH 02 90 PLANNING, ENGINEERING	\$64,799	\$36,303	56.0%	\$101,102	7.4%	\$69,595	\$38,990	\$108,585	\$0	\$108,585	203.4%	\$211,142	\$118,292	\$329,434
30	REACH 03 90 PLANNING, ENGINEERING	\$57,449	\$32,186	56.0%	\$89,635	7.4%	\$61,702	\$34,568	\$96,270	\$0	\$96,270	203.4%	\$187,195	\$104,875	\$292,070
30	REACH 04 90 PLANNING, ENGINEERING	\$33,103	\$18,546	56.0%	\$51,649	7.4%	\$35,554	\$19,919	\$55,472	\$0	\$55,472	203.4%	\$107,865	\$60,431	\$168,296
31	REACH 01 40 CONSTRUCTION MANAGEMENT	\$116,117	\$73,257	63.1%	\$189,374	7.4%	\$124,712	\$78,679	\$203,391	\$0	\$203,391	35.5%	\$168,964	\$106,597	\$275,561
31	REACH 02 40 CONSTRUCTION MANAGEMENT	\$199,939	\$126,139	63.1%	\$326,077	7.4%	\$214,737	\$135,475	\$350,212	\$0	\$350,212	35.5%	\$290,934	\$183,547	\$474,481
31	REACH 03 40 CONSTRUCTION MANAGEMENT	\$167,064	\$105,399	63.1%	\$272,463	7.4%	\$179,430	\$113,200	\$292,630	\$0	\$292,630	35.5%	\$243,098	\$153,368	\$396,466
31	REACH 04 40 CONSTRUCTION MANAGEMENT	\$284,386	\$179,416	63.1%	\$463,802	7.4%	\$305,435	\$192,695	\$498,131	\$0	\$498,131	35.5%	\$413,816	\$261,071	\$674,886
31	REACH 01 90 CONSTRUCTION MANAGEMENT	\$17,619	\$11,116	63.1%	\$28,735	7.4%	\$18,923	\$11,938	\$30,861	\$0	\$30,861	266.3%	\$69,310	\$43,727	\$113,037
31	REACH 02 90 CONSTRUCTION MANAGEMENT	\$32,968	\$20,799	63.1%	\$53,767	7.4%	\$35,408	\$22,338	\$57,746	\$0	\$57,746	266.3%	\$129,690	\$81,820	\$211,510
31	REACH 03 90 CONSTRUCTION MANAGEMENT	\$29,229	\$18,440	63.1%	\$47,669	7.4%	\$31,392	\$19,805	\$51,197	\$0	\$51,197	266.3%	\$114,981	\$72,540	\$187,521
31	REACH 04 90 CONSTRUCTION MANAGEMENT	\$16,842	\$10,625	63.1%	\$27,467	7.4%	\$18,089	\$11,412	\$29,501	\$0	\$29,501	266.3%	\$66,254	\$41,799	\$108,053
PROJECT COST TOTALS:		\$14,581,551	\$14,321,594	98.2%	\$28,903,145		\$15,765,907	\$15,493,754	\$31,259,661	\$0	\$31,259,661	75.9%	\$28,056,464	\$26,917,404	\$54,973,868

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$54,973,868

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

LOCATION: San Francisco, CA

This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT

POC: CHIEF, COST ENGINEERING, xxx

PREPARED:

8/4/2023

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative F Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	40 Reach 01 Overall Structures Floodproof	\$20,161	\$53,335	264.5%	\$73,497	8.3%	\$21,830	\$57,749	\$79,579	\$0	\$79,579	43.2%	\$31,269	\$82,720	\$113,989
02	40 Reach 02 Overall Structures Floodproof	\$21,347	\$56,473	264.5%	\$77,820	8.3%	\$23,114	\$61,146	\$84,260	\$0	\$84,260	43.2%	\$33,108	\$87,586	\$120,694
02	40 Reach 03 Overall Structures Floodproof	\$17,789	\$47,061	264.5%	\$64,850	8.3%	\$19,262	\$50,955	\$70,217	\$0	\$70,217	43.2%	\$27,590	\$72,988	\$100,579
02	40 Reach 04 Overall Structures Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 Reach 01 Overall Utility Relocations	\$5,125	\$13,557	264.5%	\$18,682	8.3%	\$5,549	\$14,679	\$20,228	\$0	\$20,228	43.2%	\$7,948	\$21,026	\$28,974
02	40 Reach 02 Overall Utility Relocations	\$27,021	\$71,482	264.5%	\$98,503	8.3%	\$29,257	\$77,398	\$106,655	\$0	\$106,655	43.2%	\$41,908	\$110,865	\$152,773
02	40 Reach 03 Overall Utility Relocations	\$6,056	\$16,022	264.5%	\$22,078	8.3%	\$6,558	\$17,348	\$23,905	\$0	\$23,905	43.2%	\$9,393	\$24,849	\$34,242
02	40 Reach 04 Overall Utility Relocations	\$8,386	\$22,184	264.5%	\$30,570	8.3%	\$9,080	\$24,020	\$33,100	\$0	\$33,100	43.2%	\$13,006	\$34,406	\$47,412
10	40 Reach 01 Overall Seismic Ground Impr	\$166,034	\$254,406	153.2%	\$420,441	8.3%	\$179,775	\$275,461	\$455,236	\$0	\$455,236	43.2%	\$257,510	\$394,570	\$652,080
10	40 Reach 02 Overall Seismic Ground Impr	\$875,455	\$1,341,415	153.2%	\$2,216,870	8.3%	\$947,906	\$1,452,429	\$2,400,335	\$0	\$2,400,335	43.2%	\$1,357,780	\$2,080,458	\$3,438,238
10	40 Reach 03 Overall Seismic Ground Impr	\$196,223	\$300,662	153.2%	\$496,885	8.3%	\$212,462	\$325,544	\$538,006	\$0	\$538,006	43.2%	\$304,330	\$466,310	\$770,640
10	40 Reach 04 Overall Seismic Ground Impr	\$271,693	\$416,301	153.2%	\$687,994	8.3%	\$294,178	\$450,754	\$744,932	\$0	\$744,932	43.2%	\$421,380	\$645,659	\$1,067,040
10	40 Reach 01 Overall Seismic Transportati	\$38,378	\$31,280	81.5%	\$69,657	8.3%	\$41,554	\$33,868	\$75,422	\$0	\$75,422	43.2%	\$59,522	\$48,513	\$108,034
10	40 Reach 02 Overall Seismic Transportati	\$202,355	\$164,929	81.5%	\$367,284	8.3%	\$219,102	\$178,578	\$397,680	\$0	\$397,680	43.2%	\$313,841	\$255,795	\$569,636
10	40 Reach 03 Overall Seismic Transportati	\$45,355	\$36,967	81.5%	\$82,322	8.3%	\$49,109	\$40,026	\$89,135	\$0	\$89,135	43.2%	\$70,344	\$57,333	\$127,677
10	40 Reach 04 Overall Seismic Transportati	\$62,800	\$51,185	81.5%	\$113,985	8.3%	\$67,997	\$55,421	\$123,418	\$0	\$123,418	43.2%	\$97,399	\$79,385	\$176,784
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$21,682	\$17,672	81.5%	\$39,354	8.3%	\$23,477	\$19,135	\$42,611	\$0	\$42,611	43.2%	\$33,628	\$27,408	\$61,037
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$22,474	\$14,022	62.4%	\$36,496	8.3%	\$24,334	\$15,182	\$39,516	\$0	\$39,516	43.2%	\$34,856	\$21,747	\$56,603
11	40 REACH 01 Berms/Fill	\$31,292	\$22,256	71.1%	\$53,548	8.3%	\$33,881	\$24,098	\$57,980	\$0	\$57,980	43.2%	\$48,531	\$34,518	\$83,049
10	40 REACH 01 Ground Improvement/DSM	\$389,238	\$596,410	153.2%	\$985,648	8.3%	\$421,451	\$645,768	\$1,067,219	\$0	\$1,067,219	43.2%	\$603,686	\$924,997	\$1,528,683
10	40 REACH 01 Cantilever Walls/Pile Caps/W	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Anchored Walls/T-Wall	\$18,342	\$15,357	83.7%	\$33,699	8.3%	\$19,860	\$16,627	\$36,488	\$0	\$36,488	43.2%	\$28,448	\$23,817	\$52,265
10	40 REACH 01 Combi-Wall (Offshore)	\$163,545	\$172,834	105.7%	\$336,379	8.3%	\$177,080	\$187,138	\$364,217	\$0	\$364,217	43.2%	\$253,649	\$268,056	\$521,704
10	40 REACH 01 Wharf Replacement	\$1,098	\$724	66.0%	\$1,822	8.3%	\$1,189	\$784	\$1,973	\$0	\$1,973	43.2%	\$1,703	\$1,123	\$2,826
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$23,633	\$24,389	103.2%	\$48,022	8.3%	\$25,589	\$26,407	\$51,996	\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$63,442	\$58,641	92.4%	\$122,082	8.3%	\$68,692	\$63,494	\$132,186	\$0	\$132,186	43.2%	\$98,394	\$90,949	\$189,343
02	40 REACH 01 Demolition of Bldgs/Structur	\$1,507	\$1,066	70.7%	\$2,574	8.3%	\$1,632	\$1,155	\$2,787	\$0	\$2,787	43.2%	\$2,338	\$1,654	\$3,992

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 01 Remaining Construction Iter	\$3,963	\$2,965	74.8%	\$6,927	8.3%	\$4,291	\$3,210	\$7,500	\$0	\$7,500	43.2%	\$6,146	\$4,598	\$10,744
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Transportation Corridor	\$28,306	\$23,070	81.5%	\$51,376	8.3%	\$30,648	\$24,980	\$55,628	\$0	\$55,628	43.2%	\$43,900	\$35,781	\$79,681
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 02 Plantings/EWN	\$29,139	\$18,180	62.4%	\$47,319	8.3%	\$31,551	\$19,685	\$51,235	\$0	\$51,235	43.2%	\$45,193	\$28,196	\$73,389
11	40 REACH 02 Berms/Fill	\$147,481	\$104,896	71.1%	\$252,378	8.3%	\$159,687	\$113,578	\$273,266	\$0	\$273,266	43.2%	\$228,735	\$162,688	\$391,422
10	40 REACH 02 Ground Improvement/DSM	\$1,595,447	\$2,444,624	153.2%	\$4,040,071	8.3%	\$1,727,485	\$2,646,938	\$4,374,423	\$0	\$4,374,423	43.2%	\$2,474,448	\$3,791,473	\$6,265,921
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Combi-Wall (Offshore)	\$656,274	\$693,550	105.7%	\$1,349,824	8.3%	\$710,586	\$750,948	\$1,461,534	\$0	\$1,461,534	43.2%	\$1,017,843	\$1,075,657	\$2,093,500
10	40 REACH 02 Wharf Replacement	\$3,780	\$2,494	66.0%	\$6,274	8.3%	\$4,093	\$2,700	\$6,793	\$0	\$6,793	43.2%	\$5,862	\$3,868	\$9,730
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Temp Raise/Relocate Repla	\$218,208	\$201,696	92.4%	\$419,904	8.3%	\$236,267	\$218,389	\$454,656	\$0	\$454,656	43.2%	\$338,428	\$312,819	\$651,248
02	40 REACH 02 Demolition of Bldgs/Structur	\$11,613	\$8,216	70.7%	\$19,829	8.3%	\$12,574	\$8,896	\$21,470	\$0	\$21,470	43.2%	\$18,011	\$12,742	\$30,753
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 02 Remaining Construction Iter	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Utility Relocations	\$1,271	\$3,362	264.5%	\$4,632	8.3%	\$1,376	\$3,640	\$5,016	\$0	\$5,016	43.2%	\$1,971	\$5,214	\$7,185
02	40 REACH 03 Transportation Corridor	\$21,437	\$17,472	81.5%	\$38,909	8.3%	\$23,211	\$18,918	\$42,129	\$0	\$42,129	43.2%	\$33,247	\$27,098	\$60,345
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$55,474	\$34,611	62.4%	\$90,085	8.3%	\$60,065	\$37,475	\$97,541	\$0	\$97,541	43.2%	\$86,038	\$53,680	\$139,717
11	40 REACH 03 Berms/Fill	\$38,334	\$27,265	71.1%	\$65,598	8.3%	\$41,506	\$29,521	\$71,027	\$0	\$71,027	43.2%	\$59,453	\$42,286	\$101,739
10	40 REACH 03 Ground Improvement/DSM	\$261,159	\$400,160	153.2%	\$661,319	8.3%	\$282,772	\$433,277	\$716,049	\$0	\$716,049	43.2%	\$405,042	\$620,626	\$1,025,668
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 03 Anchored Walls/T-Wall	\$774	\$648	83.7%	\$1,423	8.3%	\$838	\$702	\$1,540	\$0	\$1,540	43.2%	\$1,201	\$1,005	\$2,206
10	40 REACH 03 Combi-Wall (Offshore)	\$259,753	\$274,507	105.7%	\$534,260	8.3%	\$281,250	\$297,225	\$578,474	\$0	\$578,474	43.2%	\$402,862	\$425,745	\$828,606
10	40 REACH 03 Wharf Replacement	\$115,902	\$76,469	66.0%	\$192,371	8.3%	\$125,494	\$82,797	\$208,291	\$0	\$208,291	43.2%	\$179,758	\$118,599	\$298,356
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drain	\$6,751	\$6,967	103.2%	\$13,719	8.3%	\$7,310	\$7,544	\$14,854	\$0	\$14,854	43.2%	\$10,471	\$10,806	\$21,277
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Large Gates/Closure Structu	\$182,318	\$229,295	125.8%	\$411,613	8.3%	\$197,407	\$248,271	\$445,678	\$0	\$445,678	43.2%	\$282,765	\$355,623	\$638,388
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Temp Raise/Relocate Repla	\$45,971	\$42,493	92.4%	\$88,464	8.3%	\$49,776	\$46,009	\$95,785	\$0	\$95,785	43.2%	\$71,299	\$65,904	\$137,203
02	40 REACH 03 Demolition of Bldgs/Structur	\$1,360	\$962	70.7%	\$2,323	8.3%	\$1,473	\$1,042	\$2,515	\$0	\$2,515	43.2%	\$2,110	\$1,493	\$3,602
02	40 REACH 03 Floodproofing Structures	\$4,154	\$3,809	91.7%	\$7,963	8.3%	\$4,498	\$4,124	\$8,622	\$0	\$8,622	43.2%	\$6,443	\$5,907	\$12,350
ALL	40 REACH 03 Remaining Construction Iter	\$6,764	\$5,060	74.8%	\$11,824	8.3%	\$7,324	\$5,479	\$12,803	\$0	\$12,803	43.2%	\$10,490	\$7,848	\$18,339
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Transportation Corridor	\$8,732	\$7,117	81.5%	\$15,850	8.3%	\$9,455	\$7,706	\$17,161	\$0	\$17,161	43.2%	\$13,543	\$11,038	\$24,582
02	40 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 04 Plantings/EWN	\$27,001	\$16,846	62.4%	\$43,847	8.3%	\$29,236	\$18,240	\$47,476	\$0	\$47,476	43.2%	\$41,878	\$26,128	\$68,005
11	40 REACH 04 Berms/Fill	\$14,108	\$10,034	71.1%	\$24,142	8.3%	\$15,275	\$10,865	\$26,140	\$0	\$26,140	43.2%	\$21,880	\$15,562	\$37,442
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Combi-Wall (Offshore)	\$28,861	\$30,501	105.7%	\$59,362	8.3%	\$31,250	\$33,025	\$64,275	\$0	\$64,275	43.2%	\$44,762	\$47,305	\$92,067

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 04 Pump Stations/Interior Drain	\$6,254	\$6,454	103.2%	\$12,708	8.3%	\$6,772	\$6,988	\$13,760	\$0	\$13,760	43.2%	\$9,700	\$10,010	\$19,710
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Large Gates/Closure Structu	\$182,318	\$229,295	125.8%	\$411,613	8.3%	\$197,407	\$248,271	\$445,678	\$0	\$445,678	43.2%	\$282,765	\$355,623	\$638,388
16	40 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Demolition of Bldgs/Structur	\$212	\$150	70.7%	\$362	8.3%	\$229	\$162	\$392	\$0	\$392	43.2%	\$329	\$232	\$561
02	40 REACH 04 Floodproofing Structures	\$1,014	\$930	91.7%	\$1,945	8.3%	\$1,098	\$1,007	\$2,105	\$0	\$2,105	43.2%	\$1,573	\$1,442	\$3,016
ALL	40 REACH 04 Remaining Construction Iter	\$5,895	\$4,411	74.8%	\$10,306	8.3%	\$6,383	\$4,776	\$11,159	\$0	\$11,159	43.2%	\$9,143	\$6,841	\$15,984
0	0	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	90 Reach 01 Overall Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 Reach 02 Overall Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 Reach 03 Overall Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 Reach 04 Overall Utility Relocations	\$26,622	\$70,426	264.5%	\$97,047	8.3%	\$28,825	\$76,254	\$105,079	\$0	\$105,079	417%	\$149,004	\$394,181	\$543,186
10	90 Reach 01 Overall Seismic Ground Impr	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 Reach 02 Overall Seismic Ground Impr	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 Reach 03 Overall Seismic Ground Impr	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 Reach 04 Overall Seismic Ground Impr	\$46,551	\$71,328	153.2%	\$117,879	8.3%	\$50,404	\$77,231	\$127,634	\$0	\$127,634	417%	\$260,551	\$399,230	\$659,781
02	90 REACH 01 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 01 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 01 Berms/Fill	\$1,228	\$874	71.1%	\$2,102	8.3%	\$1,330	\$946	\$2,276	\$0	\$2,276	417%	\$6,876	\$4,890	\$11,766
10	90 REACH 01 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 01 Anchored Walls/T-Wall	\$3,670	\$3,073	83.7%	\$6,742	8.3%	\$3,974	\$3,327	\$7,300	\$0	\$7,300	417%	\$20,541	\$17,197	\$37,738
10	90 REACH 01 Combi-Wall (Offshore)	\$6,034	\$6,376	105.7%	\$12,410	8.3%	\$6,533	\$6,904	\$13,437	\$0	\$13,437	417%	\$33,771	\$35,689	\$69,461
10	90 REACH 01 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 01 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 01 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
ALL	90 REACH 02 Remaining Construction Iter	\$5,241	\$3,921	74.8%	\$9,163	8.3%	\$5,675	\$4,246	\$9,921	\$0	\$9,921	417%	\$29,336	\$21,948	\$51,284
02	90 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 02 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 02 Berms/Fill	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Combi-Wall (Offshore)	\$4,435	\$4,687	105.7%	\$9,122	8.3%	\$4,802	\$5,075	\$9,877	\$0	\$9,877	417%	\$24,823	\$26,233	\$51,056
10	90 REACH 02 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	

**** TOTAL PROJECT COST SUMMARY ****

10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
ALL	90 REACH 02 Remaining Construction Items	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Transportation Corridor	\$4,571	\$3,725	81.5%	\$8,296	8.3%	\$4,949	\$4,034	\$8,982	\$0	\$8,982	417%	\$25,582	\$20,850	\$46,432
02	90 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 03 Plantings/EWN	\$9,117	\$5,688	62.4%	\$14,806	8.3%	\$9,872	\$6,159	\$16,031	\$0	\$16,031	417%	\$51,030	\$31,838	\$82,869
11	90 REACH 03 Berms/Fill	\$21,179	\$15,064	71.1%	\$36,243	8.3%	\$22,932	\$16,310	\$39,243	\$0	\$39,243	417%	\$118,542	\$84,313	\$202,855
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Cantilever Walls/Pile Caps/Walls	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Wharf Replacement	\$10,840	\$7,152	66.0%	\$17,992	8.3%	\$11,737	\$7,744	\$19,481	\$0	\$19,481	417%	\$60,672	\$40,030	\$100,702
10	90 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 03 Pump Stations/Interior Drainage	\$476,405	\$491,645	103.2%	\$968,050	8.3%	\$515,834	\$532,335	\$1,048,168	\$0	\$1,048,168	417%	\$2,666,500	\$2,751,797	\$5,418,297
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Demolition of Bldgs/Structures	\$1,727	\$1,222	70.7%	\$2,949	8.3%	\$1,870	\$1,323	\$3,193	\$0	\$3,193	417%	\$9,668	\$6,840	\$16,508
02	90 REACH 03 Floodproofing Structures	\$1,547	\$1,418	91.7%	\$2,964	8.3%	\$1,675	\$1,535	\$3,210	\$0	\$3,210	417%	\$8,656	\$7,936	\$16,592
ALL	90 REACH 03 Remaining Construction Items	\$16,084	\$12,033	74.8%	\$28,118	8.3%	\$17,416	\$13,029	\$30,445	\$0	\$30,445	417%	\$90,026	\$67,353	\$157,379
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Transportation Corridor	\$10,579	\$8,622	81.5%	\$19,201	8.3%	\$11,454	\$9,336	\$20,790	\$0	\$20,790	417%	\$59,210	\$48,259	\$107,469
02	90 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 04 Plantings/EWN	\$14,840	\$9,259	62.4%	\$24,099	8.3%	\$16,069	\$10,025	\$26,094	\$0	\$26,094	417%	\$83,064	\$51,824	\$134,888
11	90 REACH 04 Berms/Fill	\$13,061	\$9,289	71.1%	\$22,350	8.3%	\$14,142	\$10,058	\$24,200	\$0	\$24,200	417%	\$73,102	\$51,994	\$125,096
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Cantilever Walls/Pile Caps/Walls	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 04 Pump Stations/Interior Drainage	\$520,331	\$536,976	103.2%	\$1,057,307	8.3%	\$563,395	\$581,417	\$1,144,812	\$0	\$1,144,812	417%	\$2,912,357	\$3,005,519	\$5,917,876
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Demolition of Bldgs/Structures	\$27,296	\$19,311	70.7%	\$46,607	8.3%	\$29,555	\$20,910	\$50,464	\$0	\$50,464	417%	\$152,778	\$108,088	\$260,866
02	90 REACH 04 Floodproofing Structures	\$1,803	\$1,653	91.7%	\$3,455	8.3%	\$1,952	\$1,789	\$3,741	\$0	\$3,741	417%	\$10,090	\$9,250	\$19,341
ALL	90 REACH 04 Remaining Construction Items	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
CONSTRUCTION ESTIMATE TOTALS:		\$7,947,607	\$10,068,593		\$18,016,201	8.3%	\$8,605,349	\$10,901,866	\$19,507,215	\$0	\$19,507,215	95.2%	\$17,275,413	\$20,810,065	\$38,085,478

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 01	\$632	\$316	50.0%	\$948	8.3%	\$684	\$342	\$1,026	\$0	\$1,026	7.3%	\$735	\$367	\$1,102
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$4,667	\$2,334	50.0%	\$7,001	8.3%	\$5,053	\$2,527	\$7,580	\$0	\$7,580	7.3%	\$5,424	\$2,712	\$8,136
01	40 LANDS AND DAMAGES Reach 04	\$6,220	\$3,110	50.0%	\$9,330	8.3%	\$6,735	\$3,367	\$10,102	\$0	\$10,102	7.3%	\$7,229	\$3,615	\$10,844
01	90 LANDS AND DAMAGES Reach 01	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$5,488	\$2,744	50.0%	\$8,232	8.3%	\$5,942	\$2,971	\$8,913	\$0	\$8,913	275.1%	\$22,291	\$11,145	\$33,436
01	90 LANDS AND DAMAGES Reach 04	\$79,248	\$39,624	50.0%	\$118,872	8.3%	\$85,807	\$42,903	\$128,710	\$0	\$128,710	275.1%	\$321,886	\$160,943	\$482,830
30	Reach 01 40 PLANNING, ENGINEERING	\$138,213	\$77,433	56.0%	\$215,646	7.4%	\$148,443	\$83,165	\$231,607	\$0	\$231,607	11.3%	\$165,210	\$92,558	\$257,768
30	Reach 02 40 PLANNING, ENGINEERING	\$551,534	\$308,995	56.0%	\$860,529	7.4%	\$592,356	\$331,866	\$924,222	\$0	\$924,222	11.3%	\$659,265	\$369,351	\$1,028,616
30	Reach 03 40 PLANNING, ENGINEERING	\$180,526	\$101,139	56.0%	\$281,665	7.4%	\$193,887	\$108,625	\$302,512	\$0	\$302,512	11.3%	\$215,788	\$120,895	\$336,682
30	Reach 04 40 PLANNING, ENGINEERING	\$87,962	\$49,280	56.0%	\$137,242	7.4%	\$94,472	\$52,928	\$147,400	\$0	\$147,400	11.3%	\$105,143	\$58,906	\$164,049
30	Reach 01 90 PLANNING, ENGINEERING	\$1,558	\$873	56.0%	\$2,431	7.4%	\$1,673	\$937	\$2,610	\$0	\$2,610	203.4%	\$5,076	\$2,844	\$7,920
30	Reach 02 90 PLANNING, ENGINEERING	\$1,379	\$773	56.0%	\$2,151	7.4%	\$1,481	\$830	\$2,311	\$0	\$2,311	203.4%	\$4,493	\$2,517	\$7,010
30	Reach 03 90 PLANNING, ENGINEERING	\$77,160	\$43,228	56.0%	\$120,388	7.4%	\$82,871	\$46,428	\$129,299	\$0	\$129,299	203.4%	\$251,419	\$140,857	\$392,275
30	Reach 04 90 PLANNING, ENGINEERING	\$94,204	\$52,778	56.0%	\$146,982	7.4%	\$101,177	\$56,684	\$157,861	\$0	\$157,861	203.4%	\$306,957	\$171,972	\$478,930
31	Reach 01 40 CONSTRUCTION MANAGE	\$70,319	\$44,363	63.1%	\$114,682	7.4%	\$75,523	\$47,647	\$123,170	\$0	\$123,170	35.5%	\$102,322	\$64,554	\$166,876
31	Reach 02 40 CONSTRUCTION MANAGE	\$280,605	\$177,030	63.1%	\$457,635	7.4%	\$301,374	\$190,133	\$491,507	\$0	\$491,507	35.5%	\$408,313	\$257,599	\$665,912
31	Reach 03 40 CONSTRUCTION MANAGE	\$91,846	\$57,945	63.1%	\$149,791	7.4%	\$98,644	\$62,233	\$160,878	\$0	\$160,878	35.5%	\$133,647	\$84,316	\$217,964
31	Reach 04 40 CONSTRUCTION MANAGE	\$44,752	\$28,234	63.1%	\$72,986	7.4%	\$48,065	\$30,323	\$78,388	\$0	\$78,388	35.5%	\$65,120	\$41,083	\$106,203
31	Reach 01 90 CONSTRUCTION MANAGE	\$793	\$500	63.1%	\$1,293	7.4%	\$851	\$537	\$1,388	\$0	\$1,388	266.3%	\$3,118	\$1,967	\$5,085
31	Reach 02 90 CONSTRUCTION MANAGE	\$702	\$443	63.1%	\$1,144	7.4%	\$753	\$475	\$1,229	\$0	\$1,229	266.3%	\$2,760	\$1,741	\$4,501
31	Reach 03 90 CONSTRUCTION MANAGE	\$39,257	\$24,766	63.1%	\$64,023	7.4%	\$42,162	\$26,600	\$68,762	\$0	\$68,762	266.3%	\$154,430	\$97,428	\$251,857
31	Reach 04 90 CONSTRUCTION MANAGE	\$47,928	\$30,237	63.1%	\$78,166	7.4%	\$51,476	\$32,475	\$83,951	\$0	\$83,951	266.3%	\$188,543	\$118,949	\$307,493
PROJECT COST TOTALS:		\$9,752,598	\$11,114,738	114.0%	\$20,867,336		\$10,544,780	\$12,025,863	\$22,570,642	\$0	\$22,570,642	90.6%	\$20,404,582	\$22,616,385	\$43,020,967

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$43,020,967

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

**** TOTAL PROJECT COST SUMMARY ****

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

DISTRICT: SWT

LOCATION: San Francisco, CA

POC: CHIEF, COST ENGINEERING, xxx

This Estimate reflects the scope and schedule in report; Alternatives Analysis

PREPARED: 8/4/2023

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NC P2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative G Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER A	Civil Works Feature & Sub-Feature Description B	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	Program Year (Budget EC): Effective Price Level Date:					2026 1 OCT 25		INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
						ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K) K					
02	40 Reach 01 Overall Structures Floodproof	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843		\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	40 Reach 02 Overall Structures Floodproof	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304		\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
02	40 Reach 03 Overall Structures Floodproof	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920		\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	40 Reach 04 Overall Structures Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 Reach 01 Overall Utility Relocations	\$6,655	\$17,606	264.5%	\$24,262	8.3%	\$7,206	\$19,064	\$26,270		\$0	\$26,270	43.2%	\$10,322	\$27,307	\$37,629
02	40 Reach 02 Overall Utility Relocations	\$35,274	\$93,314	264.5%	\$128,588	8.3%	\$38,193	\$101,037	\$139,230		\$0	\$139,230	43.2%	\$54,707	\$144,725	\$199,432
02	40 Reach 03 Overall Utility Relocations	\$13,311	\$35,213	264.5%	\$48,524	8.3%	\$14,412	\$38,127	\$52,540		\$0	\$52,540	43.2%	\$20,644	\$54,613	\$75,257
02	40 Reach 04 Overall Utility Relocations	\$11,314	\$29,931	264.5%	\$41,245	8.3%	\$12,251	\$32,408	\$44,659		\$0	\$44,659	43.2%	\$17,548	\$46,421	\$63,969
02	40 Reach 01 Overall Structure Floodproofi	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 Reach 02 Overall Structure Floodproofi	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 Reach 03 Overall Structure Floodproofi	\$15,293	\$14,020	91.7%	\$29,314	8.3%	\$16,559	\$15,181	\$31,740		\$0	\$31,740	43.2%	\$23,719	\$21,745	\$45,464
02	40 Reach 04 Overall Structure Floodproofi	\$15,293	\$14,020	91.7%	\$29,314	8.3%	\$16,559	\$15,181	\$31,740		\$0	\$31,740	43.2%	\$23,719	\$21,745	\$45,464
10	40 Reach 01 Overall Seismic Ground Impr	\$164,999	\$252,819	153.2%	\$417,818	8.3%	\$178,654	\$273,743	\$452,397		\$0	\$452,397	43.2%	\$255,904	\$392,109	\$648,012
10	40 Reach 02 Overall Seismic Ground Impr	\$874,494	\$1,339,943	153.2%	\$2,214,437	8.3%	\$946,866	\$1,450,835	\$2,397,702		\$0	\$2,397,702	43.2%	\$1,356,290	\$2,078,176	\$3,434,466
10	40 Reach 03 Overall Seismic Ground Impr	\$329,998	\$505,639	153.2%	\$835,637	8.3%	\$357,308	\$547,485	\$904,793		\$0	\$904,793	43.2%	\$511,808	\$784,217	\$1,296,025
10	40 Reach 04 Overall Seismic Ground Impr	\$280,498	\$429,793	153.2%	\$710,291	8.3%	\$303,712	\$465,362	\$769,074		\$0	\$769,074	43.2%	\$435,037	\$666,585	\$1,101,621
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$49,473	\$40,323	81.5%	\$89,796	8.3%	\$53,568	\$43,660	\$97,228		\$0	\$97,228	43.2%	\$76,730	\$62,539	\$139,269
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$3,800	\$2,703	71.1%	\$6,503	8.3%	\$4,115	\$2,927	\$7,042		\$0	\$7,042	43.2%	\$5,894	\$4,192	\$10,086
10	40 REACH 01 Ground Improvement/DSM	\$125,688	\$192,586	153.2%	\$318,274	8.3%	\$136,090	\$208,524	\$344,614		\$0	\$344,614	43.2%	\$194,935	\$298,690	\$493,625
10	40 REACH 01 Cantilever Walls/Pile Caps/W	\$64,380	\$35,625	55.3%	\$100,005	8.3%	\$69,708	\$38,574	\$108,282		\$0	\$108,282	43.2%	\$99,850	\$55,253	\$155,102
11	40 REACH 01 Anchored Walls/T-Wall	\$16,053	\$13,440	83.7%	\$29,493	8.3%	\$17,382	\$14,552	\$31,934		\$0	\$31,934	43.2%	\$24,897	\$20,845	\$45,742
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$88,172	\$58,173	66.0%	\$146,346	8.3%	\$95,469	\$62,988	\$158,457		\$0	\$158,457	43.2%	\$136,750	\$90,224	\$226,974
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$23,633	\$24,389	103.2%	\$48,022	8.3%	\$25,589	\$26,407	\$51,996		\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$62,594	\$57,857	92.4%	\$120,451	8.3%	\$67,774	\$62,646	\$130,420		\$0	\$130,420	43.2%	\$97,079	\$89,733	\$186,813
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 01 Remaining Construction Iter	\$10,923	\$8,172	74.8%	\$19,095	8.3%	\$11,827	\$8,848	\$20,675	\$0	\$20,675	43.2%	\$16,941	\$12,674	\$29,616
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Transportation Corridor	\$294,092	\$239,699	81.5%	\$533,791	8.3%	\$318,431	\$259,536	\$577,968	\$0	\$577,968	43.2%	\$456,120	\$371,759	\$827,879
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 02 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 02 Berms/Fill	\$8,683	\$6,176	71.1%	\$14,859	8.3%	\$9,402	\$6,687	\$16,089	\$0	\$16,089	43.2%	\$13,467	\$9,579	\$23,046
10	40 REACH 02 Ground Improvement/DSM	\$215,083	\$329,561	153.2%	\$544,644	8.3%	\$232,883	\$356,835	\$589,718	\$0	\$589,718	43.2%	\$333,582	\$511,131	\$844,712
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$124,518	\$68,903	55.3%	\$193,421	8.3%	\$134,823	\$74,605	\$209,428	\$0	\$209,428	43.2%	\$193,120	\$106,865	\$299,985
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Wharf Replacement	\$282,623	\$186,466	66.0%	\$469,089	8.3%	\$306,012	\$201,898	\$507,910	\$0	\$507,910	43.2%	\$438,332	\$289,198	\$727,530
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Temp Raise/Relocate Repla	\$241,177	\$222,927	92.4%	\$464,104	8.3%	\$261,137	\$241,377	\$502,514	\$0	\$502,514	43.2%	\$374,052	\$345,747	\$719,799
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 02 Remaining Construction Iter	\$18,109	\$13,548	74.8%	\$31,657	8.3%	\$19,608	\$14,669	\$34,277	\$0	\$34,277	43.2%	\$28,086	\$21,013	\$49,099
02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Transportation Corridor	\$111,935	\$91,232	81.5%	\$203,167	8.3%	\$121,198	\$98,782	\$219,981	\$0	\$219,981	43.2%	\$173,604	\$141,496	\$315,100
02	40 REACH 03 Bridge Replacement	\$128,162	\$190,309	148.5%	\$318,472	8.3%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	43.2%	\$198,772	\$295,159	\$493,931
06	40 REACH 03 Plantings/EWN	\$15,169	\$9,464	62.4%	\$24,633	8.3%	\$16,424	\$10,247	\$26,672	\$0	\$26,672	43.2%	\$23,526	\$14,678	\$38,205
11	40 REACH 03 Berms/Fill	\$11,192	\$7,960	71.1%	\$19,152	8.3%	\$12,118	\$8,619	\$20,737	\$0	\$20,737	43.2%	\$17,358	\$12,346	\$29,704
10	40 REACH 03 Ground Improvement/DSM	\$81,752	\$125,264	153.2%	\$207,016	8.3%	\$88,517	\$135,631	\$224,148	\$0	\$224,148	43.2%	\$126,792	\$194,277	\$321,070
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$49,128	\$27,185	55.3%	\$76,313	8.3%	\$53,194	\$29,435	\$82,629	\$0	\$82,629	43.2%	\$76,195	\$42,163	\$118,358
11	40 REACH 03 Anchored Walls/T-Wall	\$33,483	\$28,032	83.7%	\$61,515	8.3%	\$36,254	\$30,352	\$66,606	\$0	\$66,606	43.2%	\$51,929	\$43,476	\$95,406
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Wharf Replacement	\$112,420	\$74,171	66.0%	\$186,591	8.3%	\$121,723	\$80,309	\$202,033	\$0	\$202,033	43.2%	\$174,356	\$115,035	\$289,392
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 03 Pump Stations/Interior Drain	\$131,150	\$135,345	103.2%	\$266,494	8.3%	\$142,004	\$146,546	\$288,550	\$0	\$288,550	43.2%	\$203,406	\$209,912	\$413,318
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Temp Raise/Relocate Repla	\$89,485	\$82,714	92.4%	\$172,199	8.3%	\$96,891	\$89,559	\$186,451	\$0	\$186,451	43.2%	\$138,787	\$128,285	\$267,071
02	40 REACH 03 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 03 Remaining Construction Iter	\$6,948	\$5,198	74.8%	\$12,147	8.3%	\$7,523	\$5,629	\$13,152	\$0	\$13,152	43.2%	\$10,777	\$8,063	\$18,839
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Bridge Replacement	\$72,949	\$108,322	148.5%	\$181,271	8.3%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	43.2%	\$113,139	\$168,001	\$281,140
06	40 REACH 04 Plantings/EWN	\$19,679	\$12,278	62.4%	\$31,957	8.3%	\$21,308	\$13,294	\$34,602	\$0	\$34,602	43.2%	\$30,521	\$19,042	\$49,564
11	40 REACH 04 Berms/Fill	\$18,904	\$13,446	71.1%	\$32,350	8.3%	\$20,469	\$14,558	\$35,027	\$0	\$35,027	43.2%	\$29,319	\$20,853	\$50,173
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 04 Anchored Walls/T-Wall	\$1,084	\$908	83.7%	\$1,992	8.3%	\$1,174	\$983	\$2,157	\$0	\$2,157	43.2%	\$1,682	\$1,408	\$3,089
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$170,493	\$112,486	66.0%	\$282,979	8.3%	\$184,603	\$121,795	\$306,398	\$0	\$306,398	43.2%	\$264,425	\$174,460	\$438,884
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$258,827	\$267,106	103.2%	\$525,932	8.3%	\$280,248	\$289,212	\$569,460	\$0	\$569,460	43.2%	\$401,426	\$414,267	\$815,692
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Demolition of Bldgs/Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction Items	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
0		\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 Reach 01 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 Reach 02 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 Reach 03 Overall Utility Relocations	\$18,901	\$50,002	264.5%	\$68,904	8.3%	\$20,466	\$54,140	\$74,606	\$0	\$74,606	417%	\$105,793	\$279,869	\$385,662
02	90 Reach 04 Overall Utility Relocations	\$7,720	\$20,423	264.5%	\$28,144	8.3%	\$8,359	\$22,114	\$30,473	\$0	\$30,473	417%	\$43,211	\$114,313	\$157,524
10	90 Reach 01 Overall Seismic Ground Improvement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 Reach 02 Overall Seismic Ground Improvement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 Reach 03 Overall Seismic Ground Improvement	\$241,715	\$370,368	153.2%	\$612,083	8.3%	\$261,719	\$401,019	\$662,738	\$0	\$662,738	417%	\$1,352,905	\$2,072,988	\$3,425,893
10	90 Reach 04 Overall Seismic Ground Improvement	\$98,729	\$151,277	153.2%	\$250,006	8.3%	\$106,899	\$163,796	\$270,696	\$0	\$270,696	417%	\$552,595	\$846,713	\$1,399,308
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$2,160	\$1,536	71.1%	\$3,696	8.3%	\$2,338	\$1,663	\$4,001	\$0	\$4,001	417%	\$12,087	\$8,597	\$20,685
10	90 REACH 01 Ground Improvement/DSM	\$21,978	\$33,675	153.2%	\$55,653	8.3%	\$23,796	\$36,462	\$60,258	\$0	\$60,258	417%	\$123,011	\$188,483	\$311,494
10	90 REACH 01 Cantilever Walls/Pile Caps/Wall	\$2,807	\$1,553	55.3%	\$4,360	8.3%	\$3,039	\$1,682	\$4,721	\$0	\$4,721	417%	\$15,712	\$8,694	\$24,406
11	90 REACH 01 Anchored Walls/T-Wall	\$16,053	\$13,440	83.7%	\$29,493	8.3%	\$17,382	\$14,552	\$31,934	\$0	\$31,934	417%	\$89,851	\$75,225	\$165,076
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 01 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Temp Raise/Relocate Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Demolition of Bldgs/Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 01 Remaining Construction Items	\$3,376	\$2,526	74.8%	\$5,902	8.3%	\$3,656	\$2,735	\$6,391	\$0	\$6,391	417%	\$18,898	\$14,139	\$33,037
02	90 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 02 Berms/Fill	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/Wall	\$4,256	\$2,355	55.3%	\$6,611	8.3%	\$4,608	\$2,550	\$7,158	\$0	\$7,158	417%	\$23,822	\$13,182	\$37,004
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

10	90 REACH 02 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Items	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Transportation Corridor	\$693	\$564 81.5%	\$1,257	8.3%	\$750	\$611	\$1,361	\$0	\$1,361	417%	\$3,876	\$3,159	\$7,036	
02	90 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 03 Plantings/EWN	\$28,174	\$17,578 62.4%	\$45,753	8.3%	\$30,506	\$19,033	\$49,539	\$0	\$49,539	417%	\$157,696	\$98,388	\$256,084	
11	90 REACH 03 Berms/Fill	\$42,484	\$30,217 71.1%	\$72,701	8.3%	\$46,000	\$32,718	\$78,718	\$0	\$78,718	417%	\$237,789	\$169,128	\$406,917	
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Cantilever Walls/Pile Caps/Walls	\$1,653	\$915 55.3%	\$2,568	8.3%	\$1,790	\$990	\$2,780	\$0	\$2,780	417%	\$9,253	\$5,120	\$14,373	
11	90 REACH 03 Anchored Walls/T-Wall	\$7,900	\$6,614 83.7%	\$14,515	8.3%	\$8,554	\$7,162	\$15,716	\$0	\$15,716	417%	\$44,219	\$37,021	\$81,240	
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 03 Pump Stations/Interior Drain	\$15,683	\$16,185 103.2%	\$31,867	8.3%	\$16,981	\$17,524	\$34,505	\$0	\$34,505	417%	\$87,779	\$90,587	\$178,366	
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$8,716	\$5,504 63.1%	\$14,219	8.3%	\$9,437	\$5,959	\$15,396	\$0	\$15,396	417%	\$48,782	\$30,804	\$79,586	
10	90 REACH 03 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 03 Armoring	\$4,977	\$2,653 53.3%	\$7,630	8.3%	\$5,389	\$2,872	\$8,262	\$0	\$8,262	417%	\$27,859	\$14,848	\$42,707	
02	90 REACH 03 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Floodproofing Structures	\$40,871	\$37,469 91.7%	\$78,341	8.3%	\$44,254	\$40,570	\$84,824	\$0	\$84,824	417%	\$228,761	\$209,721	\$438,482	
ALL	90 REACH 03 Remaining Construction Items	\$15,871	\$11,874 74.8%	\$27,746	8.3%	\$17,185	\$12,857	\$30,042	\$0	\$30,042	417%	\$88,835	\$66,462	\$155,296	
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 04 Plantings/EWN	\$178,932	\$111,637 62.4%	\$290,568	8.3%	\$193,741	\$120,876	\$314,617	\$0	\$314,617	417%	\$1,001,505	\$624,846	\$1,626,351	
11	90 REACH 04 Berms/Fill	\$51,905	\$36,917 71.1%	\$88,822	8.3%	\$56,201	\$39,973	\$96,173	\$0	\$96,173	417%	\$290,516	\$206,630	\$497,147	
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/Walls	\$1,057	\$585 55.3%	\$1,643	8.3%	\$1,145	\$634	\$1,779	\$0	\$1,779	417%	\$5,919	\$3,275	\$9,194	
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 04 Pump Stations/Interior Drain	\$1,331	\$1,374 103.2%	\$2,705	8.3%	\$1,441	\$1,487	\$2,929	\$0	\$2,929	417%	\$7,450	\$7,689	\$15,139	
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Demolition of Bldgs/Structures	\$48,427	\$34,261 70.7%	\$82,688	8.3%	\$52,435	\$37,097	\$89,532	\$0	\$89,532	417%	\$271,052	\$191,765	\$462,817	
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 04 Remaining Construction Items	\$12,468	\$9,328 74.8%	\$21,795	8.3%	\$13,499	\$10,100	\$23,599	\$0	\$23,599	417%	\$69,783	\$52,208	\$121,991	
CONSTRUCTION ESTIMATE TOTALS:		\$5,681,012	\$6,605,177	\$12,286,189	8.3%	\$6,151,172	\$7,151,820	\$13,302,992	\$0	\$13,302,992	99.5%	\$12,366,857	\$14,172,404	\$26,539,261	

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 01	\$8,706	\$4,353	50.0%	\$13,059	8.3%	\$9,427	\$4,713	\$14,140	\$0	\$14,140	7.3%	\$10,119	\$5,059	\$15,178
01	40 LANDS AND DAMAGES Reach 02	\$380	\$190	50.0%	\$570	8.3%	\$411	\$206	\$617	\$0	\$617	7.3%	\$442	\$221	\$662
01	40 LANDS AND DAMAGES Reach 03	\$20,463	\$10,232	50.0%	\$30,695	8.3%	\$22,157	\$11,078	\$33,235	\$0	\$33,235	7.3%	\$23,783	\$11,892	\$35,675
01	40 LANDS AND DAMAGES Reach 04	\$59,795	\$29,898	50.0%	\$89,693	8.3%	\$64,744	\$32,372	\$97,116	\$0	\$97,116	7.3%	\$69,497	\$34,748	\$104,245
01	90 LANDS AND DAMAGES Reach 01	\$6,243	\$3,122	50.0%	\$9,365	8.3%	\$6,760	\$3,380	\$10,140	\$0	\$10,140	275.1%	\$25,358	\$12,679	\$38,036
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$507,332	\$253,666	50.0%	\$760,998	8.3%	\$549,320	\$274,660	\$823,980	\$0	\$823,980	275.1%	\$2,060,661	\$1,030,330	\$3,090,991
01	90 LANDS AND DAMAGES Reach 04	\$271,086	\$135,543	50.0%	\$406,629	8.3%	\$293,522	\$146,761	\$440,283	\$0	\$440,283	275.1%	\$1,101,086	\$550,543	\$1,651,629
30	Reach 01 40 PLANNING, ENGINEERING	\$90,706	\$50,818	56.0%	\$141,524	7.4%	\$97,420	\$54,579	\$151,999	\$0	\$151,999	11.3%	\$108,423	\$60,744	\$169,167
30	Reach 02 40 PLANNING, ENGINEERING	\$309,138	\$173,194	56.0%	\$482,331	7.4%	\$332,019	\$186,013	\$518,031	\$0	\$518,031	11.3%	\$369,522	\$207,023	\$576,545
30	Reach 03 40 PLANNING, ENGINEERING	\$163,478	\$91,588	56.0%	\$255,066	7.4%	\$175,578	\$98,367	\$273,945	\$0	\$273,945	11.3%	\$195,410	\$109,478	\$304,888
30	Reach 04 40 PLANNING, ENGINEERING	\$120,988	\$67,783	56.0%	\$188,772	7.4%	\$129,943	\$72,800	\$202,744	\$0	\$202,744	11.3%	\$144,621	\$81,024	\$225,645
30	Reach 01 90 PLANNING, ENGINEERING	\$6,608	\$3,702	56.0%	\$10,311	7.4%	\$7,097	\$3,976	\$11,074	\$0	\$11,074	203.4%	\$21,533	\$12,064	\$33,596
30	Reach 02 90 PLANNING, ENGINEERING	\$607	\$340	56.0%	\$946	7.4%	\$651	\$365	\$1,016	\$0	\$1,016	203.4%	\$1,976	\$1,107	\$3,083
30	Reach 03 90 PLANNING, ENGINEERING	\$60,939	\$34,141	56.0%	\$95,079	7.4%	\$65,449	\$36,668	\$102,117	\$0	\$102,117	203.4%	\$198,564	\$111,245	\$309,809
30	Reach 04 90 PLANNING, ENGINEERING	\$57,081	\$31,979	56.0%	\$89,060	7.4%	\$61,306	\$34,346	\$95,652	\$0	\$95,652	203.4%	\$185,994	\$104,203	\$290,197
31	Reach 01 40 CONSTRUCTION MANAGE	\$46,149	\$29,115	63.1%	\$75,263	7.4%	\$49,564	\$31,269	\$80,834	\$0	\$80,834	35.5%	\$67,152	\$42,365	\$109,517
31	Reach 02 40 CONSTRUCTION MANAGE	\$157,281	\$99,226	63.1%	\$256,507	7.4%	\$168,922	\$106,571	\$275,492	\$0	\$275,492	35.5%	\$228,862	\$144,386	\$373,248
31	Reach 03 40 CONSTRUCTION MANAGE	\$83,173	\$52,473	63.1%	\$135,646	7.4%	\$89,329	\$56,357	\$145,686	\$0	\$145,686	35.5%	\$121,027	\$76,354	\$197,381
31	Reach 04 40 CONSTRUCTION MANAGE	\$61,555	\$38,835	63.1%	\$100,390	7.4%	\$66,112	\$41,709	\$107,820	\$0	\$107,820	35.5%	\$89,570	\$56,509	\$146,079
31	Reach 01 90 CONSTRUCTION MANAGE	\$3,362	\$2,121	63.1%	\$5,483	7.4%	\$3,611	\$2,278	\$5,889	\$0	\$5,889	266.3%	\$13,226	\$8,344	\$21,570
31	Reach 02 90 CONSTRUCTION MANAGE	\$309	\$195	63.1%	\$503	7.4%	\$331	\$209	\$540	\$0	\$540	266.3%	\$1,214	\$766	\$1,980
31	Reach 03 90 CONSTRUCTION MANAGE	\$31,004	\$19,560	63.1%	\$50,564	7.4%	\$33,299	\$21,008	\$54,306	\$0	\$54,306	266.3%	\$121,964	\$76,946	\$198,910
31	Reach 04 90 CONSTRUCTION MANAGE	\$29,041	\$18,322	63.1%	\$47,363	7.4%	\$31,191	\$19,678	\$50,869	\$0	\$50,869	266.3%	\$114,244	\$72,075	\$186,319
PROJECT COST TOTALS:		\$7,776,435	\$7,755,570	99.7%	\$15,532,005		\$8,409,334	\$8,391,182	\$16,800,516	\$0	\$16,800,516	106.1%	\$17,641,103	\$16,982,508	\$34,623,611

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$34,623,611

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

LOCATION: San Francisco, CA

This Estimate reflects the scope and schedule in report;

Alternatives Analysis

DISTRICT: SWT

POC: CHIEF, COST ENGINEERING, xxx

PREPARED:

8/4/2023

**Attachment C-10: Array of Alternatives B-G
TPCS –Non-Seismic**

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative B High Curve - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Floodproofing Structures	\$35,081	\$32,162	91.7%	\$67,243	8.3%	\$37,985	\$34,823	\$72,808	\$0	\$72,808	43.2%	\$54,409	\$49,881	\$104,290
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$48,553	\$44,512	91.7%	\$93,065	8.3%	\$52,571	\$48,196	\$100,767	\$0	\$100,767	43.2%	\$75,303	\$69,035	\$144,338
02	40 REACH 03 Demolition of Bldgs/Structur	\$26,487	\$18,739	70.7%	\$45,226	8.3%	\$28,679	\$20,290	\$48,969	\$0	\$48,969	43.2%	\$41,080	\$29,063	\$70,143
02	40 REACH 03 Floodproofing Structures	\$256,325	\$234,991	91.7%	\$491,317	8.3%	\$277,539	\$254,439	\$531,978	\$0	\$531,978	43.2%	\$397,546	\$364,458	\$762,004
02	40 REACH 04 Demolition of Bldgs/Structur	\$14,594	\$10,325	70.7%	\$24,919	8.3%	\$15,802	\$11,179	\$26,981	\$0	\$26,981	43.2%	\$22,634	\$16,013	\$38,647
02	40 REACH 04 Floodproofing Structures	\$40,128	\$36,789	91.7%	\$76,917	8.3%	\$43,449	\$39,833	\$83,283	\$0	\$83,283	43.2%	\$62,237	\$57,057	\$119,294
02	65 REACH 01 Demolition of Bldgs/Structur	\$11,645	\$8,239	70.7%	\$19,884	8.3%	\$12,609	\$8,921	\$21,530	\$0	\$21,530	172.1%	\$34,311	\$24,275	\$58,586
02	65 REACH 01 Floodproofing Structures	\$13,197	\$12,099	91.7%	\$25,296	8.3%	\$14,289	\$13,100	\$27,389	\$0	\$27,389	172.1%	\$38,883	\$35,646	\$74,529
02	65 REACH 02 Demolition of Bldgs/Structur	\$261,070	\$184,703	70.7%	\$445,772	8.3%	\$282,676	\$199,989	\$482,665	\$0	\$482,665	172.1%	\$769,195	\$544,194	\$1,313,390
02	65 REACH 02 Floodproofing Structures	\$8,641	\$7,922	91.7%	\$16,563	8.3%	\$9,356	\$8,577	\$17,933	\$0	\$17,933	172.1%	\$25,459	\$23,340	\$48,799
02	65 REACH 03 Demolition of Bldgs/Structur	\$336,772	\$238,261	70.7%	\$575,033	8.3%	\$364,643	\$257,980	\$622,623	\$0	\$622,623	172.1%	\$992,239	\$701,994	\$1,694,233
02	65 REACH 03 Floodproofing Structures	\$66,616	\$61,071	91.7%	\$127,687	8.3%	\$72,129	\$66,126	\$138,255	\$0	\$138,255	172.1%	\$196,272	\$179,936	\$376,208
02	65 REACH 04 Demolition of Bldgs/Structur	\$67,219	\$47,556	70.7%	\$114,775	8.3%	\$72,782	\$51,492	\$124,274	\$0	\$124,274	172.1%	\$198,048	\$140,116	\$338,164
02	65 REACH 04 Floodproofing Structures	\$30,379	\$27,851	91.7%	\$58,230	8.3%	\$32,894	\$30,156	\$63,050	\$0	\$63,050	172.1%	\$89,508	\$82,058	\$171,566
02	90 REACH 01 Demolition of Bldgs/Structur	\$102,461	\$72,489	70.7%	\$174,950	8.3%	\$110,940	\$78,489	\$189,429	\$0	\$189,429	417%	\$573,485	\$405,732	\$979,217
02	90 REACH 01 Floodproofing Structures	\$27,545	\$25,252	91.7%	\$52,797	8.3%	\$29,824	\$27,342	\$57,166	\$0	\$57,166	417%	\$154,170	\$141,338	\$295,509
02	90 REACH 02 Demolition of Bldgs/Structur	\$286,333	\$202,576	70.7%	\$488,909	8.3%	\$310,030	\$219,342	\$529,372	\$0	\$529,372	417%	\$1,602,640	\$1,133,844	\$2,736,484
02	90 REACH 02 Floodproofing Structures	\$19,752	\$18,108	91.7%	\$37,860	8.3%	\$21,386	\$19,606	\$40,993	\$0	\$40,993	417%	\$110,553	\$101,352	\$211,905
02	90 REACH 03 Demolition of Bldgs/Structur	\$524,400	\$371,005	70.7%	\$895,406	8.3%	\$567,800	\$401,710	\$969,510	\$0	\$969,510	417%	\$2,935,132	\$2,076,562	\$5,011,694
02	90 REACH 03 Floodproofing Structures	\$67,957	\$62,301	91.7%	\$130,258	8.3%	\$73,581	\$67,457	\$141,039	\$0	\$141,039	417%	\$380,365	\$348,707	\$729,072
02	90 REACH 04 Demolition of Bldgs/Structur	\$72,127	\$51,029	70.7%	\$123,156	8.3%	\$78,096	\$55,252	\$133,348	\$0	\$133,348	417%	\$403,704	\$285,615	\$689,319
02	90 REACH 04 Floodproofing Structures	\$35,533	\$32,576	91.7%	\$68,108	8.3%	\$38,474	\$35,271	\$73,745	\$0	\$73,745	417%	\$198,882	\$182,329	\$381,211
02	15 REACH 01 Demolition of Bldgs/Structur	\$59,399	\$42,024	70.7%	\$101,423	8.3%	\$64,315	\$45,502	\$109,817	\$0	\$109,817	884%	\$633,108	\$447,915	\$1,081,023
02	15 REACH 01 Floodproofing Structures	\$22,098	\$20,258	91.7%	\$42,356	8.3%	\$23,926	\$21,935	\$45,862	\$0	\$45,862	884%	\$235,529	\$215,926	\$451,455
02	15 REACH 02 Demolition of Bldgs/Structur	\$150,809	\$106,695	70.7%	\$257,504	8.3%	\$163,290	\$115,525	\$278,816	\$0	\$278,816	884%	\$1,607,408	\$1,137,217	\$2,744,626
02	15 REACH 02 Floodproofing Structures	\$27,764	\$25,453	91.7%	\$53,216	8.3%	\$30,061	\$27,559	\$57,621	\$0	\$57,621	884%	\$295,920	\$271,290	\$567,210
02	15 REACH 03 Demolition of Bldgs/Structur	\$177,744	\$125,752	70.7%	\$303,496	8.3%	\$192,455	\$136,159	\$328,613	\$0	\$328,613	884%	\$1,894,499	\$1,340,330	\$3,234,829
02	15 REACH 03 Floodproofing Structures	\$67,594	\$61,968	91.7%	\$129,563	8.3%	\$73,188	\$67,097	\$140,285	\$0	\$140,285	884%	\$720,458	\$660,493	\$1,380,951
02	15 REACH 04 Demolition of Bldgs/Structur	\$52,569	\$37,191	70.7%	\$89,760	8.3%	\$56,919	\$40,269	\$97,189	\$0	\$97,189	884%	\$560,305	\$396,407	\$956,712
02	15 REACH 04 Floodproofing Structures	\$28,562	\$26,185	91.7%	\$54,746	8.3%	\$30,926	\$28,352	\$59,277	\$0	\$59,277	884%	\$304,428	\$279,090	\$583,518

**** TOTAL PROJECT COST SUMMARY ****

CONSTRUCTION ESTIMATE TOTALS:		\$2,939,354	\$2,246,082		\$5,185,436	8.3%	\$3,182,616	\$2,431,968	\$5,614,584	\$0	\$5,614,584	387.1%	\$15,607,711	\$11,741,214	\$27,348,925
01	40 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	65 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	15 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
30	40 PLANNING, ENGINEERING & DESIGN	\$60,017	\$33,624	56.0%	\$93,641	7.4%	\$64,459	\$36,113	\$100,572	\$0	\$100,572	11.3%	\$71,740	\$40,192	\$111,932
30	65 PLANNING, ENGINEERING & DESIGN	\$113,364	\$63,512	56.0%	\$176,876	7.4%	\$121,755	\$68,213	\$189,968	\$0	\$189,968	86.3%	\$226,821	\$127,076	\$353,897
30	90 PLANNING, ENGINEERING & DESIGN	\$161,895	\$90,701	56.0%	\$252,597	7.4%	\$173,878	\$97,415	\$271,293	\$0	\$271,293	203.4%	\$527,524	\$295,544	\$823,068
30	15 PLANNING, ENGINEERING & DESIGN	\$83,582	\$46,826	56.0%	\$130,408	7.4%	\$89,768	\$50,292	\$140,061	\$0	\$140,061	386.6%	\$436,843	\$244,740	\$681,583
31	40 CONSTRUCTION MANAGEMENT	\$30,535	\$19,264	63.1%	\$49,799	7.4%	\$32,795	\$20,690	\$53,485	\$0	\$53,485	35.5%	\$44,432	\$28,031	\$72,463
31	65 CONSTRUCTION MANAGEMENT	\$57,677	\$36,387	63.1%	\$94,064	7.4%	\$61,946	\$39,081	\$101,026	\$0	\$101,026	123.3%	\$138,297	\$87,250	\$225,547
31	90 CONSTRUCTION MANAGEMENT	\$82,368	\$51,965	63.1%	\$134,333	7.4%	\$88,464	\$55,811	\$144,275	\$0	\$144,275	266.3%	\$324,022	\$204,421	\$528,444
31	15 CONSTRUCTION MANAGEMENT	\$42,524	\$26,828	63.1%	\$69,352	7.4%	\$45,672	\$28,814	\$74,485	\$0	\$74,485	586.4%	\$313,469	\$197,763	\$511,232
PROJECT COST TOTALS:		\$3,571,316	\$2,615,190	73.2%	\$6,186,505		\$3,861,353	\$2,828,396	\$6,689,749	\$0	\$6,689,749	358.3%	\$17,690,859	\$12,966,232	\$30,657,091

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$30,657,091

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT:	SFWS	DISTRICT:	SWT	PREPARED:	8/4/2023
LOCATION:	San Francisco, CA	POC:	CHIEF, COST ENGINEERING, xxx		
This Estimate reflects the scope and schedule in report; Alternatives Analysis					

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative B Intermediate Curve - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	40 REACH 01 Demolition of Bldgs/Structur	\$991	\$701	70.7%	\$1,692	8.3%	\$1,073	\$759	\$1,832	\$0	\$1,832	43.2%	\$1,537	\$1,087	\$2,624
02	40 REACH 01 Floodproofing Structures	\$6,289	\$5,766	91.7%	\$12,055	8.3%	\$6,810	\$6,243	\$13,053	\$0	\$13,053	43.2%	\$9,754	\$8,942	\$18,697
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$9,160	\$8,397	91.7%	\$17,557	8.3%	\$9,918	\$9,092	\$19,010	\$0	\$19,010	43.2%	\$14,206	\$13,024	\$27,230
02	40 REACH 03 Demolition of Bldgs/Structur	\$2,199	\$1,556	70.7%	\$3,756	8.3%	\$2,381	\$1,685	\$4,066	\$0	\$4,066	43.2%	\$3,411	\$2,413	\$5,825
02	40 REACH 03 Floodproofing Structures	\$139,487	\$127,877	91.7%	\$267,364	8.3%	\$151,031	\$138,460	\$289,491	\$0	\$289,491	43.2%	\$216,336	\$198,330	\$414,666
02	40 REACH 04 Demolition of Bldgs/Structur	\$1,161	\$821	70.7%	\$1,982	8.3%	\$1,257	\$889	\$2,146	\$0	\$2,146	43.2%	\$1,801	\$1,274	\$3,075
02	40 REACH 04 Floodproofing Structures	\$20,079	\$18,408	91.7%	\$38,487	8.3%	\$21,741	\$19,931	\$41,672	\$0	\$41,672	43.2%	\$31,142	\$28,550	\$59,692
02	65 REACH 01 Demolition of Bldgs/Structur	\$63	\$45	70.7%	\$108	8.3%	\$69	\$49	\$117	\$0	\$117	172.1%	\$187	\$132	\$319
02	65 REACH 01 Floodproofing Structures	\$714	\$655	91.7%	\$1,369	8.3%	\$773	\$709	\$1,482	\$0	\$1,482	172.1%	\$2,104	\$1,929	\$4,033
02	65 REACH 02 Demolition of Bldgs/Structur	\$722	\$511	70.7%	\$1,233	8.3%	\$782	\$553	\$1,335	\$0	\$1,335	172.1%	\$2,128	\$1,505	\$3,633
02	65 REACH 02 Floodproofing Structures	\$43,276	\$39,674	91.7%	\$82,951	8.3%	\$46,858	\$42,958	\$89,816	\$0	\$89,816	172.1%	\$127,506	\$116,894	\$244,400
02	65 REACH 03 Demolition of Bldgs/Structur	\$40	\$29	70.7%	\$69	8.3%	\$44	\$31	\$75	\$0	\$75	172.1%	\$119	\$84	\$203
02	65 REACH 03 Floodproofing Structures	\$30,926	\$28,352	91.7%	\$59,279	8.3%	\$33,486	\$30,699	\$64,185	\$0	\$64,185	172.1%	\$91,119	\$83,535	\$174,655
02	65 REACH 04 Demolition of Bldgs/Structur	\$3,817	\$2,701	70.7%	\$6,518	8.3%	\$4,133	\$2,924	\$7,057	\$0	\$7,057	172.1%	\$11,247	\$7,957	\$19,204
02	65 REACH 04 Floodproofing Structures	\$6,642	\$6,089	91.7%	\$12,731	8.3%	\$7,192	\$6,593	\$13,785	\$0	\$13,785	172.1%	\$19,570	\$17,941	\$37,510
02	90 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Floodproofing Structures	\$16,552	\$15,174	91.7%	\$31,726	8.3%	\$17,922	\$16,430	\$34,352	\$0	\$34,352	417%	\$92,644	\$84,933	\$177,577
02	90 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$10,307	\$9,450	91.7%	\$19,757	8.3%	\$11,160	\$10,232	\$21,392	\$0	\$21,392	417%	\$57,692	\$52,890	\$110,582
02	90 REACH 03 Demolition of Bldgs/Structur	\$26,403	\$18,680	70.7%	\$45,082	8.3%	\$28,588	\$20,225	\$48,813	\$0	\$48,813	417%	\$147,779	\$104,552	\$252,331
02	90 REACH 03 Floodproofing Structures	\$54,279	\$49,761	91.7%	\$104,040	8.3%	\$58,771	\$53,879	\$112,650	\$0	\$112,650	417%	\$303,805	\$278,519	\$582,323
02	90 REACH 04 Demolition of Bldgs/Structur	\$14,336	\$10,142	70.7%	\$24,478	8.3%	\$15,522	\$10,982	\$26,504	\$0	\$26,504	417%	\$80,239	\$56,768	\$137,007
02	90 REACH 04 Floodproofing Structures	\$6,180	\$5,666	91.7%	\$11,846	8.3%	\$6,692	\$6,135	\$12,826	\$0	\$12,826	417%	\$34,591	\$31,712	\$66,303
02	15 REACH 01 Demolition of Bldgs/Structur	\$11,262	\$7,967	70.7%	\$19,229	8.3%	\$12,194	\$8,627	\$20,821	\$0	\$20,821	884%	\$120,033	\$84,922	\$204,955
02	15 REACH 01 Floodproofing Structures	\$10,972	\$10,059	91.7%	\$21,031	8.3%	\$11,880	\$10,891	\$22,772	\$0	\$22,772	884%	\$116,948	\$107,214	\$224,161
02	15 REACH 02 Demolition of Bldgs/Structur	\$621	\$439	70.7%	\$1,060	8.3%	\$672	\$475	\$1,147	\$0	\$1,147	884%	\$6,615	\$4,680	\$11,295
02	15 REACH 02 Floodproofing Structures	\$3,464	\$3,176	91.7%	\$6,640	8.3%	\$3,751	\$3,439	\$7,189	\$0	\$7,189	884%	\$36,923	\$33,849	\$70,772
02	15 REACH 03 Demolition of Bldgs/Structur	\$29	\$20	70.7%	\$49	8.3%	\$31	\$22	\$53	\$0	\$53	884%	\$304	\$215	\$520
02	15 REACH 03 Floodproofing Structures	\$30,456	\$27,921	91.7%	\$58,376	8.3%	\$32,976	\$30,231	\$63,208	\$0	\$63,208	884%	\$324,613	\$297,595	\$622,207
02	15 REACH 04 Demolition of Bldgs/Structur	\$8,031	\$5,682	70.7%	\$13,712	8.3%	\$8,695	\$6,152	\$14,847	\$0	\$14,847	884%	\$85,595	\$60,557	\$146,152
02	15 REACH 04 Floodproofing Structures	\$3,334	\$3,057	91.7%	\$6,391	8.3%	\$3,610	\$3,310	\$6,920	\$0	\$6,920	884%	\$35,540	\$32,582	\$68,122

**** TOTAL PROJECT COST SUMMARY ****

CONSTRUCTION ESTIMATE TOTALS:		\$461,793	\$408,776		\$870,569	8.3%	\$500,011	\$442,606	\$942,618	\$0	\$942,618	291.5%	\$1,975,486	\$1,714,586	\$3,690,072
01	40 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	65 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	15 LANDS AND DAMAGES	\$0	\$0	25.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
30	40 PLANNING, ENGINEERING & DESIGN	\$25,560	\$14,320	56.0%	\$39,879	7.4%	\$27,452	\$15,380	\$42,831	\$0	\$42,831	11.3%	\$30,552	\$17,117	\$47,669
30	65 PLANNING, ENGINEERING & DESIGN	\$12,284	\$6,882	56.0%	\$19,166	7.4%	\$13,193	\$7,391	\$20,584	\$0	\$20,584	86.3%	\$24,578	\$13,770	\$38,347
30	90 PLANNING, ENGINEERING & DESIGN	\$18,248	\$10,223	56.0%	\$28,472	7.4%	\$19,599	\$10,980	\$30,579	\$0	\$30,579	203.4%	\$59,460	\$33,312	\$92,772
30	15 PLANNING, ENGINEERING & DESIGN	\$9,714	\$5,442	56.0%	\$15,156	7.4%	\$10,433	\$5,845	\$16,278	\$0	\$16,278	386.6%	\$50,770	\$28,444	\$79,214
31	40 CONSTRUCTION MANAGEMENT	\$13,004	\$8,204	63.1%	\$21,208	7.4%	\$13,967	\$8,811	\$22,778	\$0	\$22,778	35.5%	\$18,922	\$11,938	\$30,860
31	65 CONSTRUCTION MANAGEMENT	\$6,250	\$3,943	63.1%	\$10,192	7.4%	\$6,712	\$4,235	\$10,947	\$0	\$10,947	123.3%	\$14,985	\$9,454	\$24,440
31	90 CONSTRUCTION MANAGEMENT	\$9,284	\$5,857	63.1%	\$15,141	7.4%	\$9,971	\$6,291	\$16,262	\$0	\$16,262	266.3%	\$36,522	\$23,041	\$59,564
31	15 CONSTRUCTION MANAGEMENT	\$4,942	\$3,118	63.1%	\$8,060	7.4%	\$5,308	\$3,349	\$8,657	\$0	\$8,657	586.4%	\$36,432	\$22,984	\$59,416
PROJECT COST TOTALS:		\$561,079	\$466,765	83.2%	\$1,027,844		\$606,646	\$504,888	\$1,111,533	\$0	\$1,111,533	270.9%	\$2,247,708	\$1,874,646	\$4,122,354

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$4,122,354

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative C non-Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	Reach 01 40 Overall Structures Floodproof	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	Reach 02 40 Overall Structures Floodproof	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
10	Reach 03 40 Overall Structures Floodproof	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
10	Reach 04 40 Overall Structures Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 01 40 Overall Utility Relocations	\$666	\$1,761	264.5%	\$2,426	8.3%	\$721	\$1,906	\$2,627	\$0	\$2,627	43.2%	\$1,032	\$2,731	\$3,763
10	Reach 02 40 Overall Utility Relocations	\$3,594	\$9,507	264.5%	\$13,101	8.3%	\$3,891	\$10,294	\$14,186	\$0	\$14,186	43.2%	\$5,574	\$14,746	\$20,320
10	Reach 03 40 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	43.2%	\$2,477	\$6,554	\$9,031
02	Reach 04 40 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	43.2%	\$11,561	\$30,583	\$42,144
10	Reach 01 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 02 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 01 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 02 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$4,118	\$3,356	81.5%	\$7,474	8.3%	\$4,458	\$3,634	\$8,092	\$0	\$8,092	43.2%	\$6,386	\$5,205	\$11,591
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$724	\$515	71.1%	\$1,239	8.3%	\$784	\$557	\$1,341	\$0	\$1,341	43.2%	\$1,123	\$799	\$1,921
10	40 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Cantilever Walls/Pile Caps/W	\$5,622	\$3,111	55.3%	\$8,734	8.3%	\$6,088	\$3,369	\$9,456	\$0	\$9,456	43.2%	\$8,720	\$4,825	\$13,545
11	40 REACH 01 Anchored Walls/T-Wall	\$18,023	\$15,089	83.7%	\$33,113	8.3%	\$19,515	\$16,338	\$35,853	\$0	\$35,853	43.2%	\$27,953	\$23,403	\$51,356
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$3,322	\$3,428	103.2%	\$6,751	8.3%	\$3,597	\$3,712	\$7,309	\$0	\$7,309	43.2%	\$5,152	\$5,317	\$10,470
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$365	\$231	63.1%	\$596	8.3%	\$395	\$250	\$645	\$0	\$645	43.2%	\$566	\$358	\$924
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$12,463	\$11,520	92.4%	\$23,983	8.3%	\$13,495	\$12,473	\$25,968	\$0	\$25,968	43.2%	\$19,330	\$17,867	\$37,197
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 01 Remaining Construction Items	\$7,587	\$5,676	74.8%	\$13,263	8.3%	\$8,215	\$6,146	\$14,361	\$0	\$14,361	43.2%	\$11,767	\$8,804	\$20,571
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 02 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 02 Berms/Fill	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Cantilever Walls/Pile Caps/Walls	\$8,178	\$4,525	55.3%	\$12,703	8.3%	\$8,855	\$4,900	\$13,754	\$0	\$13,754	43.2%	\$12,683	\$7,018	\$19,702
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Pump Stations/Interior Drainage	\$4,509	\$4,653	103.2%	\$9,162	8.3%	\$4,882	\$5,038	\$9,921	\$0	\$9,921	43.2%	\$6,993	\$7,217	\$14,211
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$5,475	\$3,458	63.1%	\$8,933	8.3%	\$5,929	\$3,744	\$9,672	\$0	\$9,672	43.2%	\$8,492	\$5,363	\$13,855
10	40 REACH 02 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 02 Remaining Construction Items	\$9,639	\$7,212	74.8%	\$16,851	8.3%	\$10,437	\$7,808	\$18,245	\$0	\$18,245	43.2%	\$14,950	\$11,185	\$26,135
02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Transportation Corridor	\$7,219	\$5,884	81.5%	\$13,104	8.3%	\$7,817	\$6,371	\$14,188	\$0	\$14,188	43.2%	\$11,197	\$9,126	\$20,323
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 03 Berms/Fill	\$10,173	\$7,236	71.1%	\$17,409	8.3%	\$11,015	\$7,835	\$18,850	\$0	\$18,850	43.2%	\$15,778	\$11,222	\$27,001
10	40 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Cantilever Walls/Pile Caps/Walls	\$6,581	\$3,641	55.3%	\$10,222	8.3%	\$7,125	\$3,943	\$11,068	\$0	\$11,068	43.2%	\$10,206	\$5,648	\$15,854
11	40 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Wharf Replacement	\$50,091	\$33,049	66.0%	\$83,140	8.3%	\$54,236	\$35,784	\$90,020	\$0	\$90,020	43.2%	\$77,688	\$51,256	\$128,945
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drainage	\$69,920	\$72,156	103.2%	\$142,076	8.3%	\$75,706	\$78,128	\$153,835	\$0	\$153,835	43.2%	\$108,442	\$111,910	\$220,352
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$10,879	\$6,870	63.1%	\$17,749	8.3%	\$11,779	\$7,438	\$19,218	\$0	\$19,218	43.2%	\$16,873	\$10,655	\$27,528
10	40 REACH 03 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Demolition of Bldgs/Structures	\$974	\$689	70.7%	\$1,664	8.3%	\$1,055	\$746	\$1,801	\$0	\$1,801	43.2%	\$1,511	\$1,069	\$2,580
02	40 REACH 03 Floodproofing Structures	\$15,609	\$14,309	91.7%	\$29,918	8.3%	\$16,900	\$15,494	\$32,394	\$0	\$32,394	43.2%	\$24,208	\$22,193	\$46,401
ALL	40 REACH 03 Remaining Construction Items	\$14,279	\$10,683	74.8%	\$24,961	8.3%	\$15,460	\$11,567	\$27,027	\$0	\$27,027	43.2%	\$22,146	\$16,568	\$38,714
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Bridge Replacement	\$29,576	\$43,917	148.5%	\$73,493	8.3%	\$32,023	\$47,552	\$79,575	\$0	\$79,575	43.2%	\$45,870	\$68,113	\$113,983
06	40 REACH 04 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 04 Berms/Fill	\$9,339	\$6,642	71.1%	\$15,981	8.3%	\$10,112	\$7,192	\$17,304	\$0	\$17,304	43.2%	\$14,484	\$10,302	\$24,786
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Cantilever Walls/Pile Caps/Walls	\$3,287	\$1,819	55.3%	\$5,106	8.3%	\$3,559	\$1,970	\$5,529	\$0	\$5,529	43.2%	\$5,098	\$2,821	\$7,919
11	40 REACH 04 Anchored Walls/T-Wall	\$20,517	\$17,177	83.7%	\$37,695	8.3%	\$22,215	\$18,599	\$40,815	\$0	\$40,815	43.2%	\$31,821	\$26,641	\$58,462
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$170,499	\$112,490	66.0%	\$282,989	8.3%	\$184,609	\$121,799	\$306,409	\$0	\$306,409	43.2%	\$264,434	\$174,466	\$438,899
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$68,529	\$70,721	103.2%	\$139,249	8.3%	\$74,200	\$76,574	\$150,774	\$0	\$150,774	43.2%	\$106,284	\$109,684	\$215,968
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Demolition of Bldgs/Structur	\$2,713	\$1,919	70.7%	\$4,632	8.3%	\$2,937	\$2,078	\$5,015	\$0	\$5,015	43.2%	\$4,207	\$2,976	\$7,184
02	40 REACH 04 Floodproofing Structures	\$864	\$793	91.7%	\$1,657	8.3%	\$936	\$858	\$1,794	\$0	\$1,794	43.2%	\$1,341	\$1,229	\$2,570
ALL	40 REACH 04 Remaining Construction Iter	\$3,230	\$2,417	74.8%	\$5,647	8.3%	\$3,498	\$2,617	\$6,114	\$0	\$6,114	43.2%	\$5,010	\$3,748	\$8,758
CONSTRUCTION ESTIMATE TOTALS:		\$646,913	\$564,762		\$1,211,676	8.3%	\$700,452	\$611,503	\$1,311,955	\$0	\$1,311,955	43.2%	\$1,003,326	\$875,914	\$1,879,240
01	40 LANDS AND DAMAGES Reach 01	\$2,679	\$1,340	50.0%	\$4,019	8.3%	\$2,901	\$1,450	\$4,351	\$0	\$4,351	0.0%	\$3,114	\$1,557	\$4,670
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$869	\$435	50.0%	\$1,304	8.3%	\$941	\$470	\$1,411	\$0	\$1,411	0.0%	\$1,010	\$505	\$1,515
01	40 LANDS AND DAMAGES Reach 04	\$16,310	\$8,155	50.0%	\$24,465	8.3%	\$17,660	\$8,830	\$26,490	\$0	\$26,490	0.0%	\$18,956	\$9,478	\$28,434
30	Reach 01 40 PLANNING, ENGINEERING	\$10,410	\$5,832	56.0%	\$16,242	7.4%	\$11,180	\$6,264	\$17,444	\$0	\$17,444	11.3%	\$12,443	\$6,971	\$19,414
30	Reach 02 40 PLANNING, ENGINEERING	\$7,516	\$4,211	56.0%	\$11,727	7.4%	\$8,072	\$4,522	\$12,595	\$0	\$12,595	11.3%	\$8,984	\$5,033	\$14,017
30	Reach 03 40 PLANNING, ENGINEERING	\$29,228	\$16,375	56.0%	\$45,603	7.4%	\$31,392	\$17,587	\$48,979	\$0	\$48,979	11.3%	\$34,938	\$19,574	\$54,511
30	Reach 04 40 PLANNING, ENGINEERING	\$45,031	\$25,229	56.0%	\$70,260	7.4%	\$48,364	\$27,096	\$75,460	\$0	\$75,460	11.3%	\$53,827	\$30,156	\$83,984
31	Reach 01 40 CONSTRUCTION MANAGEI	\$5,296	\$3,341	63.1%	\$8,638	7.4%	\$5,688	\$3,589	\$9,277	\$0	\$9,277	35.5%	\$7,707	\$4,862	\$12,569
31	Reach 02 40 CONSTRUCTION MANAGEI	\$3,824	\$2,412	63.1%	\$6,236	7.4%	\$4,107	\$2,591	\$6,698	\$0	\$6,698	35.5%	\$5,564	\$3,510	\$9,074
31	Reach 03 40 CONSTRUCTION MANAGEI	\$14,871	\$9,382	63.1%	\$24,252	7.4%	\$15,971	\$10,076	\$26,047	\$0	\$26,047	35.5%	\$21,638	\$13,651	\$35,290
31	Reach 04 40 CONSTRUCTION MANAGEI	\$22,911	\$14,454	63.1%	\$37,365	7.4%	\$24,606	\$15,524	\$40,130	\$0	\$40,130	35.5%	\$33,338	\$21,032	\$54,370
PROJECT COST TOTALS:		\$805,858	\$655,927	81.4%	\$1,461,785		\$871,335	\$709,502	\$1,580,837	\$0	\$1,580,837	39.0%	\$1,204,844	\$992,245	\$2,197,089

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$2,197,089

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

_____ CHIEF, CONTRACTING,xxx

_____ CHIEF, PM-PB, xxxx

_____ CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS
LOCATION: San Francisco, CA
This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative D non-Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	Reach 01 40 Overall Structures Floodproof	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	Reach 02 40 Overall Structures Floodproof	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
10	Reach 03 40 Overall Structures Floodproof	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
10	Reach 04 40 Overall Structures Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 01 40 Overall Utility Relocations	\$666	\$1,761	264.5%	\$2,426	8.3%	\$721	\$1,906	\$2,627	\$0	\$2,627	43.2%	\$1,032	\$2,731	\$3,763
10	Reach 02 40 Overall Utility Relocations	\$3,594	\$9,507	264.5%	\$13,101	8.3%	\$3,891	\$10,294	\$14,186	\$0	\$14,186	43.2%	\$5,574	\$14,746	\$20,320
10	Reach 03 40 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	43.2%	\$2,477	\$6,554	\$9,031
02	Reach 04 40 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	43.2%	\$11,561	\$30,583	\$42,144
10	Reach 01 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 02 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 01 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 02 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$996	\$709	71.1%	\$1,705	8.3%	\$1,079	\$767	\$1,846	\$0	\$1,846	43.2%	\$1,545	\$1,099	\$2,645
10	40 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Cantilever Walls/Pile Caps/W	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Anchored Walls/T-Wall	\$19,280	\$16,142	83.7%	\$35,422	8.3%	\$20,876	\$17,478	\$38,354	\$0	\$38,354	43.2%	\$29,903	\$25,035	\$54,938
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$3,322	\$3,428	103.2%	\$6,749	8.3%	\$3,596	\$3,711	\$7,308	\$0	\$7,308	43.2%	\$5,152	\$5,316	\$10,468
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$4,396	\$4,063	92.4%	\$8,459	8.3%	\$4,760	\$4,399	\$9,159	\$0	\$9,159	43.2%	\$6,818	\$6,302	\$13,119
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$1,774	\$1,626	91.7%	\$3,400	8.3%	\$1,921	\$1,761	\$3,681	\$0	\$3,681	43.2%	\$2,751	\$2,522	\$5,273
ALL	40 REACH 01 Remaining Construction Iter	\$5,009	\$3,748	74.8%	\$8,757	8.3%	\$5,424	\$4,058	\$9,482	\$0	\$9,482	43.2%	\$7,769	\$5,813	\$13,582
02	40 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 02 Berms/Fill	\$5,535	\$3,937	71.1%	\$9,472	8.3%	\$5,994	\$4,263	\$10,256	\$0	\$10,256	43.2%	\$8,585	\$6,106	\$14,691
10	40 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Cantilever Walls/Pile Caps/W	\$554	\$306	55.3%	\$860	8.3%	\$599	\$332	\$931	\$0	\$931	43.2%	\$859	\$475	\$1,334
11	40 REACH 02 Anchored Walls/T-Wall	\$18,617	\$15,587	83.7%	\$34,204	8.3%	\$20,158	\$16,877	\$37,035	\$0	\$37,035	43.2%	\$28,874	\$24,174	\$53,048
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Pump Stations/Interior Drain	\$4,509	\$4,653	103.2%	\$9,161	8.3%	\$4,882	\$5,038	\$9,920	\$0	\$9,920	43.2%	\$6,993	\$7,216	\$14,209
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$261	\$240	91.7%	\$501	8.3%	\$283	\$260	\$543	\$0	\$543	43.2%	\$406	\$372	\$777
ALL	40 REACH 02 Remaining Construction Iter	\$5,037	\$3,768	74.8%	\$8,805	8.3%	\$5,453	\$4,080	\$9,533	\$0	\$9,533	43.2%	\$7,812	\$5,844	\$13,656
02	40 REACH 03 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 03 Plantings/EWN	\$1,453	\$907	62.4%	\$2,360	8.3%	\$1,574	\$982	\$2,556	\$0	\$2,556	43.2%	\$2,254	\$1,406	\$3,661
11	40 REACH 03 Berms/Fill	\$11,406	\$8,113	71.1%	\$19,519	8.3%	\$12,350	\$8,784	\$21,134	\$0	\$21,134	43.2%	\$17,690	\$12,582	\$30,272
10	40 REACH 03 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Cantilever Walls/Pile Caps/W	\$280	\$155	55.3%	\$435	8.3%	\$303	\$168	\$471	\$0	\$471	43.2%	\$434	\$240	\$674
11	40 REACH 03 Anchored Walls/T-Wall	\$12,958	\$10,848	83.7%	\$23,806	8.3%	\$14,030	\$11,746	\$25,776	\$0	\$25,776	43.2%	\$20,096	\$16,825	\$36,921
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Wharf Replacement	\$29,312	\$19,339	66.0%	\$48,650	8.3%	\$31,737	\$20,939	\$52,677	\$0	\$52,677	43.2%	\$45,461	\$29,994	\$75,454
10	40 REACH 03 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 03 Pump Stations/Interior Drain	\$69,918	\$72,154	103.2%	\$142,072	8.3%	\$75,704	\$78,126	\$153,830	\$0	\$153,830	43.2%	\$108,439	\$111,907	\$220,346
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$9,267	\$5,852	63.1%	\$15,118	8.3%	\$10,034	\$6,336	\$16,369	\$0	\$16,369	43.2%	\$14,372	\$9,076	\$23,448
10	40 REACH 03 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Demolition of Bldgs/Structur	\$69	\$49	70.7%	\$118	8.3%	\$75	\$53	\$128	\$0	\$128	43.2%	\$107	\$76	\$183
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 03 Remaining Construction Iter	\$8,841	\$6,614	74.8%	\$15,455	8.3%	\$9,573	\$7,162	\$16,734	\$0	\$16,734	43.2%	\$13,712	\$10,258	\$23,970
02	40 REACH 04 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 04 Plantings/EWN	\$13,243	\$8,262	62.4%	\$21,505	8.3%	\$14,339	\$8,946	\$23,285	\$0	\$23,285	43.2%	\$20,539	\$12,814	\$33,353
11	40 REACH 04 Berms/Fill	\$15,990	\$11,373	71.1%	\$27,363	8.3%	\$17,314	\$12,314	\$29,628	\$0	\$29,628	43.2%	\$24,800	\$17,639	\$42,439
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/W	\$11,533	\$6,382	55.3%	\$17,915	8.3%	\$12,487	\$6,910	\$19,397	\$0	\$19,397	43.2%	\$17,887	\$9,898	\$27,784
11	40 REACH 04 Anchored Walls/T-Wall	\$5,765	\$4,826	83.7%	\$10,591	8.3%	\$6,242	\$5,226	\$11,467	\$0	\$11,467	43.2%	\$8,940	\$7,485	\$16,425
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$170,489	\$112,483	66.0%	\$282,972	8.3%	\$184,598	\$121,792	\$306,391	\$0	\$306,391	43.2%	\$264,418	\$174,455	\$438,874
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$68,526	\$70,718	103.2%	\$139,244	8.3%	\$74,197	\$76,571	\$150,768	\$0	\$150,768	43.2%	\$106,280	\$109,680	\$215,960
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$1,610	\$1,016	63.1%	\$2,626	8.3%	\$1,743	\$1,101	\$2,843	\$0	\$2,843	43.2%	\$2,496	\$1,576	\$4,073
10	40 REACH 04 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$3,117	\$1,661	53.3%	\$4,778	8.3%	\$3,375	\$1,799	\$5,173	\$0	\$5,173	43.2%	\$4,834	\$2,576	\$7,410
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Demolition of Bldgs/Structur	\$3,029	\$2,143	70.7%	\$5,172	8.3%	\$3,280	\$2,320	\$5,600	\$0	\$5,600	43.2%	\$4,698	\$3,324	\$8,021
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction Iter	\$3,949	\$2,954	74.8%	\$6,903	8.3%	\$4,276	\$3,199	\$7,475	\$0	\$7,475	43.2%	\$6,125	\$4,582	\$10,707
0	0	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 01 90 Overall Utility Relocations	\$4,526	\$11,972	264.5%	\$16,498	8.3%	\$4,900	\$12,963	\$17,863	\$0	\$17,863	417%	\$25,331	\$67,011	\$92,342
10	Reach 02 90 Overall Utility Relocations	\$4,792	\$12,677	264.5%	\$17,469	8.3%	\$5,188	\$13,726	\$18,914	\$0	\$18,914	417%	\$26,821	\$70,953	\$97,773
10	Reach 03 90 Overall Utility Relocations	\$3,993	\$10,564	264.5%	\$14,557	8.3%	\$4,324	\$11,438	\$15,762	\$0	\$15,762	417%	\$22,351	\$59,127	\$81,478
02	Reach 04 90 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$1	\$1	0%	\$0	\$0	\$1
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$4,672	\$3,323	71.1%	\$7,995	8.3%	\$5,058	\$3,598	\$8,656	\$0	\$8,656	417%	\$26,149	\$18,598	\$44,747
10	90 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Cantilever Walls/Pile Caps/	\$1,819	\$1,006	55.3%	\$2,825	8.3%	\$1,969	\$1,090	\$3,059	\$0	\$3,059	417%	\$10,180	\$5,633	\$15,813
11	90 REACH 01 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Wharf Replacement	\$88,170	\$58,172	66.0%	\$146,342	8.3%	\$95,467	\$62,986	\$158,453	\$0	\$158,453	417%	\$493,497	\$325,595	\$819,092
10	90 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 01 Pump Stations/Interior Drain	\$21,963	\$22,665	103.2%	\$44,628	8.3%	\$23,781	\$24,541	\$48,322	\$0	\$48,322	417%	\$122,929	\$126,861	\$249,790
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Temp Raise/Relocate Repla	\$62,594	\$57,857	92.4%	\$120,451	8.3%	\$67,774	\$62,645	\$130,419	\$0	\$130,419	417%	\$350,344	\$323,834	\$674,178
02	90 REACH 01 Demolition of Bldgs/Structur	\$497	\$352	70.7%	\$848	8.3%	\$538	\$381	\$919	\$0	\$919	417%	\$2,781	\$1,968	\$4,749
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Iter	\$8,382	\$6,271	74.8%	\$14,653	8.3%	\$9,076	\$6,790	\$15,866	\$0	\$15,866	417%	\$46,916	\$35,100	\$82,016
02	90 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 02 Berms/Fill	\$4,316	\$3,069	71.1%	\$7,385	8.3%	\$4,673	\$3,323	\$7,996	\$0	\$7,996	417%	\$24,155	\$17,180	\$41,335
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/	\$2,355	\$1,303	55.3%	\$3,658	8.3%	\$2,550	\$1,411	\$3,961	\$0	\$3,961	417%	\$13,180	\$7,293	\$20,473
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Wharf Replacement	\$282,616	\$186,462	66.0%	\$469,078	8.3%	\$306,005	\$201,893	\$507,898	\$0	\$507,898	417%	\$1,581,833	\$1,043,646	\$2,625,479
10	90 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Pump Stations/Interior Drain	\$53,443	\$55,152	103.2%	\$108,595	8.3%	\$57,866	\$59,717	\$117,583	\$0	\$117,583	417%	\$299,126	\$308,694	\$607,820
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	90 REACH 02 Temp Raise/Relocate Repla	\$241,177	\$222,927	92.4%	\$464,104	8.3%	\$261,137	\$241,376	\$502,513	\$0	\$502,513	417%	\$1,349,895	\$1,247,748	\$2,597,643
02	90 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Iter	\$4,398	\$3,290	74.8%	\$7,689	8.3%	\$4,762	\$3,563	\$8,325	\$0	\$8,325	417%	\$24,617	\$18,417	\$43,034
02	90 REACH 03 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Bridge Replacement	\$128,162	\$190,309	148.5%	\$318,472	8.3%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	417%	\$717,340	\$1,065,184	\$1,782,524
06	90 REACH 03 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 03 Berms/Fill	\$8,953	\$6,368	71.1%	\$15,322	8.3%	\$9,695	\$6,895	\$16,590	\$0	\$16,590	417%	\$50,114	\$35,643	\$85,757
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Cantilever Walls/Pile Caps/A	\$2,697	\$1,493	55.3%	\$4,190	8.3%	\$2,920	\$1,616	\$4,537	\$0	\$4,537	417%	\$15,097	\$8,354	\$23,451
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Wharf Replacement	\$83,104	\$54,830	66.0%	\$137,934	8.3%	\$89,982	\$59,367	\$149,349	\$0	\$149,349	417%	\$465,142	\$306,887	\$772,029
10	90 REACH 03 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 03 Pump Stations/Interior Drain	\$76,870	\$79,329	103.2%	\$156,199	8.3%	\$83,232	\$85,894	\$169,126	\$0	\$169,126	417%	\$430,250	\$444,013	\$874,263
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 03 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Temp Raise/Relocate Repla	\$94,853	\$87,676	92.4%	\$182,529	8.3%	\$102,703	\$94,932	\$197,635	\$0	\$197,635	417%	\$530,904	\$490,731	\$1,021,635
02	90 REACH 03 Demolition of Bldgs/Structur	\$341	\$241	70.7%	\$582	8.3%	\$369	\$261	\$630	\$0	\$630	417%	\$1,908	\$1,350	\$3,258
02	90 REACH 03 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 03 Remaining Construction Iter	\$6,211	\$4,647	74.8%	\$10,857	8.3%	\$6,725	\$5,031	\$11,756	\$0	\$11,756	417%	\$34,762	\$26,007	\$60,769
02	90 REACH 04 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Bridge Replacement	\$72,949	\$108,322	148.5%	\$181,271	8.3%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	417%	\$408,302	\$606,291	\$1,014,594
06	90 REACH 04 Plantings/EWN	\$7,149	\$4,460	62.4%	\$11,609	8.3%	\$7,741	\$4,829	\$12,570	\$0	\$12,570	417%	\$40,013	\$24,965	\$64,978
11	90 REACH 04 Berms/Fill	\$4,864	\$3,459	71.1%	\$8,323	8.3%	\$5,266	\$3,746	\$9,012	\$0	\$9,012	417%	\$27,223	\$19,363	\$46,586
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/A	\$5,076	\$2,809	55.3%	\$7,884	8.3%	\$5,496	\$3,041	\$8,537	\$0	\$8,537	417%	\$28,409	\$15,720	\$44,129
11	90 REACH 04 Anchored Walls/T-Wall	\$2,482	\$2,078	83.7%	\$4,559	8.3%	\$2,687	\$2,250	\$4,936	\$0	\$4,936	417%	\$13,889	\$11,628	\$25,518
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 04 Pump Stations/Interior Drain	\$201,326	\$207,766	103.2%	\$409,092	8.3%	\$217,988	\$224,961	\$442,949	\$0	\$442,949	417%	\$1,126,846	\$1,162,892	\$2,289,738
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 04 Armoring	\$525	\$280	53.3%	\$805	8.3%	\$569	\$303	\$872	\$0	\$872	417%	\$2,940	\$1,567	\$4,507
02	90 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Demolition of Bldgs/Structur	\$374	\$265	70.7%	\$639	8.3%	\$405	\$287	\$692	\$0	\$692	417%	\$2,094	\$1,481	\$3,575
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 04 Remaining Construction Iter	\$2,920	\$2,185	74.8%	\$5,105	8.3%	\$3,162	\$2,366	\$5,528	\$0	\$5,528	417%	\$16,345	\$12,229	\$28,574
CONSTRUCTION ESTIMATE TOTALS:		\$2,071,218	\$1,907,210		\$3,978,428	8.3%	\$2,242,633	\$2,065,052	\$4,307,685	\$0	\$4,307,686	315.8%	\$9,235,342	\$8,677,558	\$17,912,901
01	40 LANDS AND DAMAGES Reach 01	\$4,094	\$2,047	50.0%	\$6,141	8.3%	\$4,433	\$2,216	\$6,649	\$0	\$6,649	7.3%	\$4,758	\$2,379	\$7,137
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$3,252	\$1,626	50.0%	\$4,878	8.3%	\$3,521	\$1,761	\$5,282	\$0	\$5,282	7.3%	\$3,780	\$1,890	\$5,669

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 04	\$57,493	\$28,747	50.0%	\$86,240	8.3%	\$62,251	\$31,126	\$93,377	\$0	\$93,377	7.3%	\$66,821	\$33,411	\$100,232
01	90 LANDS AND DAMAGES Reach 01	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$2,302	\$1,151	50.0%	\$3,453	8.3%	\$2,493	\$1,246	\$3,739	\$0	\$3,739	275.1%	\$9,350	\$4,675	\$14,025
01	90 LANDS AND DAMAGES Reach 04	\$5,414	\$2,707	50.0%	\$8,121	8.3%	\$5,862	\$2,931	\$8,793	\$0	\$8,793	275.1%	\$21,990	\$10,995	\$32,986
30	Reach 01 40 PLANNING, ENGINEERING	\$7,924	\$4,439	56.0%	\$12,363	7.4%	\$8,510	\$4,768	\$13,278	\$0	\$13,278	11.3%	\$9,471	\$5,306	\$14,778
30	Reach 02 40 PLANNING, ENGINEERING	\$8,472	\$4,747	56.0%	\$13,219	7.4%	\$9,099	\$5,098	\$14,197	\$0	\$14,197	11.3%	\$10,127	\$5,674	\$15,801
30	Reach 03 40 PLANNING, ENGINEERING	\$23,212	\$13,004	56.0%	\$36,216	7.4%	\$24,930	\$13,967	\$38,897	\$0	\$38,897	11.3%	\$27,746	\$15,544	\$43,290
30	Reach 04 40 PLANNING, ENGINEERING	\$43,420	\$24,326	56.0%	\$67,746	7.4%	\$46,634	\$26,127	\$72,761	\$0	\$72,761	11.3%	\$51,902	\$29,078	\$80,979
30	Reach 01 90 PLANNING, ENGINEERING	\$26,254	\$14,709	56.0%	\$40,963	7.4%	\$28,197	\$15,798	\$43,995	\$0	\$43,995	203.4%	\$85,547	\$47,928	\$133,475
30	Reach 02 90 PLANNING, ENGINEERING	\$85,711	\$48,019	56.0%	\$133,730	7.4%	\$92,055	\$51,573	\$143,628	\$0	\$143,628	203.4%	\$279,282	\$156,467	\$435,749
30	Reach 03 90 PLANNING, ENGINEERING	\$57,739	\$32,348	56.0%	\$90,087	7.4%	\$62,012	\$34,742	\$96,755	\$0	\$96,755	203.4%	\$188,138	\$105,404	\$293,542
30	Reach 04 90 PLANNING, ENGINEERING	\$42,417	\$23,764	56.0%	\$66,181	7.4%	\$45,557	\$25,523	\$71,080	\$0	\$71,080	203.4%	\$138,213	\$77,434	\$215,647
31	Reach 01 40 CONSTRUCTION MANAGE	\$4,031	\$2,543	63.1%	\$6,575	7.4%	\$4,330	\$2,732	\$7,061	\$0	\$7,061	35.5%	\$5,866	\$3,701	\$9,567
31	Reach 02 40 CONSTRUCTION MANAGE	\$4,310	\$2,719	63.1%	\$7,030	7.4%	\$4,629	\$2,921	\$7,550	\$0	\$7,550	35.5%	\$6,272	\$3,957	\$10,229
31	Reach 03 40 CONSTRUCTION MANAGE	\$11,810	\$7,450	63.1%	\$19,260	7.4%	\$12,684	\$8,002	\$20,686	\$0	\$20,686	35.5%	\$17,184	\$10,841	\$28,026
31	Reach 04 40 CONSTRUCTION MANAGE	\$22,091	\$13,937	63.1%	\$36,028	7.4%	\$23,726	\$14,968	\$38,695	\$0	\$38,695	35.5%	\$32,145	\$20,280	\$52,425
31	Reach 01 90 CONSTRUCTION MANAGE	\$13,357	\$8,427	63.1%	\$21,784	7.4%	\$14,346	\$9,051	\$23,397	\$0	\$23,397	266.3%	\$52,546	\$33,151	\$85,696
31	Reach 02 90 CONSTRUCTION MANAGE	\$43,607	\$27,511	63.1%	\$71,118	7.4%	\$46,835	\$29,547	\$76,382	\$0	\$76,382	266.3%	\$171,544	\$108,225	\$279,769
31	Reach 03 90 CONSTRUCTION MANAGE	\$29,376	\$18,533	63.1%	\$47,909	7.4%	\$31,550	\$19,905	\$51,455	\$0	\$51,455	266.3%	\$115,560	\$72,905	\$188,466
31	Reach 04 90 CONSTRUCTION MANAGE	\$21,581	\$13,615	63.1%	\$35,196	7.4%	\$23,178	\$14,623	\$37,801	\$0	\$37,801	266.3%	\$84,895	\$53,559	\$138,454
PROJECT COST TOTALS:		\$2,589,085	\$2,203,580	85.1%	\$4,792,665		\$2,799,465	\$2,383,675	\$5,183,140	\$0	\$5,183,141	287.8%	\$10,618,480	\$9,480,361	\$20,098,841

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$20,098,841

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

DISTRICT: SWT

LOCATION: San Francisco, CA

POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative E non-Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	Reach 01 40 Overall Structures Floodproof	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843	\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	Reach 02 40 Overall Structures Floodproof	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304	\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
10	Reach 03 40 Overall Structures Floodproof	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920	\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
10	Reach 04 40 Overall Structures Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 01 40 Overall Utility Relocations	\$998	\$2,641	264.5%	\$3,639	8.3%	\$1,081	\$2,860	\$3,940	\$0	\$3,940	43.2%	\$1,548	\$4,096	\$5,644
10	Reach 02 40 Overall Utility Relocations	\$5,391	\$14,261	264.5%	\$19,652	8.3%	\$5,837	\$15,441	\$21,278	\$0	\$21,278	43.2%	\$8,361	\$22,118	\$30,479
10	Reach 03 40 Overall Utility Relocations	\$2,396	\$6,338	264.5%	\$8,734	8.3%	\$2,594	\$6,863	\$9,457	\$0	\$9,457	43.2%	\$3,716	\$9,830	\$13,546
02	Reach 04 40 Overall Utility Relocations	\$11,181	\$29,579	264.5%	\$40,760	8.3%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	43.2%	\$17,341	\$45,875	\$63,216
10	Reach 01 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 02 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 01 40 Overall Seismic Transportati	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 02 40 Overall Seismic Transportati	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Transportati	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Transportati	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$261,048	\$212,766	81.5%	\$473,814	8.3%	\$282,652	\$230,375	\$513,027	\$0	\$513,027	43.2%	\$404,870	\$329,988	\$734,858
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$22,472	\$14,020	62.4%	\$36,492	8.3%	\$24,331	\$15,181	\$39,512	\$0	\$39,512	43.2%	\$34,852	\$21,745	\$56,597
11	40 REACH 01 Berms/Fill	\$23,645	\$16,818	71.1%	\$40,463	8.3%	\$25,602	\$18,210	\$43,812	\$0	\$43,812	43.2%	\$36,673	\$26,083	\$62,756
10	40 REACH 01 Ground Improvement/DSM	\$136,009	\$208,400	153.2%	\$344,410	8.3%	\$147,265	\$225,647	\$372,913	\$0	\$372,913	43.2%	\$210,943	\$323,217	\$534,160
10	40 REACH 01 Cantilever Walls/Pile Caps/A	\$363	\$201	55.3%	\$564	8.3%	\$393	\$217	\$610	\$0	\$610	43.2%	\$563	\$311	\$874
11	40 REACH 01 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Combi-Wall (Offshore)	\$430,035	\$454,461	105.7%	\$884,497	8.3%	\$465,625	\$492,072	\$957,697	\$0	\$957,697	43.2%	\$666,960	\$704,844	\$1,371,804
10	40 REACH 01 Wharf Replacement	\$238,547	\$157,386	66.0%	\$395,933	8.3%	\$258,289	\$170,411	\$428,700	\$0	\$428,700	43.2%	\$369,972	\$244,097	\$614,069
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$23,633	\$24,389	103.2%	\$48,022	8.3%	\$25,589	\$26,407	\$51,996	\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$253,288	\$234,121	92.4%	\$487,409	8.3%	\$274,250	\$253,497	\$527,747	\$0	\$527,747	43.2%	\$392,835	\$363,109	\$755,943
02	40 REACH 01 Demolition of Bldgs/Structur	\$853	\$603	70.7%	\$1,456	8.3%	\$924	\$653	\$1,577	\$0	\$1,577	43.2%	\$1,323	\$936	\$2,259

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 01 Remaining Construction Iter	\$9,482	\$7,094	74.8%	\$16,576	8.3%	\$10,267	\$7,681	\$17,947	\$0	\$17,947	43.2%	\$14,706	\$11,002	\$25,708
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Transportation Corridor	\$375,095	\$305,720	81.5%	\$680,815	8.3%	\$406,138	\$331,021	\$737,159	\$0	\$737,159	43.2%	\$581,751	\$474,154	\$1,055,904
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 02 Plantings/EWN	\$29,136	\$18,178	62.4%	\$47,314	8.3%	\$31,547	\$19,682	\$51,229	\$0	\$51,229	43.2%	\$45,188	\$28,193	\$73,381
11	40 REACH 02 Berms/Fill	\$24,839	\$17,667	71.1%	\$42,506	8.3%	\$26,895	\$19,129	\$46,023	\$0	\$46,023	43.2%	\$38,524	\$27,400	\$65,924
10	40 REACH 02 Ground Improvement/DSM	\$136,689	\$209,441	153.2%	\$346,130	8.3%	\$148,001	\$226,774	\$374,775	\$0	\$374,775	43.2%	\$211,996	\$324,831	\$536,827
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$31,380	\$17,365	55.3%	\$48,745	8.3%	\$33,977	\$18,802	\$52,779	\$0	\$52,779	43.2%	\$48,669	\$26,931	\$75,600
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Combi-Wall (Offshore)	\$432,200	\$456,749	105.7%	\$888,949	8.3%	\$467,968	\$494,549	\$962,518	\$0	\$962,518	43.2%	\$670,318	\$708,392	\$1,378,709
10	40 REACH 02 Wharf Replacement	\$265,459	\$175,142	66.0%	\$440,601	8.3%	\$287,428	\$189,637	\$477,065	\$0	\$477,065	43.2%	\$411,712	\$271,635	\$683,347
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Temp Raise/Relocate Repla	\$391,856	\$362,204	92.4%	\$754,061	8.3%	\$424,287	\$392,181	\$816,467	\$0	\$816,467	43.2%	\$607,747	\$561,758	\$1,169,505
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 02 Remaining Construction Iter	\$12,551	\$9,390	74.8%	\$21,940	8.3%	\$13,589	\$10,167	\$23,756	\$0	\$23,756	43.2%	\$19,465	\$14,563	\$34,028
02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Transportation Corridor	\$251,537	\$205,014	81.5%	\$456,551	8.3%	\$272,354	\$221,981	\$494,335	\$0	\$494,335	43.2%	\$390,119	\$317,965	\$708,084
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$45,929	\$28,655	62.4%	\$74,585	8.3%	\$49,730	\$31,027	\$80,757	\$0	\$80,757	43.2%	\$71,234	\$44,443	\$115,677
11	40 REACH 03 Berms/Fill	\$71,154	\$50,608	71.1%	\$121,762	8.3%	\$77,043	\$54,797	\$131,840	\$0	\$131,840	43.2%	\$110,355	\$78,490	\$188,846
10	40 REACH 03 Ground Improvement/DSM	\$184,587	\$282,833	153.2%	\$467,419	8.3%	\$199,863	\$306,240	\$506,102	\$0	\$506,102	43.2%	\$286,283	\$438,657	\$724,941
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$12,896	\$7,136	55.3%	\$20,032	8.3%	\$13,963	\$7,726	\$21,689	\$0	\$21,689	43.2%	\$20,000	\$11,067	\$31,068
11	40 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Combi-Wall (Offshore)	\$637,116	\$673,305	105.7%	\$1,310,421	8.3%	\$689,843	\$729,027	\$1,418,870	\$0	\$1,418,870	43.2%	\$988,131	\$1,044,257	\$2,032,388
10	40 REACH 03 Wharf Replacement	\$229,936	\$151,705	66.0%	\$381,641	8.3%	\$248,965	\$164,260	\$413,225	\$0	\$413,225	43.2%	\$356,618	\$235,286	\$591,903
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drain	\$134,492	\$138,795	103.2%	\$273,287	8.3%	\$145,623	\$150,282	\$295,905	\$0	\$295,905	43.2%	\$208,590	\$215,263	\$423,853
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$7,466	\$4,714	63.1%	\$12,180	8.3%	\$8,084	\$5,105	\$13,188	\$0	\$13,188	43.2%	\$11,579	\$7,312	\$18,891
10	40 REACH 03 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Temp Raise/Relocate Repla	\$260,369	\$240,667	92.4%	\$501,036	8.3%	\$281,918	\$260,585	\$542,502	\$0	\$542,502	43.2%	\$403,818	\$373,261	\$777,079
02	40 REACH 03 Demolition of Bldgs/Structur	\$971	\$687	70.7%	\$1,658	8.3%	\$1,051	\$744	\$1,795	\$0	\$1,795	43.2%	\$1,506	\$1,065	\$2,571
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 03 Remaining Construction Iter	\$13,101	\$9,801	74.8%	\$22,902	8.3%	\$14,185	\$10,613	\$24,798	\$0	\$24,798	43.2%	\$20,319	\$15,202	\$35,521
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 04 Plantings/EWN	\$25,805	\$16,100	62.4%	\$41,906	8.3%	\$27,941	\$17,433	\$45,374	\$0	\$45,374	43.2%	\$40,023	\$24,971	\$64,993
11	40 REACH 04 Berms/Fill	\$78,214	\$55,630	71.1%	\$133,843	8.3%	\$84,687	\$60,234	\$144,920	\$0	\$144,920	43.2%	\$121,304	\$86,278	\$207,582
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$228,674	\$126,539	55.3%	\$355,213	8.3%	\$247,599	\$137,011	\$384,610	\$0	\$384,610	43.2%	\$354,660	\$196,254	\$550,915
11	40 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$729,196	\$481,102	66.0%	\$1,210,298	8.3%	\$789,544	\$520,917	\$1,310,461	\$0	\$1,310,461	43.2%	\$1,130,942	\$746,161	\$1,877,103
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$258,827	\$267,106	103.2%	\$525,932	8.3%	\$280,248	\$289,212	\$569,460	\$0	\$569,460	43.2%	\$401,426	\$414,267	\$815,692
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$2,099	\$1,326	63.1%	\$3,425	8.3%	\$2,273	\$1,435	\$3,709	\$0	\$3,709	43.2%	\$3,256	\$2,056	\$5,312
10	40 REACH 04 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Repla	\$538,562	\$497,809	92.4%	\$1,036,371	8.3%	\$583,134	\$539,008	\$1,122,141	\$0	\$1,122,141	43.2%	\$835,279	\$772,073	\$1,607,352
02	40 REACH 04 Demolition of Bldgs/Structur	\$1,326	\$938	70.7%	\$2,264	8.3%	\$1,435	\$1,016	\$2,451	\$0	\$2,451	43.2%	\$2,056	\$1,455	\$3,511
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction Iter	\$20,564	\$15,385	74.8%	\$35,948	8.3%	\$22,265	\$16,658	\$38,923	\$0	\$38,923	43.2%	\$31,893	\$23,861	\$55,754
0	0	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 01 90 Overall Utility Relocations	\$998	\$2,641	264.5%	\$3,639	8.3%	\$1,081	\$2,860	\$3,940	\$0	\$3,940	417%	\$5,588	\$14,782	\$20,369
10	Reach 02 90 Overall Utility Relocations	\$5,391	\$14,261	264.5%	\$19,652	8.3%	\$5,837	\$15,441	\$21,278	\$0	\$21,278	417%	\$30,173	\$79,822	\$109,995
02	Reach 03 90 Overall Utility Relocations	\$2,396	\$6,338	264.5%	\$8,734	8.3%	\$2,594	\$6,863	\$9,457	\$0	\$9,457	417%	\$13,410	\$35,476	\$48,887
02	Reach 04 90 Overall Utility Relocations	\$11,181	\$29,579	264.5%	\$40,760	8.3%	\$12,106	\$32,027	\$44,133	\$0	\$44,133	417%	\$62,582	\$165,556	\$228,138
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$3,437	\$2,445	71.1%	\$5,882	8.3%	\$3,722	\$2,647	\$6,368	\$0	\$6,368	417%	\$19,238	\$13,683	\$32,920
10	90 REACH 01 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Cantilever Walls/Pile Caps/W	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 01 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Wharf Replacement	\$238,585	\$157,411	66.0%	\$395,997	8.3%	\$258,330	\$170,439	\$428,769	\$0	\$428,769	417%	\$1,335,387	\$881,048	\$2,216,436
10	90 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 01 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Temp Raise/Relocate Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Iter	\$18,183	\$13,604	74.8%	\$31,787	8.3%	\$19,688	\$14,730	\$34,418	\$0	\$34,418	417%	\$101,775	\$76,143	\$177,918
02	90 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 02 Berms/Fill	\$17,999	\$12,802	71.1%	\$30,801	8.3%	\$19,489	\$13,861	\$33,350	\$0	\$33,350	417%	\$100,743	\$71,654	\$172,397
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/W	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Combi-Wall (Offshore)	\$125,547	\$132,678	105.7%	\$258,226	8.3%	\$135,937	\$143,659	\$279,596	\$0	\$279,596	417%	\$702,702	\$742,616	\$1,445,318
10	90 REACH 02 Wharf Replacement	\$265,389	\$175,095	66.0%	\$440,484	8.3%	\$287,352	\$189,586	\$476,938	\$0	\$476,938	417%	\$1,485,409	\$980,029	\$2,465,438
10	90 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 02 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	90 REACH 02 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
ALL	90 REACH 02 Remaining Construction Iter	\$22,219	\$16,623	74.8%	\$38,842	8.3%	\$24,058	\$17,999	\$42,057	\$0	\$42,057	417%	\$124,362	\$93,041	\$217,403
02	90 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Bridge Replacement	\$128,162	\$190,309	148.5%	\$318,472	8.3%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	417%	\$717,340	\$1,065,184	\$1,782,524
06	90 REACH 03 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 03 Berms/Fill	\$21,695	\$15,431	71.1%	\$37,126	8.3%	\$23,491	\$16,708	\$40,199	\$0	\$40,199	417%	\$121,430	\$86,367	\$207,797
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Wharf Replacement	\$229,396	\$151,348	66.0%	\$380,744	8.3%	\$248,380	\$163,874	\$412,254	\$0	\$412,254	417%	\$1,283,953	\$847,113	\$2,131,066
10	90 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 03 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
ALL	90 REACH 03 Remaining Construction Iter	\$21,505	\$16,089	74.8%	\$37,594	8.3%	\$23,285	\$17,420	\$40,705	\$0	\$40,705	417%	\$120,366	\$90,052	\$210,418
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Bridge Replacement	\$72,949	\$108,322	148.5%	\$181,271	8.3%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	417%	\$408,302	\$606,291	\$1,014,594
06	90 REACH 04 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 04 Berms/Fill	\$16,620	\$11,821	71.1%	\$28,442	8.3%	\$17,996	\$12,800	\$30,795	\$0	\$30,795	417%	\$93,026	\$66,165	\$159,190
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 04 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
ALL	90 REACH 04 Remaining Construction Iter	\$131,554	\$98,422	74.8%	\$229,976	8.3%	\$142,442	\$106,568	\$249,010	\$0	\$249,010	417%	\$736,326	\$550,882	\$1,287,209
CONSTRUCTION ESTIMATE TOTALS:		\$8,297,856	\$7,476,085		\$15,773,941	8.3%	\$8,984,585	\$8,094,805	\$17,079,390	\$0	\$17,079,390	102.2%	\$18,263,886	\$16,269,205	\$34,533,091
01	40 LANDS AND DAMAGES Reach 01	\$2,997	\$1,499	50.0%	\$4,496	8.3%	\$3,245	\$1,623	\$4,868	\$0	\$4,868	7.3%	\$3,483	\$1,742	\$5,225
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$15,127	\$7,564	50.0%	\$22,691	8.3%	\$16,379	\$8,189	\$24,568	\$0	\$24,568	7.3%	\$17,581	\$8,791	\$26,372

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 04	\$32,660	\$16,330	50.0%	\$48,990	8.3%	\$35,363	\$17,682	\$53,045	\$0	\$53,045	7.3%	\$37,959	\$18,979	\$56,938
01	90 LANDS AND DAMAGES Reach 01	\$558	\$279	50.0%	\$837	8.3%	\$604	\$302	\$906	\$0	\$906	275.1%	\$2,266	\$1,133	\$3,400
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$34,081	\$17,041	50.0%	\$51,122	8.3%	\$36,902	\$18,451	\$55,352	\$0	\$55,352	275.1%	\$138,429	\$69,214	\$207,643
01	90 LANDS AND DAMAGES Reach 04	\$13,932	\$6,966	50.0%	\$20,898	8.3%	\$15,085	\$7,543	\$22,628	\$0	\$22,628	275.1%	\$56,588	\$28,294	\$84,883
30	Reach 01 40 PLANNING, ENGINEERING	\$202,426	\$113,409	56.0%	\$315,835	7.4%	\$217,409	\$121,803	\$339,212	\$0	\$339,212	11.3%	\$241,966	\$135,561	\$377,527
30	Reach 02 40 PLANNING, ENGINEERING	\$253,640	\$142,101	56.0%	\$395,741	7.4%	\$272,413	\$152,619	\$425,032	\$0	\$425,032	11.3%	\$303,183	\$169,858	\$473,041
30	Reach 03 40 PLANNING, ENGINEERING	\$266,438	\$149,271	56.0%	\$415,709	7.4%	\$286,158	\$160,320	\$446,478	\$0	\$446,478	11.3%	\$318,481	\$178,428	\$496,909
30	Reach 04 40 PLANNING, ENGINEERING	\$269,959	\$151,244	56.0%	\$421,202	7.4%	\$289,940	\$162,438	\$452,378	\$0	\$452,378	11.3%	\$322,690	\$180,786	\$503,476
30	Reach 01 90 PLANNING, ENGINEERING	\$34,630	\$19,402	56.0%	\$54,032	7.4%	\$37,194	\$20,838	\$58,031	\$0	\$58,031	203.4%	\$112,841	\$63,219	\$176,059
30	Reach 02 90 PLANNING, ENGINEERING	\$64,799	\$36,303	56.0%	\$101,102	7.4%	\$69,595	\$38,990	\$108,585	\$0	\$108,585	203.4%	\$211,142	\$118,292	\$329,434
30	Reach 03 90 PLANNING, ENGINEERING	\$57,449	\$32,186	56.0%	\$89,635	7.4%	\$61,702	\$34,568	\$96,270	\$0	\$96,270	203.4%	\$187,195	\$104,875	\$292,070
30	Reach 04 90 PLANNING, ENGINEERING	\$33,103	\$18,546	56.0%	\$51,649	7.4%	\$35,554	\$19,919	\$55,472	\$0	\$55,472	203.4%	\$107,865	\$60,431	\$168,296
31	Reach 01 40 CONSTRUCTION MANAGE	\$102,989	\$64,974	63.1%	\$167,963	7.4%	\$110,611	\$69,783	\$180,395	\$0	\$180,395	35.5%	\$149,861	\$94,545	\$244,406
31	Reach 02 40 CONSTRUCTION MANAGE	\$129,045	\$81,413	63.1%	\$210,458	7.4%	\$138,596	\$87,439	\$226,035	\$0	\$226,035	35.5%	\$187,775	\$118,465	\$306,240
31	Reach 03 40 CONSTRUCTION MANAGE	\$135,556	\$85,521	63.1%	\$221,077	7.4%	\$145,589	\$91,850	\$237,440	\$0	\$237,440	35.5%	\$197,250	\$124,442	\$321,692
31	Reach 04 40 CONSTRUCTION MANAGE	\$137,347	\$86,651	63.1%	\$223,998	7.4%	\$147,513	\$93,064	\$240,578	\$0	\$240,578	35.5%	\$199,857	\$126,087	\$325,944
31	Reach 01 90 CONSTRUCTION MANAGE	\$17,619	\$11,116	63.1%	\$28,735	7.4%	\$18,923	\$11,938	\$30,861	\$0	\$30,861	266.3%	\$69,310	\$43,727	\$113,037
31	Reach 02 90 CONSTRUCTION MANAGE	\$32,968	\$20,799	63.1%	\$53,767	7.4%	\$35,408	\$22,338	\$57,746	\$0	\$57,746	266.3%	\$129,690	\$81,820	\$211,510
31	Reach 03 90 CONSTRUCTION MANAGE	\$29,229	\$18,440	63.1%	\$47,669	7.4%	\$31,392	\$19,805	\$51,197	\$0	\$51,197	266.3%	\$114,981	\$72,540	\$187,521
31	Reach 04 90 CONSTRUCTION MANAGE	\$16,842	\$10,625	63.1%	\$27,467	7.4%	\$18,089	\$11,412	\$29,501	\$0	\$29,501	266.3%	\$66,254	\$41,799	\$108,053
PROJECT COST TOTALS:		\$10,181,250	\$8,567,762	84.2%	\$18,749,012		\$11,008,249	\$9,267,718	\$20,275,967	\$0	\$20,275,967	95.1%	\$21,440,535	\$18,112,234	\$39,552,769

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$39,552,769

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** TOTAL PROJECT COST SUMMARY ****

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

DISTRICT: SWT

LOCATION: San Francisco, CA

POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NCP2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative F non-Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
02	Reach 01 40 Overall Structures Floodproof	\$20,161	\$53,335	264.5%	\$73,497	8.3%	\$21,830	\$57,749	\$79,579	\$0	\$79,579	43.2%	\$31,269	\$82,720	\$113,989
02	Reach 02 40 Overall Structures Floodproof	\$21,347	\$56,473	264.5%	\$77,820	8.3%	\$23,114	\$61,146	\$84,260	\$0	\$84,260	43.2%	\$33,108	\$87,586	\$120,694
10	Reach 03 40 Overall Structures Floodproof	\$17,789	\$47,061	264.5%	\$64,850	8.3%	\$19,262	\$50,955	\$70,217	\$0	\$70,217	43.2%	\$27,590	\$72,988	\$100,579
10	Reach 04 40 Overall Structures Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 01 40 Overall Utility Relocations	\$5,125	\$13,557	264.5%	\$18,682	8.3%	\$5,549	\$14,679	\$20,228	\$0	\$20,228	43.2%	\$7,948	\$21,026	\$28,974
10	Reach 02 40 Overall Utility Relocations	\$27,021	\$71,482	264.5%	\$98,503	8.3%	\$29,257	\$77,398	\$106,655	\$0	\$106,655	43.2%	\$41,908	\$110,865	\$152,773
10	Reach 03 40 Overall Utility Relocations	\$6,056	\$16,022	264.5%	\$22,078	8.3%	\$6,558	\$17,348	\$23,905	\$0	\$23,905	43.2%	\$9,393	\$24,849	\$34,242
02	Reach 04 40 Overall Utility Relocations	\$8,386	\$22,184	264.5%	\$30,570	8.3%	\$9,080	\$24,020	\$33,100	\$0	\$33,100	43.2%	\$13,006	\$34,406	\$47,412
10	Reach 01 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 02 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 01 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 02 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 04 40 Overall Seismic Transportatio	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$21,682	\$17,672	81.5%	\$39,354	8.3%	\$23,477	\$19,135	\$42,611	\$0	\$42,611	43.2%	\$33,628	\$27,408	\$61,037
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$22,474	\$14,022	62.4%	\$36,496	8.3%	\$24,334	\$15,182	\$39,516	\$0	\$39,516	43.2%	\$34,856	\$21,747	\$56,603
11	40 REACH 01 Berms/Fill	\$31,292	\$22,256	71.1%	\$53,548	8.3%	\$33,881	\$24,098	\$57,980	\$0	\$57,980	43.2%	\$48,531	\$34,518	\$83,049
10	40 REACH 01 Ground Improvement/DSM	\$389,238	\$596,410	153.2%	\$985,648	8.3%	\$421,451	\$645,768	\$1,067,219	\$0	\$1,067,219	43.2%	\$603,686	\$924,997	\$1,528,683
10	40 REACH 01 Cantilever Walls/Pile Caps/W	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Anchored Walls/T-Wall	\$18,342	\$15,357	83.7%	\$33,699	8.3%	\$19,860	\$16,627	\$36,488	\$0	\$36,488	43.2%	\$28,448	\$23,817	\$52,265
10	40 REACH 01 Combi-Wall (Offshore)	\$163,545	\$172,834	105.7%	\$336,379	8.3%	\$177,080	\$187,138	\$364,217	\$0	\$364,217	43.2%	\$253,649	\$268,056	\$521,704
10	40 REACH 01 Wharf Replacement	\$1,098	\$724	66.0%	\$1,822	8.3%	\$1,189	\$784	\$1,973	\$0	\$1,973	43.2%	\$1,703	\$1,123	\$2,826
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$23,633	\$24,389	103.2%	\$48,022	8.3%	\$25,589	\$26,407	\$51,996	\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$63,442	\$58,641	92.4%	\$122,082	8.3%	\$68,692	\$63,494	\$132,186	\$0	\$132,186	43.2%	\$98,394	\$90,949	\$189,343
02	40 REACH 01 Demolition of Bldgs/Structur	\$1,507	\$1,066	70.7%	\$2,574	8.3%	\$1,632	\$1,155	\$2,787	\$0	\$2,787	43.2%	\$2,338	\$1,654	\$3,992

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 01 Remaining Construction Iter	\$3,963	\$2,965	74.8%	\$6,927	8.3%	\$4,291	\$3,210	\$7,500	\$0	\$7,500	43.2%	\$6,146	\$4,598	\$10,744
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Transportation Corridor	\$28,306	\$23,070	81.5%	\$51,376	8.3%	\$30,648	\$24,980	\$55,628	\$0	\$55,628	43.2%	\$43,900	\$35,781	\$79,681
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 02 Plantings/EWN	\$29,139	\$18,180	62.4%	\$47,319	8.3%	\$31,551	\$19,685	\$51,235	\$0	\$51,235	43.2%	\$45,193	\$28,196	\$73,389
11	40 REACH 02 Berms/Fill	\$147,481	\$104,896	71.1%	\$252,378	8.3%	\$159,687	\$113,578	\$273,266	\$0	\$273,266	43.2%	\$228,735	\$162,688	\$391,422
10	40 REACH 02 Ground Improvement/DSM	\$1,595,447	\$2,444,624	153.2%	\$4,040,071	8.3%	\$1,727,485	\$2,646,938	\$4,374,423	\$0	\$4,374,423	43.2%	\$2,474,448	\$3,791,473	\$6,265,921
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Combi-Wall (Offshore)	\$656,274	\$693,550	105.7%	\$1,349,824	8.3%	\$710,586	\$750,948	\$1,461,534	\$0	\$1,461,534	43.2%	\$1,017,843	\$1,075,657	\$2,093,500
10	40 REACH 02 Wharf Replacement	\$3,780	\$2,494	66.0%	\$6,274	8.3%	\$4,093	\$2,700	\$6,793	\$0	\$6,793	43.2%	\$5,862	\$3,868	\$9,730
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 02 Temp Raise/Relocate Repla	\$218,208	\$201,696	92.4%	\$419,904	8.3%	\$236,267	\$218,389	\$454,656	\$0	\$454,656	43.2%	\$338,428	\$312,819	\$651,248
02	40 REACH 02 Demolition of Bldgs/Structur	\$11,613	\$8,216	70.7%	\$19,829	8.3%	\$12,574	\$8,896	\$21,470	\$0	\$21,470	43.2%	\$18,011	\$12,742	\$30,753
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
ALL	40 REACH 02 Remaining Construction Iter	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Utility Relocations	\$1,271	\$3,362	264.5%	\$4,632	8.3%	\$1,376	\$3,640	\$5,016	\$0	\$5,016	43.2%	\$1,971	\$5,214	\$7,185
02	40 REACH 03 Transportation Corridor	\$21,437	\$17,472	81.5%	\$38,909	8.3%	\$23,211	\$18,918	\$42,129	\$0	\$42,129	43.2%	\$33,247	\$27,098	\$60,345
02	40 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 03 Plantings/EWN	\$55,474	\$34,611	62.4%	\$90,085	8.3%	\$60,065	\$37,475	\$97,541	\$0	\$97,541	43.2%	\$86,038	\$53,680	\$139,717
11	40 REACH 03 Berms/Fill	\$38,334	\$27,265	71.1%	\$65,598	8.3%	\$41,506	\$29,521	\$71,027	\$0	\$71,027	43.2%	\$59,453	\$42,286	\$101,739
10	40 REACH 03 Ground Improvement/DSM	\$261,159	\$400,160	153.2%	\$661,319	8.3%	\$282,772	\$433,277	\$716,049	\$0	\$716,049	43.2%	\$405,042	\$620,626	\$1,025,668
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 03 Anchored Walls/T-Wall	\$774	\$648	83.7%	\$1,423	8.3%	\$838	\$702	\$1,540	\$0	\$1,540	43.2%	\$1,201	\$1,005	\$2,206
10	40 REACH 03 Combi-Wall (Offshore)	\$259,753	\$274,507	105.7%	\$534,260	8.3%	\$281,250	\$297,225	\$578,474	\$0	\$578,474	43.2%	\$402,862	\$425,745	\$828,606
10	40 REACH 03 Wharf Replacement	\$115,902	\$76,469	66.0%	\$192,371	8.3%	\$125,494	\$82,797	\$208,291	\$0	\$208,291	43.2%	\$179,758	\$118,599	\$298,356
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 03 Pump Stations/Interior Drain	\$6,751	\$6,967	103.2%	\$13,719	8.3%	\$7,310	\$7,544	\$14,854	\$0	\$14,854	43.2%	\$10,471	\$10,806	\$21,277
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 03 Large Gates/Closure Structu	\$182,318	\$229,295	125.8%	\$411,613	8.3%	\$197,407	\$248,271	\$445,678	\$0	\$445,678	43.2%	\$282,765	\$355,623	\$638,388
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 03 Temp Raise/Relocate Repla	\$45,971	\$42,493	92.4%	\$88,464	8.3%	\$49,776	\$46,009	\$95,785	\$0	\$95,785	43.2%	\$71,299	\$65,904	\$137,203
02	40 REACH 03 Demolition of Bldgs/Structur	\$1,360	\$962	70.7%	\$2,323	8.3%	\$1,473	\$1,042	\$2,515	\$0	\$2,515	43.2%	\$2,110	\$1,493	\$3,602
02	40 REACH 03 Floodproofing Structures	\$4,154	\$3,809	91.7%	\$7,963	8.3%	\$4,498	\$4,124	\$8,622	\$0	\$8,622	43.2%	\$6,443	\$5,907	\$12,350
ALL	40 REACH 03 Remaining Construction Iter	\$6,764	\$5,060	74.8%	\$11,824	8.3%	\$7,324	\$5,479	\$12,803	\$0	\$12,803	43.2%	\$10,490	\$7,848	\$18,339
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Transportation Corridor	\$8,732	\$7,117	81.5%	\$15,850	8.3%	\$9,455	\$7,706	\$17,161	\$0	\$17,161	43.2%	\$13,543	\$11,038	\$24,582
02	40 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
06	40 REACH 04 Plantings/EWN	\$27,001	\$16,846	62.4%	\$43,847	8.3%	\$29,236	\$18,240	\$47,476	\$0	\$47,476	43.2%	\$41,878	\$26,128	\$68,005
11	40 REACH 04 Berms/Fill	\$14,108	\$10,034	71.1%	\$24,142	8.3%	\$15,275	\$10,865	\$26,140	\$0	\$26,140	43.2%	\$21,880	\$15,562	\$37,442
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
11	40 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Combi-Wall (Offshore)	\$28,861	\$30,501	105.7%	\$59,362	8.3%	\$31,250	\$33,025	\$64,275	\$0	\$64,275	43.2%	\$44,762	\$47,305	\$92,067

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
13	40 REACH 04 Pump Stations/Interior Drain	\$6,254	\$6,454	103.2%	\$12,708	8.3%	\$6,772	\$6,988	\$13,760	\$0	\$13,760	43.2%	\$9,700	\$10,010	\$19,710
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
10	40 REACH 04 Large Gates/Closure Structu	\$182,318	\$229,295	125.8%	\$411,613	8.3%	\$197,407	\$248,271	\$445,678	\$0	\$445,678	43.2%	\$282,765	\$355,623	\$638,388
16	40 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	40 REACH 04 Demolition of Bldgs/Structur	\$212	\$150	70.7%	\$362	8.3%	\$229	\$162	\$392	\$0	\$392	43.2%	\$329	\$232	\$561
02	40 REACH 04 Floodproofing Structures	\$1,014	\$930	91.7%	\$1,945	8.3%	\$1,098	\$1,007	\$2,105	\$0	\$2,105	43.2%	\$1,573	\$1,442	\$3,016
ALL	40 REACH 04 Remaining Construction Iter	\$5,895	\$4,411	74.8%	\$10,306	8.3%	\$6,383	\$4,776	\$11,159	\$0	\$11,159	43.2%	\$9,143	\$6,841	\$15,984
0	0	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	
02	Reach 01 90 Overall Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	Reach 02 90 Overall Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	Reach 03 90 Overall Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	Reach 04 90 Overall Utility Relocations	\$26,622	\$70,426	264.5%	\$97,047	8.3%	\$28,825	\$76,254	\$105,079	\$0	\$105,079	417%	\$149,004	\$394,181	\$543,186
10	Reach 01 90 Overall Seismic Ground Impr	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	Reach 02 90 Overall Seismic Ground Impr	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	Reach 03 90 Overall Seismic Ground Impr	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	Reach 04 90 Overall Seismic Ground Impr	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 01 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 01 Berms/Fill	\$1,228	\$874	71.1%	\$2,102	8.3%	\$1,330	\$946	\$2,276	\$0	\$2,276	417%	\$6,876	\$4,890	\$11,766
10	90 REACH 01 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Cantilever Walls/Pile Caps/W	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 01 Anchored Walls/T-Wall	\$3,670	\$3,073	83.7%	\$6,742	8.3%	\$3,974	\$3,327	\$7,300	\$0	\$7,300	417%	\$20,541	\$17,197	\$37,738
10	90 REACH 01 Combi-Wall (Offshore)	\$6,034	\$6,376	105.7%	\$12,410	8.3%	\$6,533	\$6,904	\$13,437	\$0	\$13,437	417%	\$33,771	\$35,689	\$69,461
10	90 REACH 01 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 01 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 01 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 01 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Temp Raise/Relocate Repla	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
ALL	90 REACH 02 Remaining Construction Iter	\$5,241	\$3,921	74.8%	\$9,163	8.3%	\$5,675	\$4,246	\$9,921	\$0	\$9,921	417%	\$29,336	\$21,948	\$51,284
02	90 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 02 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 02 Berms/Fill	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Cantilever Walls/Pile Caps/W	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Combi-Wall (Offshore)	\$4,435	\$4,687	105.7%	\$9,122	8.3%	\$4,802	\$5,075	\$9,877	\$0	\$9,877	417%	\$24,823	\$26,233	\$51,056
10	90 REACH 02 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	

**** TOTAL PROJECT COST SUMMARY ****

10	90 REACH 02 Pump Stations/Interior Drain	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 02 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
ALL	90 REACH 02 Remaining Construction Items	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Transportation Corridor	\$4,571	\$3,725	81.5%	\$8,296	8.3%	\$4,949	\$4,034	\$8,982	\$0	\$8,982	417%	\$25,582	\$20,850	\$46,432
02	90 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 03 Plantings/EWN	\$9,117	\$5,688	62.4%	\$14,806	8.3%	\$9,872	\$6,159	\$16,031	\$0	\$16,031	417%	\$51,030	\$31,838	\$82,869
11	90 REACH 03 Berms/Fill	\$21,179	\$15,064	71.1%	\$36,243	8.3%	\$22,932	\$16,310	\$39,243	\$0	\$39,243	417%	\$118,542	\$84,313	\$202,855
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Cantilever Walls/Pile Caps/Walls	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 03 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Wharf Replacement	\$10,840	\$7,152	66.0%	\$17,992	8.3%	\$11,737	\$7,744	\$19,481	\$0	\$19,481	417%	\$60,672	\$40,030	\$100,702
10	90 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 03 Pump Stations/Interior Drain	\$476,405	\$491,645	103.2%	\$968,050	8.3%	\$515,834	\$532,335	\$1,048,168	\$0	\$1,048,168	417%	\$2,666,500	\$2,751,797	\$5,418,297
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 03 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 03 Demolition of Bldgs/Structures	\$1,727	\$1,222	70.7%	\$2,949	8.3%	\$1,870	\$1,323	\$3,193	\$0	\$3,193	417%	\$9,668	\$6,840	\$16,508
02	90 REACH 03 Floodproofing Structures	\$1,547	\$1,418	91.7%	\$2,964	8.3%	\$1,675	\$1,535	\$3,210	\$0	\$3,210	417%	\$8,656	\$7,936	\$16,592
ALL	90 REACH 03 Remaining Construction Items	\$16,084	\$12,033	74.8%	\$28,118	8.3%	\$17,416	\$13,029	\$30,445	\$0	\$30,445	417%	\$90,026	\$67,353	\$157,379
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Transportation Corridor	\$10,579	\$8,622	81.5%	\$19,201	8.3%	\$11,454	\$9,336	\$20,790	\$0	\$20,790	417%	\$59,210	\$48,259	\$107,469
02	90 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
06	90 REACH 04 Plantings/EWN	\$14,840	\$9,259	62.4%	\$24,099	8.3%	\$16,069	\$10,025	\$26,094	\$0	\$26,094	417%	\$83,064	\$51,824	\$134,888
11	90 REACH 04 Berms/Fill	\$13,061	\$9,289	71.1%	\$22,350	8.3%	\$14,142	\$10,058	\$24,200	\$0	\$24,200	417%	\$73,102	\$51,994	\$125,096
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Cantilever Walls/Pile Caps/Walls	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
13	90 REACH 04 Pump Stations/Interior Drain	\$520,331	\$536,976	103.2%	\$1,057,307	8.3%	\$563,395	\$581,417	\$1,144,812	\$0	\$1,144,812	417%	\$2,912,357	\$3,005,519	\$5,917,876
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
10	90 REACH 04 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Temp Raise/Relocate Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Demolition of Bldgs/Structures	\$27,296	\$19,311	70.7%	\$46,607	8.3%	\$29,555	\$20,910	\$50,464	\$0	\$50,464	417%	\$152,778	\$108,088	\$260,866
02	90 REACH 04 Floodproofing Structures	\$1,803	\$1,653	91.7%	\$3,455	8.3%	\$1,952	\$1,789	\$3,741	\$0	\$3,741	417%	\$10,090	\$9,250	\$19,341
ALL	90 REACH 04 Remaining Construction Items	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
CONSTRUCTION ESTIMATE TOTALS:		\$6,042,764	\$7,400,121		\$13,442,885	8.3%	\$6,542,863	\$8,012,553	\$14,555,416	\$0	\$14,555,416	109.7%	\$14,132,757	\$16,382,812	\$30,515,568

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 01	\$632	\$316	50.0%	\$948	8.3%	\$684	\$342	\$1,026	\$0	\$1,026	7.3%	\$735	\$367	\$1,102
01	40 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	40 LANDS AND DAMAGES Reach 03	\$4,667	\$2,334	50.0%	\$7,001	8.3%	\$5,053	\$2,527	\$7,580	\$0	\$7,580	7.3%	\$5,424	\$2,712	\$8,136
01	40 LANDS AND DAMAGES Reach 04	\$6,220	\$3,110	50.0%	\$9,330	8.3%	\$6,735	\$3,367	\$10,102	\$0	\$10,102	7.3%	\$7,229	\$3,615	\$10,844
01	90 LANDS AND DAMAGES Reach 01	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$5,488	\$2,744	50.0%	\$8,232	8.3%	\$5,942	\$2,971	\$8,913	\$0	\$8,913	275.1%	\$22,291	\$11,145	\$33,436
01	90 LANDS AND DAMAGES Reach 04	\$79,248	\$39,624	50.0%	\$118,872	8.3%	\$85,807	\$42,903	\$128,710	\$0	\$128,710	275.1%	\$321,886	\$160,943	\$482,830
30	Reach 01 40 PLANNING, ENGINEERING	\$109,084	\$61,114	56.0%	\$170,198	7.4%	\$117,158	\$65,637	\$182,795	\$0	\$182,795	11.3%	\$130,391	\$73,051	\$203,443
30	Reach 02 40 PLANNING, ENGINEERING	\$397,946	\$222,948	56.0%	\$620,894	7.4%	\$427,400	\$239,450	\$666,850	\$0	\$666,850	11.3%	\$475,677	\$266,497	\$742,173
30	Reach 03 40 PLANNING, ENGINEERING	\$146,101	\$81,853	56.0%	\$227,953	7.4%	\$156,915	\$87,911	\$244,825	\$0	\$244,825	11.3%	\$174,639	\$97,841	\$272,479
30	Reach 04 40 PLANNING, ENGINEERING	\$40,296	\$22,576	56.0%	\$62,872	7.4%	\$43,279	\$24,247	\$67,526	\$0	\$67,526	11.3%	\$48,168	\$26,986	\$75,153
30	Reach 01 90 PLANNING, ENGINEERING	\$1,558	\$873	56.0%	\$2,431	7.4%	\$1,673	\$937	\$2,610	\$0	\$2,610	203.4%	\$5,076	\$2,844	\$7,920
30	Reach 02 90 PLANNING, ENGINEERING	\$1,379	\$773	56.0%	\$2,151	7.4%	\$1,481	\$830	\$2,311	\$0	\$2,311	203.4%	\$4,493	\$2,517	\$7,010
30	Reach 03 90 PLANNING, ENGINEERING	\$74,868	\$41,944	56.0%	\$116,812	7.4%	\$80,409	\$45,049	\$125,458	\$0	\$125,458	203.4%	\$243,950	\$136,673	\$380,623
30	Reach 04 90 PLANNING, ENGINEERING	\$89,863	\$50,345	56.0%	\$140,208	7.4%	\$96,514	\$54,072	\$150,586	\$0	\$150,586	203.4%	\$292,811	\$164,047	\$456,858
31	Reach 01 40 CONSTRUCTION MANAGE	\$55,499	\$35,013	63.1%	\$90,512	7.4%	\$59,607	\$37,605	\$97,212	\$0	\$97,212	35.5%	\$80,757	\$50,949	\$131,706
31	Reach 02 40 CONSTRUCTION MANAGE	\$202,464	\$127,732	63.1%	\$330,195	7.4%	\$217,449	\$137,186	\$354,635	\$0	\$354,635	35.5%	\$294,608	\$185,865	\$480,473
31	Reach 03 40 CONSTRUCTION MANAGE	\$74,332	\$46,895	63.1%	\$121,227	7.4%	\$79,834	\$50,366	\$130,200	\$0	\$130,200	35.5%	\$108,162	\$68,238	\$176,400
31	Reach 04 40 CONSTRUCTION MANAGE	\$20,502	\$12,934	63.1%	\$33,436	7.4%	\$22,019	\$13,892	\$35,911	\$0	\$35,911	35.5%	\$29,832	\$18,821	\$48,653
31	Reach 01 90 CONSTRUCTION MANAGE	\$793	\$500	63.1%	\$1,293	7.4%	\$851	\$537	\$1,388	\$0	\$1,388	266.3%	\$3,118	\$1,967	\$5,085
31	Reach 02 90 CONSTRUCTION MANAGE	\$702	\$443	63.1%	\$1,144	7.4%	\$753	\$475	\$1,229	\$0	\$1,229	266.3%	\$2,760	\$1,741	\$4,501
31	Reach 03 90 CONSTRUCTION MANAGE	\$38,090	\$24,031	63.1%	\$62,121	7.4%	\$40,910	\$25,809	\$66,719	\$0	\$66,719	266.3%	\$149,842	\$94,533	\$244,376
31	Reach 04 90 CONSTRUCTION MANAGE	\$45,720	\$28,844	63.1%	\$74,563	7.4%	\$49,104	\$30,979	\$80,082	\$0	\$80,082	266.3%	\$179,854	\$113,467	\$293,321
PROJECT COST TOTALS:		\$7,438,213	\$8,207,066	110.3%	\$15,645,279		\$8,042,440	\$8,879,646	\$16,922,085	\$0	\$16,922,085	104.4%	\$16,714,460	\$17,867,630	\$34,582,090

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$34,582,090

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

**** TOTAL PROJECT COST SUMMARY ****

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

LOCATION: San Francisco, CA

This Estimate reflects the scope and schedule in report;

Alternatives Analysis

DISTRICT: SWT

POC: CHIEF, COST ENGINEERING, xxx

PREPARED:

8/4/2023

**** TOTAL PROJECT COST SUMMARY ****

PROJECT: SFWS
PROJECT NC P2 xxxxxx
LOCATION: San Francisco, CA

DISTRICT: SWT
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/4/2023

This Estimate reflects the scope and schedule in report; Alternatives Analysis Alternative G non-Seismic - Post DQC and Post ARA

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)				
WBS NUMBER A	Civil Works Feature & Sub-Feature Description B	COST (\$K) C	CNTG (\$K) D	CNTG (%) E	TOTAL (\$K) F	Program Year (Budget EC): Effective Price Level Date:					Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K) K	INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
						ESC (%) G	COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	2026 1 OCT 25						
02	Reach 01 40 Overall Structures Floodproof	\$20,161	\$18,483	91.7%	\$38,644	8.3%	\$21,830	\$20,013	\$41,843		\$0	\$41,843	43.2%	\$31,269	\$28,666	\$59,935
02	Reach 02 40 Overall Structures Floodproof	\$21,347	\$19,570	91.7%	\$40,918	8.3%	\$23,114	\$21,190	\$44,304		\$0	\$44,304	43.2%	\$33,108	\$30,353	\$63,461
02	Reach 03 40 Overall Structures Floodproof	\$17,789	\$16,309	91.7%	\$34,098	8.3%	\$19,262	\$17,658	\$36,920		\$0	\$36,920	43.2%	\$27,590	\$25,294	\$52,884
02	Reach 04 40 Overall Structures Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 01 40 Overall Utility Relocations	\$6,655	\$17,606	264.5%	\$24,262	8.3%	\$7,206	\$19,064	\$26,270		\$0	\$26,270	43.2%	\$10,322	\$27,307	\$37,629
02	Reach 02 40 Overall Utility Relocations	\$35,274	\$93,314	264.5%	\$128,588	8.3%	\$38,193	\$101,037	\$139,230		\$0	\$139,230	43.2%	\$54,707	\$144,725	\$199,432
02	Reach 03 40 Overall Utility Relocations	\$13,311	\$35,213	264.5%	\$48,524	8.3%	\$14,412	\$38,127	\$52,540		\$0	\$52,540	43.2%	\$20,644	\$54,613	\$75,257
02	Reach 04 40 Overall Utility Relocations	\$11,314	\$29,931	264.5%	\$41,245	8.3%	\$12,251	\$32,408	\$44,659		\$0	\$44,659	43.2%	\$17,548	\$46,421	\$63,969
02	Reach 01 '40 Overall Structure Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 02 '40 Overall Structure Floodproof	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 03 '40 Overall Structure Floodproof	\$15,293	\$14,020	91.7%	\$29,314	8.3%	\$16,559	\$15,181	\$31,740		\$0	\$31,740	43.2%	\$23,719	\$21,745	\$45,464
02	Reach 04 '40 Overall Structure Floodproof	\$15,293	\$14,020	91.7%	\$29,314	8.3%	\$16,559	\$15,181	\$31,740		\$0	\$31,740	43.2%	\$23,719	\$21,745	\$45,464
10	Reach 01 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 02 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 03 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	Reach 04 40 Overall Seismic Ground Impr	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Transportation Corridor	\$49,473	\$40,323	81.5%	\$89,796	8.3%	\$53,568	\$43,660	\$97,228		\$0	\$97,228	43.2%	\$76,730	\$62,539	\$139,269
02	40 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 01 Berms/Fill	\$3,800	\$2,703	71.1%	\$6,503	8.3%	\$4,115	\$2,927	\$7,042		\$0	\$7,042	43.2%	\$5,894	\$4,192	\$10,086
10	40 REACH 01 Ground Improvement/DSM	\$125,688	\$192,586	153.2%	\$318,274	8.3%	\$136,090	\$208,524	\$344,614		\$0	\$344,614	43.2%	\$194,935	\$298,690	\$493,625
10	40 REACH 01 Cantilever Walls/Pile Caps/W	\$64,380	\$35,625	55.3%	\$100,005	8.3%	\$69,708	\$38,574	\$108,282		\$0	\$108,282	43.2%	\$99,850	\$55,253	\$155,102
11	40 REACH 01 Anchored Walls/T-Wall	\$16,053	\$13,440	83.7%	\$29,493	8.3%	\$17,382	\$14,552	\$31,934		\$0	\$31,934	43.2%	\$24,897	\$20,845	\$45,742
10	40 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Wharf Replacement	\$88,172	\$58,173	66.0%	\$146,346	8.3%	\$95,469	\$62,988	\$158,457		\$0	\$158,457	43.2%	\$136,750	\$90,224	\$226,974
10	40 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 01 Pump Stations/Interior Drain	\$23,633	\$24,389	103.2%	\$48,022	8.3%	\$25,589	\$26,407	\$51,996		\$0	\$51,996	43.2%	\$36,653	\$37,826	\$74,479
10	40 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 01 Large Gates/Closure Structu	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 01 Temp Raise/Relocate Repla	\$62,594	\$57,857	92.4%	\$120,451	8.3%	\$67,774	\$62,646	\$130,420		\$0	\$130,420	43.2%	\$97,079	\$89,733	\$186,813
02	40 REACH 01 Demolition of Bldgs/Structur	\$0	\$0 -		\$0	-	\$0	\$0	\$0		\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

02	40 REACH 01 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 01 Remaining Construction Iter	\$10,923	\$8,172	74.8%	\$19,095	8.3%	\$11,827	\$8,848	\$20,675	\$0	\$20,675	43.2%	\$16,941	\$12,674	\$29,616
02	40 REACH 02 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Transportation Corridor	\$294,092	\$239,699	81.5%	\$533,791	8.3%	\$318,431	\$259,536	\$577,968	\$0	\$577,968	43.2%	\$456,120	\$371,759	\$827,879
02	40 REACH 02 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
06	40 REACH 02 Plantings/EWN	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 02 Berms/Fill	\$8,683	\$6,176	71.1%	\$14,859	8.3%	\$9,402	\$6,687	\$16,089	\$0	\$16,089	43.2%	\$13,467	\$9,579	\$23,046
10	40 REACH 02 Ground Improvement/DSM	\$215,083	\$329,561	153.2%	\$544,644	8.3%	\$232,883	\$356,835	\$589,718	\$0	\$589,718	43.2%	\$333,582	\$511,131	\$844,712
10	40 REACH 02 Cantilever Walls/Pile Caps/	\$124,518	\$68,903	55.3%	\$193,421	8.3%	\$134,823	\$74,605	\$209,428	\$0	\$209,428	43.2%	\$193,120	\$106,865	\$299,985
11	40 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Wharf Replacement	\$282,623	\$186,466	66.0%	\$469,089	8.3%	\$306,012	\$201,898	\$507,910	\$0	\$507,910	43.2%	\$438,332	\$289,198	\$727,530
10	40 REACH 02 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Pump Stations/Interior Drain	\$53,987	\$55,714	103.2%	\$109,700	8.3%	\$58,455	\$60,325	\$118,779	\$0	\$118,779	43.2%	\$83,730	\$86,409	\$170,139
10	40 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 02 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Temp Raise/Relocate Repla	\$241,177	\$222,927	92.4%	\$464,104	8.3%	\$261,137	\$241,377	\$502,514	\$0	\$502,514	43.2%	\$374,052	\$345,747	\$719,799
02	40 REACH 02 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 02 Remaining Construction Iter	\$18,109	\$13,548	74.8%	\$31,657	8.3%	\$19,608	\$14,669	\$34,277	\$0	\$34,277	43.2%	\$28,086	\$21,013	\$49,099
02	40 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Transportation Corridor	\$111,935	\$91,232	81.5%	\$203,167	8.3%	\$121,198	\$98,782	\$219,981	\$0	\$219,981	43.2%	\$173,604	\$141,496	\$315,100
02	40 REACH 03 Bridge Replacement	\$128,162	\$190,309	148.5%	\$318,472	8.3%	\$138,769	\$206,059	\$344,828	\$0	\$344,828	43.2%	\$198,772	\$295,159	\$493,931
06	40 REACH 03 Plantings/EWN	\$15,169	\$9,464	62.4%	\$24,633	8.3%	\$16,424	\$10,247	\$26,672	\$0	\$26,672	43.2%	\$23,526	\$14,678	\$38,205
11	40 REACH 03 Berms/Fill	\$11,192	\$7,960	71.1%	\$19,152	8.3%	\$12,118	\$8,619	\$20,737	\$0	\$20,737	43.2%	\$17,358	\$12,346	\$29,704
10	40 REACH 03 Ground Improvement/DSM	\$81,752	\$125,264	153.2%	\$207,016	8.3%	\$88,517	\$135,631	\$224,148	\$0	\$224,148	43.2%	\$126,792	\$194,277	\$321,070
10	40 REACH 03 Cantilever Walls/Pile Caps/	\$49,128	\$27,185	55.3%	\$76,313	8.3%	\$53,194	\$29,435	\$82,629	\$0	\$82,629	43.2%	\$76,195	\$42,163	\$118,358
11	40 REACH 03 Anchored Walls/T-Wall	\$33,483	\$28,032	83.7%	\$61,515	8.3%	\$36,254	\$30,352	\$66,606	\$0	\$66,606	43.2%	\$51,929	\$43,476	\$95,406
10	40 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Wharf Replacement	\$112,420	\$74,171	66.0%	\$186,591	8.3%	\$121,723	\$80,309	\$202,033	\$0	\$202,033	43.2%	\$174,356	\$115,035	\$289,392
10	40 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 03 Pump Stations/Interior Drain	\$131,150	\$135,345	103.2%	\$266,494	8.3%	\$142,004	\$146,546	\$288,550	\$0	\$288,550	43.2%	\$203,406	\$209,912	\$413,318
10	40 REACH 03 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 03 Large Gates/Closure Structu	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 03 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Temp Raise/Relocate Repla	\$89,485	\$82,714	92.4%	\$172,199	8.3%	\$96,891	\$89,559	\$186,451	\$0	\$186,451	43.2%	\$138,787	\$128,285	\$267,071
02	40 REACH 03 Demolition of Bldgs/Structur	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 03 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 03 Remaining Construction Iter	\$6,948	\$5,198	74.8%	\$12,147	8.3%	\$7,523	\$5,629	\$13,152	\$0	\$13,152	43.2%	\$10,777	\$8,063	\$18,839
02	40 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Bridge Replacement	\$72,949	\$108,322	148.5%	\$181,271	8.3%	\$78,986	\$117,287	\$196,273	\$0	\$196,273	43.2%	\$113,139	\$168,001	\$281,140
06	40 REACH 04 Plantings/EWN	\$19,679	\$12,278	62.4%	\$31,957	8.3%	\$21,308	\$13,294	\$34,602	\$0	\$34,602	43.2%	\$30,521	\$19,042	\$49,564
11	40 REACH 04 Berms/Fill	\$18,904	\$13,446	71.1%	\$32,350	8.3%	\$20,469	\$14,558	\$35,027	\$0	\$35,027	43.2%	\$29,319	\$20,853	\$50,173
10	40 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
11	40 REACH 04 Anchored Walls/T-Wall	\$1,084	\$908	83.7%	\$1,992	8.3%	\$1,174	\$983	\$2,157	\$0	\$2,157	43.2%	\$1,682	\$1,408	\$3,089
10	40 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

10	40 REACH 04 Wharf Replacement	\$170,493	\$112,486	66.0%	\$282,979	8.3%	\$184,603	\$121,795	\$306,398	\$0	\$306,398	43.2%	\$264,425	\$174,460	\$438,884
10	40 REACH 04 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
13	40 REACH 04 Pump Stations/Interior Drain	\$258,827	\$267,106	103.2%	\$525,932	8.3%	\$280,248	\$289,212	\$569,460	\$0	\$569,460	43.2%	\$401,426	\$414,267	\$815,692
10	40 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 REACH 04 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
16	40 REACH 04 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Temp Raise/Relocate Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Demolition of Bldgs/Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
ALL	40 REACH 04 Remaining Construction Items	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	Reach 01 90 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	Reach 02 90 Overall Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	Reach 03 90 Overall Utility Relocations	\$18,901	\$50,002	264.5%	\$68,904	8.3%	\$20,466	\$54,140	\$74,606	\$0	\$74,606	417%	\$105,793	\$279,869	\$385,662
02	Reach 04 90 Overall Utility Relocations	\$7,720	\$20,423	264.5%	\$28,144	8.3%	\$8,359	\$22,114	\$30,473	\$0	\$30,473	417%	\$43,211	\$114,313	\$157,524
10	Reach 01 90 Overall Seismic Ground Improvement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	Reach 02 90 Overall Seismic Ground Improvement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	Reach 03 90 Overall Seismic Ground Improvement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	Reach 04 90 Overall Seismic Ground Improvement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 01 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 01 Berms/Fill	\$2,160	\$1,536	71.1%	\$3,696	8.3%	\$2,338	\$1,663	\$4,001	\$0	\$4,001	417%	\$12,087	\$8,597	\$20,685
10	90 REACH 01 Ground Improvement/DSM	\$21,978	\$33,675	153.2%	\$55,653	8.3%	\$23,796	\$36,462	\$60,258	\$0	\$60,258	417%	\$123,011	\$188,483	\$311,494
10	90 REACH 01 Cantilever Walls/Pile Caps/Wall	\$2,807	\$1,553	55.3%	\$4,360	8.3%	\$3,039	\$1,682	\$4,721	\$0	\$4,721	417%	\$15,712	\$8,694	\$24,406
11	90 REACH 01 Anchored Walls/T-Wall	\$16,053	\$13,440	83.7%	\$29,493	8.3%	\$17,382	\$14,552	\$31,934	\$0	\$31,934	417%	\$89,851	\$75,225	\$165,076
10	90 REACH 01 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 01 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Roller Gate/Vehicle Barriers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 01 Large Gates/Closure Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 01 Armoring	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Temp Raise/Relocate Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Demolition of Bldgs/Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 01 Floodproofing Structures	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 01 Remaining Construction Items	\$3,376	\$2,526	74.8%	\$5,902	8.3%	\$3,656	\$2,735	\$6,391	\$0	\$6,391	417%	\$18,898	\$14,139	\$33,037
02	90 REACH 02 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Transportation Corridor	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Bridge Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 02 Plantings/EWN	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
11	90 REACH 02 Berms/Fill	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Ground Improvement/DSM	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/Wall	\$4,256	\$2,355	55.3%	\$6,611	8.3%	\$4,608	\$2,550	\$7,158	\$0	\$7,158	417%	\$23,822	\$13,182	\$37,004
11	90 REACH 02 Anchored Walls/T-Wall	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Combi-Wall (Offshore)	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Wharf Replacement	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Raise Piers	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Pump Stations/Interior Drain	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0

**** TOTAL PROJECT COST SUMMARY ****

10	90 REACH 02 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 02 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 02 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Temp Raise/Relocate Replacements	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 02 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 02 Remaining Construction Items	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Transportation Corridor	\$693	\$564	81.5%	\$1,257	8.3%	\$750	\$611	\$1,361	\$0	\$1,361	417%	\$3,876	\$3,159	\$7,036
02	90 REACH 03 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 03 Plantings/EWN	\$28,174	\$17,578	62.4%	\$45,753	8.3%	\$30,506	\$19,033	\$49,539	\$0	\$49,539	417%	\$157,696	\$98,388	\$256,084
11	90 REACH 03 Berms/Fill	\$42,484	\$30,217	71.1%	\$72,701	8.3%	\$46,000	\$32,718	\$78,718	\$0	\$78,718	417%	\$237,789	\$169,128	\$406,917
10	90 REACH 03 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Cantilever Walls/Pile Caps/Wall	\$1,653	\$915	55.3%	\$2,568	8.3%	\$1,790	\$990	\$2,780	\$0	\$2,780	417%	\$9,253	\$5,120	\$14,373
11	90 REACH 03 Anchored Walls/T-Wall	\$7,900	\$6,614	83.7%	\$14,515	8.3%	\$8,554	\$7,162	\$15,716	\$0	\$15,716	417%	\$44,219	\$37,021	\$81,240
10	90 REACH 03 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 03 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 03 Pump Stations/Interior Drainage	\$15,683	\$16,185	103.2%	\$31,867	8.3%	\$16,981	\$17,524	\$34,505	\$0	\$34,505	417%	\$87,779	\$90,587	\$178,366
10	90 REACH 03 Roller Gate/Vehicle Barriers	\$8,716	\$5,504	63.1%	\$14,219	8.3%	\$9,437	\$5,959	\$15,396	\$0	\$15,396	417%	\$48,782	\$30,804	\$79,586
10	90 REACH 03 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 03 Armoring	\$4,977	\$2,653	53.3%	\$7,630	8.3%	\$5,389	\$2,872	\$8,262	\$0	\$8,262	417%	\$27,859	\$14,848	\$42,707
02	90 REACH 03 Temp Raise/Relocate Replacements	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Demolition of Bldgs/Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Floodproofing Structures	\$40,871	\$37,469	91.7%	\$78,341	8.3%	\$44,254	\$40,570	\$84,824	\$0	\$84,824	417%	\$228,761	\$209,721	\$438,482
ALL	90 REACH 03 Remaining Construction Items	\$15,871	\$11,874	74.8%	\$27,746	8.3%	\$17,185	\$12,857	\$30,042	\$0	\$30,042	417%	\$88,835	\$66,462	\$155,296
02	90 REACH 04 Utility Relocations	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Transportation Corridor	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Bridge Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
06	90 REACH 04 Plantings/EWN	\$178,932	\$111,637	62.4%	\$290,568	8.3%	\$193,741	\$120,876	\$314,617	\$0	\$314,617	417%	\$1,001,505	\$624,846	\$1,626,351
11	90 REACH 04 Berms/Fill	\$51,905	\$36,917	71.1%	\$88,822	8.3%	\$56,201	\$39,973	\$96,173	\$0	\$96,173	417%	\$290,516	\$206,630	\$497,147
10	90 REACH 04 Ground Improvement/DSM	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/Wall	\$1,057	\$585	55.3%	\$1,643	8.3%	\$1,145	\$634	\$1,779	\$0	\$1,779	417%	\$5,919	\$3,275	\$9,194
11	90 REACH 04 Anchored Walls/T-Wall	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Combi-Wall (Offshore)	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Wharf Replacement	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Raise Piers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
13	90 REACH 04 Pump Stations/Interior Drainage	\$1,331	\$1,374	103.2%	\$2,705	8.3%	\$1,441	\$1,487	\$2,929	\$0	\$2,929	417%	\$7,450	\$7,689	\$15,139
10	90 REACH 04 Roller Gate/Vehicle Barriers	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
10	90 REACH 04 Large Gates/Closure Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
16	90 REACH 04 Armoring	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Temp Raise/Relocate Replacements	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 04 Demolition of Bldgs/Structures	\$48,427	\$34,261	70.7%	\$82,688	8.3%	\$52,435	\$37,097	\$89,532	\$0	\$89,532	417%	\$271,052	\$191,765	\$462,817
02	90 REACH 04 Floodproofing Structures	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 04 Remaining Construction Items	\$12,468	\$9,328	74.8%	\$21,795	8.3%	\$13,499	\$10,100	\$23,599	\$0	\$23,599	417%	\$69,783	\$52,208	\$121,991
CONSTRUCTION ESTIMATE TOTALS:		\$3,690,580	\$3,555,338		\$7,245,918	8.3%	\$3,996,014	\$3,849,579	\$7,845,593	\$0	\$7,845,593	94.2%	\$7,902,319	\$7,331,616	\$15,233,936

**** TOTAL PROJECT COST SUMMARY ****

01	40 LANDS AND DAMAGES Reach 01	\$8,706	\$4,353	50.0%	\$13,059	8.3%	\$9,427	\$4,713	\$14,140	\$0	\$14,140	7.3%	\$10,119	\$5,059	\$15,178
01	40 LANDS AND DAMAGES Reach 02	\$380	\$190	50.0%	\$570	8.3%	\$411	\$206	\$617	\$0	\$617	7.3%	\$442	\$221	\$662
01	40 LANDS AND DAMAGES Reach 03	\$20,463	\$10,232	50.0%	\$30,695	8.3%	\$22,157	\$11,078	\$33,235	\$0	\$33,235	7.3%	\$23,783	\$11,892	\$35,675
01	40 LANDS AND DAMAGES Reach 04	\$59,795	\$29,898	50.0%	\$89,693	8.3%	\$64,744	\$32,372	\$97,116	\$0	\$97,116	7.3%	\$69,497	\$34,748	\$104,245
01	90 LANDS AND DAMAGES Reach 01	\$6,243	\$3,122	50.0%	\$9,365	8.3%	\$6,760	\$3,380	\$10,140	\$0	\$10,140	275.1%	\$25,358	\$12,679	\$38,036
01	90 LANDS AND DAMAGES Reach 02	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	90 LANDS AND DAMAGES Reach 03	\$507,332	\$253,666	50.0%	\$760,998	8.3%	\$549,320	\$274,660	\$823,980	\$0	\$823,980	275.1%	\$2,060,661	\$1,030,330	\$3,090,991
01	90 LANDS AND DAMAGES Reach 04	\$271,086	\$135,543	50.0%	\$406,629	8.3%	\$293,522	\$146,761	\$440,283	\$0	\$440,283	275.1%	\$1,101,086	\$550,543	\$1,651,629
30	Reach 01 40 PLANNING, ENGINEERING	\$67,194	\$37,645	56.0%	\$104,839	7.4%	\$72,167	\$40,431	\$112,598	\$0	\$112,598	11.3%	\$80,318	\$44,998	\$125,317
30	Reach 02 40 PLANNING, ENGINEERING	\$184,522	\$103,378	56.0%	\$287,900	7.4%	\$198,180	\$111,030	\$309,210	\$0	\$309,210	11.3%	\$220,565	\$123,571	\$344,136
30	Reach 03 40 PLANNING, ENGINEERING	\$116,453	\$65,243	56.0%	\$181,696	7.4%	\$125,073	\$70,072	\$195,144	\$0	\$195,144	11.3%	\$139,200	\$77,987	\$217,187
30	Reach 04 40 PLANNING, ENGINEERING	\$81,017	\$45,390	56.0%	\$126,407	7.4%	\$87,014	\$48,749	\$135,763	\$0	\$135,763	11.3%	\$96,843	\$54,256	\$151,098
30	Reach 01 90 PLANNING, ENGINEERING	\$6,127	\$3,433	56.0%	\$9,560	7.4%	\$6,581	\$3,687	\$10,267	\$0	\$10,267	203.4%	\$19,965	\$11,185	\$31,150
30	Reach 02 90 PLANNING, ENGINEERING	\$3,781	\$2,118	56.0%	\$5,899	7.4%	\$4,061	\$2,275	\$6,336	\$0	\$6,336	203.4%	\$12,320	\$6,902	\$19,223
30	Reach 03 90 PLANNING, ENGINEERING	\$24,901	\$13,951	56.0%	\$38,852	7.4%	\$26,744	\$14,983	\$41,727	\$0	\$41,727	203.4%	\$81,138	\$45,457	\$126,595
30	Reach 04 90 PLANNING, ENGINEERING	\$41,912	\$23,481	56.0%	\$65,393	7.4%	\$45,014	\$25,219	\$70,233	\$0	\$70,233	203.4%	\$136,567	\$76,511	\$213,079
31	Reach 01 40 CONSTRUCTION MANAGE	\$34,186	\$21,568	63.1%	\$55,754	7.4%	\$36,717	\$23,164	\$59,880	\$0	\$59,880	35.5%	\$49,745	\$31,383	\$81,128
31	Reach 02 40 CONSTRUCTION MANAGE	\$93,880	\$59,227	63.1%	\$153,107	7.4%	\$100,828	\$63,611	\$164,440	\$0	\$164,440	35.5%	\$136,606	\$86,183	\$222,789
31	Reach 03 40 CONSTRUCTION MANAGE	\$59,248	\$37,379	63.1%	\$96,627	7.4%	\$63,633	\$40,146	\$103,779	\$0	\$103,779	35.5%	\$86,213	\$54,391	\$140,604
31	Reach 04 40 CONSTRUCTION MANAGE	\$41,219	\$26,005	63.1%	\$67,224	7.4%	\$44,270	\$27,930	\$72,200	\$0	\$72,200	35.5%	\$59,979	\$37,840	\$97,819
31	Reach 01 90 CONSTRUCTION MANAGE	\$3,117	\$1,967	63.1%	\$5,084	7.4%	\$3,348	\$2,112	\$5,460	\$0	\$5,460	266.3%	\$12,263	\$7,737	\$20,000
31	Reach 02 90 CONSTRUCTION MANAGE	\$1,924	\$1,214	63.1%	\$3,137	7.4%	\$2,066	\$1,303	\$3,370	\$0	\$3,370	266.3%	\$7,568	\$4,774	\$12,342
31	Reach 03 90 CONSTRUCTION MANAGE	\$12,669	\$7,993	63.1%	\$20,662	7.4%	\$13,607	\$8,584	\$22,191	\$0	\$22,191	266.3%	\$49,837	\$31,442	\$81,279
31	Reach 04 90 CONSTRUCTION MANAGE	\$21,324	\$13,453	63.1%	\$34,776	7.4%	\$22,902	\$14,449	\$37,350	\$0	\$37,350	266.3%	\$83,884	\$52,921	\$136,805
PROJECT COST TOTALS:		\$5,358,060	\$4,455,783	83.2%	\$9,813,843		\$5,794,558	\$4,820,494	\$10,615,052	\$0	\$10,615,052	109.1%	\$12,466,275	\$9,724,627	\$22,190,903

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$22,190,903

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

CHIEF, CONSTRUCTION, xxx

CHIEF, CONTRACTING,xxx

CHIEF, PM-PB, xxxx

CHIEF, DPM, xxx

**** CONTRACT COST SUMMARY ****

PROJECT: SFWS

LOCATION: San Francisco, CA

This Estimate reflects the scope and schedule in report; Alternatives Analysis

DISTRICT: SWT

POC: CHIEF, COST ENGINEERING, xxx

PREPARED:

8/4/2023

Attachment C-11: Array of Alternatives Abbreviated Risk Analysis

Abbreviated Risk Analysis

Project (less than \$40M): **San Francisco Waterfront Study**
Project Development Stage/Alternative: **Alternative Formulation**
Risk Category: **High Risk: Complex Project or Unique Type Construction**

Alternative: **All**

Meeting Date: **5/30/2023**

Total Estimated Construction Contract Cost = **\$ 19**

	CWWBS	Feature of Work	Estimated Cost	% Contingency	\$ Contingency	Total
	01 LANDS AND DAMAGES	Real Estate	\$ 1	25%	\$ 0	\$ 1
1	02 RELOCATIONS	Utility Relocations	\$ 1	265%	\$ 3	\$ 4
2	02 01 ROADS, Construction Activities	Transportation Corridor	\$ 1	82%	\$ 1	\$ 2
3	02 01 ROADS, Construction Activities	Bridge Replacement	\$ 1	148%	\$ 1	\$ 2
4	06 03 WILDLIFE FACILITIES AND SANCTUARIES	Plantings/EWN	\$ 1	62%	\$ 1	\$ 2
5	11 01 LEVEES	Berms/Fill	\$ 1	71%	\$ 1	\$ 2
6	11 01 LEVEES	Deep Soil Mixing	\$ 1	153%	\$ 2	\$ 3
7	11 02 FLOODWALLS	Cantilever walls/Pile Caps	\$ 1	55%	\$ 1	\$ 2
8	11 02 FLOODWALLS	Anchored Walls	\$ 1	84%	\$ 1	\$ 2
9	11 02 FLOODWALLS	Combi-Wall (Offshore)	\$ 1	106%	\$ 1	\$ 2
10	12 02 HARBORS	Wharf Replacement	\$ 1	66%	\$ 1	\$ 2
11	12 02 HARBORS	Raise Piers	\$ 1	63%	\$ 1	\$ 2
12	13 PUMPING PLANT	Pump Stations/Interior Drainage	\$ 1	103%	\$ 1	\$ 2
13	15 FLOODWAY CONTROL AND DIVERSION STRUCTURES	Roller Gate/Vehicle Barriers	\$ 1	63%	\$ 1	\$ 2
14	15 FLOODWAY CONTROL AND DIVERSION STRUCTURES	Large Gates/Closure Structures	\$ 1	126%	\$ 1	\$ 2
15	16 BANK STABILIZATION	Armoring	\$ 1	53%	\$ 1	\$ 2
16	19 BUILDINGS, GROUNDS, AND UTILITIES	Temp Raising/Relocate/Replace Buildings	\$ 1	92%	\$ 1	\$ 2
17	19 BUILDINGS, GROUNDS, AND UTILITIES	Demolition of Bldgs/Structures	\$ 1	71%	\$ 1	\$ 2
18	19 BUILDINGS, GROUNDS, AND UTILITIES	Floodproofing of Structures	\$ 1	92%	\$ 1	\$ 2
19	All Other	Remaining Construction Items	\$ 1	5.6%	\$ 1	\$ 2
20	30 PLANNING, ENGINEERING, AND DESIGN	Planning, Engineering, & Design	\$ 1	56%	\$ 1	\$ 2
21	31 CONSTRUCTION MANAGEMENT	Construction Management	\$ 1	63%	\$ 1	\$ 2
XX	FIXED DOLLAR RISK ADD (EQUALLY DISPERSED TO ALL, MUST INCLUDE JUSTIFICATION SEE BELOW)				\$ -	

Totals					
Real Estate	\$	1	25%	\$ 0	\$ 1.25
Total Construction Estimate	\$	19	96%	\$ 18	\$ 37
Total Planning, Engineering & Design	\$	1	56%	\$ 1	\$ 2
Total Construction Management	\$	1	63%	\$ 1	\$ 2
Total Excluding Real Estate	\$	21	93%	\$ 19	\$ 40
		Base	50%	80%	
		\$k	\$k	\$k	

* 50% based on base is at 5% CL.

Fixed Dollar Risk Add: (Allows for additional risk to be added to the risk analysis. Must include justification. Does not allocate to Real Estate.

San Francisco Waterfront Study All

Alternative Formulation
Abbreviated Risk Analysis
Meeting Date: 30-May-23

Risk Level					
Very Likely	2	3	4	5	5
Likely	1	2	3	4	5
Possible	0	1	2	3	4
Unlikely	0	0	1	2	3
	Negligible	Marginal	Moderate	Significant	Critical

Risk Register

Project Management & Scope Growth				Maximum Project Growth		200%
PS-1	Utility Relocations	• Potential for scope growth, added features? • Project accomplishes intent? • Funding Difficulties? • Sufficient Staffing/Support?	Each alternative has plug numbers assigned, but there is no scope known. The amounts included have been roughly discussed but are essentially SWAGs.	Significant	Very LIKELY	5
PS-2	Transportation Corridor		Scope for corridor work is based on some previous work and all construction elements seem to be included. Some possibility for additional scope but impact would only be marginal. Certain alternatives will have additional work required for temp trolley detours but that work is being added into the estimate for each affected alternative.	Marginal	Possible	1
PS-3	Bridge Replacement		Some of the alternatives will need some additional work that will be added into the cost estimate. Some of the bridges are historic and may require additional efforts.	Moderate	Very LIKELY	4
PS-4	Plantings/EWN		There have been some preliminary designs for these features and they have been priced out accordingly in some detail. Areas of construction seem to be pretty well defined.	Marginal	Possible	1
PS-5	Berms/Fill		X-sections have been developed for different areas. Assumptions for water levels were a bit conservative. Hydrology still uncertain and modeling could come back with different design heights.	Moderate	Possible	2
PS-6	Deep Soil Mixing		Cost information based on similar work but overall scope of DSM is still fairly uncertain.	Significant	Likely	4
PS-7	Cantilever walls/Pile Caps		Fairly detailed scope for these walls, length/area well known.	Marginal	Possible	1
PS-8	Anchored Walls		Lengths of walls should be good, tieback design/type still unknown.	Moderate	Likely	3
PS-9	Combi-Wall (Offshore)		Based on previous similar designs. Could be some growth but overall scope is not unreasonable.	Moderate	Likely	3
PS-10	Wharf Replacement		Based on scope to rebuild; includes additional effort in estimate to cover unknowns.	Marginal	Possible	1
PS-11	Raise Piers		Based on scope to rebuild; includes additional effort in estimate to cover unknowns.	Marginal	Possible	1
PS-12	Pump Stations/Interior Drainage		Designs for Pump Stations based on CFS; likely to change over design period	Moderate	Likely	3

PS-13	Roller Gate/Vehicle Barriers			Moderate	Possible	2
PS-14	Large Gates/Closure Structures		Based on sector gate estimate; scope could be slightly conservative so reduce potential impact down to moderate.	Moderate	Likely	3
PS-15	Armoring			Marginal	Possible	1
PS-16	Temp Raising/Relocate/Replace Buildings		Uncertainty about what exactly will be done to temporarily move the structures on the piers/wharves.	Moderate	Likely	3
PS-17	Demolition of Bldgs/Structures		Bldgs/structures measured in Google Earth; could potentially change as alignments change.	Moderate	Possible	2
PS-18	Floodproofing of Structures		Bldgs/structures measured in Google Earth; could potentially change as alignments change.	Significant	Possible	3
PS-19	Remaining Construction Items			Marginal	Possible	1
PS-20	Planning, Engineering, & Design		PED Currently being estimated based on a %; post-meeting, this will be revised based on a sliding scale to more accurately reflect the estimated labor effort. Assume some variance in PED scope is possible.	Marginal	Possible	1
PS-21	Construction Management		S&A Currently being estimated based on a %; post-meeting, this will be revised based on a sliding scale to more accurately reflect the estimated labor effort. Assume some variance in S&A scope is possible.	Marginal	Possible	1

Acquisition Strategy						Maximum Project Growth	30%
AS-1	Utility Relocations		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-2	Transportation Corridor		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-3	Bridge Replacement		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-4	Plantings/EWN		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-5	Berms/Fill		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-6	Deep Soil Mixing		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-7	Cantilever walls/Pile Caps		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-8	Anchored Walls		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-9	Combi-Wall (Offshore)		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-10	Wharf Replacement		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-11	Raise Piers		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-12	Pump Stations/Interior Drainage		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	
AS-13	Roller Gate/Vehicle Barriers		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4	

AS-14	Large Gates/Closure Structures		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4
AS-15	Armoring		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4
AS-16	Temp Raising/Relocate/Replace Buildings		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4
AS-17	Demolition of Bldgs/Structures		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4
AS-18	Floodproofing of Structures		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4
AS-19	Remaining Construction Items		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4
AS-20	Planning, Engineering, & Design		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4
AS-21	Construction Management		This risk is moderate impact and very likely to occur due to possibility of multiple contracts, where the cost estimate assumes one contract.	Moderate	Very LIKELY	4

Construction Elements				Maximum Project Growth		50%
CON-1	Utility Relocations		Once utility companies are contracted to relocate everything, shouldn't be a whole lot of cost growth. Possible that there will be unknown utilities that are uncovered during construction and could incur additional cost and/or schedule.	Moderate	Possible	2
CE-2	Transportation Corridor		Transportation/Road work consists mainly of demo and rework due to installation of flood protection measures. The Transportation/Road work is fairly straightforward and not assumed specialty and risky.	Marginal	Possible	1
CE-3	Bridge Replacement		Bridge Replacement construction involves both land and marine construction activities. Unknown whether scope would be to raise or replace.	Moderate	Likely	3
CE-4	Plantings/EWN		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods. Some risk that scope creep leads to increased cost due to uncertainty of scope.	Marginal	Possible	1
CE-5	Berms/Fill		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
CE-6	Deep Soil Mixing		Scope and means and methods are more-unknown. Laydown areas, construction access and impacts to existing area is unknown. Also estimate assumed DSM. However, other more-costly ground improvements may be required in areas. Considered a higher risk.	Significant	Likely	4
CE-7	Cantilever walls/Pile Caps		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods. Risk that architectural features may be added.	Marginal	Possible	1
CE-8	Anchored Walls		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods. Likely that additional construction laydown areas and methods may be needed. Marine construction likely required, introducing some risk.	Marginal	Likely	2
CE-9	Combi-Wall (Offshore)		Construction means and methods will be mainly marine with risks of lost productivity, with challenges to material and equipment sequencing, handling and storage. Also, permitting and other requirements could introduce scope creep and cost.	Moderate	Likely	3
CE-10	Wharf Replacement		Construction means and methods will be combination of land and marine with risks of lost productivity, with challenges to material and equipment sequencing, handling and storage. Working around existing facilities will be a challenge.	Moderate	Likely	3
CE-11	Raise Piers		Construction means and methods will be combination of land and marine with risks of lost productivity, with challenges to material and equipment sequencing, handling and storage. Working around existing facilities will be a challenge.	Moderate	Possible	2
CE-12	Pump Stations/Interior Drainage		Risk that scope is not totally defined with conveyance and pumping systems. Also pump station costs are unit costs based on CFS. Construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Moderate	Likely	3
CE-13	Roller Gate/Vehicle Barriers		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1

CE-14	Large Gates/Closure Structures		Scope is not well defined, and construction means and methods are assumed to be both land and marine based. Laydown areas, sequencing of work, Etc. are not well defined, and carry risk. With lack of scope definition, costs were brought in from Texas Coastal, and may not be completely applicable to this project.	Moderate	Likely	3
CE-15	Armoring		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
CE-16	Temp Raising/Relocate/Replace Buildings		Construction means and methods will be combination of land and marine with risks of lost productivity, with challenges to material and equipment sequencing, handling and storage. Working around existing facilities will be a challenge. Construction means and methods are assumed, but not well identified.	Moderate	Likely	3
CE-17	Demolition of Bldgs/Structures		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
CE-18	Floodproofing of Structures		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
CE-19	Remaining Construction Items			Marginal	Possible	1
CE-20	Planning, Engineering, & Design			Negligible	Unlikely	0
CE-21	Construction Management			Moderate	Possible	2
<u>Specialty Construction or Fabrication</u>						Maximum Project Growth
						75%
SC-1	Utility Relocations		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Negligible	Unlikely	0
SC-2	Transportation Corridor		Most of the scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods. However risk involved in the F-Line rail work.	Moderate	Likely	3
SC-3	Bridge Replacement		Bridge Replacement construction involves both land and marine construction activities. Unknown whether scope would be to raise or replace. Would involve some specialty construction means and methods, as well as construction fabrication and materials.	Moderate	Possible	2
SC-4	Plantings/EWN		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Negligible	Unlikely	0
SC-5	Berms/Fill		Some risk based on availability of the quantity of fill required	Moderate	Possible	2

SC-6	Deep Soil Mixing		Some risk based on availability of the quantity of cementitious material required	Moderate	Possible	2
SC-7	Cantilever walls/Pile Caps		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Negligible	Unlikely	0
SC-8	Anchored Walls		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
SC-9	Combi-Wall (Offshore)		Construction means and methods will be mainly marine with risks of lost productivity, with challenges to material and equipment sequencing, handling and storage. Fabrication will be needed for the assumed design.	Moderate	Likely	3
SC-10	Wharf Replacement		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods. Assumed work will be mostly land based with some marine. Some risk.	Marginal	Possible	1
SC-11	Raise Piers		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods. Assumed work will be mostly land based with some marine. Some risk.	Marginal	Possible	1
SC-12	Pump Stations/Interior Drainage		Risk that scope is not totally defined with conveyance and pumping systems. Construction activities are not necessarily specialized or requiring exceptional construction means and methods. Pumping equipment and specialized fabrication of gates, etc. may be required.	Moderate	Possible	2
SC-13	Roller Gate/Vehicle Barriers		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
SC-14	Large Gates/Closure Structures		Scope is not well defined, and construction means and methods are assumed to be both land and marine based. Special fabrication of large gates are assumed, as well as the intended design involving future conversion to pump station.	Significant	Likely	4
SC-15	Armoring		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
SC-16	Temp Raising/Relocate/Replace Buildings		Construction means and methods will be combination of land and marine with risks of lost productivity, with challenges to material and equipment sequencing, handling and storage. Working around existing facilities will be a challenge. Construction means and methods are assumed, but not well identified. Partial-building raising/relocating will likely require specialized construction and fabrication.	Marginal	Possible	1
SC-17	Demolition of Bldgs/Structures		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
SC-18	Floodproofing of Structures		Scope seems to be fairly defined, and construction activities are not necessarily specialized or requiring exceptional construction means and methods.	Marginal	Possible	1
SC-19	Remaining Construction Items			Negligible	Unlikely	0

SC-20	Planning, Engineering, & Design			Negligible	Unlikely	0
SC-21	Construction Management			Negligible	Unlikely	0

Technical Design & Quantities					Maximum Project Growth		40%
T-1	Utility Relocations		Each alternative has plug numbers assigned, but there is no scope known. The amounts included have been roughly discussed but are essentially SWAGs. Risk of additional quantities and design requirements.	Marginal	Very LIKELY	3	
T-2	Transportation Corridor		Scope for corridor work is based on some previous work and all construction elements seem to be included. Some possibility for additinoal scope. Certain alternatives will have additional work required for temp trolley detours.	Moderate	Possible	2	
T-3	Bridge Replacement		Some of the alternatives will need some additional work that will be added into the cost estimate. Some of the bridges are historic and may require additional design efforts.	Moderate	Possible	2	
T-4	Plantings/EWN		There have been some preliminary designs for these features and they have been priced out accordingly in some detail. Areas of construction seem to be pretty well defined. Quantities will need additional refinement and locating.	Moderate	Likely	3	
T-5	Berms/Fill		X-sections have been developed for different areas. Assumptions for water levels were a bit conservative. Hydrology still uncertain and modeling could come back with different design heights. RE and additional design needed to accommodate surrounding facilities.	Moderate	Possible	2	
T-6	Deep Soil Mixing		Cost information based on similar work but overall scope of DSM is still fairly uncertain, as well as affected surrounding facilities.	Marginal	Likely	2	
T-7	Cantilever walls/Pile Caps		Fairly detailed scope for these walls, length/area well known.	Marginal	Possible	1	
T-8	Anchored Walls		Lengths of walls should be good, tieback design/type still unknown.	Moderate	Possible	2	
T-9	Combi-Wall (Offshore)		Based on previous similar designs. Could be some growth but overall scope is not unreasonable.	Moderate	Possible	2	
T-10	Wharf Replacement		Based on scope to rebuild; includes additional effort in estimate to cover unknowns.	Marginal	Possible	1	
T-11	Raise Piers		Based on scope to rebuild; includes additional effort in estimate to cover unknowns.	Marginal	Possible	1	
T-12	Pump Stations/Interior Drainage		Designs for Pump Stations based on CFS; likely to change over design period	Moderate	Possible	2	
T-13	Roller Gate/Vehicle Barriers			Marginal	Possible	1	

T-14	Large Gates/Closure Structures		Based on sector gate estimate; scope could be slightly conservative so reduce potential impact down to moderate.	Marginal	Possible	1
T-15	Armoring			Marginal	Possible	1
T-16	Temp Raising/Relocate/Replace Buildings		Uncertainty about what exactly will be done to temporarily move the structures on the piers/wharves.	Marginal	Possible	1
T-17	Demolition of Bldgs/Structures		Bldgs/structures measured in Google Earth; could potentially change as alignments change.	Marginal	Likely	2
T-18	Floodproofing of Structures		Bldgs/structures measured in Google Earth; could potentially change as alignments change.	Marginal	Likely	2
T-19	Remaining Construction Items		Remaining construction mainly consists of demo and replace of sidewalks and concrete pavement. The extent is unknown and additional quantites and design are likely necessary.	Significant	Likely	4
T-20	Planning, Engineering, & Design			Marginal	Possible	1
T-21	Construction Management			Marginal	Likely	2

Cost Estimate Assumptions					Maximum Project Growth		45%
EST-1	Utility Relocations		Cost estimate assumes simply plug cost values for assumed utility conflicts/incorporation. Risk that the assumed plug values are not representative of the effort required to work around existing utilities.	Marginal	Likely	2	
EST-2	Transportation Corridor		Cost estimate assumes dimensions and quantities based on satellite imagery and broad scoping descriptions. Railway cost data was received from local area's historical project data, but may not represent costs for this project.	Moderate	Likely	3	
EST-3	Bridge Replacement		Cost estimate assumes dimensions and quantities based on satellite imagery and broad scoping descriptions. Bridge replacement, roadway and railway cost data was received from local area's historical project data, but may not represent costs for this project.	Moderate	Likely	3	
EST-4	Plantings/EWN		Cost estimate assumes basic design and construction methods to install basic EWN features. Risk that assumptions are not realized.	Marginal	Possible	1	
EST-5	Berms/Fill		Cost estimate assumes basic design and construction methods to install basic berm features. Risk that assumptions are not realized and actual methods are more complex and costly.	Moderate	Possible	2	
EST-6	Deep Soil Mixing		Deep soil mixing costs are included based on basic CY qnty and CY unit price solicited from contractors. Risk that actual costs could be more.	Marginal	Possible	1	
EST-7	Cantilever walls/Pile Caps		Cost estimate assumes basic design and construction methods to install basic walls and concrete pile caps. Risk that assumptions are not realized and more complex design and costs are needed.	Marginal	Possible	1	
EST-8	Anchored Walls		Cost estimate assumes basic design and construction methods to install basic anchored walls. Risk that assumptions are not realized and more complex design and costs are needed.	Marginal	Possible	1	
EST-9	Combi-Wall (Offshore)		Combi-wall costs were built with assumptions of design and construction utilizing cost items for concrete filled piles and infills, with marine crews with assumed productivity. Risk that the assumptions are off.	Moderate	Possible	2	
EST-10	Wharf Replacement		Cost estimate assumes basic design and construction methods to install basic concrete wharf replacement. Risk that assumptions are not realized and more complex design and costs are needed.	Marginal	Possible	1	
EST-11	Raise Piers		Cost estimate assumes basic design and construction methods to install basic pier raising with assumed means and methods discussed with the Eng design team. Risk that assumptions are not realized and more complex design and costs are needed.	Marginal	Likely	2	
EST-12	Pump Stations/Interior Drainage		Cost estimate includes \$\$ unit rate per pumping rate for new pump stations. This unit rate is based on USACE guidance but risk that it may not adequately represent the cost for this project. Additionally conveyance scope was not assumed, so no substantial costs are included for conveyance.	Moderate	Likely	3	
EST-13	Roller Gate/Vehicle Barriers		Cost estimate assumes basic design and construction methods to install basic roller gates/vehicle barriers. Risk that assumptions are not realized and more complex design and costs are needed.	Marginal	Possible	1	

EST-14	Large Gates/Closure Structures		Cost estimate for the large gate/closure structures was brought from S2G cost estimate, just assuming a similar gate structure. Its assumed that the cost estimate carries adequate costs to cover this structures, however risk that its not enough.	Marginal	Possible	1
EST-15	Armoring		Its assumed that the cost estimate carries adequate cost items to cover the overall costs of the armoring scope of work.	Negligible	Possible	0
EST-16	Temp Raising/Relocate/Replace Buildings		Cost estimate assumes basic design and construction methods to temp raise and relocate buildings with assumed means and methods discussed with the Eng design team and contractors. Risk that assumptions are not realized and more complex design and costs are needed.	Moderate	Possible	2
EST-17	Demolition of Bldgs/Structures		Cost estimate assumes basic design and construction methods to install basic pier raising with assumed means and methods discussed with the Eng design team. Risk that assumptions are not realized and more complex design and costs are needed.	Moderate	Possible	2
EST-18	Floodproofing of Structures		Floodproofing of structures is a relatively new work feature and the lack of historical cost data leads to larger assumptions. The cost assumes scope is consistent throughout all the structures. There's high risk that this is not correct.	Moderate	Likely	3
EST-19	Remaining Construction Items		Costs for remaining construction items, mainly including concrete pavement demo and rebuild, assumes basic level of construction means and methods. There's risk that the work would be more complex and costly.	Moderate	Possible	2
EST-20	Planning, Engineering, & Design		PED Currently being estimated based on a % based on guidance in the TPCS. Assume some variance in PED scope is possible.	Marginal	Possible	1
EST-21	Construction Management		Construction Management costs Currently being estimated based on a % based on guidance in the TPCS. Assume some variance in PED scope is possible.	Marginal	Possible	1

External Project Risks					Maximum Project Growth		60%
EX-1	Utility Relocations		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	
EX-2	Transportation Corridor		External risks including political influences, lack of support, etc. could cause issues with working in the transportation corridors as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2	
EX-3	Bridge Replacement		External risks including political influences, lack of support, etc. could cause issues with working on the bridges as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2	
EX-4	Plantings/EWN		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	
EX-5	Berms/Fill		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	
EX-6	Deep Soil Mixing		External risks including political influences, lack of support, market volatility, fuel prices, etc. could cause issues with performing the DSM as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2	
EX-7	Cantilever walls/Pile Caps		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	
EX-8	Anchored Walls		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	
EX-9	Combi-Wall (Offshore)		External risks including political influences, lack of support, etc. could cause issues with designing and installing a large wall in the bay as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2	
EX-10	Wharf Replacement		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	
EX-11	Raise Piers		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	
EX-12	Pump Stations/Interior Drainage		External risks including political influences, lack of support, real estate acquisition issues, etc. could cause issues with designing and constructing the Pump station and outfalls as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2	
EX-13	Roller Gate/Vehicle Barriers		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1	

EX-14	Large Gates/Closure Structures		Moderate Risk due to other organizations' dislike for this feature	Moderate	Likely	3
EX-15	Armoring		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Unlikely	0
EX-16	Temp Raising/Relocate/Replace Buildings		External risks including political influences, lack of support, real estate acquisition issues, etc. could cause issues with designing and raising/relocating the buildings as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2
EX-17	Demolition of Bldgs/Structures		External risks including political influences, lack of support, real estate acquisition issues, etc. could cause issues with designing and demolition of the buildings as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2
EX-18	Floodproofing of Structures		External risks including political influences, lack of support, real estate acquisition issues, etc. could cause issues with designing and constructing the floodproofing of structures as assumed possibly leading to loss in productivity, etc.	Moderate	Possible	2
EX-19	Remaining Construction Items		Not assuming large risk since the feature of work is not risky. Marginal risk of adverse weather or funding.	Marginal	Possible	1
EX-20	Planning, Engineering, & Design		Risk that adequate PED personnel are available for the design efforts, that wages and inflation increase quicker than expected.	Marginal	Likely	2
EX-21	Construction Management		Risk that adequate PED personnel are available for the design efforts, that wages and inflation increase quicker than expected.	Moderate	Possible	2

Alternative Formulation

Abbreviated Risk Analysis

Risk Evaluation

WBS	Potential Risk Areas	Project Management & Scope Growth	Acquisition Strategy	Construction Elements	Specialty Construction or Fabrication	Technical Design & Quantities	Cost Estimate Assumptions	External Project Risks	Cost in Thousands
01 LANDS AND DAMAGES	Real Estate								\$1
02 RELOCATIONS	Utility Relocations	5	4	2	0	3	2	1	\$0
02 01 ROADS, Construction Activities	Transportation Corridor	1	4	1	3	2	3	2	\$0
11 01 LEVEES	Berms/Fill	4	4	3	2	2	3	2	\$0
11 02 FLOODWALLS	Cantilever walls/Pile Caps	1	4	1	0	3	1	1	\$0
11 02 FLOODWALLS	Anchored Walls	2	4	1	2	2	2	1	\$0
11 02 FLOODWALLS	Combi-Wall (Offshore)	4	4	4	2	2	1	2	\$0
12 02 HARBORS	Wharf Replacement	1	4	1	0	1	1	2	\$0
15 FLOODWAY CONTROL AND DIVERSION STRUCTURES	Roller Gate/Vehicle Barriers	3	4	2	1	2	0	0	\$0
16 BANK STABILIZATION	Armoring	3	4	3	1	1	2	2	\$0
19 BUILDINGS, GROUNDS, AND UTILITIES	Demolition of Bldgs/Structures	1	4	1	1	2	2	2	\$0
19 BUILDINGS, GROUNDS, AND UTILITIES	Floodproofing of Structures	3	4	1	1	2	3	2	\$0
All Other	Remaining Construction Items	1	4	1	0	4	2	1	\$0
30 PLANNING, ENGINEERING, AND DESIGN	Planning, Engineering, & Design	1	4	0	0	1	1	2	\$0
31 CONSTRUCTION MANAGEMENT	Construction Management	1	4	2	0	2	1	2	\$0

\$0

Risk

[illegible]

\$0

Fixed Dollar Risk Allocation

\$	- \$	- \$	- \$	- \$	- \$	- \$	-	\$0
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\$0

Risk

[illegible]

\$0

Total

\$0