

SAN FRANCISCO WATERFRONT COASTAL FLOOD STUDY, CA

DRAFT APPENDIX C COST ENGINEERING

JANUARY 2024

USACE TULSA DISTRICT | THE PORT OF SAN FRANCISCO



**US Army Corps
of Engineers** 



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Acronyms and Abbreviations

Acronym	Definition
ARA	Abbreviated Risk Analysis
CWCCIS	Civil Works Construction Cost Index System
IFR / EIS	Integrated Feasibility Report / Environmental Impact Statement
MII	Micro-Computer Aided Cost Estimating System, Generation 2
NED	National Economic Development
NFS	Non-Federal Sponsor
OMRR&R	Operations, Maintenance, Repair, Rehabilitation, and Replacement
PED	Preconstruction Engineering and Design
POA	Period of Analysis
PDT	Project Delivery Team
POSF	Port of San Francisco
ROM	Rough Order of Magnitude
RSLC	Relative Sea Level Change
S&A	Supervision and Administration
TNBP	Total Net Benefits Plan
TPCS	Total Project Cost Summary
TSP	Tentatively Selected Plan
USACE	U.S. Army Corps of Engineers
WBS	Work Breakdown Structure
WRDA	Water Resources Development Act

1. Introduction

This appendix lists and describes the current working cost estimate as part of this draft Integrated Feasibility Report and Environmental Impact Statement (IFR/EIS). Included within are details regarding the development of the cost estimate including the scope of work, major assumptions, markups, and contingency development utilizing an Abbreviated Risk Analysis (ARA).

There are two unique aspects to the plan formulation process that affect the cost estimate derivation:

- The Total Net Benefits Plan (TNBP) was formulated to function across all Relative Sea Level Change (RSLC) scenarios rather than to maximize net benefits under one identified RSLC scenario. This required additional planning iterations that combined measures and strategies from the existing array of alternatives.
- Recommendation of different adaptive actions as risk increases creates some uncertainty in the future action to be undertaken and the timing, which requires consideration of a conceptual range of total costs over 100-year POA, The Resilience Strategy, to follow a more detailed first action.

This appendix describes three distinct types of estimates.

- Costs developed for the Array of Alternatives
- Detailed estimate of the first action of the TNBP, to be implemented in 2040, which is the same for all potential RSLC scenarios. This amount will not deliver the entire benefit stream expected over the 100-year period of analysis (POA) but is presented to clarify the initial action and to inform potential authorization discussions. It should not be mistaken for an entire project cost.
- Simplified, broad cost estimates of the sum of first and potential second actions at the scale of action that would be necessary under each of the U.S. Army Corps of Engineers' (USACE) RSLC scenarios.

2. Cost Estimate

2.1 General Information

2.1.1 Estimate Structure

Each alternative cost estimate was structured by consistent steps, that initially grouped the work into four (4) large geographical areas, or "Reaches," similar to 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 TRACES Micro-Computer Aided Cost Estimating System, Generation 2 (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 by use of the USACE developed Civil Works Construction Cost Index System (CWCCIS).

2.1.2 Seismic and Non-Seismic Estimates

In accordance with the provisions of Section 152 of the Water Resources Development Act (WRDA) of 2020, as amended by Section 8380 of WRDA 2022, the alternatives were estimated both with and without the scope of work attributed to the seismic hazard present within the study area. For evaluating National Economic Development (NED) benefits and costs, the cost basis is considered to be the scope of work necessary to produce the coastal flood risk reduction benefits in a region that is not subject to seismic hazards. However, the total project cost including the scope of work to complete the project in this high seismic region is the basis for congressional authorization and project cost sharing. Therefore, two estimates are produced for each alternative and herein referred to as the “Seismic” and “non-Seismic” costs.

2.2 Acquisition Strategy

For simplicity it is assumed that this will be advertised as a Full and Open/Unrestricted project. Given the size of the project, there is opportunity for the project to be broken up into sub-projects, and multiple contracts. The risks to the estimated cost associated with this opportunity was discussed in the ARA. The current working estimate assumes one contract.

2.3 Contractor Hierarchy

This estimator assumed this project to have a Prime Contractor subcontracting the work to multiple subcontractors per disciplines of the work.

2.4 Project Mark-ups

- Cost Book Adjustment: 20%
- Escalation: Not included in MII cost estimate model. Escalation applied in the TPCS.
- Productivity: 90%
- Overtime markup: assume 6 each – 10-hour shifts equals 16.67%

2.5 Prime Contractor Mark-ups

- JOOH: 15%
- HOOH: 5%
- Profit: Profit Weighted Guidelines Wizard 7.53%

- Bond: 1.5%

2.6 Sub-Contractor Mark-ups:

- SubJOOH: 15%

- SubHOOH: 5%

- Profit: 8.45%

Sales Tax: 8.63% (San Francisco, CA)

Cost Contingency: Applied to the features of work, and developed through the Abbreviated Risk Analysis, 25% for Lands and Damages per USACE LRL Real Estate Division. The Risk Report for this project is included in Error! Reference source not found..

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 Deep Soil Mixing, were costed by contacting specialized contractors and applying discussed unit costs. Additionally, other features, including the tidal gate structures, were costed by referencing the Texas Coastal project cost estimates of similar features of work. Other methods were also used including utilizing previous project unit costs, 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, etc.

2.8 Cost Sources

Used the 2022 Cost Book - English. Revised material costs, per quotes received and or production rates as appropriate per estimator's and design engineers' judgment.

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*.

The Operations, Maintenance, Repair, Rehabilitation, and Replacement (OMRR&R) rates were also estimated by the Engineering team. The nonstructural alternatives are assumed to have no OMRR&R (though this assumption may be revised in the future, as there may be expenses associated with storing equipment like flood shields, stop logs, and panels), while the structural alternatives used an OMRR&R rate of 0.5% of the capital cost per year. An exception to this is Alt. F in Reaches 3 and 4, where the water management structures were assumed to have a higher OMRR&R rate of 2% per year.

Cultural and Environmental mitigation scopes of work continue to be developed. Costs for these features are not yet included.

Project Preconstruction Engineering and Design (PED) and Construction Management Supervision and Administration (S&A) costs was discussed with the PDT and estimated at using the predetermined percentages included in the current TPCS sheet. Following

discussion with the PDT, the predetermined rates were decreased 50% for this project due to the size of the project.

2.9 Wage Rates

The cost estimate includes labor rates per Heavy & Highway General Decision Number: CA20230018 09/01/2023.

2.10 Equipment

2022 MII Equipment 2022 Region 07 – West.

2.11 Material

2022 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

At this initial point of design, OMRR&R costs were estimated by the Engineering team as a percentage of first cost of certain types of features. The estimated total OMRR&R costs per plan can be found in *Appendix E: Economic and Social Considerations*.

2.13 Real Estate Costs

At this initial point of design, real estate costs were estimated for the footprint of each proposed plan in accordance with USACE policy as described in Appendix F. The estimated total real estate costs can be found in *Appendix F: Real Estate Plan.11*

2.14 Annual Monitoring and Adaptation Costs

Adaptive actions will be considered and implemented as a result of an assessment of change in risk conditions influenced by RSLC. A Monitoring and Adaptation Plan is proposed to evaluate changing conditions and inform future adaptations. It is described within *Appendix G: Monitoring and Adaptation Plan*, and an annual cost is consistent across all RSLC scenarios, estimated to be \$50,000 for staff time to collect data and coordinate with appropriate study partners or a technical advisory team.

3. Schedule

Rough order of magnitude (ROM) construction durations for each alternative were developed through discussion of the PDT engineering group. ROM durations for the initial action for each of the alternatives were determined as follows:

- Alternative C – 6 years
- Alternative D – 8 years
- Alternative E – 10 years

- Alternative F – 10 years
- Alternative G – 10 years

Further discussion with members of the engineering group highlighted the difficulty of the alternatives' planned construction, and questioned whether the above listed determined durations were adequate. It should be noted that there is risk involved in assuming the above listed durations, which will impact time dependent costs such as contractor overhead.

A detailed construction schedule utilizing software such as Microsoft Project will be developed before release of the final report. Implementation approach, Federal and non-Federal sponsor (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 PDT currently assumes that the detailed construction schedule will result in durations exceeding those listed above.

The Tentatively Selected Plan (TSP) proposes an initial and a subsequent, adaptive action over a 100-year POA, and the schedule for the adaptive action is proposed at year 50 but may vary based upon the evidence of increasing risk in the study area. For purposes of this appendix, the cost estimate will reflect the overall TSP that would be constructed with a Year 50 adaptation to perform under the USACE Intermediate RSLC scenario.

4. Scope of Work

4.1 Array of Alternatives

The alternatives analysis required separate cost estimates for alternative B, C, D, E, F and G. The cost estimator also collaborated with the NFS, the Port of San Francisco (POSF), engineering team. Other methods of determining scope and costs utilized satellite imagery, discussions with material suppliers and contractors, and 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, PED, 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 Error! Reference source not found. and a summary of costs for the 1st and 2nd actions within the TSP are provided in Error! Reference source not found.. This preliminary approach was briefly previewed with a representative of the USACE Cost Center of Expertise to produce a cost estimate for Draft Report purposes. TPCS sheets for the array of alternatives are provided in Error! Reference source not found. and Error! Reference source not found..

4.2 Total Net Benefits Plan

The TNBP was formulated based upon the performance (cost, benefits, and impacts) of the array of alternatives under varying levels of RSLC. This TNBP was selected as the TSP. The TSP combines different scales and alignments of the initial alternatives in the

four reaches with variable timing dependent upon the anticipated level of RSLC. To estimate the cost of this plan, the detailed MII estimates completed for the array of alternatives was utilized to create a unique TPCS sheet for the first action common amongst all RSLC projections, plus a second action unique to the intermediate and high RSLC projections. For WBS items that were priced at the waterfront wide scale, rather than reach by reach, the TNBP TPCS utilized ratios based on the quantity of work within each reach. This applied to ground improvements identified as seismic scope, utility relocation and floodproofing the overwater pier structures. TPCS sheets for the TNBP are provided in [Error! Reference source not found.](#) and [Error! Reference source not found.](#)

5. Next Steps

Before publication of the final IFR/EIS, the PDT expects that the scope of work for the TSP will be further developed, which will result in a higher level of cost certainty. Challenges with the cost estimate structure still exist including updating the TNBP TPCS to align second action costs to the appropriately anticipated midpoint of construction, as some second action costs currently show anticipated midpoints at year 2040 but would likely occur much later. These challenges also show up in the **Attachment C-2**, the TNBP cost estimate summary. Additionally, the PDT acknowledges that several high-risk scope and cost items such as the inland drainage and ground improvement work to address seismic hazards will be further refined during the next phase of the study. Additionally, it is expected that an Agency Technical Review will be completed on the cost estimates along with a Cost Schedule Risk Analysis.

Attachment C-1: Array of Alternatives (B-G) Cost Estimate Summary

Attachment C-2: Total Net Benefits Plan Cost Estimate Summary

Attachment C-3: Array of Alternatives (B-G) TPCS - Seismic Cost

Attachment C-4: Array of Alternatives (B-G) TPCS - Non-Seismic Cost

Attachment C-5: Total Net Benefits Plan TPCS - Seismic Cost

Attachment C-6: Total Net Benefits Plan TPCS - Non-Seismic Cost

Attachment C-7: Abbreviated Risk Assessment Results

Attachment C-1: Array of Alternatives (B-G) Cost Estimate 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

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	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 Seismic	\$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 inclndg 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
2040 Subtotal	\$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 Assumed Utilities	\$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 Structure Floodproofing	\$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 REACH 01	\$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 02	\$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 03	\$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 04	\$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 PED	\$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 CONST MANAGEMENT	\$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
2065 Subtotal	\$1,654,181	\$1,788,712	\$193,616	\$209,383	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2065 Assumed Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 01	\$45,180	\$48,919	\$1,477	\$1,599	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 02	\$462,335	\$500,598	\$84,184	\$91,151	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 03	\$702,720	\$760,877	\$59,348	\$64,259	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 REACH 04	\$173,005	\$187,323	\$19,249	\$20,842	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 PED	\$176,876	\$189,968	\$19,166	\$20,584	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2065 CONST MANAGEMENT	\$94,064	\$101,026	\$10,192	\$10,947	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2090 Subtotal	\$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 Assumed Utilities	\$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 REACH 01	\$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 02	\$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 03	\$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 04	\$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 PED	\$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 CONST MANAGEMENT	\$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
2115 Subtotal	\$1,231,825	\$1,332,025	\$149,705	\$161,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2115 Assumed Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 01	\$143,779	\$155,678	\$40,260	\$43,592	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 02	\$310,721	\$336,436	\$7,700	\$8,337	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 03	\$433,059	\$468,899	\$58,425	\$63,260	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 REACH 04	\$144,506	\$156,466	\$20,104	\$21,767	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 PED	\$130,408	\$140,061	\$15,156	\$16,278	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0
2115 CONST MANAGEMENT	\$69,352	\$74,485	\$8,060	\$8,657	\$0	\$0	\$0.00	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0

August 18, 2023

Attachment C-2: 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

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	Total Net Benefits Plan First Action (Low, Intermediate, and High Curves)		Total Net Benefits Plan Second Action (Intermediate Curve)		Total Net Benefits Plan Second Action (High Curve)	
	Estimated Cost (FY24)	First Cost (FY26)	Estimated Cost (FY24)	First Cost (FY26)	Estimated Cost (FY24)	First Cost (FY26)
TOTAL with Seismic	\$13,555,229	\$14,661,782	\$1,742,778	\$1,884,901	\$11,625,567	\$12,572,541
Seismic Costs inclndng PED and Const Management	\$9,417,078	\$10,186,488	\$0	\$0	\$474,013	\$512,750
TOTAL Non-Seismic	\$4,138,151	\$4,475,294	\$1,742,778	\$1,884,901	\$11,151,554	\$12,059,791
01 Lands and Damages	\$91,688	\$99,276	\$11,574	\$12,532	\$81,383	\$88,118
2040 Subtotal	\$4,046,463	\$4,376,018	\$0	\$0	** \$9,456,909	** \$10,227,034
2040 Assumed Utilities	\$161,584	\$174,957	\$0	\$0	** \$84,674	** \$91,681
2040 Structure Floodproofing	\$113,660	\$123,067	\$0	\$0	** \$72,743	** \$78,763
2040 REACH 01	\$13,747	\$14,884	\$0	\$0	** \$877,985	** \$950,647
2040 REACH 02	\$2,361,266	\$2,556,684	\$0	\$0	** \$0	** \$0
2040 REACH 03	\$267,534	\$289,675	\$0	\$0	** \$3,643,474	** \$3,945,007
2040 REACH 04	\$519,069	\$562,028	\$0	\$0	** \$3,345,199	** \$3,622,049
2040 PED	\$397,964	\$427,420	\$0	\$0	** \$935,389	** \$1,004,622
2040 CONST MANAGEMENT	\$211,640	\$227,304	\$0	\$0	** \$497,446	** \$534,264
2065 Subtotal	\$0	\$0	** \$1,742	** \$1,884	\$0	\$0
2065 Assumed Utilities	\$0	\$0	** \$0	** \$0	\$0	\$0
2065 REACH 01	\$0	\$0	** \$1,477	** \$1,599	\$0	\$0
2065 REACH 02	\$0	\$0	** \$0	** \$0	\$0	\$0
2065 REACH 03	\$0	\$0	** \$0	** \$0	\$0	\$0
2065 REACH 04	\$0	\$0	** \$0	** \$0	\$0	\$0
2065 PED	\$0	\$0	** \$173	** \$186	\$0	\$0
2065 CONST MANAGEMENT	\$0	\$0	** \$92	** \$99	\$0	\$0
2090 Subtotal	\$0	\$0	\$1,729,462	\$1,870,485	\$1,613,262	\$1,744,639
2090 Assumed Utilities	\$0	\$0	\$32,996	\$35,727	\$49,494	\$53,590
2090 REACH 01	\$0	\$0	\$0	\$0	\$99,104	\$107,306
2090 REACH 02	\$0	\$0	\$0	\$0	\$6,611	\$7,158
2090 REACH 03	\$0	\$0	\$826,083	\$894,450	\$773,935	\$837,986
2090 REACH 04	\$0	\$0	\$629,287	\$681,368	\$439,689	\$476,078
2090 PED	\$0	\$0	\$157,393	\$169,042	\$159,569	\$171,379
2090 CONST MANAGEMENT	\$0	\$0	\$83,702	\$89,898	\$84,860	\$91,141

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

PROJECT: SFWS
 PROJECT NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC):		2026		Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	Program Year (Budget EC):		TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
							2026	Effective Price Level Date:							
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	
01	65 LANDS AND DAMAGES	\$0	\$0	25.0%	\$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	
01	15 LANDS AND DAMAGES	\$0	\$0	25.0%	\$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
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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25		INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
										Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281
02	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
10	40 Overall Seismic Ground Improvements	\$3,272,759	\$5,014,685	153.2%	\$8,287,444	8.3%	\$3,543,609	\$5,429,695	\$8,973,304	\$0	\$8,973,304	43.2%	\$5,075,863	\$7,777,490	\$12,853,353
10	40 Overall Seismic Transportation Corridor	\$348,888	\$284,360	81.5%	\$633,248	8.3%	\$377,761	\$307,893	\$685,655	\$0	\$685,655	43.2%	\$541,105	\$441,026	\$982,131
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/C	\$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
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 Item	\$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/C	\$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

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

10	40 REACH 02 Wharf Replacement	\$0	\$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	\$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 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	\$0	\$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	\$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 Item	\$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	\$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	\$0
06	40 REACH 03 Plantings/EWN	\$0	\$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	\$0
10	40 REACH 03 Cantilever Walls/Pile Caps/C	\$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	\$0
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	\$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	\$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	\$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	\$0	\$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 Item	\$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	\$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	\$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	\$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	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/C	\$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	\$0
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	\$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	\$0
10	40 REACH 04 Large Gates/Closure Structu	\$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 Replac	\$0	\$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 Item	\$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

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

CONSTRUCTION ESTIMATE TOTALS:		\$4,268,560	\$5,863,807		\$10,132,367	8.3%	\$4,621,823	\$6,349,090	\$10,970,913	\$0	\$10,970,913	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	40 PLANNING, ENGINEERING & DESIGN	\$608,270	\$340,782	56.0%	\$949,051	7.4%	\$653,291	\$366,005	\$1,019,296	\$0	\$1,019,296	11.3%	\$727,083	\$407,347	\$1,134,430
31	40 CONSTRUCTION MANAGEMENT	\$309,471	\$195,241	63.1%	\$504,712	7.4%	\$332,376	\$209,692	\$542,068	\$0	\$542,068	35.5%	\$450,316	\$284,098	\$734,415
PROJECT COST TOTALS:		\$5,206,159	\$6,409,759	123.1%	\$11,615,917		\$5,628,992	\$6,935,538	\$12,564,530	\$0	\$12,564,530	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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25		INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
										Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281
02	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
10	40 Overall Seismic Ground Improvements	\$3,272,759	\$5,014,685	153.2%	\$8,287,444	8.3%	\$3,543,609	\$5,429,695	\$8,973,304	\$0	\$8,973,304	43.2%	\$5,075,863	\$7,777,490	\$12,853,353
10	40 Overall Seismic Transportation Corridor	\$348,888	\$284,360	81.5%	\$633,248	8.3%	\$377,761	\$307,893	\$685,655	\$0	\$685,655	43.2%	\$541,105	\$441,026	\$982,131
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/C	\$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
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 Item	\$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/C	\$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

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

10	40 REACH 02 Wharf Replacement	\$0	\$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	\$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	\$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	\$0	\$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	\$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 Item	\$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	\$0
02	40 REACH 03 Transportation Corridor	\$0	\$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	\$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	\$0
10	40 REACH 03 Cantilever Walls/Pile Caps/C	\$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	\$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	\$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	\$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	\$0	\$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	\$0
ALL	40 REACH 03 Remaining Construction Item	\$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	\$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	\$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	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/C	\$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	\$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	\$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	\$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	\$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	\$0
ALL	40 REACH 04 Remaining Construction Item	\$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

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

0		\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 Overall Utility Relocations	\$13,311	\$35,213 264.5%	\$48,524	8.3%	\$14,412	\$38,127	\$52,540	\$0	\$52,540	417%	\$74,502	\$197,091	\$271,593	
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/C	\$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 Item	\$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/C	\$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	
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 Item	\$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/C	\$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	

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

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 Item	\$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/C	\$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 Item	\$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:		\$5,692,865	\$7,206,255		\$12,899,120	8.3%	\$6,164,004	\$7,802,640	\$13,966,644	\$0	\$13,966,645	127.3%	\$14,852,310	\$16,896,075	\$31,748,386
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
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	40 PLANNING, ENGINEERING & DESIGN	\$599,113	\$335,651	56.0%	\$934,764	7.4%	\$643,456	\$360,495	\$1,003,951	\$0	\$1,003,951	11.3%	\$716,137	\$401,214	\$1,117,351
30	90 PLANNING, ENGINEERING & DESIGN	\$212,121	\$118,840	56.0%	\$330,961	7.4%	\$227,821	\$127,636	\$355,457	\$0	\$355,457	203.4%	\$691,180	\$387,232	\$1,078,412
31	40 CONSTRUCTION MANAGEMENT	\$304,812	\$192,302	63.1%	\$497,113	7.4%	\$327,373	\$206,535	\$533,908	\$0	\$533,908	35.5%	\$443,537	\$279,821	\$723,358
31	90 CONSTRUCTION MANAGEMENT	\$107,921	\$68,086	63.1%	\$176,007	7.4%	\$115,909	\$73,125	\$189,034	\$0	\$189,034	266.3%	\$424,545	\$267,840	\$692,385

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

PROJECT COST TOTALS:	\$6,989,386	\$7,957,411	113.8%	\$14,946,798	\$7,557,123	\$8,609,711	\$16,166,834	\$0	\$16,166,835	119.7%	\$17,234,409	\$18,285,532	\$35,519,941
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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

**** 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 NOP2 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	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-22 (\$K)	TOTAL FIRST COST (\$K) K				
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281
02	40 Overall Utility Relocations	\$19,966	\$52,819	264.5%	\$72,786	8.3%	\$21,619	\$57,191	\$78,809	\$0	\$78,809	43.2%	\$30,966	\$81,920	\$112,886
10	40 Overall Seismic Ground Improvements	\$3,272,759	\$5,014,685	153.2%	\$8,287,444	8.3%	\$3,543,609	\$5,429,695	\$8,973,304	\$0	\$8,973,304	43.2%	\$5,075,863	\$7,777,490	\$12,853,353
10	40 Overall Seismic Transportation Corridor	\$348,888	\$284,360	81.5%	\$633,248	8.3%	\$377,761	\$307,893	\$685,655	\$0	\$685,655	43.2%	\$541,105	\$441,026	\$982,131
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/C	\$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
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 Item	\$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/C	\$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

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

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 Item	\$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/C	\$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 Item	\$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/C	\$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
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 Item	\$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 Overall Utility Relocations	\$19,966	\$52,819	264.5%	\$72,786	8.3%	\$21,619	\$57,191	\$78,809	\$0	\$78,809	417%	\$111,753	\$295,635	\$407,388
02	90 REACH 01 Utility Relocations	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0

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

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	\$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	\$0
10	90 REACH 01 Cantilever Walls/Pile Caps/C	\$0	\$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	\$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	\$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	\$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 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	\$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 02 Remaining Construction Item	\$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	\$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	\$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	\$0
10	90 REACH 02 Cantilever Walls/Pile Caps/C	\$0	\$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	\$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	\$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 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
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	\$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/C	\$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

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

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 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	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
ALL	90 REACH 03 Remaining Construction Items	\$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/Coffdams	\$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 Drainage	\$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 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	\$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 Items	\$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
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	40 PLANNING, ENGINEERING & DESIGN	\$1,508,547	\$845,160	56.0%	\$2,353,707	7.4%	\$1,620,204	\$907,715	\$2,527,918	\$0	\$2,527,918	11.3%	\$1,803,212	\$1,010,245	\$2,813,457
30	90 PLANNING, ENGINEERING & DESIGN	\$189,982	\$106,437	56.0%	\$296,419	7.4%	\$204,044	\$114,315	\$318,359	\$0	\$318,359	203.4%	\$619,043	\$346,817	\$965,860
31	40 CONSTRUCTION MANAGEMENT	\$767,506	\$484,210	63.1%	\$1,251,716	7.4%	\$824,314	\$520,049	\$1,344,363	\$0	\$1,344,363	35.5%	\$1,116,812	\$704,582	\$1,821,394
31	90 CONSTRUCTION MANAGEMENT	\$96,658	\$60,980	63.1%	\$157,637	7.4%	\$103,812	\$65,493	\$169,305	\$0	\$169,305	266.3%	\$380,236	\$239,886	\$620,122
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

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

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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC):		2026		Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)						
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$156,869	264.5%	\$216,167	8.3%	\$64,205	\$169,851	\$234,057	\$0	\$234,057	43.2%	\$91,968	\$243,294	\$335,262
02	40 Overall Utility Relocations	\$46,588	\$123,245	264.5%	\$169,833	8.3%	\$50,443	\$133,445	\$183,888	\$0	\$183,888	43.2%	\$72,255	\$191,146	\$263,401
10	40 Overall Seismic Ground Improvements	\$1,509,404	\$2,312,785	153.2%	\$3,822,189	8.3%	\$1,634,321	\$2,504,188	\$4,138,509	\$0	\$4,138,509	43.2%	\$2,341,000	\$3,586,997	\$5,927,997
10	40 Overall Seismic Transportation Corridor	\$348,888	\$284,360	81.5%	\$633,248	8.3%	\$377,761	\$307,893	\$685,655	\$0	\$685,655	43.2%	\$541,105	\$441,026	\$982,131
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/C	\$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
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 Item	\$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/C	\$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

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

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 Item	\$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/C	\$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 Item	\$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/C	\$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
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 Item	\$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

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

0		\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	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	90 Overall Seismic Ground Improvements	\$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/C	\$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 Item	\$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/C	\$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	
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	
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 Item	\$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/C	\$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	

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

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	\$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 Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Demolition of Bldgs/Structur	\$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 Item	\$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/C	\$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 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	\$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 Item	\$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
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	40 PLANNING, ENGINEERING & DESIGN	\$958,234	\$536,848	56.0%	\$1,495,082	7.4%	\$1,029,158	\$576,583	\$1,605,741	\$0	\$1,605,741	11.3%	\$1,145,406	\$641,711	\$1,787,116
30	90 PLANNING, ENGINEERING & DESIGN	\$174,300	\$97,651	56.0%	\$271,952	7.4%	\$187,201	\$104,879	\$292,080	\$0	\$292,080	203.4%	\$567,945	\$318,190	\$886,135
31	40 CONSTRUCTION MANAGEMENT	\$487,522	\$307,571	63.1%	\$795,094	7.4%	\$523,607	\$330,337	\$853,943	\$0	\$853,943	35.5%	\$709,402	\$447,553	\$1,156,955
31	90 CONSTRUCTION MANAGEMENT	\$88,679	\$55,947	63.1%	\$144,626	7.4%	\$95,243	\$60,087	\$155,330	\$0	\$155,330	266.3%	\$348,850	\$220,085	\$568,935

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

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
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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

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 NOP2 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	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25					Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	L						
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281	
02	40 Overall Utility Relocations	\$66,554	\$176,064	264.5%	\$242,618	8.3%	\$72,062	\$190,636	\$262,698	\$0	\$262,698	43.2%	\$103,221	\$273,066	\$376,287	
02	40 Overall Structure Floodproofing	\$30,587	\$28,041	91.7%	\$58,627	8.3%	\$33,118	\$30,361	\$63,479	\$0	\$63,479	43.2%	\$47,438	\$43,490	\$90,928	
10	40 Overall Seismic Ground Improvements	\$1,649,989	\$2,528,195	153.2%	\$4,178,183	8.3%	\$1,786,540	\$2,737,425	\$4,523,965	\$0	\$4,523,965	43.2%	\$2,559,038	\$3,921,086	\$6,480,124	
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/C	\$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	
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 Item	\$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	
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/C	\$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	

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

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 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 Replac	\$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
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	\$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/C	\$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
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
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
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 Replac	\$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
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	\$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
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	\$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
10	40 REACH 04 Cantilever Walls/Pile Caps/C	\$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
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 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 Replac	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	40 REACH 04 Demolition of Bldgs/Structur	\$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 Item	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

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

0		\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	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	90 Overall Seismic Ground Improvements	\$340,444	\$521,645	153.2%	\$862,088	8.3%	\$368,618	\$564,815	\$933,434	\$0	\$933,434	417%	\$1,905,500	\$2,919,701	\$4,825,201
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/C	\$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 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 01 Remaining Construction Item	\$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/C	\$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
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
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 Item	\$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	\$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
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
10	90 REACH 03 Cantilever Walls/Pile Caps/C	\$1,653	\$915	55.3%	\$2,568	8.3%	\$1,790	\$990	\$2,780	\$0	\$2,780	417%	\$9,253	\$5,120	\$14,373

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

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
10	90 REACH 03 Wharf Replacement	\$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
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 Structu	\$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 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	\$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 Item	\$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
02	90 REACH 04 Transportation Corridor	\$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
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
10	90 REACH 04 Cantilever Walls/Pile Caps/C	\$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
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	\$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
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	\$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
ALL	90 REACH 04 Remaining Construction Item	\$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
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	40 PLANNING, ENGINEERING & DESIGN	\$684,310	\$383,383	56.0%	\$1,067,693	7.4%	\$734,960	\$411,759	\$1,146,719	\$0	\$1,146,719	11.3%	\$817,976	\$458,269	\$1,276,245
30	90 PLANNING, ENGINEERING & DESIGN	\$125,234	\$70,162	56.0%	\$195,397	7.4%	\$134,504	\$75,355	\$209,859	\$0	\$209,859	203.4%	\$408,067	\$228,619	\$636,686
31	40 CONSTRUCTION MANAGEMENT	\$348,158	\$219,648	63.1%	\$567,806	7.4%	\$373,927	\$235,905	\$609,832	\$0	\$609,832	35.5%	\$506,610	\$319,614	\$826,224

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

31	90 CONSTRUCTION MANAGEMENT	\$63,716	\$40,197	63.1%	\$103,913	7.4%	\$68,432	\$43,173	\$111,604	\$0	\$111,604	266.3%	\$250,648	\$158,130	\$408,778
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

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

PROJECT: SFWS
 PROJECT NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC):		2026		Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	Program Year (Budget EC):		TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
							2026	Effective Price Level Date:							
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	
01	65 LANDS AND DAMAGES	\$0	\$0	25.0%	\$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	
01	15 LANDS AND DAMAGES	\$0	\$0	25.0%	\$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
 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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	Program Year (Budget EC): 2026		TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
							COST (\$K)	CNTG (\$K)							
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281
02	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
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
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/C	\$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
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 Item	\$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/C	\$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

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

10	40 REACH 02 Wharf Replacement	\$0	\$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	\$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	\$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	\$0	\$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	\$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 Item	\$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	\$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	\$0
06	40 REACH 03 Plantings/EWN	\$0	\$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	\$0
10	40 REACH 03 Cantilever Walls/Pile Caps/C	\$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	\$0
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	\$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	\$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	\$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	\$0	\$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 Item	\$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	\$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	\$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	\$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	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/C	\$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	\$0
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	\$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	\$0
10	40 REACH 04 Large Gates/Closure Structu	\$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	\$0	\$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 Item	\$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

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

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	40 PLANNING, ENGINEERING & DESIGN	\$92,185	\$51,646	56.0%	\$143,832	7.4%	\$99,008	\$55,469	\$154,477	\$0	\$154,477	11.3%	\$110,192	\$61,735	\$171,926
31	40 CONSTRUCTION MANAGEMENT	\$46,901	\$29,589	63.1%	\$76,491	7.4%	\$50,373	\$31,779	\$82,152	\$0	\$82,152	35.5%	\$68,247	\$43,056	\$111,303
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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	Program Year (Budget EC): 2026		TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
							COST (\$K)	CNTG (\$K)							
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281
02	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
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
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/C	\$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
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 Item	\$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/C	\$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

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

10	40 REACH 02 Wharf Replacement	\$0	\$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	\$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	\$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	\$0	\$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	\$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 Item	\$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	\$0
02	40 REACH 03 Transportation Corridor	\$0	\$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	\$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	\$0
10	40 REACH 03 Cantilever Walls/Pile Caps/C	\$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	\$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	\$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	\$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	\$0	\$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	\$0
ALL	40 REACH 03 Remaining Construction Item	\$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	\$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	\$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	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/C	\$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	\$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	\$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	\$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	\$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	\$0
ALL	40 REACH 04 Remaining Construction Item	\$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

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

0		\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	90 Overall Utility Relocations	\$13,311	\$35,213 264.5%	\$48,524	8.3%	\$14,412	\$38,127	\$52,540	\$0	\$52,540	417%	\$74,502	\$197,091	\$271,593	
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/C	\$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 Item	\$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/C	\$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	
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 Item	\$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/C	\$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	

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

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	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	\$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	\$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	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	\$0
ALL	90 REACH 03 Remaining Construction Item	\$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	\$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	\$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	\$0
10	90 REACH 04 Cantilever Walls/Pile Caps/C	\$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	\$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	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	\$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	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	\$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	\$0
ALL	90 REACH 04 Remaining Construction Item	\$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%	\$2,242,634	\$2,065,052	\$4,307,685	\$0	\$4,307,686	315.8%	\$9,235,342	\$8,677,558	\$17,912,902
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
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	40 PLANNING, ENGINEERING & DESIGN	\$83,028	\$46,516	56.0%	\$129,544	7.4%	\$89,173	\$49,959	\$139,132	\$0	\$139,132	11.3%	\$99,246	\$55,602	\$154,848
30	90 PLANNING, ENGINEERING & DESIGN	\$212,121	\$118,840	56.0%	\$330,961	7.4%	\$227,821	\$127,636	\$355,457	\$0	\$355,457	203.4%	\$691,180	\$387,232	\$1,078,412
31	40 CONSTRUCTION MANAGEMENT	\$42,242	\$26,650	63.1%	\$68,892	7.4%	\$45,369	\$28,623	\$73,991	\$0	\$73,991	35.5%	\$61,467	\$38,779	\$100,246
31	90 CONSTRUCTION MANAGEMENT	\$107,921	\$68,086	63.1%	\$176,007	7.4%	\$115,909	\$73,125	\$189,034	\$0	\$189,034	266.3%	\$424,545	\$267,840	\$692,385

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

PROJECT COST TOTALS:	\$2,589,085	\$2,203,580	85.1%	\$4,792,665	\$2,799,465	\$2,383,675	\$5,183,141	\$0	\$5,183,142	287.8%	\$10,618,480	\$9,480,361	\$20,098,841
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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

**** 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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25		INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
										Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281
02	40 Overall Utility Relocations	\$19,966	\$52,819	264.5%	\$72,786	8.3%	\$21,619	\$57,191	\$78,809	\$0	\$78,809	43.2%	\$30,966	\$81,920	\$112,886
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
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/C	\$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
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 Item	\$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/C	\$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

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

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 Item	\$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/C	\$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 Item	\$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/C	\$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
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 Item	\$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

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

0		\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	90 Overall Utility Relocations	\$19,966	\$52,819 264.5%	\$72,786	8.3%	\$21,619	\$57,191	\$78,809	\$0	\$78,809	417%	\$111,753	\$295,635	\$407,388	
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/C	\$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 Item	\$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/C	\$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	
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 Item	\$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/C	\$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	

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

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 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 Replac	\$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	\$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/C	\$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 Structu	\$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 Replac	\$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
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 Item	\$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
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	40 PLANNING, ENGINEERING & DESIGN	\$992,462	\$556,025	56.0%	\$1,548,487	7.4%	\$1,065,920	\$597,179	\$1,663,100	\$0	\$1,663,100	11.3%	\$1,186,320	\$664,633	\$1,850,953
30	90 PLANNING, ENGINEERING & DESIGN	\$189,982	\$106,437	56.0%	\$296,419	7.4%	\$204,044	\$114,315	\$318,359	\$0	\$318,359	203.4%	\$619,043	\$346,817	\$965,860
31	40 CONSTRUCTION MANAGEMENT	\$504,937	\$318,558	63.1%	\$823,495	7.4%	\$542,310	\$342,136	\$884,447	\$0	\$884,447	35.5%	\$734,743	\$463,539	\$1,198,282
31	90 CONSTRUCTION MANAGEMENT	\$96,658	\$60,980	63.1%	\$157,637	7.4%	\$103,812	\$65,493	\$169,305	\$0	\$169,305	266.3%	\$380,236	\$239,886	\$620,122

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

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	\$39,552,768
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CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$39,552,768

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 NOP2 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)					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25					Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	ESC (%)						
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O		
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$156,869	264.5%	\$216,167	8.3%	\$64,205	\$169,851	\$234,057	\$0	\$234,057	43.2%	\$91,968	\$243,294	\$335,262	
02	40 Overall Utility Relocations	\$46,588	\$123,245	264.5%	\$169,833	8.3%	\$50,443	\$133,445	\$183,888	\$0	\$183,888	43.2%	\$72,255	\$191,146	\$263,401	
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	
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/C	\$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	
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 Item	\$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/C	\$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	

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

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 Item	\$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/C	\$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 Item	\$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/C	\$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
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 Item	\$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

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

0		\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	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	90 Overall Seismic Ground Improvements	\$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/C	\$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 Item	\$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/C	\$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	
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	
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 Item	\$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/C	\$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	

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

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	\$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 Repla	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0
02	90 REACH 03 Demolition of Bldgs/Structur	\$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 Item	\$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/C	\$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 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	\$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 Item	\$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	\$14,555,417	\$0	\$14,555,417	109.7%	\$14,132,757	\$16,382,812	\$30,515,568
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	40 PLANNING, ENGINEERING & DESIGN	\$693,427	\$388,491	56.0%	\$1,081,918	7.4%	\$744,752	\$417,245	\$1,161,997	\$0	\$1,161,997	11.3%	\$828,874	\$464,375	\$1,293,249
30	90 PLANNING, ENGINEERING & DESIGN	\$167,667	\$93,935	56.0%	\$261,602	7.4%	\$180,077	\$100,888	\$280,964	\$0	\$280,964	203.4%	\$546,330	\$306,080	\$852,411
31	40 CONSTRUCTION MANAGEMENT	\$352,796	\$222,574	63.1%	\$575,371	7.4%	\$378,909	\$239,048	\$617,957	\$0	\$617,957	35.5%	\$513,360	\$323,872	\$837,232
31	90 CONSTRUCTION MANAGEMENT	\$85,304	\$53,817	63.1%	\$139,121	7.4%	\$91,618	\$57,801	\$149,419	\$0	\$149,419	266.3%	\$335,574	\$211,709	\$547,283

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

PROJECT COST TOTALS:	\$7,438,213	\$8,207,066	110.3%	\$15,645,279	\$8,042,440	\$8,879,646	\$16,922,086	\$0	\$16,922,086	104.4%	\$16,714,460	\$17,867,630	\$34,582,090
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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

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 NOP2 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	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC):		2026		Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)						
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
02	40 Overall Structures Floodproofing Conc.	\$59,298	\$54,362	91.7%	\$113,660	8.3%	\$64,205	\$58,861	\$123,067	\$0	\$123,067	43.2%	\$91,968	\$84,313	\$176,281
02	40 Overall Utility Relocations	\$66,554	\$176,064	264.5%	\$242,618	8.3%	\$72,062	\$190,636	\$262,698	\$0	\$262,698	43.2%	\$103,221	\$273,066	\$376,287
02	40 Overall Structure Floodproofing	\$30,587	\$28,041	91.7%	\$58,627	8.3%	\$33,118	\$30,361	\$63,479	\$0	\$63,479	43.2%	\$47,438	\$43,490	\$90,928
10	40 Overall Seismic Ground Improvements	\$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/C	\$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
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 Item	\$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
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/C	\$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

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

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 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 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
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	\$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/C	\$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
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
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
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	\$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
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	\$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
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	\$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
10	40 REACH 04 Cantilever Walls/Pile Caps/C	\$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
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 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	\$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 Item	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0

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

02	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	90 Overall Seismic Ground Improvements	\$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/C	\$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 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 01 Remaining Construction Item	\$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/C	\$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
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
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 Item	\$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	\$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
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
10	90 REACH 03 Cantilever Walls/Pile Caps/C	\$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

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

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	\$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	
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	
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 Replac	\$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	\$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 Item	\$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	
02	90 REACH 04 Transportation Corridor	\$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	
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	
10	90 REACH 04 Cantilever Walls/Pile Caps/C	\$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	
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	\$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	
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 Replac	\$0	\$0 -	\$0	-	\$0	\$0	\$0	\$0	\$0	0%	\$0	\$0	\$0	
02	90 REACH 04 Demolition of Bldgs/Structur	\$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	
ALL	90 REACH 04 Remaining Construction Item	\$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
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	40 PLANNING, ENGINEERING & DESIGN	\$449,186	\$251,656	56.0%	\$700,842	7.4%	\$482,433	\$270,282	\$752,716	\$0	\$752,716	11.3%	\$536,926	\$300,811	\$837,738
30	90 PLANNING, ENGINEERING & DESIGN	\$76,721	\$42,983	56.0%	\$119,704	7.4%	\$82,400	\$46,164	\$128,564	\$0	\$128,564	203.4%	\$249,990	\$140,056	\$390,047
31	40 CONSTRUCTION MANAGEMENT	\$228,533	\$144,179	63.1%	\$372,712	7.4%	\$245,449	\$154,850	\$400,299	\$0	\$400,299	35.5%	\$332,543	\$209,797	\$542,340
31	90 CONSTRUCTION MANAGEMENT	\$39,034	\$24,626	63.1%	\$63,659	7.4%	\$41,923	\$26,448	\$68,371	\$0	\$68,371	266.3%	\$153,552	\$96,874	\$250,426

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

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
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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

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

PROJECT: SFWS
 PROJECT NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC):		2026		Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						Effective Price Level Date:	1 OCT 25	ESC (%)	COST (\$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/C	\$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 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	\$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	\$0
02	40 REACH 03 Transportation Corridor	\$0	\$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	\$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	\$0
10	40 REACH 03 Cantilever Walls/Pile Caps/C	\$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	\$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	\$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	\$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	\$0	\$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	\$0
ALL	40 REACH 03 Remaining Construction Item	\$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	\$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 Corridor	\$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	\$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	\$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	\$0
10	40 REACH 04 Cantilever Walls/Pile Caps/C	\$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	\$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	\$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	\$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	\$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	\$0
ALL	40 REACH 04 Remaining Construction Item	\$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 MANAGEME	\$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 MANAGEME	\$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 MANAGEME	\$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 MANAGEME	\$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, xxx

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 NOP2 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 INTERMEDIATE (SEISMIC and NON-SEISMIC)

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)	ESC (%)	Program Year (Budget EC):		TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
							Effective Price Level Date:	2026 1 OCT 25							
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
	REACH 01 Alt B 2065														
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
	REACH 02 N/A														
	REACH 03 Alt. D 2090														
02	90 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	416.9%	\$8,940	\$23,651	\$32,591
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/C	\$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 Item	\$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
	REACH 04 Alt. D 2090														
02	90 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	416.9%	\$41,721	\$110,371	\$152,092
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

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

10	90 REACH 04 Cantilever Walls/Pile Caps/C	\$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 Item	\$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:		\$708,684	\$781,159		\$1,489,844	8.3%	\$767,336	\$845,809	\$1,613,145	\$0	\$1,613,145	416.7%	\$3,964,531	\$4,370,388	\$8,334,919
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	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	REACH 03 LANDS AND DAMAGES	\$2,302	\$1,151	50.0%	\$3,453	8.3%	\$2,493	\$1,246	\$3,739	\$0	\$3,739	270.3%	\$9,229	\$4,615	\$13,844
01	REACH 04 LANDS AND DAMAGES	\$5,414	\$2,707	50.0%	\$8,121	8.3%	\$5,862	\$2,931	\$8,793	\$0	\$8,793	270.3%	\$21,705	\$10,853	\$32,558
30	REACH 01 PLANNING, ENGINEERING &	\$111	\$62	56.0%	\$173	7.4%	\$119	\$67	\$186	\$0	\$186	86.3%	\$222	\$124	\$346
30	REACH 02 PLANNING, ENGINEERING &	\$0	\$0	0.0%	\$0	-	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
30	REACH 03 PLANNING, ENGINEERING &	\$57,397	\$32,157	56.0%	\$89,554	7.4%	\$61,646	\$34,537	\$96,183	\$0	\$96,183	201.2%	\$185,654	\$104,012	\$289,666
30	REACH 04 PLANNING, ENGINEERING &	\$43,479	\$24,359	56.0%	\$67,839	7.4%	\$46,697	\$26,162	\$72,860	\$0	\$72,860	201.2%	\$140,636	\$78,791	\$219,426
31	REACH 01 CONSTRUCTION MANAGEME	\$56	\$36	63.1%	\$92	7.4%	\$61	\$38	\$99	\$0	\$99	123.3%	\$135	\$85	\$220
31	REACH 02 CONSTRUCTION MANAGEME	\$0	\$0	0.0%	\$0	-	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
31	REACH 03 CONSTRUCTION MANAGEME	\$29,202	\$18,423	63.1%	\$47,625	7.4%	\$31,364	\$19,787	\$51,151	\$0	\$51,151	266.3%	\$114,877	\$72,474	\$187,351
31	REACH 04 CONSTRUCTION MANAGEME	\$22,121	\$13,956	63.1%	\$36,077	7.4%	\$23,758	\$14,989	\$38,747	\$0	\$38,747	266.3%	\$87,021	\$54,900	\$141,921
PROJECT COST TOTALS:		\$868,768	\$874,010	100.6%	\$1,742,778		\$939,335	\$945,566	\$1,884,901	\$0	\$1,884,901	389.2%	\$4,524,010	\$4,696,242	\$9,220,252

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST:

\$9,220,252

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

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

_____ 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 NOP2 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)

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)	ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$K)	Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25		INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
										Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
	REACH 01 Alt G 2040 & 2090														
02	40 Overall Structures Floodproofing Conc. Wa	\$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 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 Overall Structure Floodproofing	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
10	40 Overall Seismic Ground Improvements	\$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
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/Conc	\$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 Drainage	\$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 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 B	\$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/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	\$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	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	\$2,160	\$1,536	71.1%	\$3,696	8.3%	\$2,338	\$1,663	\$4,001	\$0	\$4,001	416.9%	\$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	416.9%	\$123,011	\$188,483	\$311,494
10	90 REACH 01 Cantilever Walls/Pile Caps/Conc	\$2,807	\$1,553	55.3%	\$4,360	8.3%	\$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	\$16,053	\$13,440	83.7%	\$29,493	8.3%	\$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 B	\$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	\$3,376	\$2,526	74.8%	\$5,902	8.3%	\$3,656	\$2,735	\$6,391	\$0	\$6,391	416.9%	\$18,898	\$14,139	\$33,037
REACH 02 Alt G 2090															
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 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/Conc	\$4,256	\$2,355	55.3%	\$6,611	8.3%	\$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 B	\$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	40 Overall Structures Floodproofing Conc. Wa	\$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	\$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
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
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/Conc	\$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 Drainage	\$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

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

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
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 B	\$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/Structures	\$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 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
10	90 Overall Utility Relocations	\$2,396	\$6,338	264.5%	\$8,734	8.3%	\$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	\$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	\$21,695	\$15,431	71.1%	\$37,126	8.3%	\$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/Conc	\$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	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 B	\$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	\$21,505	\$16,089	74.8%	\$37,594	8.3%	\$23,285	\$17,420	\$40,705	\$0	\$40,705	416.9%	\$120,366	\$90,052	\$210,418
REACH 04 Alt. E 2040 & 2090															
02	40 Overall Structures Floodproofing Conc. Wa	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	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	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
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/Conc	\$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
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 Replace B	\$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

****** 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	\$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
10	90 Overall Utility Relocations	\$11,181	\$29,579	264.5%	\$40,760	8.3%	\$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	\$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	\$0	\$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	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/Conc	\$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 B	\$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	\$131,554	\$98,422	74.8%	\$229,976	8.3%	\$142,442	\$106,568	\$249,010	\$0	\$249,010	416.9%	\$736,326	\$550,882	\$1,287,209
	CONSTRUCTION ESTIMATE TOTALS:	\$5,089,801	\$4,720,926		\$9,810,727	8.3%	\$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	\$54,255	\$27,128	50.0%	\$81,383	8.3%	\$58,745	\$29,373	\$88,118	\$0	\$88,118	270.3%	\$217,515	\$108,758	\$326,273
30	REACH 01 PLANNING, ENGINEERING & DES	\$97,314	\$54,520	56.0%	\$151,834	7.4%	\$104,517	\$58,555	\$163,072	\$0	\$163,072	201.2%	\$314,766	\$176,347	\$491,113
30	REACH 02 PLANNING, ENGINEERING & DES	\$607	\$340	56.0%	\$946	7.4%	\$651	\$365	\$1,016	\$0	\$1,016	201.2%	\$1,962	\$1,099	\$3,061
30	REACH 03 PLANNING, ENGINEERING & DES	\$324,314	\$181,696	56.0%	\$506,010	7.4%	\$348,318	\$195,144	\$543,463	\$0	\$543,463	201.2%	\$1,049,006	\$587,703	\$1,636,709
30	REACH 04 PLANNING, ENGINEERING & DES	\$303,062	\$169,790	56.0%	\$472,852	7.4%	\$325,493	\$182,357	\$507,850	\$0	\$507,850	201.2%	\$980,266	\$549,191	\$1,529,457
31	REACH 01 CONSTRUCTION MANAGEMENT	\$49,511	\$31,236	63.1%	\$80,746	7.4%	\$53,175	\$33,548	\$86,723	\$0	\$86,723	266.3%	\$194,768	\$122,876	\$317,644
31	REACH 02 CONSTRUCTION MANAGEMENT	\$309	\$195	63.1%	\$503	7.4%	\$331	\$209	\$540	\$0	\$540	266.3%	\$1,214	\$766	\$1,980
31	REACH 03 CONSTRUCTION MANAGEMENT	\$165,002	\$104,097	63.1%	\$269,099	7.4%	\$177,215	\$111,802	\$289,017	\$0	\$289,017	266.3%	\$649,092	\$409,504	\$1,058,596
31	REACH 04 CONSTRUCTION MANAGEMENT	\$154,189	\$97,276	63.1%	\$251,466	7.4%	\$165,602	\$104,476	\$270,078	\$0	\$270,078	266.3%	\$606,558	\$382,669	\$989,227
	PROJECT COST TOTALS:	\$6,238,364	\$5,387,203	86.4%	\$11,625,567		\$6,745,082	\$5,827,459	\$12,572,541	\$0	\$12,572,541	115.6%	\$14,685,171	\$12,423,308	\$27,108,480

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$27,108,480

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

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

_____ 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 NOP2 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)				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC):		2026		Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
						ESC (%)	COST (\$K)	CNTG (\$K)	TOTAL (\$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/C	\$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 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	\$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/C	\$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 Item	\$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 Corridor	\$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/C	\$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 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 Item	\$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 MANAGEME	\$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 MANAGEME	\$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 MANAGEME	\$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 MANAGEME	\$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, xxx

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 NOP2 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 INTERMEDIATE (SEISMIC and NON-SEISMIC)

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)	ESC (%)	Program Year (Budget EC):		TOTAL (\$K)	Spent Thru: 1-Oct-22 (\$K)	TOTAL FIRST COST (\$K)	INFLATED (%)	COST (\$K)	CNTG (\$K)	FULL (\$K)
							Effective Price Level Date:	2026 1 OCT 25							
A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
	REACH 01 Alt B 2065														
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
	REACH 02 N/A														
	REACH 03 Alt. D 2090														
02	90 Overall Utility Relocations	\$1,597	\$4,226	264.5%	\$5,823	8.3%	\$1,729	\$4,575	\$6,305	\$0	\$6,305	416.9%	\$8,940	\$23,651	\$32,591
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/C	\$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 Item	\$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
	REACH 04 Alt. D 2090														
02	90 Overall Utility Relocations	\$7,454	\$19,719	264.5%	\$27,173	8.3%	\$8,071	\$21,351	\$29,422	\$0	\$29,422	416.9%	\$41,721	\$110,371	\$152,092
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

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

10	90 REACH 04 Cantilever Walls/Pile Caps/C	\$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 Item	\$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:		\$708,684	\$781,159		\$1,489,844	8.3%	\$767,336	\$845,809	\$1,613,145	\$0	\$1,613,145	416.7%	\$3,964,531	\$4,370,388	\$8,334,919
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	\$0	\$0	50.0%	\$0	0.0%	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
01	REACH 03 LANDS AND DAMAGES	\$2,302	\$1,151	50.0%	\$3,453	8.3%	\$2,493	\$1,246	\$3,739	\$0	\$3,739	270.3%	\$9,229	\$4,615	\$13,844
01	REACH 04 LANDS AND DAMAGES	\$5,414	\$2,707	50.0%	\$8,121	8.3%	\$5,862	\$2,931	\$8,793	\$0	\$8,793	270.3%	\$21,705	\$10,853	\$32,558
30	REACH 01 PLANNING, ENGINEERING &	\$111	\$62	56.0%	\$173	7.4%	\$119	\$67	\$186	\$0	\$186	86.3%	\$222	\$124	\$346
30	REACH 02 PLANNING, ENGINEERING &	\$0	\$0	0.0%	\$0	-	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
30	REACH 03 PLANNING, ENGINEERING &	\$57,397	\$32,157	56.0%	\$89,554	7.4%	\$61,646	\$34,537	\$96,183	\$0	\$96,183	201.2%	\$185,654	\$104,012	\$289,666
30	REACH 04 PLANNING, ENGINEERING &	\$43,479	\$24,359	56.0%	\$67,839	7.4%	\$46,697	\$26,162	\$72,860	\$0	\$72,860	201.2%	\$140,636	\$78,791	\$219,426
31	REACH 01 CONSTRUCTION MANAGEME	\$56	\$36	63.1%	\$92	7.4%	\$61	\$38	\$99	\$0	\$99	123.3%	\$135	\$85	\$220
31	REACH 02 CONSTRUCTION MANAGEME	\$0	\$0	0.0%	\$0	-	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
31	REACH 03 CONSTRUCTION MANAGEME	\$29,202	\$18,423	63.1%	\$47,625	7.4%	\$31,364	\$19,787	\$51,151	\$0	\$51,151	266.3%	\$114,877	\$72,474	\$187,351
31	REACH 04 CONSTRUCTION MANAGEME	\$22,121	\$13,956	63.1%	\$36,077	7.4%	\$23,758	\$14,989	\$38,747	\$0	\$38,747	266.3%	\$87,021	\$54,900	\$141,921
PROJECT COST TOTALS:		\$868,768	\$874,010	100.6%	\$1,742,778		\$939,335	\$945,566	\$1,884,901	\$0	\$1,884,901	389.2%	\$4,524,010	\$4,696,242	\$9,220,252

CHIEF, COST ENGINEERING, xxx

ESTIMATED TOTAL PROJECT COST: \$9,220,252

PROJECT MANAGER, xxx

CHIEF, REAL ESTATE, xxx

CHIEF, PLANNING, xxx

CHIEF, ENGINEERING, xxx

CHIEF, OPERATIONS, xxx

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

_____ 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 NOP2 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)

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	Program Year (Budget EC): 2026 Effective Price Level Date: 1 OCT 25				Spent Thru: 1-Oct-22 (\$K) H	TOTAL FIRST COST (\$K) K	INFLATED (%) L	COST (\$K) M	CNTG (\$K) N	FULL (\$K) O
							COST (\$K) H	CNTG (\$K) I	TOTAL (\$K) J	TOTAL FIRST COST (\$K) K						
	REACH 01 Alt G 2040 & 2090															
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	
02	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	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 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/C	\$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	
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 Item	\$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	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	\$2,160	\$1,536	71.1%	\$3,696	8.3%	\$2,338	\$1,663	\$4,001	\$0	\$4,001	416.9%	\$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	416.9%	\$123,011	\$188,483	\$311,494	
10	90 REACH 01 Cantilever Walls/Pile Caps/C	\$2,807	\$1,553	55.3%	\$4,360	8.3%	\$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	\$16,053	\$13,440	83.7%	\$29,493	8.3%	\$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 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	\$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	\$3,376	\$2,526	74.8%	\$5,902	8.3%	\$3,656	\$2,735	\$6,391	\$0	\$6,391	416.9%	\$18,898	\$14,139	\$33,037
REACH 02 Alt G 2090															
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 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/C	\$4,256	\$2,355	55.3%	\$6,611	8.3%	\$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 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
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	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	\$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
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
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/C	\$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

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

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 Item	\$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
10	90 Overall Utility Relocations	\$2,396	\$6,338	264.5%	\$8,734	8.3%	\$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	\$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	\$21,695	\$15,431	71.1%	\$37,126	8.3%	\$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/C	\$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	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 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	\$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	\$21,505	\$16,089	74.8%	\$37,594	8.3%	\$23,285	\$17,420	\$40,705	\$0	\$40,705	416.9%	\$120,366	\$90,052	\$210,418
REACH 04 Alt. E 2040 & 2090															
02	40 Overall Structures Floodproofing Conc.	\$0	\$0 -		\$0	-	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	\$0	\$0
02	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	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
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/C	\$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
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

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

10	40 REACH 04 Large Gates/Closure Structures	\$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 Replacements	\$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	\$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
10	90 Overall Utility Relocations	\$11,181	\$29,579	264.5%	\$40,760	8.3%	\$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	\$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	\$0	\$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	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/C	\$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 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 Replacements	\$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	\$131,554	\$98,422	74.8%	\$229,976	8.3%	\$142,442	\$106,568	\$249,010	\$0	\$249,010	416.9%	\$736,326	\$550,882	\$1,287,209
CONSTRUCTION ESTIMATE TOTALS:		\$4,924,803	\$4,468,106		\$9,392,909	8.3%	\$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	\$54,255	\$27,128	50.0%	\$81,383	8.3%	\$58,745	\$29,373	\$88,118	\$0	\$88,118	270.3%	\$217,515	\$108,758	\$326,273
30	REACH 01 PLANNING, ENGINEERING &	\$73,802	\$41,347	56.0%	\$115,149	7.4%	\$79,264	\$44,408	\$123,672	\$0	\$123,672	201.2%	\$238,715	\$133,739	\$372,454
30	REACH 02 PLANNING, ENGINEERING &	\$607	\$340	56.0%	\$946	7.4%	\$651	\$365	\$1,016	\$0	\$1,016	201.2%	\$1,962	\$1,099	\$3,061
30	REACH 03 PLANNING, ENGINEERING &	\$324,314	\$181,696	56.0%	\$506,010	7.4%	\$348,318	\$195,144	\$543,463	\$0	\$543,463	201.2%	\$1,049,006	\$587,703	\$1,636,709
30	REACH 04 PLANNING, ENGINEERING &	\$303,062	\$169,790	56.0%	\$472,852	7.4%	\$325,493	\$182,357	\$507,850	\$0	\$507,850	201.2%	\$980,266	\$549,191	\$1,529,457
31	REACH 01 CONSTRUCTION MANAGEMEN	\$37,548	\$23,689	63.1%	\$61,237	7.4%	\$40,327	\$25,442	\$65,770	\$0	\$65,770	266.3%	\$147,709	\$93,188	\$240,897
31	REACH 02 CONSTRUCTION MANAGEMEN	\$309	\$195	63.1%	\$503	7.4%	\$331	\$209	\$540	\$0	\$540	266.3%	\$1,214	\$766	\$1,980
31	REACH 03 CONSTRUCTION MANAGEMEN	\$165,002	\$104,097	63.1%	\$269,099	7.4%	\$177,215	\$111,802	\$289,017	\$0	\$289,017	266.3%	\$649,092	\$409,504	\$1,058,596
31	REACH 04 CONSTRUCTION MANAGEMEN	\$154,189	\$97,276	63.1%	\$251,466	7.4%	\$165,602	\$104,476	\$270,078	\$0	\$270,078	266.3%	\$606,558	\$382,669	\$989,227
PROJECT COST TOTALS:		\$6,037,890	\$5,113,664	84.7%	\$11,151,554		\$6,528,328	\$5,531,463	\$12,059,791	\$0	\$12,059,791	117.8%	\$14,306,158	\$11,958,904	\$26,265,061

CHIEF, COST ENGINEERING, xxx

PROJECT MANAGER, xxx

ESTIMATED TOTAL PROJECT COST:

\$26,265,061

**** 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
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

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

Confidence Level Range Estimate (\$000's) \$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	<ul style="list-style-type: none"> 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		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 C&A scope is possible.	Marginal	Possible	1
PS-21	Construction Management		C&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 C&A scope is possible.	Marginal	Possible	1

Acquisition Strategy				Maximum Project Growth		30%
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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			Moderate	Very LIKELY	4
AS-3	Bridge Replacement			Moderate	Very LIKELY	4
AS-4	Plantings/EWN			Moderate	Very LIKELY	4
AS-5	Berms/Fill			Moderate	Very LIKELY	4
AS-6	Deep Soil Mixing			Moderate	Very LIKELY	4
AS-7	Cantilever walls/Pile Caps			Moderate	Very LIKELY	4
AS-8	Anchored Walls			Moderate	Very LIKELY	4
AS-9	Combi-Wall (Offshore)			Moderate	Very LIKELY	4
AS-10	Wharf Replacement			Moderate	Very LIKELY	4
AS-11	Raise Piers			Moderate	Very LIKELY	4
AS-12	Pump Stations/Interior Drainage			Moderate	Very LIKELY	4
AS-13	Roller Gate/Vehicle Barriers			Moderate	Very LIKELY	4

AS-14	Large Gates/Closure Structures			Moderate	Very LIKELY	4
AS-15	Armoring			Moderate	Very LIKELY	4
AS-16	Temp Raising/Relocate/Replace Buildings			Moderate	Very LIKELY	4
AS-17	Demolition of Bldgs/Structures			Moderate	Very LIKELY	4
AS-18	Floodproofing of Structures			Moderate	Very LIKELY	4
AS-19	Remaining Construction Items			Moderate	Very LIKELY	4
AS-20	Planning, Engineering, & Design			Moderate	Very LIKELY	4
AS-21	Construction Management			Moderate	Very LIKELY	4

Construction Elements				Maximum Project Growth		50%
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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			Marginal	Possible	1
CE-3	Bridge Replacement			Moderate	Likely	3
CE-4	Plantings/EWN			Marginal	Possible	1
CE-5	Berms/Fill			Marginal	Possible	1
CE-6	Deep Soil Mixing			Significant	Likely	4
CE-7	Cantilever walls/Pile Caps			Marginal	Possible	1
CE-8	Anchored Walls			Marginal	Likely	2
CE-9	Combi-Wall (Offshore)			Moderate	Likely	3
CE-10	Wharf Replacement			Moderate	Likely	3
CE-11	Raise Piers			Moderate	Possible	2
CE-12	Pump Stations/Interior Drainage			Moderate	Likely	3

CE-13	Roller Gate/Vehicle Barriers			Marginal	Possible	1
CE-14	Large Gates/Closure Structures			Moderate	Likely	3
CE-15	Armoring			Marginal	Possible	1
CE-16	Temp Raising/Relocate/Replace Buildings			Moderate	Likely	3
CE-17	Demolition of Bldgs/Structures			Marginal	Possible	1
CE-18	Floodproofing of Structures			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

Specialty Construction or Fabrication				Maximum Project Growth		75%
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SC-1	Utility Relocations			Negligible	Unlikely	0
SC-2	Transportation Corridor			Moderate	Likely	3
SC-3	Bridge Replacement			Moderate	Possible	2
SC-4	Plantings/EWN			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			Negligible	Unlikely	0
SC-8	Anchored Walls			Marginal	Possible	1
SC-9	Combi-Wall (Offshore)			Moderate	Likely	3
SC-10	Wharf Replacement			Marginal	Possible	1
SC-11	Raise Piers			Marginal	Possible	1

SC-12	Pump Stations/Interior Drainage			Moderate	Possible	2
SC-13	Roller Gate/Vehicle Barriers			Marginal	Possible	1
SC-14	Large Gates/Closure Structures			Significant	Likely	4
SC-15	Armoring			Marginal	Possible	1
SC-16	Temp Raising/Relocate/Replace Buildings			Marginal	Possible	1
SC-17	Demolition of Bldgs/Structures			Marginal	Possible	1
SC-18	Floodproofing of Structures			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%
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T-1	Utility Relocations			Marginal	Very LIKELY	3
T-2	Transportation Corridor			Moderate	Possible	2
T-3	Bridge Replacement			Moderate	Possible	2
T-4	Plantings/EWN			Moderate	Likely	3
T-5	Berms/Fill			Moderate	Possible	2
T-6	Deep Soil Mixing			Marginal	Likely	2
T-7	Cantilever walls/Pile Caps			Marginal	Possible	1
T-8	Anchored Walls			Moderate	Possible	2
T-9	Combi-Wall (Offshore)			Moderate	Possible	2
T-10	Wharf Replacement			Marginal	Possible	1

T-11	Raise Piers			Marginal	Possible	1
T-12	Pump Stations/Interior Drainage			Moderate	Possible	2
T-13	Roller Gate/Vehicle Barriers			Marginal	Possible	1
T-14	Large Gates/Closure Structures			Marginal	Possible	1
T-15	Armoring			Marginal	Possible	1
T-16	Temp Raising/Relocate/Replace Buildings			Marginal	Possible	1
T-17	Demolition of Bldgs/Structures			Marginal	Likely	2
T-18	Floodproofing of Structures			Marginal	Likely	2
T-19	Remaining Construction Items			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%
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EST-1	Utility Relocations			Marginal	Likely	2
EST-2	Transportation Corridor			Moderate	Likely	3
EST-3	Bridge Replacement			Moderate	Likely	3
EST-4	Plantings/EWN			Marginal	Possible	1
EST-5	Berms/Fill			Moderate	Possible	2
EST-6	Deep Soil Mixing			Marginal	Possible	1
EST-7	Cantilever walls/Pile Caps			Marginal	Possible	1
EST-8	Anchored Walls			Marginal	Possible	1
EST-9	Combi-Wall (Offshore)			Moderate	Possible	2

EST-10	Wharf Replacement			Marginal	Possible	1
EST-11	Raise Piers			Marginal	Likely	2
EST-12	Pump Stations/Interior Drainage			Moderate	Likely	3
EST-13	Roller Gate/Vehicle Barriers			Marginal	Possible	1
EST-14	Large Gates/Closure Structures			Marginal	Possible	1
EST-15	Armoring			Negligible	Possible	0
EST-16	Temp Raising/Relocate/Replace Buildings			Moderate	Possible	2
EST-17	Demolition of Bldgs/Structures			Moderate	Possible	2
EST-18	Floodproofing of Structures			Moderate	Likely	3
EST-19	Remaining Construction Items			Moderate	Possible	2
EST-20	Planning, Engineering, & Design			Marginal	Possible	1
EST-21	Construction Management			Marginal	Possible	1

External Project Risks

Maximum Project Growth

60%

EX-1	Utility Relocations			Marginal	Possible	1
EX-2	Transportation Corridor			Moderate	Possible	2
EX-6	Deep Soil Mixing			Moderate	Possible	2
EX-7	Cantilever walls/Pile Caps			Marginal	Possible	1
EX-8	Anchored Walls			Marginal	Possible	1
EX-9	Combi-Wall (Offshore)			Moderate	Possible	2
EX-10	Wharf Replacement			Marginal	Possible	1
EX-11	Raise Piers			Marginal	Possible	1

EX-12	Pump Stations/Interior Drainage			Moderate	Possible	2
EX-13	Roller Gate/Vehicle Barriers			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			Marginal	Unlikely	0
EX-16	Temp Raising/Relocate/Replace Buildings			Moderate	Possible	2
EX-17	Demolition of Bldgs/Structures			Moderate	Possible	2
EX-18	Floodproofing of Structures			Moderate	Possible	2
EX-19	Remaining Construction Items			Marginal	Possible	1
EX-20	Planning, Engineering, & Design			Marginal	Likely	2
EX-21	Construction Management			Moderate	Possible	2