

**DATE:** December 05, 2022

**TO:** Commissioner Newsha Ajami, President  
Commissioner Sophie Maxwell, Vice President  
Commissioner Tim Paulson  
Commissioner Tony Rivera  
Commissioner Kate Stacy

**FROM:** Dennis J. Herrera, General Manager *DJH*

**RE:** Water Enterprise Capital Improvement Program  
Quarterly Report (1<sup>st</sup> Quarter / FY 2022-2023)

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Enclosed please find the Water Enterprise Capital Improvement Program (WECIP) Quarterly Report for the 1<sup>st</sup> Quarter (Q1) of Fiscal Year (FY) 2022-2023. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the Water Enterprise Capital Improvement Program based on data for the period of July 1, 2022 to September 30, 2022.

This quarterly report incorporates all the changes made to the Regional and Local Water Enterprise CIP projects according to the 10-Year Water Enterprise Capital Plan for FY2022-23 to FY2031-32, presented to and approved by this Commission on February 8, 2022.

**London N. Breed**  
Mayor

**Newsha Ajami**  
President

**Sophie Maxwell**  
Vice President

**Tim Paulson**  
Commissioner

**Tony Rivera**  
Commissioner

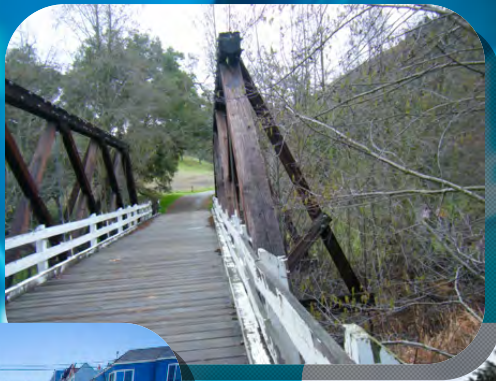
**Kate Stacy**  
Commissioner

**Dennis J. Herrera**  
General Manager

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San Francisco  
**Water Power Sewer**  
Services of the San Francisco Public Utilities Commission



# QUARTERLY REPORT

Water Enterprise Capital Improvement Program

Q1 FY 2022 | 2023

July 2022 — September 2022

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## EXECUTIVE SUMMARY

This quarterly report provides a summary update on both Regional and Local Water Enterprise CIP projects. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the Water Enterprise Capital Improvement Program based on data for the period of July 1, 2022 to September 30, 2022.

This quarterly report incorporates all the changes made to the Regional Water Enterprise CIP projects and the Local Water Enterprise CIP projects according to the 10-Year Water Enterprise Capital Plan for FY2022-23 to FY2031-32, presented to and approved by this Commission on February 8, 2022.

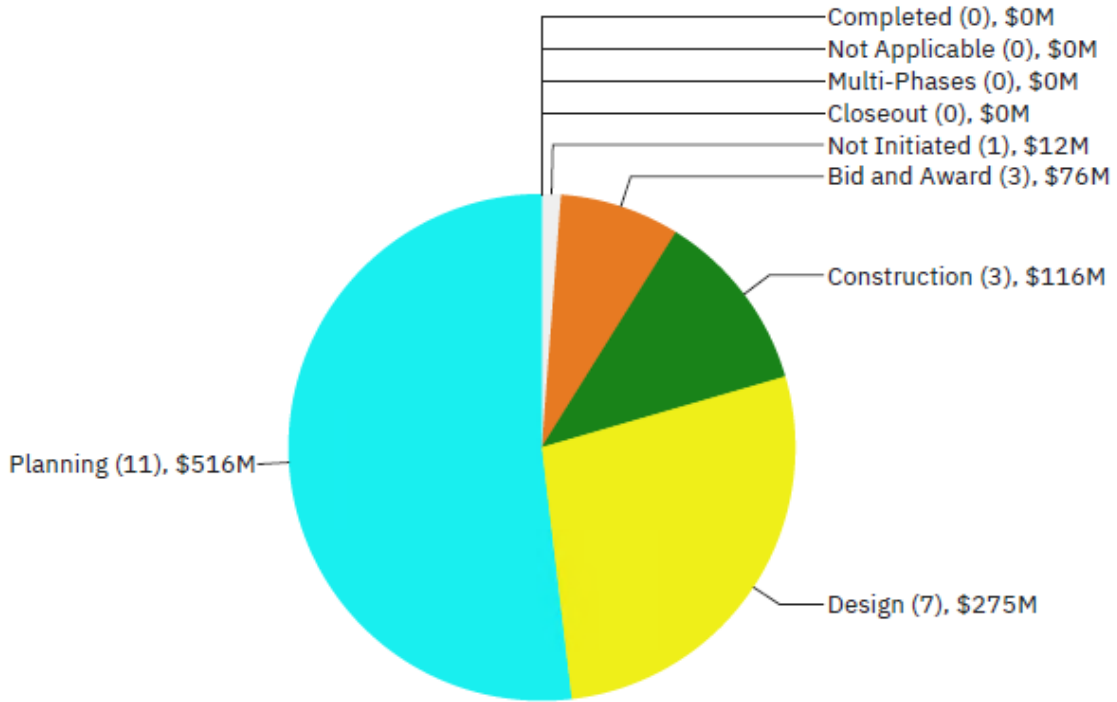
The 2022 approved Regional Water Enterprise CIP (2022 Regional WECIP) has twenty-five (25) projects as follows:

- Twenty-two (22) projects remain from the previously approved program.
- One (1) project, San Andreas Pipeline No.2 Replacement was completed as part of the previously approved program, and it is no longer included in the program or this report.
- Scope from two (2) previous projects has been transferred to three (3) new projects: SVWTP Phase 3 and 4 scope has transferred to SVWTP Short Term Improvements and SVWTP Long Term Improvements, and HTWTP Improvements Capital scope has transferred to HTWTP Filter Underdrain Replacement. These three (3) new projects together with the twenty-two (22) carryover projects form the twenty-five (25) projects of the 2022 Regional WECIP.

The 2022 approved Local Water Enterprise CIP (2022 Local WECIP) has eleven (11) projects, all of which are carryovers from the previously approved program.

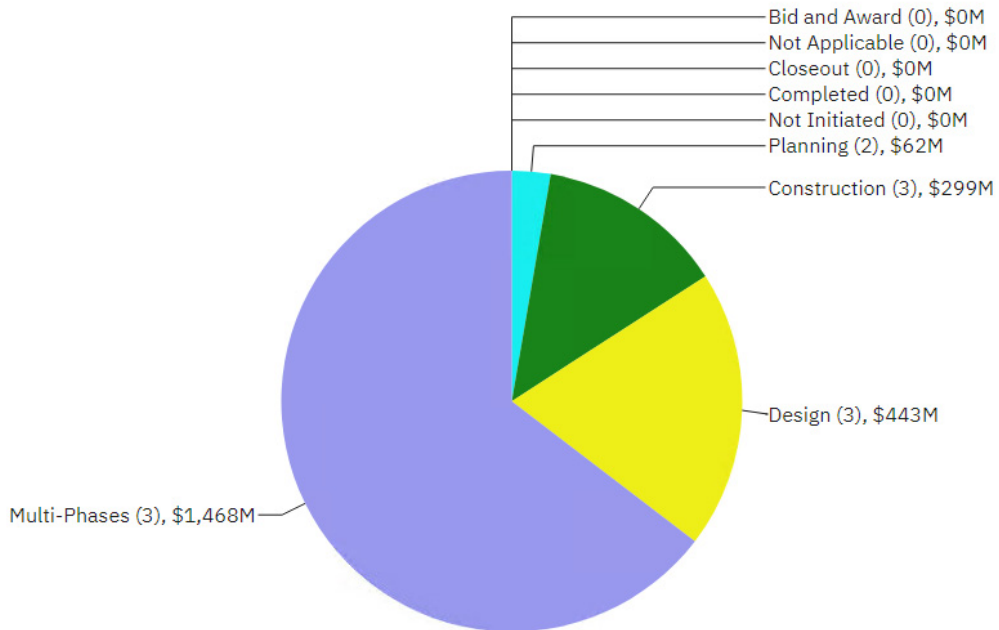
### **Program Current Status:**

Overall steady progress continued on the ongoing Water Enterprise CIP projects. As of the end of the reporting period, the Regional Water Enterprise CIP includes 25 projects in various phases as follows: one (1) project not initiated, twenty-one (21) projects in planning, design or bid and award, and three (3) projects in construction.



**Figure A Total Current Approved Budget for Regional Projects Active in Each Phase**

As of the end of the reporting period, the Local Water Enterprise CIP includes 11 projects in various phases as follows: three (3) projects in multiple phases, five (5) projects in planning or design, and three (3) projects in construction.



**Figure B Total Current Approved Budget for Local Projects Active in Each Phase**

The following Tables provide a high-level summary of the cost and schedule status for the Regional and Local programs.

**Table A. Program Cost Summary**

Programs	Expenditures To Date (\$ Million) (A)	Current Approved Budget (\$ Million) (B)	Q1/FY22-23 Forecast Costs (\$ Million) (C)	Cost Variance (\$ Million) (D = B - C)	Variance Over Reporting Period* (\$ Million) (E)
Regional Program	\$164.39	\$995.12	\$986.19	\$8.93	\$8.93
Local Program	\$809.32	\$2,271.39	\$2,271.39	-	-
<b>Programs Total</b>	<b>\$973.70</b>	<b>\$3,266.51</b>	<b>\$3,257.58</b>	<b>\$8.93</b>	<b>\$8.93</b>

\* Variance is cost variance from the current approved budget that occurred during the quarter. Negative number reflects cost increases since last quarter, and positive number reflects cost reduction since last quarter.

The total Current Approved Budget (including Regional and Local Programs) and Current Forecast Cost at completion are \$3,266.5 million and \$3,257.6 million, respectively. The Current Approved Budget and Forecast Cost at completion for only the Regional Water Program (including construction contingency) are \$995.1 million and \$986.2 million, respectively. The Current Approved Budget and Forecasted Cost at completion for only the Local Water Program (including construction contingency) are the same at \$2,271.4 million.

Two (2) projects in the Regional program, and one (1) project in the Local program, had schedule variances during the quarter. These project variances did not impact the forecasted programs' completion dates.

**Table B. Current Approved vs. Current Forecast Schedule Dates**

Programs	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Regional	01/01/2009	01/01/2009	06/29/2035	06/29/2035	-
Water Local	03/03/2003	03/03/2003	06/30/2032	06/30/2032	-
<b>Overall Water Enterprise CIP</b>	<b>03/03/2003</b>	<b>03/03/2003</b>	<b>06/29/2035</b>	<b>06/29/2035</b>	

**Program Key Updates:**

The key updates for the Regional Water Enterprise Capital Improvement Program include:

- COVID-19-related issues continued to cause minor impacts to projects in planning, design, and construction during the quarter due to labor shortages and procurement delays.



- For the Sunol Valley Water Treatment Plant (SVWTP) Ozone project, during this reporting period, the 65% design, cost estimate and construction schedule were all completed and the 95% design work commenced. Field investigation and testing on the existing Decant pump station and Washwater Recovery pumps was completed and a report on the findings was started. A pothole and utility survey plan was finalized and a Categorical Exemption is being prepared for the work.
- For San Andreas-1 Service Road/Ingoing Road project, the planning phase has been completed, and the 50% design is underway.
- For the Crystal Springs Pipeline No. 2 (CSPL2) Reach 5 Lining Replacement, surveying and geotechnical field work for the project's Conceptual Engineering Report (CER) was completed this quarter. A draft CER was completed and distributed for review.
- For the Crystal Springs Pipeline No. 2 (CSPL2) Reaches 2 and 3 Rehabilitation, drafting of the Conceptual Engineering Report (CER) continued this quarter, incorporating surveying and geotechnical investigation data provided by San Francisco Public Works (SFPW).
- For the Regional Groundwater Treatment project, preparation of a Request for Proposals (RFP) to procure a professional services contract for assistance with project planning, design, engineering services during construction, and closeout is continuing.

The key updates for the Local Water Enterprise Capital Improvement Program include:

- For the Local Water Conveyance/Distribution System, the forecast mileage for the main replacement program in FY23 is 9 miles. FY23 has an increased budget of \$51.7M with approximately \$10M of additional budget received to replace funds redirected in FY22 for the Stern Grove Emergency Restoration Contract and approximately \$12M in funds that had not previously been allocated to the main replacement program. The additional funds will be utilized for construction of main replacement projects which were previously planned but put on hold due to shortage of available funds. The additional funds are not anticipated to be encumbered until the end of FY23 or beginning of FY24 due to the time to finalize contract documents (6 months) followed by the time to advertise, award, and certify the construction contract (8 months). Projects under construction during Q1 FY23 included the City streets of 17th Street, 19th Avenue, Vicente Street, Prospect Avenue, L-Taraval Segment B, and Diamond Street.
- For College Hill Reservoir Outlet, during Q1 FY23 the Contactor completed installation of 36-inch diameter steel pipe from the reservoir to the valve control vault; 24-inch diameter earthquake-resistant ductile iron pipe (ERDIP) from Cortland to the valve control vault; and the reinforced concrete floor for the valve control vault.
- For the New City Distribution Division (CDD) Headquarters project, the Construction Management/General Contractor (CM/GC) contract was awarded by the Commission last quarter, in June. Execution of the contract is pending approval of the Social Impact Partnership Ordinance by the Board of Supervisors during the coming quarter. The RFP for Design Services was rebid as PRO.0264 in September. Proposals are due on October 12. The current schedule for award of the design contract and issuance of the notice to proceed is March 2023.



# Quarterly Report

## Water Enterprise Capital Improvement Program

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#### II. LOCAL CAPITAL IMPROVEMENT PROGRAM

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# **I. Regional Capital Improvement Program**

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## 1. CAPITAL IMPROVEMENT PROGRAM DESCRIPTION

The San Francisco Public Utilities Commission (SFPUC) Water Enterprise manages a complex water supply system stretching from the Sierra Nevada to San Francisco and featuring a series of reservoirs, tunnels, pipelines, and treatment systems. Two unique features of this system stand out: the drinking water provided is among the highest quality in the world, and water deliveries are made to most customers without the use of power, by gravity flow, while generating power at the same time.

The SFPUC is the third largest municipal utility in California, serving 2.7 million residential, commercial, and industrial customers in the Bay Area. Approximately one-third of the delivered water goes to retail customers in San Francisco, while wholesale deliveries to 26 suburban agencies in Alameda, Santa Clara, and San Mateo counties comprise the other two-thirds.

The Regional Water System consists of water storage and treatment facilities; water transmission infrastructure; buildings and structures for facilities and employees; communications systems; and watersheds and Rights-of-Way (ROW) lands in San Mateo, Santa Clara, and Alameda Counties as well as western San Joaquin County. The Regional Water System also includes numerous assets in San Francisco that are operated in conjunction with the regional system. The Regional Water System Capital Improvement Program (Regional Water CIP) part of the SFPUC's Ten Year Capital Improvement Program (10-Year CIP), is a 10-year proposed appropriations plan including planned projects to physically improve the assets within the Regional Water System. The 10-Year CIP is updated every two years (with minor modifications in the off years) and integrated with the SFPUC's Financial Plan and rate-setting.

Biannual updates to the Regional Water CIP also account for post-Water System Improvement Program (post-WSIP) conditions, including deferred projects not in WSIP and new projects needed to continue meeting level of service goals and to maintain facilities in a state of good repair.

The capital planning process is used to inform the Regional Water CIP with updates to master plans, asset condition assessment, and review of levels of service. There are six (6) groupings of projects in the Regional Water CIP. The categories are:

- Water Treatment
- Water Transmission
- Water Supply and Storage
- Watershed and Lands Management
- Communications and Monitoring
- Buildings and Grounds

A project is formally initiated (Project Initiation) when the planning process begins, a project manager is assigned, and the project's initial Approved Budget consistent with the most recently adopted Regional Water CIP is established.

Projects move from the planning, design, and environmental review phase to contract-award and construction phase when Project Approval occurs through an action by the Commission, usually at the same time CEQA findings are adopted. The Commission may also make decisions about a project's scope, budget, or schedule during annual review and approval of the Regional Water CIP. While a

project is active, additional budget modifications outside of the annual CIP process require approval of the Assistant General Manager (AGM) for the Water Enterprise. When and if these budget modifications occur, the modified budget becomes the new Approved Project Budget.

Outside of formal budget adjustments, the project manager regularly estimates and records the anticipated final project cost and schedule as the Forecasted Cost and Forecasted Schedule. Minor modifications to scope or schedule must be approved by increasing levels of management, with major modifications requiring approval by the Program Director and AGMs of Infrastructure and Water Enterprise. Most scope, schedule, and budget changes must be pre-approved by the Change Control Board which consists of managers within the Water Enterprise and Infrastructure Division. Final Project Closeout must be approved by the AGMs for Infrastructure and Water Enterprise.

Changes to the approved baseline program, including any changes to continuing projects' scopes, schedules, and budgets, are proposed as part of the biannually updated 10- year CIP to be approved by the SFPUC Commission. The proposed revisions to the program become the new baseline for new and continuing projects' scopes, schedules, and budgets in the beginning of the new fiscal year following SFPUC Commission approval.

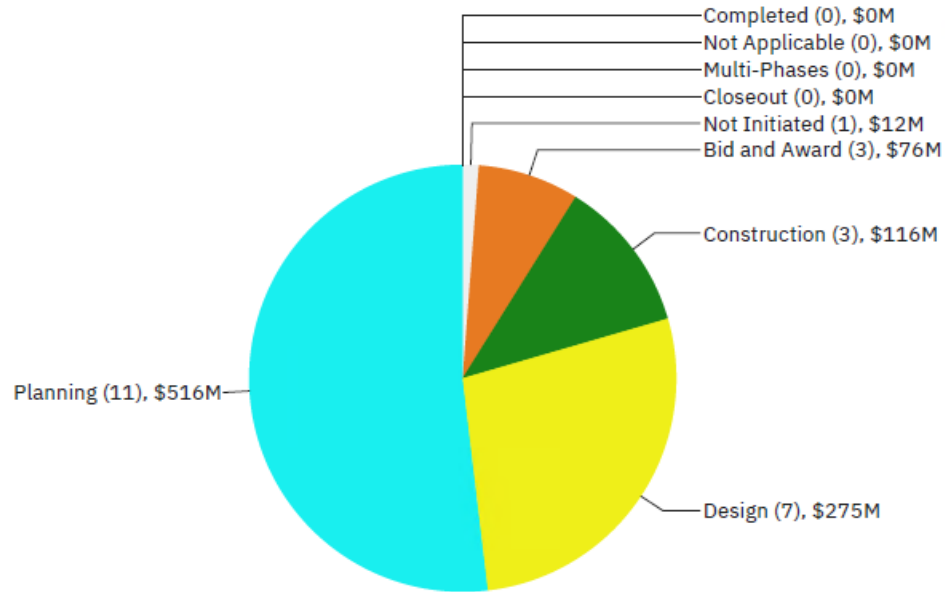
## **2. CAPITAL IMPROVEMENT PROGRAM STATUS**

This Quarterly Report presents the progress made on Regional Water projects between July 1, 2022 and September 30, 2022. This document serves as the first (1st) Quarterly Report in Fiscal Year 2022-2023 (FY23) published for the Water Enterprise Capital Improvement Program.

This quarterly report incorporates all the changes made to the Regional Water Enterprise CIP projects and the Local Water Enterprise CIP projects in the Water Enterprise Capital Improvement Program according to the 10-Year Capital Plan for FY2022-23 to FY2031-32, presented to and adopted by the Commission on February 8, 2022, under Resolution No. 22-0031. The 10-Year Capital Plan for FY2022-23 to FY2031-32 is the new baseline for project scopes, schedules, and budgets starting in the first quarter (Q1) of FY2022-23. The 2022 Approved Water Enterprise CIP is a subset of the Regional and Local Water Enterprise 10-year CIP for FY2023-2032 and includes individual projects over \$5 million that were then currently active or intended to be active by June 30, 2022 at the time proposed to the Commission on February 8, 2022.

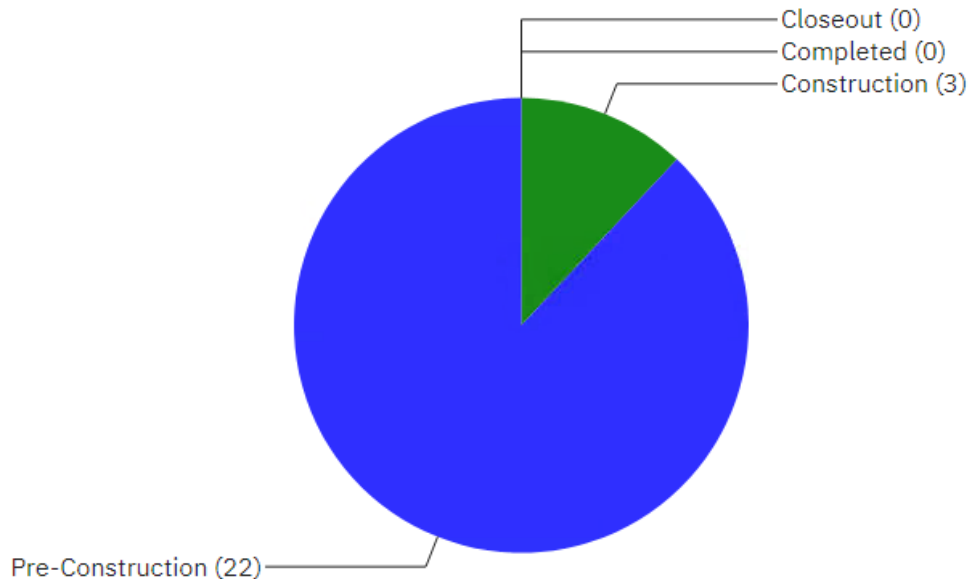
The 2022 Approved Regional Water Enterprise CIP (2022 Regional WECIP) has twenty-five (25) projects, twenty-two (22) of which remain from the previously approved program. Three projects - San Andreas Pipeline No. 2 Replacement, SVWTP Phase 3 and 4, and HTWTP Improvements Capital - are not part of the 2022 Regional WECIP. San Andreas Pipeline No. 2 Replacement was completed under the previously approved program. Scope from the other two has been transferred to three new projects; SVWTP Phase 3 and 4 has become SVWTP Short Term Improvements and SVWTP Long Term Improvements, and HTWTP Improvements Capital has become HTWTP Filter Underdrain Replacement. These three new projects together with the 22 carryover projects form the 25 projects of the 2022 Regional WECIP. The only Regional project not yet initiated and therefore not reported on herein is Merced Manor Reservoir Facilities Repairs; a project description is included in Appendix A.

Figure 2.1 shows the total Current Approved Budget for the 25 Regional projects in each phase of the program as of September 30, 2022. The number of projects currently active in each phase is shown in parentheses.



**Figure 2.1 Total Current Approved Budget for Regional Projects Active in Each Phase**

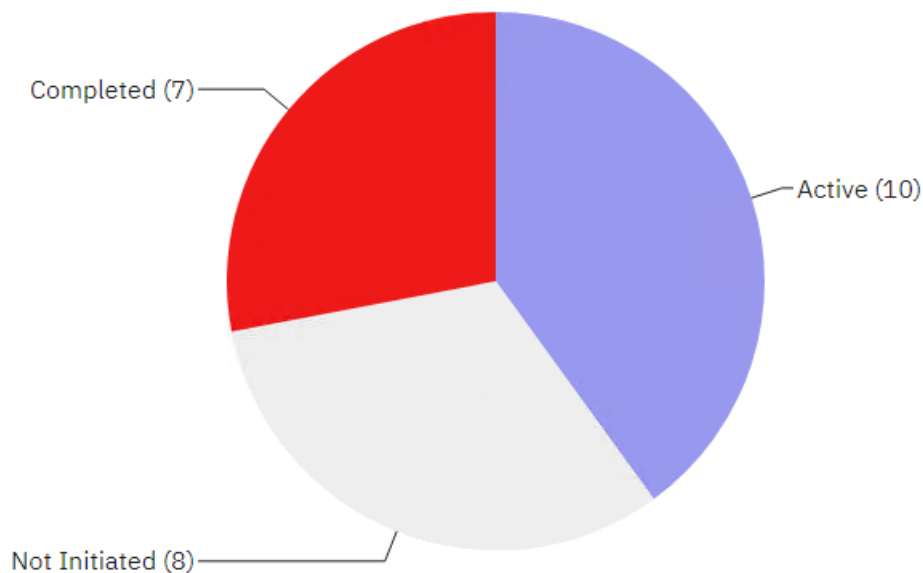
Figure 2.2 shows the number of Regional projects in the following stages as of September 30, 2022: Pre-construction, Construction, and Post-construction.



**Figure 2.2 Number of Regional Projects in Pre-construction, Construction, and Post-construction**



Figure 2.3 summarizes the environmental review status of the 25 Regional projects as of September 30, 2022.



**Figure 2.3 Regional Program Environmental Review**

### 3. CAPITAL IMPROVEMENT PROGRAM COST SUMMARY

Table 3 provides an overall program-level cost summary of the Regional Water Program. It shows by categories of projects the Expenditures to Date, Current Approved Budgets, Q1/FY22-23 Forecast Costs, Cost Variance between the Current Approved Budgets and Forecast Costs, and Variance Over Reporting Period (difference between cost forecasts reported in Q4/FY21-22 and Q1/FY22-23).

The total Current Approved Budget (including Regional and Local Programs) and Current Forecast Cost at completion are \$3,266.5 million, and \$3,257.6 million, respectively. The Current Approved Budget and Forecast Cost at completion for only the Regional Water Program (including construction contingency) are \$995.1 million and \$986.2 million, respectively.

The project budgets and schedules, including for new projects, that were included in the 10-Year CIP budget proposal that was presented to, and approved by, the Commission on February 8, 2022 have become fully approved in Q1FY22-23 through Board of Supervisors action. Any variances from the budgets and schedules approved on February 8, 2022 are also reported.

The 2022 Regional WECIP has an approved budget of \$995.12M. This is \$76.33M greater than the 2021 Regional WECIP approved budget of \$918.79M. The increase in the program's approved budget is attributed to the following factors:

- 10015080 San Andreas Pipeline No.2 Replacement was a project in the 2021 Regional WECIP with an approved budget of \$45.64M that was completed and has been removed from the program.

- 10038328 SVWTP Long Term Improvements with approved budget of \$10.48M is a new project that has been added to the program.
- The 2021 Regional WECIP carried a negative cost variance forecast in Q4/FY21-22 of \$111.49M; this variance has been included in the 2022 Regional WECIP approved budget.

The overall 2022 Regional WECIP positive Cost Variance of \$8.93M in Table 3 can be attributed to the following project and its variance provided below; the reason for the project variance is reported in Section 7:

- 10034526 Millbrae Warehouse Settlement & Admin Bldg HVAC forecasted cost decreased by \$8.93M.

**Table 3 Program Cost Summary**

Programs	Expenditures To Date (\$ Million) (A)	Current Approved Budget (\$ Million) (B)	Q1/FY22-23 Forecast Costs (\$ Million) (C)	Cost Variance (\$ Million) (D = B - C)	Variance Over Reporting Period* (\$ Million) (E)
<b>Regional Water Program</b>	<b>\$164.39</b>	<b>\$995.12</b>	<b>\$986.19</b>	<b>\$8.93</b>	<b>\$8.93</b>
Water Treatment	\$20.59	\$335.38	\$335.38	-	-
Water Transmission	\$14.59	\$228.78	\$228.78	-	-
Water Supply & Storage	\$7.77	\$81.86	\$81.86	-	-
Watershed & Lands Management	\$12.03	\$53.34	\$53.34	-	-
Buildings and Grounds	\$109.40	\$295.75	\$286.82	\$8.93	\$8.93
Local Water Program	<b>\$809.32</b>	<b>\$2,271.39</b>	<b>\$2,271.39</b>	-	-
<b>PROGRAM TOTAL</b>	<b>\$973.70</b>	<b>\$3,266.51</b>	<b>\$3,257.58</b>	<b>\$8.93</b>	<b>\$8.93</b>

\* Variance is cost variance from the current approved budget that occurred during the quarter. Negative number is reflecting cost increases since last quarter, and positive number is reflecting cost reduction since last quarter

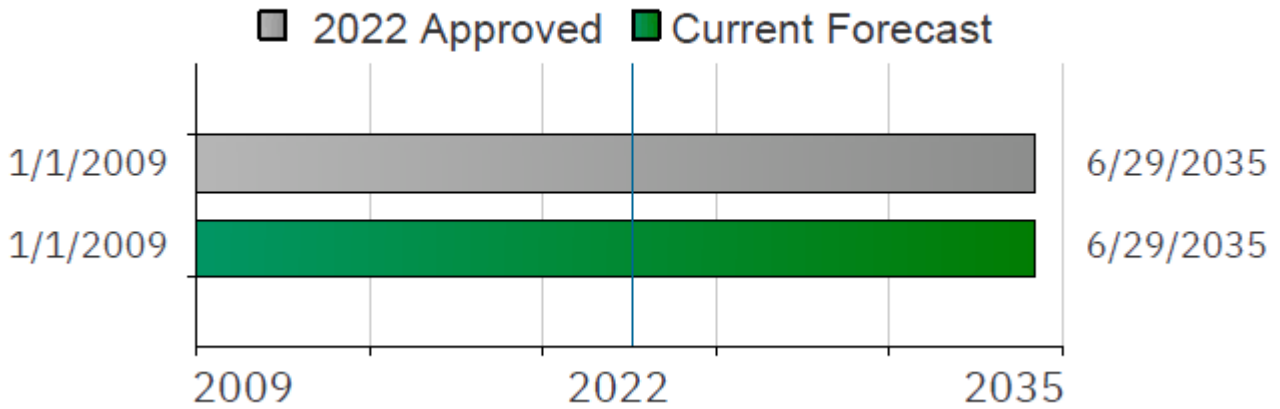
Please refer to the section of II.3 of this report for more details about the reported cost variance for the Local Water Program

**4. CAPITAL IMPROVEMENT PROGRAM SCHEDULE SUMMARY**

Figure 4 compares the Current Approved Schedule completion date and the Current Forecast Schedule completion date for the Regional Water CIP. As shown in Table 4, the Approved and Forecast Schedule completion for the overall Water Enterprise CIP (including Regional and Local Programs) are each in June 2035. The 2022 Approved and Forecast Schedule completion for the Regional Water CIP alone are also each in June 2035.

**Figure 4. Regional Program Schedule Summary**

Data Date: 10/1/2022



**Table 4. Approved vs. Current Forecast Schedule Dates**

Programs	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Regional	01/01/2009	01/01/2009	06/29/2035	06/29/2035	-
Water Local	03/03/2003	03/03/2003	06/30/2032	06/30/2032	-
Overall Water Enterprise CIP	03/03/2003	03/03/2003	06/29/2035	06/29/2035	

**5. BUDGET AND SCHEDULE TREND SUMMARY**

Table 5, titled Budget and Schedule Trend Summary contains all approved Regional Water projects that are active and in any of the planning, design, bid and award, or construction phases of the project. The table excludes any projects that are either not-initiated, on-hold, in closeout, or completed.

During the reporting period, the following Regional projects achieved major project milestones:

- Conceptual Engineering Report (CER) for SVWTP Short Term Improvements
- Construction Award for HTWTP Filter Underdrain Replacement
- 95% Design for San Antonio Pump Station MCC Upgrades
- 35% Design for Millbrae Warehouse Settlement & Admin. Bldg. HVAC (Contract B)

**Table 5. Budget and Schedule Trend Summary**

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction <sup>1</sup>		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
<b>WECIP - Regional</b>														
<b>Water Treatment</b>														
10033123 SVWTP Ozone	FY23-32		06/27/17		01/18/22		05/10/22		01/06/23		12/15/23		Q1-FY22-23	
	\$192.8	06/30/28	\$115	09/09/24	\$192.8	06/30/28	\$192.8	06/30/28	TBD	TBD	TBD	TBD	\$192.8	06/30/28
10015064 SVWTP Short Term Improvements	FY23-32		03/03/14		07/29/22		10/14/22		03/15/23		08/22/23		Q1-FY22-23	
	\$60.0	05/17/27	\$7.1	10/01/18	\$60.0	05/17/27	TBD	TBD	TBD	TBD	TBD	TBD	\$60.0	05/17/27
10037628 SVWTP Polymer Feed Facility	FY23-32		07/16/16 <sup>2</sup>		06/30/19 <sup>2</sup>		08/17/20 <sup>2</sup>		12/06/22		05/09/23		Q1-FY22-23	
	\$19.1	08/01/25	\$9.4	06/17/20	\$10.2	02/15/23	\$10.2	02/15/23	TBD	TBD	TBD	TBD	\$19.1	08/01/25
10037349 HTWTP Filter Underdrain Replacement	FY23-32		11/02/20		06/29/21		10/22/21		01/14/22		09/02/22		Q1-FY22-23	
	\$14.4	06/28/24	\$14.4	06/28/24	\$14.4	06/28/24	\$14.4	06/28/24	\$14.4	06/28/24	\$14.4	06/28/24	\$14.4	06/28/24
10037350 Regional Groundwater Treatment Improvement	FY23-32		08/13/20		08/13/24		10/30/25		11/23/26		06/29/27		Q1-FY22-23	
	\$38.6	2/26/30	\$38.6	12/27/29	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$38.6	2/26/30
10038328 SVWTP Long Term Improvements	FY23-32		11/01/21		04/07/23		12/19/23		06/28/24		10/15/25		Q1-FY22-23	
	\$10.5	05/17/27	\$10.5	05/17/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$10.5	05/17/27
<b>Water Transmission</b>														
10034578 CSPL2 Reach 5 Lining Replacement	FY23-32		02/25/19		12/09/22		02/28/23		08/18/23		01/09/24		Q1-FY22-23	
	\$23.7	4/7/26	\$12.8	11/30/22	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$23.7	04/07/26

**Footnotes:**

1. These columns represent forecast project cost and project completion date at the time of award of construction contract (or Award for CM/GC construction work).
2. For SVWTP Polymer Feed, project initiation, CER, and 35% Design were completed under WSIP - Closeout - Sunol Valley. Future milestones for this project are to be completed under WECIP.

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction <sup>1</sup>		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10035029 As-Needed Pipeline Repairs	FY23-32		10/22/16		06/30/21		02/28/23 <sup>2</sup>		10/02/23		03/12/24		Q1-FY22-23	
	\$7.7	08/25/28	\$6.8	08/25/28	\$6.8	08/25/28	TBD	TBD	TBD	TBD	TBD	TBD	\$7.7	08/25/28
10036839 BDPL4 PCCP Repair	FY23-32		05/01/20		10/17/22		12/15/22 <sup>2</sup>		03/31/23		12/12/23		Q1-FY22-23	
	\$54.7	5/28/25	\$54.7	11/22/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$54.7	5/28/25
10036840 BDPL 1-4 Lining Repair	FY23-32		09/12/16		06/30/21		02/21/23 <sup>2</sup>		09/25/23		03/12/24		Q1-FY22-23	
	\$10.8	08/25/28	\$9.3	8/25/28	\$9.3	08/25/28	TBD	TBD	TBD	TBD	TBD	TBD	\$10.8	08/25/28
10015071 Corrosion Control  Phase I Phase II Phase III	FY23-32		01/01/10		07/01/12 (Phase I) 12/29/17 (Phase II) 07/31/23 (Phase III)		12/31/13 (Phase I) 12/31/18 (Phase II) 08/30/24 (Phase III)		07/30/15 (Phase I) 11/30/21 (Phase II) 08/30/24 (Phase III)		12/30/18 (Phase I) 12/13/22 (Phase II) 08/01/25 (Phase III)		Q1-FY22-23	
	\$36.5	01/31/28	\$24.9	12/29/34	\$24.9	12/29/34	\$24.9	12/29/34	\$36.5	1/31/28	\$24.9	12/29/34	\$36.5	01/31/28
10015076 San Antonio Pump Station MCC Upgrades	FY23-32		05/12/16		NA <sup>3</sup>		01/28/22 <sup>4</sup>		09/30/22		03/28/23		Q1-FY22-23	
	\$12.5	03/19/25	\$7.2	01/27/23	NA	NA	\$12.5	03/19/25	\$12.5	03/19/25	TBD	TBD	\$12.5	03/19/25
10015081 CSPL2 Reaches 2 and 3 Rehabilitation	FY23-32		09/12/16		12/30/22		04/07/23		11/17/23		05/28/24		Q1-FY22-23	
	\$82.8	2/18/27	\$55.9	10/10/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$82.8	02/18/27
<b>Water Supply &amp; Storage</b>														
10036998 Turner Dam and Reservoir Improvements	FY23-32		10/01/20		06/30/27		06/29/28		12/31/30		10/21/31		Q1-FY22-23	
	\$7.5	06/29/35	\$7.5	06/29/35	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$7.5	06/29/35

**Footnotes:**

1. These columns represent forecast project cost and project completion date at the time of award of construction contract (or award of CM/GC scope).
2. This represents a project milestone of 50% Design.
3. For San Antonio Pump Station MCC, CER was not needed.
4. For San Antonio Pump Station MCC 35% Design was replaced with 65%

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction <sup>1</sup>		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10015091 Pilarcitos Dam Improvements	FY23-32		04/07/14		06/30/23		02/08/24		02/07/25		11/12/25		Q1-FY22-23	
	\$30.1	06/29/29	\$25.7	09/05/25	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$30.1	06/29/29
10015092 San Andreas Dam Facility Improvements	FY23-32		12/11/13 <sup>3</sup>		09/29/23 <sup>3</sup>		09/30/24 <sup>3</sup>		05/26/26 <sup>3</sup>		05/4/27 (Scope I) 04/10/29 (Scope II)		Q1-FY22-23	
	Scope I Scope II	\$32.2	12/30/33	\$26.8	04/20/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$32.2	12/30/33
<b>Watershed &amp; Lands Management</b>														
10015110 EBRPD Water System	FY23-32		06/02/14		01/31/19		08/09/19 <sup>2</sup>		12/02/19		05/10/21		Q1-FY22-23	
	\$5.6	10/31/22	\$5.4	10/31/22	\$5.4	10/31/22	\$5.4	10/31/22	\$5.4	10/31/22	\$5.4	10/31/22	\$5.6	10/31/22
10015108 Sneath Lane Gate/North San Andreas	FY23-32		02/01/21		03/24/22		10/16/24		05/09/25		10/28/25		Q1-FY22-23	
	\$6.7	08/02/27	\$6.7	01/27/28	\$6.7	08/02/27	TBD	TBD	TBD	TBD	TBD	TBD	\$6.7	08/02/27
10015113 Southern Skyline Blvd Ridge Trail Extension	FY23-32		10/31/12		03/09/15		9/10/15 <sup>2</sup>		01/05/18		11/08/22		Q1-FY22-23	
	\$25.3	02/02/24	\$18.7	02/25/19	\$18.7	02/25/19	\$18.7	02/25/19	\$19.3	07/22/21	TBD	TBD	\$25.3	02/02/24
10030771 SA-1 Service Road/Ingoing Road	FY23-32		06/30/16		01/06/22		10/31/22		10/30/23		04/09/24		Q1-FY22-23	
	\$15.8	12/31/26	\$9.6	12/31/26	\$15.8	12/31/26	TBD	TBD	TBD	TBD	TBD	TBD	\$15.8	12/31/26
<b>Buildings and Grounds</b>														
10033555 Rollins Road Building Renovations	FY23-32		03/01/18		05/31/19		11/16/20		01/28/21		04/01/21		Q1-FY22-23	
	\$5.2	06/30/22	\$17.9	01/31/22	\$17.9	01/31/22	\$5.2	06/30/22	\$5.2	06/30/22	\$5.2	06/30/22	\$5.2	10/30/22

**Footnotes:**

1. These columns represent forecast project cost and project completion date at the time of award of construction contract (or Award for CM/GC construction work).
2. This represents a project milestone of 50% Design.
3. For San Andreas Dam Facility Improvements, all milestones except Awarded Construction represent the same date for both scopes.

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction <sup>1</sup>		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC	FY23-32		1/3/17		12/29/17 (Scope I) 01/2/18 (Scope II)		12/29/18(Scope I) 08/12/22 (Scope II)		08/03/20(Scope I) 03/29/23 (Scope II)		03/09/21 (Scope I) 08/8/23(Scope II)		Q1-FY22-23	
Scope I Scope II	\$16.1	09/30/24	\$5.5	11/30/23	\$5.5	11/30/23	\$7.1	06/02/25	\$5.5	11/30/23	\$5.5	11/30/23	\$7.1	09/30/24
10015124 Sunol Long Term Improvements	FY23-32		01/01/09		04/27/12		05/28/13 (Scope I) 08/07/14 (Scope II)		03/30/15 (Scope I) 10/02/15 (Scope II)		11/08/16 (Scope I) 12/10/19 (Scope II)		Q1-FY22-23	
Scope I Scope II	\$104.9	08/14/23	\$91.7	09/01/21	\$91.7	09/01/21	\$91.7	09/01/21	\$91.7	09/01/21	\$91.7	09/01/21	\$104.9	08/14/23
10015128 Millbrae Yard Laboratory and Shop Improvements	FY23-32		11/02/15		03/31/23		09/27/23		04/26/24		02/25/25		Q1-FY22-23	
	\$169.6	03/30/29	\$24.5	05/03/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$169.6	03/30/29

**Footnotes:**

1. These columns represent forecast project cost and project completion date at the time of award of construction contract (or Award for CM/GC construction work).



6. PROJECT PERFORMANCE SUMMARY\*

All costs are shown in \$1,000s

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
<b>Water Treatment</b>											
10033123 SVWTP Ozone (CUW27202)	DS	\$192,816	\$192,816	\$192,816	\$9,288	\$0	0%	06/30/2028	06/30/2028	06/30/2028	0
10015064 SVWTP Short Term Improvements	PL	\$60,035	\$60,035	\$60,035	\$8,435	\$0	0%	05/17/2027	05/17/2027	05/17/2027	0
10037628 SVWTP Polymer Feed Facility	DS	\$19,046	\$19,046	\$19,046	\$421	\$0	0%	08/01/2025	08/01/2025	08/01/2025	0
10037349 HTWTP Filter Underdrain Replacement	BA	\$14,404	\$14,404	\$14,404	\$612	\$0	0%	06/28/2024	06/28/2024	06/28/2024	0
10037350 Regional Groundwater Treatment Improvement	PL	\$38,600	\$38,600	\$38,600	\$1,803	\$0	0%	02/26/2030	02/26/2030	02/26/2030	0
10038328 SVWTP Long Term Improvements	PL	\$10,483	\$10,483	\$10,483	\$27	\$0	0%	05/17/2027	05/17/2027	05/17/2027	0
<b>Water Transmission</b>											

\* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

<b>** Phase Status Legend</b>		
<b>PL</b> Planning	<b>DS</b> Design	
<b>BA</b> Bid & Award	<b>CN</b> Construction	<b>MP</b> Multiple-Phase

<b>Footnotes:</b>
(+) <b>CIP Approved Budget and Project Completion Date:</b> The budget and schedule approved as part of 10-year CIP for FY23-32.
(++) <b>Current Approved Budget and Schedule:</b> The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.
(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10034578 CSPL2 Reach 5 Lining Replacement	PL	\$23,697	\$23,697	\$23,696	\$1,218	\$0	0%	04/07/2026	04/07/2026	04/07/2026	0
10035029 As-Needed Pipeline Repairs	DS	\$7,724	\$7,724	\$7,724	\$387	\$0	0%	08/25/2028	08/25/2028	08/25/2028	0
10036839 BDPL4 PCCP Repair	PL	\$54,750	\$54,750	\$54,750	\$570	\$0	0%	05/28/2025	05/28/2025	05/28/2025	0
10036840 BDPL 1-4 Lining Repair	DS	\$10,764	\$10,764	\$10,764	\$272	\$0	0%	08/25/2028	08/25/2028	08/25/2028	0
10015071 Corrosion Control	BA	\$36,536	\$36,536	\$36,536	\$8,239	\$0	0%	01/31/2028	01/31/2028	01/31/2028	0
10015076 San Antonio Pump Station MCC Upgrades	DS	\$12,500	\$12,500	\$12,500	\$1,585	\$0	0%	03/19/2025	03/19/2025	03/19/2025	0
10015081 CSPL2 Reaches 2 and 3 Rehabilitation	PL	\$82,813	\$82,813	\$82,813	\$2,323	\$0	0%	02/18/2027	02/18/2027	02/18/2027	0
<b>Water Supply &amp; Storage</b>											
10036998 Turner Dam and Reservoir Improvements	PL	\$7,500	\$7,500	\$7,500	\$1,616	\$0	0%	06/29/2035	06/29/2035	06/29/2035	0

\* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

<b>** Phase Status Legend</b>			
PL	Planning	DS	Design
BA	Bid & Award	CN	Construction
MP	Multiple-Phase		

**Footnotes:**

- (+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.
- (++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.
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Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10015091 Pilarcitos Dam Improvements	PL	\$30,087	\$30,087	\$30,087	\$3,826	\$0	0%	06/29/2029	06/29/2029	06/29/2029	0
10015092 San Andreas Dam Facility Improvements	PL	\$32,195	\$32,195	\$32,195	\$2,328	\$0	0%	12/30/2033	12/30/2033	12/30/2033	0
<b>Watershed &amp; Lands Management</b>											
10015110 EBRPD WATER SYSTEM	CN	\$5,553	\$5,553	\$5,553	\$4,957	\$0	0%	10/31/2022	10/31/2022	10/31/2022	0
10015108 Sneath Lane Gate/North San Andreas	PL	\$6,698	\$6,698	\$6,698	\$358	\$0	0%	08/02/2027	08/02/2027	08/02/2027	0
10015113 Southern Skyline Blvd Ridge Trail Extension	BA	\$25,274	\$25,274	\$25,274	\$5,886	\$0	0%	02/02/2024	02/02/2024	06/30/2025	(514)
10030771 SA-1 Service Road/Ingoing Road	DS	\$15,817	\$15,817	\$15,817	\$833	\$0	0%	12/31/2026	12/31/2026	12/31/2026	0
<b>Buildings and Grounds</b>											
10033555 Rollins Road Building Renovations (CUW27703)	CN	\$5,192	\$5,192	\$5,192	\$3,327	\$0	0%	06/30/2022	06/30/2022	10/30/2022	(122)

\* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

<b>** Phase Status Legend</b>			
PL	Planning	DS	Design
BA	Bid & Award	CN	Construction
		MP	Multiple-Phase

<b>Footnotes:</b>
(+) <b>CIP Approved Budget and Project Completion Date:</b> The budget and schedule approved as part of 10-year CIP for FY23-32.
(++) <b>Current Approved Budget and Schedule:</b> The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.
(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC	DS	\$16,080	\$16,080	\$7,149	\$2,189	\$8,931	56%	09/30/2024	09/30/2024	09/30/2024	0
10015124 Sunol Long Term Improvements	CN	\$104,914	\$104,914	\$104,914	\$98,292	\$0	0%	08/14/2023	08/14/2023	08/14/2023	0
10015128 Millbrae Yard Laboratory and Shop Improvements	PL	\$169,563	\$169,563	\$169,563	\$5,593	\$0	0%	03/30/2029	03/30/2029	03/30/2029	0

\* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

** Phase Status Legend		
PL	Planning	DS
BA	Bid & Award	CN
		MP
		Multiple-Phase

**Footnotes:**

- (+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.
- (++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.
- (+++) **Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule).** Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

7. PROJECT STATUS REPORT

10033123 - SVWTP Ozone (CUW27202)

**Project Description:** In recent years, SFPUC’s Sunol Valley Water Treatment Plant (SVWTP) has experienced more frequent taste and odor (T&O) events from seasonal algal blooms than had occurred historically. This project’s objective is to install ozone treatment facilities as a long-term solution to control T&O events encountered in the raw water supply from both the San Antonio and Calaveras Reservoir sources. This project will improve the reliability to meet water quality goals especially during warm months and during Hetch Hetchy shutdowns.

<b>Program:</b> Water Treatment	<b>Project Status:</b> Design	<b>Environmental Status:</b> Active (EIR)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 192.82 M	Approved Jun-17	Jun-28
Forecast	\$ 192.82 M	Forecast Jun-17	Jun-28
Actual	\$ 9.29 M	Project Percent Complete: 5.0%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	03/28/2023	08/09/2023	01/02/2024	07/01/2027

**Progress and Status:**

During this reporting period, the 65% design, cost estimate and construction schedule were completed and the 95% design work started. Field investigation and testing on the existing Decant Pump Station and Washwater Recovery Pumps was completed during the quarter; a report on the findings was started. A pothole and utility survey plan were finalized, and a Categorical Exemption (environmental permit requirement) is being prepared for the field work. The environmental requirements will be fulfilled by adding an amendment to the SVWTP Expansion and Treated Water Reservoir Environmental Impact Report prepared under the Water System Improvement Program.

**Issues and Challenges:**

None at this time.

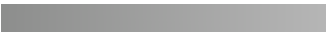






Existing Washwater Recovery Pumps

**10015064 - SVWTP Short Term Improvements**

**Project Description:** The primary objective of the SVWTP Short Term Improvements project is to improve regional delivery reliability by addressing various conditions and deficiencies of the Sunol Valley Water Treatment Plant (SVWTP). Upgrades were identified through condition assessments and operations staff observations, review of level of service, subsequent feasibility studies, and alternative analyses.

<b>Program:</b> Water Treatment	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Active (EIR)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	 \$ 60.03 M	Approved Mar-14	 May-27
Forecast	 \$ 60.03 M	Forecast Mar-14	 May-27
Actual	 \$ 8.43 M	Project Percent Complete: 14.0%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	04/03/2023	06/30/2023	11/14/2023	11/14/2024

**Progress and Status:**

During the reporting period the Conceptual Engineering Report (CER) and cost estimate were completed. The project received approval from the Technical Steering Committee to proceed with the design phase. The draft design criteria were developed for review. Work to develop a professional services contract for planning and design support for the scope items transferred to the Long Term Improvements project continued during the quarter. The environmental requirements will be fulfilled by adding an amendment to the SVWTP Expansion and Treated Water Reservoir Environmental Impact Report that was prepared under the Water System Improvement Program.

**Issues and Challenges:**

None at this time.








*Existing Sludge Collection Auger*



**10037628 - SVWTP Polymer Feed Facility**

**Project Description:** At the Sunol Valley Water Treatment Plant (SVWTP), the new flocculation/sedimentation basin built in 2013 as well as the other 4 existing basins that are each rated at a capacity of 40 million gallons per day (mgd) were not able to achieve their capacity under all operating and water quality scenarios. A basin optimization plan was prepared to address the performance; it recommended adding a flocculant ai polymer system. The project will build a polymer feed facility that will serve all five sedimentation basins to optimize plant water production.

<b>Program:</b> <a href="#">Water Treatment</a>	<b>Project Status:</b> <a href="#">Design</a>	<b>Environmental Status:</b> <a href="#">Active (EIR)</a>
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 19.05 M	Approved Jul-21  Aug-25
Forecast		\$ 19.05 M	Forecast Jul-21  Aug-25
Actual		\$ 0.42 M	Project Percent Complete: <b>1.6%</b>

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/24/2023	04/27/2023	10/25/2023	07/25/2025

**Progress and Status:**

During the reporting period, a test plan was developed for full-scale tests at SVWTP to confirm the need for polymer systems in all five sedimentation basins. The project team provided coordination to secure polymer testing equipment. The design phase has been extended to allow for the test results to confirm the project requirements. The project’s environmental requirements will be fulfilled by adding an amendment to the SVWTP Expansion and Treated Water Reservoir Environmental Impact Report that was prepared under the Water System Improvement Program.

**Issues and Challenges:**

None at this time.








*Mobile Pilot Plant*



**10037349 - HTWTP Filter Underdrain Replacement**

**Project Description:** Over twenty projects have been identified to improve the performance and reliability of the Harry Tracy Water Treatment Plant (HTWTP). However, underdrains in two filters in a bank of six have failed since 2019 and replacement of the underdrains is being prioritized to restore the plant's treatment capacity and reliability. The remaining projects will be deferred to future CIP Planning.

<b>Program:</b> Water Treatment	<b>Project Status:</b> Bid and Award	<b>Environmental Status:</b> Completed (Not a project under CEQA)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 14.4 M	Approved Nov-20  Jun-24
Forecast		\$ 14.4 M	Forecast Nov-20  Jun-24
Actual		\$ 0.61 M	Project Percent Complete: 19.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/29/2021 A	04/21/2022 A	10/03/2022	12/29/2023

**Progress and Status:**

Contract WD-2887, Harry Tracy Water Treatment Plant - Filters No. 1 to 6 Underdrain Replacement, was awarded by the SFPUC Commission during the quarter. The Notice to Proceed (NTP) for the construction contract is anticipated to be issued early next quarter.

**Issues and Challenges:**

None at this time.








*Proposed Stainless Steel Underdrains and Air Piping*

**10037350 - Regional Groundwater Treatment Improvement**

**Project Description:** The purpose of this project is to improve the performance of the Regional Groundwater Wells and treatment systems in the South Westside Basin for reliable use during dry years. In normal and wet years, the SFPUC will supply treated surface water to Daly City, San Bruno, and Cal Water to be used in place of their typical groundwater supply, thereby increasing the volume of groundwater in storage that can be pumped as supplemental water in dry years. This project will address emerging well water quality issues that require treatment, will provide additional reliability for treatment systems at the wells, and will evaluate the potential for a consolidated treatment facility (through Alternatives Analysis only). If a centralized treatment alternative is selected, the estimated project cost could potentially be \$250 million, which includes construction of approximately 14 miles of 8" to 24" diameter pipeline, a pump station, storage tanks, treatment facilities, and other ancillary facilities. This project will build auxiliary water treatment facilities as well as other enhancements to increase the reliability and efficiency for maintenance and operation of the well stations.

<b>Program:</b> Water Treatment	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Not Initiated (TBD)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 38.6 M	Approved Aug-20  Feb-30
Forecast		\$ 38.6 M	Forecast Aug-20  Feb-30
Actual		\$ 1.8 M	Project Percent Complete: 2.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/20/2027	04/07/2027	08/30/2027	08/29/2029

**Progress and Status:**

Preparation of a Request for Proposals (RFP) to procure a professional services contract for assistance with project planning, design, engineering services during construction, and closeout continued during the quarter. The RFP is in final review by the City Attorney.

**Issues and Challenges:**

None at this time.








*Typical Top of Well Casing*

**10038328 - SVWTP Long Term Improvements**

**Project Description:** The primary objective of the SVWTP Long Term Improvements project is to improve regional delivery reliability by addressing various conditions and deficiencies of the Sunol Valley Water Treatment Plant (SVWTP). Upgrades were identified through condition assessments and operations staff observations, review of level of service, subsequent feasibility studies, and alternative analyses.

<b>Program:</b> Water Treatment	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Not Initiated (TBD)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 10.48 M	Approved Nov-21  May-27
Forecast		\$ 10.48 M	Forecast Nov-21  May-27
Actual		\$ 0.03 M	Project Percent Complete: 0.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/01/2023	06/05/2025	11/13/2025	01/29/2027

**Progress and Status:**

During the reporting period, the project was added to the Water Enterprise Capital Improvement Program. This is the first quarterly report on the project. The scope of work for engineering planning and design services was prepared for inclusion in a Request for Proposals for a professional services support contract.

**Issues and Challenges:**

None at this time.


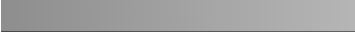





*Existing Access Road at Chemical Tanks at SVWTP*

**10034578 - CSPL2 Reach 5 Lining Replacement**

**Project Description:** Crystal Springs Pipeline No. 2 (CSPL2) runs from Crystal Springs Pump Station to University Mound Reservoir. It delivers potable and emergency water supply to San Francisco and to several cities along the Peninsula. Reach 5 of CSPL2, 60" in diameter, from Millbrae Yard to Baden Pump Station (approximately 3.8 miles) in the cities of South San Francisco and San Bruno is over 80 years old and has extensive lining failures. This project would replace approximately 3.8 miles of coal tar lining with cement mortar lining (CML), upgrade 34 appurtenances to meet current standards, and improve access and shutdown flexibility for maintenance by installing 5 manway structures and one 60" diameter valve on CSPL2 and one 48" diameter valve on San Andreas Pipeline No. 1 (SAPL1) near Baden Pump Station.

<b>Program:</b> <a href="#">Water Transmission</a>	<b>Project Status:</b> <a href="#">Planning</a>	<b>Environmental Status:</b> <a href="#">Active (Cat Ex)</a>
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 23.7 M	Approved Feb-19 
Forecast		\$ 23.7 M	Forecast Feb-19 
Actual		\$ 1.22 M	Project Percent Complete: <a href="#">6.7%</a>

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/18/2020 A	10/20/2023	03/04/2024	09/30/2025

**Progress and Status:**

Surveying and geotechnical field work for the project's Conceptual Engineering Report (CER) was completed this quarter. A draft CER was completed and distributed for review late this quarter. Environmental Categorical Exemption status for this project was obtained by an amendment to the environmental permit for project CUW2730504 - SAPL2 Lockbar Replacement that was originally approved on June 20, 2017.

**Issues and Challenges:**

None at this time.



*CSPL2 Reach 5 Alignment*



**10035029 - As-Needed Pipeline Repairs**

**Project Description:** Water Supply and Treatment Division's (WSTD) maintenance and inspection program inspects the regional pipeline system on an ongoing basis. However, when repairs are identified to be needed following inspections and when emergency repairs are needed, a contractor is not readily available to perform the repairs. This project will increase system reliability by reducing the duration and number of outages since a prequalified, as-needed contractor will be available to complete repairs immediately following inspections or in emergencies. This project will repair/replace regional pipeline segments that will be inspected over the next five years, in addition to any emergency repairs that may be needed. The initial construction contract will be 3 years and combined with Project 10036840, BDPL1-4 Lining Repair to provide a sufficient guaranteed scope. Subsequent construction contract(s) will be issued to parallel WSTD's inspection program.

<b>Program:</b> Water Transmission	<b>Project Status:</b> Design	<b>Environmental Status:</b> Active (Cat Ex)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 7.72 M	Approved Oct-16	Aug-28
Forecast	\$ 7.72 M	Forecast Oct-16	Aug-28
Actual	\$ 0.39 M	Project Percent Complete: 8.2%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/26/2023	12/18/2023	05/21/2024	02/21/2028

**Progress and Status:**

Planning phase work to incorporate valves to be used for safe pipeline entry began this quarter. Survey and geotechnical work is planned to begin next quarter.

**Issues and Challenges:**

None at this time.



*Example of Equipment for Worker Safe Pipeline Entry*

**10036839 - BDPL4 PCCP Repair**

**Project Description:** Historically, when pre-stressed concrete cylinder pipe (PCCP) fails due to breaks in the spirally wound wire, the high-pressure failure can have catastrophic consequences. Some segments of the Regional Water System are constructed of PCCP. From recent inspections of Bay Division Pipeline No. 4 (BDPL4) Segment D, constructed of PCCP, a large number of wire breaks and circumferential cracks were found in the last 1.25 miles of pipeline that parallels Edgewood Road in Redwood City. In addition, several leaks have surfaced at circumferential cracks and where the pipeline transitions from PCCP to steel. Segments where wire breaks are concentrated will need to be repaired/replaced to prevent catastrophic failure and circumferential cracks and leaks will also be repaired. The first phase of this project will be to repair segments where there are high concentrations of wire breaks, wide circumferential cracks and active leaks. This first phase will include planning, design and construction of repairs. The second phase of the project will be to address the remaining 1.25 miles of pipeline, which includes planning, design and partial encumbrance of a construction contract. The project budget will be reevaluated following completion of the Alternatives Analysis for the second phase. The first construction contract will increase system reliability by rehabilitating approximately 650 feet of 84-inch diameter BDPL4 PCCP in Redwood City.

<b>Program:</b> Water Transmission	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Active (Cat Ex)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 54.75 M	Approved May-20	May-25
Forecast	\$ 54.75 M	Forecast May-20	May-25
Actual	\$ 0.57 M	Project Percent Complete: 1.1%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/2023	07/25/2023	12/22/2023	11/27/2024

**Progress and Status:**

The consultant is continuing to prepare a needs assessment for this overall segment of pipeline. In addition, interim repairs to high priority segments are being evaluated and prioritized.

**Issues and Challenges:**

None at this time.





*BDPL4 PCCP Alignment*

**10036840 - BDPL 1-4 Lining Repair**

**Project Description:** Water Supply and Treatment Division's (WSTD) ongoing pipeline inspection program has identified segments of the BDPL 1-4 and other regional pipelines that require lining repairs. In addition, this project will retain an as-needed contractor to repair linings identified to be deficient by WSTD over the next 5-years. This project will repair the lining in segments of the BDPL 1-4 and other regional pipelines over the next 5 years. The initial construction contract for this project will be 3 years and combined with Project 10035029, As-Needed Pipeline Repair to provide a sufficient guaranteed scope.

<b>Program:</b> Water Transmission	<b>Project Status:</b> Design	<b>Environmental Status:</b> Active (Cat Ex)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		Approved Sep-16	
Forecast	\$ 10.76 M	Forecast Sep-16	Aug-28
Actual	\$ 0.27 M	Project Percent Complete: 4.3%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	05/15/2024	12/14/2023	05/16/2024	01/04/2028

**Progress and Status:**

Planning phase work to incorporate valves into the project design that are necessary for worker safe pipeline entry began this quarter. Survey and geotechnical work is planned to begin next quarter.

**Issues and Challenges:**

None at this time.



*Typical Lining Failure*

**10015071 - Corrosion Control**

**Project Description:** This project will implement the corrosion protection and control program as recommended in the Corrosion Control Master Plan completed in August 2010. Sites identified with the worst levels of corrosion were bundled up in the master plan in three phases. Each phase will take several years to implementation. The scope for all phases will be similar, but the number of sites will vary at each phase. Phase 1 construction work for ten sites was completed and accepted on August 27, 2019. Phase 2 has eleven sites and is currently in the design phase. Phase 3 is anticipated to include up to twenty sites depending on the funding.

<b>Program:</b> Water Transmission	<b>Project Status:</b> Bid and Award	<b>Environmental Status:</b> Completed (Cat Ex)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		Approved Jan-16	
Forecast		Forecast Jan-16	
Actual		Project Percent Complete: 23.8%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
	A	N/A	11/09/2016 A	12/31/2018 A
Current Forecast	B	01/31/2022 A	01/05/2023	01/06/2025
	C	TBD	03/09/2026	07/09/2027

**Progress and Status:**

Staff will request the Commission to award the construction contract at the October 25th Commission Meeting. The contract amount is approximately \$3.2M, which is about 18% lower than the engineer’s estimate. The overall percent completion for all project phases was reduced from 46% in Q4 to 23.8% in this quarter due to the approved budget increase of about \$12M to cover the cost of PG&E utility requirements.

**Issues and Challenges:**

None at this time.






Project Vicinity – Phase 2 (11 sites)



**10015076 - San Antonio Pump Station MCC Upgrades**

**Project Description:** The San Antonio Pump Station (SAPS) is one of the key facilities in the Sunol Valley; it was constructed in 1965 and modified in 1990. The existing motor control centers (MCC) MCC-A, MCC-B, and MCC-C have been in service since the 1960’s and they are approaching the end of their useful life. In order to maintain reliable operation at SAPS, the existing MCCs are being replaced and facility walls are being seismically retrofitted. In order to accommodate the retrofit work, the communications system is being relocated to an adjacent room and the HVAC will be replaced in affected rooms. In addition, a new propane generator will replace the existing diesel generator to serve as reliable backup power to the facility.

<b>Program:</b> <a href="#">Water Transmission</a>	<b>Project Status:</b> <a href="#">Design</a>	<b>Environmental Status:</b> <a href="#">Active (Cat Ex)</a>
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 12.5 M	Approved May-16
Forecast		\$ 12.5 M	Forecast May-16
Actual		\$ 1.59 M	Project Percent Complete: <b>16.2%</b>

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/15/2022	12/07/2022	06/05/2023	10/09/2024

**Progress and Status:**

During this reporting period, the design team completed the 95% design. Third party technical and constructability reviews have been conducted for the design package. The design team is addressing various stakeholder and third party review comments and updating the design to prepare the package for bid advertisement. The Design Criteria Report is being amended to include current code requirements.

**Issues and Challenges:**

None at this time.








*San Antonio Pump Station building looking southeast*

**10015081 - CSPL2 Reaches 2 and 3 Rehabilitation**

**Project Description:** Crystal Springs Pipeline No. 2 (CSPL2) spans from Crystal Springs Pump Station to University Mound Reservoir. It delivers potable water supply to San Francisco and several cities along the Peninsula, Reaches 2 and 3 of CSPL2 in the Town of Hillsborough, unincorporated areas of San Mateo County, the City of San Mateo, and the City of Burlingame are over 80 years old and have deteriorated, with Reach 2 located on eroding slopes with difficult access and Reach 3 containing extensive lining failures. This project will relocate approximately 1.5 miles of 60-inch diameter CSPL2 into Crystal Springs Road by removing the abandoned-in-place 48-inch diameter CSPL1, reline approximately 2.2 miles of CSPL2 with cement mortar lining, and upgrade appurtenances to meet current standards.

<b>Program:</b> <a href="#">Water Transmission</a>	<b>Project Status:</b> <a href="#">Planning</a>	<b>Environmental Status:</b> <a href="#">Not Initiated (MND)</a>
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 82.81 M	Approved Sep-16  Feb-27
Forecast		\$ 82.81 M	Forecast Sep-16  Feb-27
Actual		\$ 2.32 M	Project Percent Complete: <b>3.1%</b>

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/21/2023	03/14/2024	08/21/2024	08/21/2026

**Progress and Status:**

Drafting of the Conceptual Engineering Report (CER) continued during this quarter. Surveying and geotechnical investigation data provided by San Francisco Public Works (SFPW) is being incorporated into the CER.

**Issues and Challenges:**

None at this time.


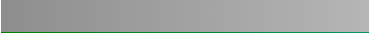





*CSPL2 Reaches 2 and 3 Alignment*

**10036998 - Turner Dam and Reservoir Improvements**

**Project Description:** Turner Dam is a 195-foot-high earth embankment dam that was completed in 1965 and impounds San Antonio Reservoir in the East Bay. The dam is regulated by the California Division of Safety of Dams (DSOD). This project is to investigate the seismic stability and hydraulic performance of the Turner Dam and San Antonio Reservoir facilities and to perform necessary upgrades identified during the Planning Phase.

<b>Program:</b> Water Supply & Storage	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Not Initiated (EIR)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 7.5 M	Approved Oct-20  Jun-35
Forecast		\$ 7.5 M	Forecast Oct-20  Jun-35
Actual		\$ 1.62 M	Project Percent Complete: 9.1%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/2031	07/01/2031	01/02/2032	12/29/2034

**Progress and Status:**

Geotechnical investigation continued in this quarter. The team completed all the land borings, and started in-water borings using a barge. Remaining geotechnical investigation work at additional locations will be undertaken in the next quarter.

**Issues and Challenges:**

None at this time.








*Geotechnical Drilling Core of Dam*

**10015091 - Pilarcitos Dam Improvements**

**Project Description:** The Pilarcitos Dam is an earthen embankment dam that was built in 1866 and raised in 1874; it is the SFPUC’s oldest dam and it is regulated by the California Division of Safety of Dams (DSOD). This project will investigate the seismic stability and hydraulic performance of the Pilarcitos Dam and Reservoir facilities, including the dam and forebay outlet structure, spillway, outlet tunnel, and outlet pipeline, and will perform necessary upgrades identified during the Planning Phase.

<b>Program:</b> Water Supply & Storage	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Not Initiated (MND)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	 \$ 30.09 M	Approved Apr-14	 Jun-29
Forecast	 \$ 30.09 M	Forecast Apr-14	 Jun-29
Actual	 \$ 3.83 M	Project Percent Complete: 20.3%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/2025	07/09/2025	01/02/2026	12/31/2028

**Progress and Status:**

The project team conducted a workshop to review the five pre- screened alternatives with stakeholders and continued to further analyze and evaluate these alternatives. This analysis will continue in the next quarter.

**Issues and Challenges:**

The planning phase may need to be extended to accommodate the additional time spent on the geotechnical investigation and additional studies performed for the condition and needs assessments. The overall project schedule and budget will be reforecast once the scope is defined at the end of the alternative analysis phase.



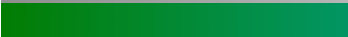




*Spillway cleaning and mapping for condition assessment*

**10015092 - San Andreas Dam Facility Improvements**

**Project Description:** The San Andreas dam is a 105-foot-high earthen embankment dam that was built in 1870; it impounds San Andreas Reservoir that is the raw water source for the Harry Tracy Water Treatment Plant, and it is regulated by the California Division of Safety of Dams (DSOD). This project will investigate the seismic stability and hydraulic performance of the San Andreas Dam and Reservoir facilities, including the dam, spillway, emergency outlet, and ancillary facilities, and perform necessary upgrades identified during the Planning Phase..

<b>Program:</b> Water Supply & Storage	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Not Initiated (Various)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 32.2 M	Approved Dec-13  Dec-33
Forecast		\$ 32.2 M	Forecast Dec-13  Dec-33
Actual		\$ 2.33 M	Project Percent Complete: 7.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	A	12/31/2026	01/04/2027	07/01/2027	06/29/2029
	B	12/31/2026	01/04/2027	07/01/2027	06/29/2031

**Progress and Status:**

During the quarter, the project team continued analyzing the nine alternatives identified during the condition and needs assessment phase. Geotechnical investigation also continued this quarter. The team completed all the land borings; in-water borings started this quarter. Remaining geotechnical investigation work at additional locations will continue in the next quarter. The environmental approval milestones are represented as (A) Spillway - Categorical exemption (CatEx); and (B) Embankment - Mitigated negative Declaration (MND).

**Issues and Challenges:**

As noted last quarter, the approved schedule assumed the construction work for the spillway and emergency drawdown outlet structures would be completed two years before the dam embankment work. Based on the preliminary needs assessment and condition assessment findings, it is now recommended that the alternatives analysis also include analysis for combining the construction of these three major components under a single construction contract. This combined construction contract alternative would impact the project overall schedule. As the project is still in early planning phase, the overall project schedule and budget will be reforecast once the scope of work is defined at the end of the alternative analysis.



*Barge Launch for Geotechnical Drilling into Lake*



**10015110 - EBRPD WATER SYSTEM**

**Project Description:** As a mitigation for the Calaveras Dam Replacement Project, the SFPUC agreed to construct new potable water distribution facilities for the Sunol Regional Wilderness Park (SRP), managed by the East Bay Regional Park District (EBRPD). The EBRPD owns and maintains a water system located at SRP Headquarters which previously supplied potable water to four park facilities, as well as drinking water fountains and picnic areas interspersed throughout the park. Currently, the water system serves non-potable water for use by EBRPD employees only. The project purpose is to provide a reliable water supply for potable use at the EBRPD facilities within the SRP.

<b>Program:</b> Watershed & Lands Management	<b>Project Status:</b> Construction	<b>Environmental Status:</b> Completed (EIR)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 5.55 M	Approved Jun-14	Oct-22
Forecast	\$ 5.55 M	Forecast Jun-14	Oct-22
Actual	\$ 4.96 M	Project Percent Complete: 99.7%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/05/2020 A	10/09/2020 A	05/10/2021 A	08/16/2022 A

**Progress and Status:**

During this reporting period, construction was completed on August 16, 2022. The East Bay Regional Park District (EBRPD) staff attended final site facilities inspections with the SFPUC and the contractor. The contractor is planning to perform additional hydroseeding in an area that was required by Bay Area Air Quality Management District to close out the Asbestos Dust Mitigation Plan. A Memorandum of Understanding (MOU) is being finalized in coordination with the City Attorney and EBRPD to memorialize the agreements in turnover of the water system to the EBRPD.

**Issues and Challenges:**

None at this time.



*New Water Line Installed on Headquarters Bridge*

**10015108 - Sneath Lane Gate/North San Andreas**

**Project Description:** The 2001 Peninsula Watershed Management Plan identified the need for a new trail connection between San Mateo County's Crystal Springs Regional Trail (North San Andreas) to Golden Gate National Recreation Area's (GGNRA) Sweeney Ridge property at the Sneath Lane Gate. The trail is a critical connection among existing regional trails at the north end of the Peninsula watershed, that will serve hikers, bikers and equestrians.

<b>Program:</b> Watershed & Lands Management	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Active (MND)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 6.7 M	Approved Feb-21	Aug-27
Forecast	\$ 6.7 M	Forecast Feb-21	Aug-27
Actual	\$ 0.36 M	Project Percent Complete: 14.1%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/31/2025	07/01/2025	01/02/2026	02/01/2027

**Progress and Status:**

During this quarter, the environmental consultant performed a biological survey to further develop the environmental requirements and compliance documents.

**Issues and Challenges:**

None at this time.



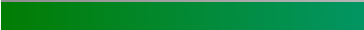




*Sneath Lane Gate Trailhead - View Looking South*

**10015113 - Southern Skyline Blvd Ridge Trail Extension**

**Project Description:** The Bay Area Ridge Trail project was started in 1987 by the Bay Area Ridge Trail Council to create an approximately 550-mile long continuous trail for hikers, mountain bicyclists, and equestrians along the ridgelines overlooking San Francisco Bay. The objective of the project is to provide access to the Peninsula watershed, to enhance educational opportunities, and to ensure watershed protection. South of Highway 92, this proposed extension project would construct a 6-mile-long trail on the Peninsula Watershed in San Mateo County between Highway 92 and the Golden Gate National Recreation Area's (GGNRA) Phleger Estate. The project consists of a 6' foot wide, all-weather surface trails; retaining structures to stabilize cut and/or fill slopes; drainage facilities; a 15,000-square-foot parking lot accommodating up to 14 cars; two pre-fabricated restrooms along the trail; site security features; and landscape restoration. North of Highway 92, the project includes construction of a trail segment adjacent to the Fifield Cahill Trail that is compliant with the Americans with Disabilities Act, a 16,000-square foot parking lot, and one pre-fabricated restroom.

<b>Program:</b> Watershed & Lands Management	<b>Project Status:</b> Bid and Award	<b>Environmental Status:</b> Completed (EIR)
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<b>Project Cost:</b>	<b>Project Schedule:</b>
Approved  \$ 25.27 M	Approved Oct-12  Feb-24
Forecast  \$ 25.27 M	Forecast Oct-12  Jun-25
Actual  \$ 5.89 M	Project Percent Complete: 24.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	05/11/2021 A	02/01/2023	10/02/2023	04/04/2025

**Progress and Status:**

During this reporting period, the California Department of Fish and Wildlife concurred with National Environmental Protection Act (NEPA) Section 4(f) conclusions and Caltrans issued the NEPA categorical exclusion determination. The Federal grant administered through Caltrans has also triggered the need to comply with permitting requirements (NEPA), including review by the US Fish and Wildlife Service (USFWS). USFWS will conduct and complete a formal biological consultation prior to NTP.



*View of southern trail alignment*

**Issues and Challenges:**






There is a 16-month schedule variance from the 2022 approved baseline; 14 months resulted from additional NEPA requirements to receive the \$1M Federal Highway Administration (FHWA) grant; and an additional 2 months are forecast for FHWA to authorize grant funding. Right of Way Certification and funding authorization are sequential activities that required NEPA categorical exclusion prior to start.



**10030771 - SA-1 Service Road/Ingoing Road**

**Project Description:** The SFPUC has identified landslide and erosion damage that have destabilized service roads (East Shore Service Road and West Shore Service Road) and adjacent areas in three locations on San Francisco Peninsula Watershed lands situated along the San Andreas Reservoir in San Mateo County. The project is to evaluate and repair the damage, and to implement long term solutions for SFPUC staff and contractors to continue to use the roads to access, operate, and maintain SFPUC facilities and watershed lands. Construction for these locations can be done through phases to accommodate budget cash flow.

<b>Program:</b> Watershed & Lands Management	<b>Project Status:</b> Design	<b>Environmental Status:</b> Active (EIR)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 15.82 M	Approved Jun-16  Dec-26
Forecast		\$ 15.82 M	Forecast Jun-16  Dec-26
Actual		\$ 0.83 M	Project Percent Complete: 6.1%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/15/2023	01/24/2024	06/26/2024	06/24/2026

**Progress and Status:**

The project team progressed in development of the 50% design documents during the quarter. The team continued working on the environmental documentation.

**Issues and Challenges:**

None at this time.








*Project Map – SA-1 Service Road/Ingoing Road*

**10033555 - Rollins Road Building Renovations (CUW27703)**

**Project Description:** The SFPUC purchased a property that was previously leased long-term on Rollins Road in Burlingame, San Mateo County, in September 2017, securing ownership of an additional 10,000 square feet of office space for the SFPUC Water Enterprise (WE). A capital project was initiated in 2018 for tenant improvements. In June 2020, the project scope for the 1657 Rollins Road was decreased significantly, and the scope of the Millbrae Yard Lab & Shop Project was increased, in order to relocate personnel at 1657 Rollins Road to Millbrae Yard campus following the completion of the Millbrae Yard Lab & Shops Project, and decrease this project’s scope to minor necessary tenant improvements. The program for Rollins Road Building Renovation Project will be achieved at the Millbrae Yard by adding two additional floors to the laboratory building as part of its Phase 1 project to accommodate the Rollins Road building staff.

<b>Program:</b> Buildings and Grounds	<b>Project Status:</b> Construction	<b>Environmental Status:</b> Completed (Cat Ex)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 5.19 M	Approved Mar-18  Jun-22
Forecast		\$ 5.19 M	Forecast Mar-18  Oct-22
Actual		\$ 3.33 M	Project Percent Complete: 65.1%

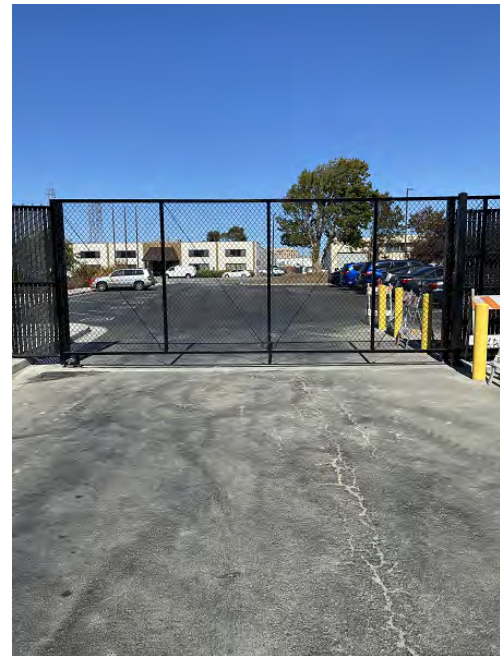
Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/30/2020 A	N/A	12/08/2020 A	10/30/2022

**Progress and Status:**

During this reporting period, all punch list work was completed. Additional modifications will be performed to improve the function of the rolling gates.

**Issues and Challenges:**

As noted in previous quarters, the forecasted construction completion date exceeds the approved completion date because supply chain issues delayed the delivery of the security cameras for more than 6 months.








*View of new entry gate at southern entrance*

**10034526 - Millbrae Warehouse Settlement & Admin. Bldg. HVAC**

**Project Description:** This project will construct improvements for two buildings located at the Millbrae Yard facility, the Millbrae Warehouse and the Administration Building. The Millbrae Warehouse Settlement project will provide a long-term repair for the displacement (settlement) of the slab between the loading dock and the offices. The slab settlement resulted from expansive clay layers located seven feet below the top of the existing concrete slab. For the Millbrae Administration Building HVAC Upgrades, this project will provide long-term reliable and economical improvements to heating and cooling systems.

<b>Program:</b> Buildings and Grounds	<b>Project Status:</b> Design	<b>Environmental Status:</b> Completed (Various)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	 \$ 16.08 M	Approved Jan-17	 Sep-24
Forecast	 \$ 7.15 M	Forecast Jan-17	 Sep-24
Actual	 \$ 2.19 M	Project Percent Complete: 30.4%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	A	08/31/2020 A	09/01/2020 A	06/16/2021 A	11/24/2021 A
	B	01/12/2022 A	05/22/2023	01/08/2024	09/27/2024

**Progress and Status:**

This project includes two construction contracts: (A) WD-2870 (I) Millbrae Warehouse Settlement; (B)WD-2869 Millbrae Admin Building HVAC Upgrade. For the sub-project Millbrae Administration Building HVAC Upgrades, it was determined last quarter to retrofit the existing heating, ventilation, and air conditioning (HVAC) system instead of relocating the HVAC equipment outside the building as previously planned. The retrofit improvements must address increased heat generating lab equipment as well as the inadequate heating and ventilation that affect the working conditions inside the building. Potential building improvements to facilitate access to these locations for the retrofit work need to be determined. A follow up site inspection is planned for next quarter with a general contractor to assess the condition as well as provide scope for efficient access to the HVAC boxes for repairs as well as future maintenance.



*Existing Millbrae Administration Building*






**Issues and Challenges:**

The cost variance arises from scope reduction in the sub-project Millbrae HVAC Upgrade. As previously reported, a contractor had conducted an inspection and determined that an upgrade to the existing HVAC system inside the building can sufficiently provide the necessary improvements to address the outdated nonoperational pneumatic controls, increased heat generating lab equipment, and the inadequate heating and ventilation that affect the working conditions inside the building.

**10015124 - Sunol Long Term Improvements**

**Project Description:** The project includes redevelopment of the existing Sunol Yard and construction of a Watershed Center near the Sunol Water Temple. Most of the existing structures at the Sunol Yard date back to 1930 and were converted from the original purpose, residence and barn, to office and shop spaces. The structures contain lead-based paint, asbestos, bats, and bat guano, and did not meet current building, health, or safety codes. The project will demolish six existing dilapidated structures at the Sunol Yard and construct a LEED Gold administration building, shops, fuel station, backup generator system, truck wash station, paving and site restoration.

<b>Program:</b> Buildings and Grounds	<b>Project Status:</b> Construction	<b>Environmental Status:</b> Completed (MND)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 104.91 M	Approved Jan-09  Aug-23
Forecast		\$ 104.91 M	Forecast Jan-09  Aug-23
Actual		\$ 98.29 M	Project Percent Complete: 93.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A 12/02/2015 A	03/01/2016 A	01/17/2017 A	09/15/2020 A
	B	08/30/2019 A	03/09/2020 A	01/31/2023

**Progress and Status:**

Sunol Yard (Contract A): Completed. Watershed Center (Contract B): During the reporting period, building construction work continued on the electrical, security and communication systems, HVAC testing and balancing, aquarium systems, kitchen and restroom finishes, exhibits and LEED certification documentation. The exterior construction work on the landscape, bluestone boulders and pavers, pathways and pond and stream systems was completed. A site walk was held to review the landscape work and a punchlist was developed and issued to the contractor.

**Issues and Challenges:**

None at this time.



*View of Landscaping and Stream*



**10015128 - Millbrae Yard Laboratory and Shop Improvements**

**Project Description:** SFPUC has determined that the existing Millbrae Administration Building must remain operational following a major earthquake, and therefore needs to be retrofitted or replaced to meet essential facility requirements. SFPUC also wants to expand the existing Millbrae Administration Building to merge and house the Water Enterprise staff and equipment from the Rollins Road Facility. This project is necessary to provide Water Enterprise personnel a long term and sustainable campus, and allow the consolidation of work groups for increased staff efficiency. This project will also alleviate shortage of program space, increase efficiency of operations, improve employee working environment with improved heating, ventilation, and air conditioning, improve employee health and safety, and enhance site and building security. A recent planning study has identified several alternatives to meet the project goals. The selected alternative for the Millbrae Yard campus improvements will be implemented in three phases. Phase 1 includes a new laboratory office and new south shop building to alleviate Water Enterprise undersized and outdated workspaces and desire to relocate mission-critical functions to code-compliant structures. This project will provide additional space in the laboratory building by constructing two additional floors on top of it to accommodate the relocation of all personnel from Rollins Road Facility. Phase 2 includes demolition of the existing Administration Building and construction of a new consolidated Administration Building adjacent to the new laboratory building to accommodate other Water Enterprise staff. Phase 3 includes new covered storage for materials and equipment. Only the scope of work for Phase 1 will be implemented under this project to meet near-term needs, minimize disruptions to operations, and allow gradual buildout of the master plan to stay within the 10-year CIP budget.

<b>Program:</b> Buildings and Grounds	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Not Initiated (MND)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 169.56 M	Approved Nov-15	Mar-29
Forecast	\$ 169.56 M	Forecast Nov-15	Mar-29
Actual	\$ 5.59 M	Project Percent Complete: 2.5%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/02/2023	N/A	04/15/2025	03/31/2028

**Progress and Status:**

Preparation of the conceptual design continued to progress. Potential scope changes and additions in the new buildings, south shop, site design, the use of the tenant area, and the re-use of the existing administration building were documented and are being assessed. During the quarter, the engineer’s estimate based on the draft conceptual design was completed as well as the draft construction schedule, draft high-level constructability assessment, and the report on construction staging and parking requirements. Request for Proposal (RFP) Agreement No. PUC.PRO.0221 to provide engineering support services for the project was advertised last quarter; however, the proposal due date was extended to accommodate several addenda and to allow more time for consultant outreach efforts.



*Existing Administration Building*

**Issues and Challenges:**

None at this time.

8. On-Going Construction\*

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecast Construction Final Completion**	Approved Contract Cost	Current Forecast Cost**	Schedule (Cal. Days)	Cost	
<b>Watershed &amp; Lands Management</b>								
10015110 - WD-2865 PUC Sunol Rgnl WP WTR Sys	05/10/21	05/28/22	08/16/22	\$2,634,808	\$2,634,808	(80)	-	90.0%
<b>Buildings and Grounds</b>								
10015124 - WD-2794B Sunol Long Term Improvements - Watershed Center	03/09/20	03/16/22	01/31/23	\$31,064,399	\$32,711,096	(321)	(\$1,646,697)	93.0%

Program Total for On-Going Construction	Approved Contract Cost	Current Forecast	Variance	
			Cost	Percent
	\$33,699,207	\$35,345,904	(\$1,646,697)	(4.9%)

Note: \* This table reflects Active Construction Contracts with an original contract amount greater than \$1M.

\*\* The Forecast Cost includes all approved, pending, and potential change orders; and Final Completion includes all approved, pending, and potential change orders, and trends.

## 9. PROJECTS IN CLOSEOUT

*There are no active projects currently in closeout phase.*

## 10. COMPLETED PROJECTS

*There are no completed projects.*



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## **II. Local Capital Improvement Program**

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## 1. CAPITAL IMPROVEMENT PROGRAM DESCRIPTION

The San Francisco Public Utilities Commission (SFPUC) Water Enterprise manages a complex water supply system stretching from the Sierra to San Francisco and featuring a series of reservoirs, tunnels, pipelines, and treatment systems. Two unique features of this system stand out: the drinking water provided is among the highest quality in the world, and water deliveries are made to most customers without the use of power, by gravity flow, while generating power at the same time.

The SFPUC is the third largest municipal utility in California, serving 2.7 million residential, commercial, and industrial customers in the Bay Area. Approximately one-third of the delivered water goes to retail customers in San Francisco, while wholesale deliveries to 26 suburban agencies in Alameda, Santa Clara, and San Mateo counties comprise the other two-thirds.

The Local Water System is located primarily within the City and County of San Francisco and consists of water storage and treatment facilities; water transmission and distribution infrastructure; buildings and structures for facilities and employees; communications systems; and various lands in the City and County of San Francisco. In addition, the Local Water System includes several other small retail systems in Alameda, Santa Clara and San Mateo Counties where the SFPUC directly retails water to various customers. Groundwater in San Francisco is under the jurisdiction of the SFPUC; the Westside Basin is the only viable aquifer for municipal use. Additionally, the Local Water System includes the Emergency Firefighting Water System (EFWS) used for fire suppression in San Francisco and developer-funded assets that have been conveyed to the SFPUC.

The Local Water System Capital Improvement Program (Local Water CIP) is a 10-year proposed appropriations plan of scheduled projects to physically improve the system assets and maintain level of service goals. This Local Water CIP is updated every two years (with minor modifications in the off years) and integrated with the SFPUC's 10-year Financial Plan and rate-setting.

There are seven (7) groupings of projects in the Local Water CIP in addition to a separate set of programmatic projects used for feasibility planning, for future capital projects, and for implementation of permit compliance activities. The categories are:

- Local Water Supply
- Local Water Conveyance/Distribution
- Local Reservoirs and Tanks Improvements
- Pump Station Improvements
- Automated Water Meter Reading
- Buildings and Grounds Improvements
- Emergency Firefighting Water System

A project is formally initiated (Project Initiation) when the planning process begins, a project manager is assigned, and the project's initial **Approved Budget** consistent with the most recently adopted Local Water CIP is established.

Projects move from the planning, design, and environmental review phase to contract-award and construction phase when **Project Approval** occurs through an action by the Commission, usually at the

same time CEQA findings are adopted. The Commission may also make decisions about a project's scope, budget, or schedule during annual review and approval of the Local Water CIP. While a project is active, additional budget modifications outside of the annual CIP process require approval of the Assistant General Manager (AGM) for the Water Enterprise. When and if these budget modifications occur, the modified budget becomes the new **Approved Project Budget**.

Outside of formal budget adjustments, the project manager regularly estimates and records the anticipated final project cost and schedule as the **Forecasted Cost** and **Forecasted Schedule**.

Minor modifications to scope or schedule must be approved by increasing levels of management, with major modifications requiring approval by the Program Director and AGMs of Infrastructure and Water Enterprise. Most scope, schedule, and budget changes must be pre-approved by the Change Control Board which consists of managers within the Water Enterprise and Infrastructure Division. Final Project Closeout must be approved by the AGMs for Infrastructure and Water Enterprise.

Changes to the approved baseline program, including any changes to continuing projects' scopes, schedules, and budgets, are proposed as part of the bi-annually updated 10- year CIP to be approved by the SFPUC Commission. The proposed revisions to the program become the new baseline for new and continuing projects' scopes, schedules, and budgets in the beginning of the new fiscal year following SFPUC Commission approval.

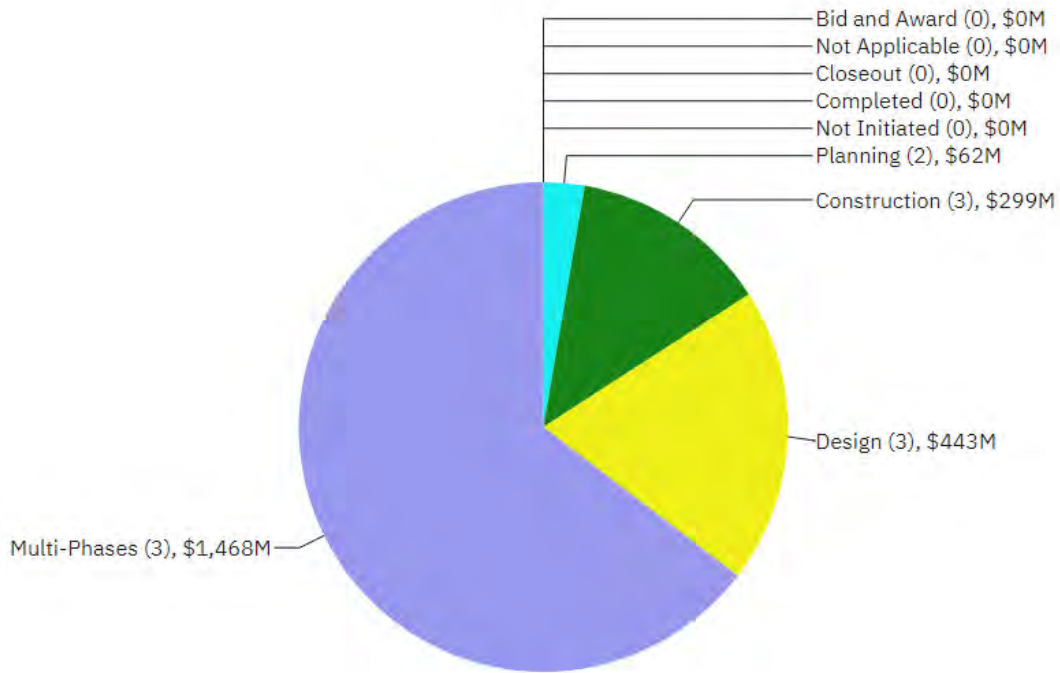
## **2. CAPITAL IMPROVEMENT PROGRAM STATUS**

This Quarterly Report presents the progress made on Local Water projects between July 1, 2022 and September 30, 2022. This document serves as the first (1st) Quarterly Report in Fiscal Year 2022-2023 (FY23) published for the Water Enterprise Capital Improvement Program.

This quarterly report incorporates all the changes made to the Regional Water Enterprise CIP projects and the Local Water Enterprise CIP projects in the Water Enterprise Capital Improvement Program according to the 10-Year Capital Plan for FY2022-23 to FY2031-32, presented to and adopted by the Commission on February 08, 2022, under Resolution No. 22-0031. The 10-Year Capital Plan for FY2022-23 to FY2031-32 is the new baseline for project scopes, schedules, and budgets starting Q1 FY2022-23. The 2022 Approved Water Enterprise CIP is a subset of the Regional and Local Water Enterprise 10-year CIP for FY2023-2032 and includes individual projects over \$5 million that were then currently active or intended to be active by June 30, 2022 at the time proposed to the Commission on February 8, 2022.

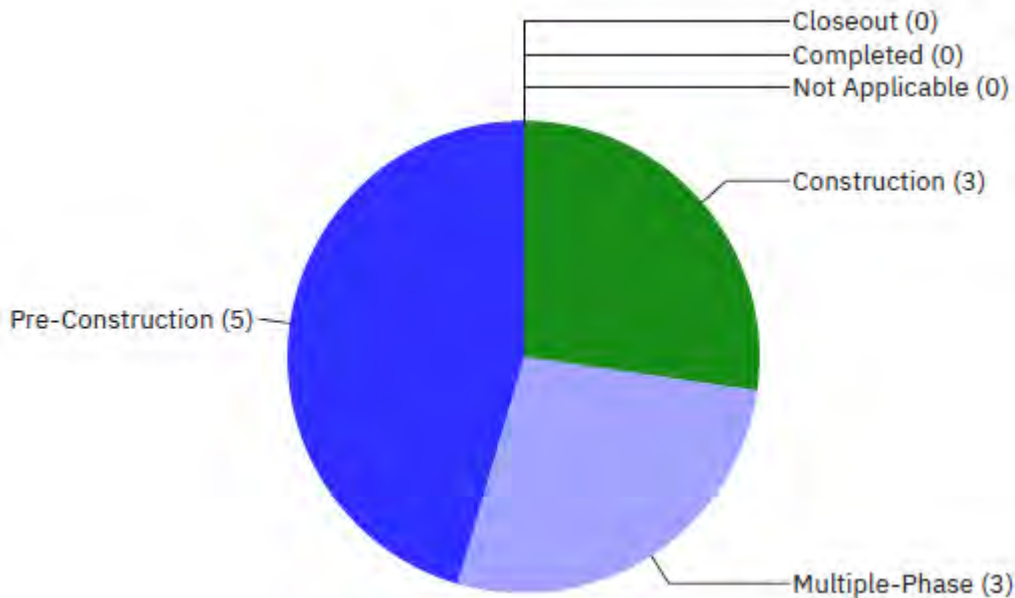
The 2022 Approved Local Water Enterprise CIP (2022 Local WECIP) has eleven (11) projects, all of which are carryovers from the previously approved program. No Local project is in "Not Initiated" status.

Figure 2.1 shows the total Current Approved Budget for the Local projects in each phase of the program as of September 30, 2022. The number of projects currently active in each phase is shown in parentheses.



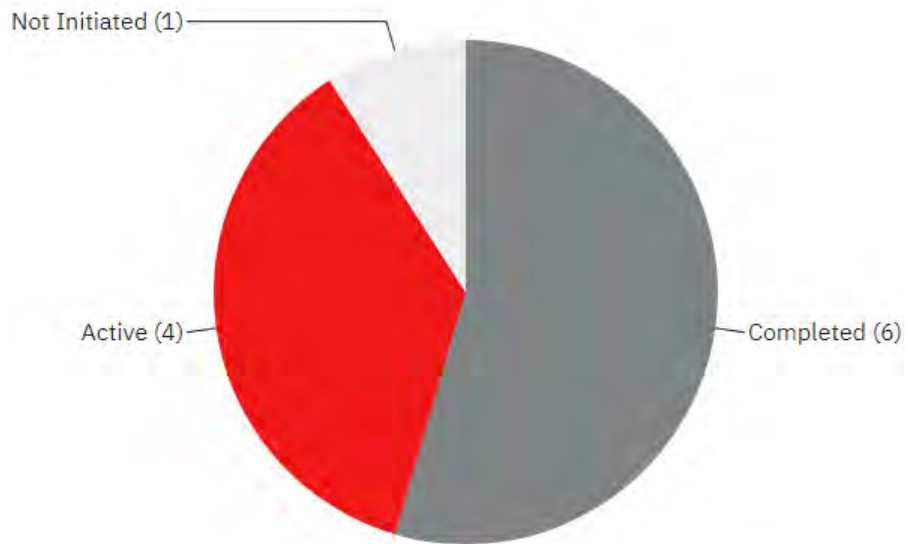
**Figure 2.1 Total Current Approved Budget for Local Projects Active in Each Phase**

Figure 2.2 shows the number of Local projects in the following phases as of September 30, 2022: Pre-construction, Construction, and Post-construction.



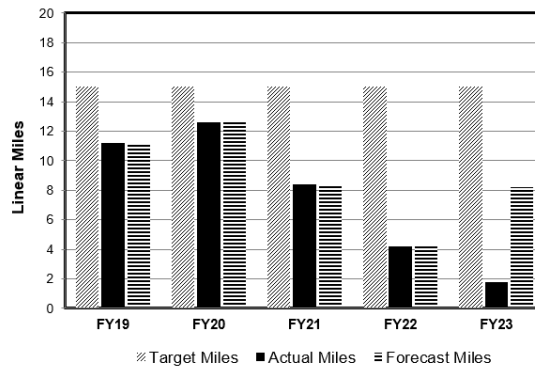
**Figure 2.2 Number of Local Projects in Pre-construction, Construction, and Post-construction**

Figure 2.3 summarizes the environmental review status of the Local projects as of September 30, 2022.



**Figure 2.3 Local Program Environmental Status**

The Local Water Conveyance/Distribution System Program has an annual goal to replace or improve a target of 15 miles of water mains in San Francisco. Figure 2.4 shows the planned and actual miles of pipeline projects that have reached substantial completion since FY17. The forecasted mileage for FY23 is 8.2 miles which is reduced from the target of 15 miles due a reduction in program budget for FY22 and FY23.

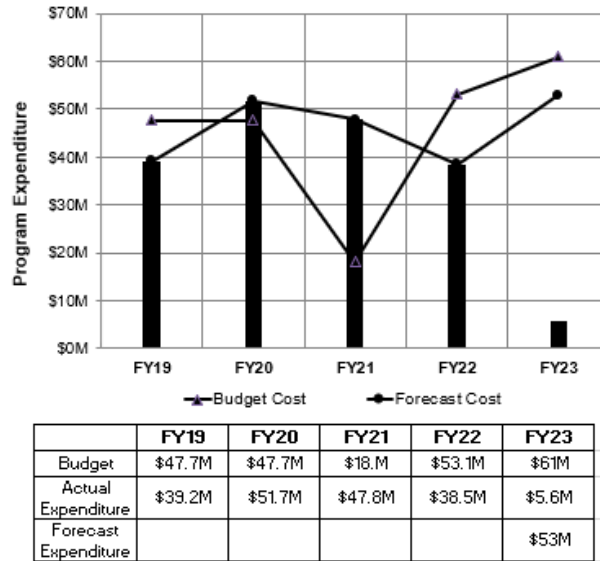


	FY19	FY20	FY21	FY22	FY23
Target Miles	15.0	15.0	15.0	15.0	15.0
Actual Miles	11.2	12.6	8.4	4.2	1.8
Forecast Miles					8.2

**Figure 2.4 Water Conveyance/Distribution System Program - Linear Miles by Fiscal Year**

Water main replacement projects with construction underway in the 1st quarter of FY23 included the City streets of 17th Street, 19th Avenue, Vicente Street, Prospect Avenue, L-Taraval Segment B, and Diamond Street. Water main replacement projects which received substantial completion during the 1st quarter of FY23 included 17th Street. Projects which started in the 1st quarter of FY23 included Diamond Street.

**Figure 2.5 Water Conveyance/Distribution System Program - Expenditure by Fiscal Year**



\*FY22 total expenditures were \$38.5M with \$9M related to Stern Grove Emergency Restoration Project and \$29.5M from main replacement projects.

Figure 2.5 shows the annual total program expenditure by fiscal year for the pipeline replacement program. FY23 has increased budget of \$51.7M with approximately \$10M of additional budget received due to the redirection of funds in FY22 for the Stern Grove Emergency Restoration Contract issued under Board of Supervisor Resolution 170-22 and resolution file number 220245 and approximately \$12M in funds which were previously not allocated to the main replacement program. The additional funds will be utilized for construction of main replacement projects which were previously planned, but on hold due to shortage of available funds. The additional funds are not anticipated to be encumbered until the end of FY23 or beginning of FY24 due to the time to finalize contract documents (6 months) followed by the time to advertise, award, and certify the construction contract (8 months). The budgeted cost per mile has been updated for FY23 from \$5.4 million per mile to \$5.8 million per mile for replacement of water distribution mains due to rising costs of materials and labor associated with inflation. The updated cost per mile for streetscape, transit, or ERDIP type projects is approximately \$8.6 million per mile.



### 3. CAPITAL IMPROVEMENT PROGRAM COST SUMMARY

Table 3 provides an overall program-level cost summary by categories of projects for the Water Enterprise CIP Local Program. It shows the Expenditures to Date, Current Approved Budgets, Q1/FY22-23 Forecast Costs, Cost Variance between the Current Approved Budgets and Forecast Costs, and Variance Over Reporting Period (difference between cost forecasts reported in Q4/FY21-22 and Q1/FY22-23).

The total Current Approved Budget (including Regional and Local Programs) and Current Forecast Cost at completion are \$3,266.5 million and \$3,257.6 million, respectively. The Current Approved Budget and Forecast Cost at completion for only the Local Water Program (including construction contingency) is the same at \$2,271.4 million.

Please refer to the section of I.3 of this report for more details about the reported cost variance for the Regional Water Program.

**Table 3. Program Cost Summary**

Programs	Expenditures To Date (\$ Million) (A)	Current Approved Budget (\$ Million) (B)	Q1/FY22-23 Forecast Costs (\$ Million) (C)	Cost Variance (\$ Million) (D = B - C)	Variance Over Reporting Period* (\$ Million) (E)
<b>Local Program</b>	<b>\$809.32</b>	<b>\$2,271.39</b>	<b>\$2,271.39</b>	-	-
Local Water Conveyance/ Distribution System	\$449.71	\$1,273.20	\$1,273.20	-	-
Local Water Supply	\$257.62	\$322.54	\$322.54	-	-
Local Tanks/Reservoir Improvements	\$6.57	\$19.28	\$19.28	-	-
Pump Stations	\$0.46	\$6.53	\$6.53	-	-
Buildings and Grounds	\$4.62	\$393.60	\$393.60	-	-
Emergency Firefighting Water System	\$90.33	\$256.25	\$256.25	-	-
Regional Program	<b>\$164.39</b>	<b>\$995.12</b>	<b>\$986.19</b>	<b>\$8.93</b>	<b>\$8.93</b>
<b>PROGRAMS TOTAL</b>	<b>\$973.70</b>	<b>\$3,266.51</b>	<b>\$3,257.58</b>	<b>\$8.93</b>	<b>\$8.93</b>

\* Negative number reflects cost increases since last quarter, and positive number reflects cost reduction since last quarter.

### 4. CAPITAL IMPROVEMENT PROGRAM SCHEDULE SUMMARY

Figure 4 compares the 2022 Approved Schedule and the Current Forecast Schedule for the Local Water CIP. As shown in Table 4, the 2022 Approved and Forecast Schedule completion for the overall Water Enterprise CIP (including Regional and Local Programs) are each in June 2035. The 2022 Approved and Forecast Schedule completion for the Local CIP are each in June 2032.

Figure 4. Local Program Schedule Summary

Data Date: 10/1/2022

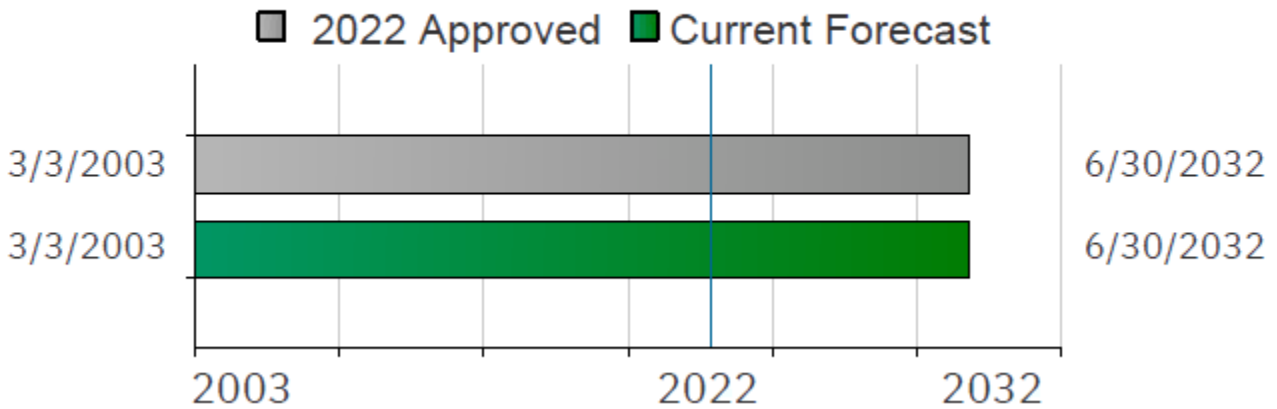


Table 4. 2022 Approved vs. Current Forecast Schedule Dates

Programs	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Regional	01/01/2009	01/01/2009	06/29/2035	06/29/2035	-
Water Local	03/03/2003	03/03/2003	06/30/2032	06/30/2032	-
Overall Water Enterprise CIP	03/03/2003	03/03/2003	06/29/2035	06/29/2035	

**5. BUDGET AND SCHEDULE TREND SUMMARY**

Starting with the first quarter (Q1) of FY21-22 Quarterly Report, a revised report format includes a new Table 5, titled Budget and Schedule Trend Summary. This Table 5 contains all approved Local Water projects that are active and in any of the planning, design, bid and award, or construction phases of the project. The table excludes any projects that are either not-initiated, on-hold, in closeout, or completed.

During this Quarter (Q1 FY22-23), no major milestones were reached.

**Table 5. Budget and Schedule Trend Summary**

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction <sup>1</sup>		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
<b>WECIP - Local</b>														
<b>Local Water Conveyance/Distribution System</b>														
10033816 Potable Emergency Firefighting Water System <sup>2</sup>	FY23-32		8/12/19		N/A		N/A		N/A		N/A		Q1-FY22-23	
	\$55.0	06/30/28	\$44.8	06/30/28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$55.0	06/30/28
10033818 Town of Sunol Pipeline	FY23-32		06/17/19		11/01/21		10/14/22 <sup>3</sup>		04/03/23		12/04/23		Q1-FY22-23	
	\$6.7	04/04/25	\$5.0	04/03/23	\$5.0	04/03/23	TBD	TBD	TBD	TBD	TBD	TBD	\$6.7	04/04/25
19063 Local Water Conveyance / Distribution System <sup>4</sup>	FY23-32		N/A		Various		Various		Various		Various		Q1-FY22-23	
	\$1,211.5	06/30/32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$1,211.5	06/30/32
<b>Local Water Supply</b>														
10015239 Lake Merced Water Level Restoration	FY23-32		06/16/03		04/30/10		12/30/2022 <sup>5</sup>		03/24/23		04/10/24		Q1-FY22-23	
	\$42.7	03/03/27	\$32.7	01/31/19	\$32.7	01/31/19	TBD	TBD	TBD	TBD	TBD	TBD	\$42.7	03/03/27
10015240 San Francisco Groundwater Supply	FY23-32		06/16/03		12/08/06		10/19/10		03/11/16		08/22/17		Q1-FY22-23	
	\$66.5	06/30/22	\$39.8	02/27/14	\$49.8	09/08/14	\$49.8	09/08/14	\$66.5	06/25/18	\$66.5	06/25/18	\$66.5	12/31/23
10015242 San Francisco Westside Recycled Water	FY23-32		03/03/03		05/15/09		12/08/14		06/29/16		10/17/17		Q1-FY22-23	
	\$213.3	04/06/23	\$201.3	04/18/08	\$149.6	09/25/13	\$186.2	12/18/19	\$186.2	12/18/19	\$186.2	12/18/19	\$213.3	04/06/23

**Footnotes:**

1. These columns represent forecast project cost and project completion date at the time of award of construction contract (or Award for CM/GC construction work).
2. Potable Emergency Firefighting Water System: This project will fund construction phase of PEFWS pipelines in the next several years.
3. Town of Sunol first Design milestone is 65%.
4. Local Water Conveyance/Distribution System: This is a Renew and Replacement Program where the corresponding CIP budget and forecast completion date are updated every 2 years during the CIP budget update cycle.
5. Lake Merced Water Level Restoration: 35% Design in table is the date for 35% & 65% combined in P6.

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction <sup>1</sup>		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
<b>Local Tank/Reservoir Improvements</b>														
10015223 College Hill Reservoir Outlet <sup>2</sup>	FY23-32		01/24/13		10/14/16		12/15/16		02/15/19		06/08/21		Q1-FY22-23	
	\$19.3	04/24/24	\$16.3	09/28/21	\$16.3	09/28/21	\$16.3	09/28/21	\$16.3	09/28/21	\$19.3	01/29/24	\$19.3	04/24/24
<b>Pump Stations</b>														
10015231 Harding Park PS	FY23-32		07/06/21		03/31/23		07/11/23		12/19/23		07/01/24		Q1-FY22-23	
	\$6.5	04/03/26	\$6.5	04/03/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$6.5	04/03/26
<b>Buildings and Grounds</b>														
10037249 New CDD Headquarters	FY23-32		02/01/20		08/31/21		12/30/21		03/27/25		6/28/2022 <sup>5</sup>		Q1-FY22-23	
	\$393.6	06/28/28	\$350.2	06/28/28	\$393.6	06/28/28	\$393.6	06/28/28	TBD	TBD	\$393.6	06/28/28	\$393.6	06/28/28
<b>Emergency Firefighting Water System</b>														
EFWSPL EFWS Pipelines <sup>3</sup>	FY23-32		04/01/11		Various		Various		Various		Various		Q1-FY22-23	
	\$205.3	12/29/28	\$31.6	09/29/17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$205.3	12/29/28
EFWSPPS EFWS Pump Stations <sup>4</sup>	FY23-32		04/01/11		Various		Various		Various		Various		Q1-FY22-23	
	\$45.2	12/29/28	\$17.5	09/26/16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$45.2	12/29/28

**Footnotes:**

1. These columns represent forecast project cost and project completion date at the time of award of construction contract (or Award for CM/GC construction work).
2. College Hill Reservoir Outlet: Planning through 65% Design was achieved under a different program in Local Water Conveyance/Distribution System.
3. EFWS Pipelines: EFWS Pipelines include multiple projects.
4. EFWS Pump Stations: EFWS Pump Stations include multiple projects.
5. This represents forecast project cost and project completion date at the time of award of CM/GC contract during Pre-Construction

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6. PROJECT PERFORMANCE SUMMARY\*

All costs are shown in \$1,000s

Project Name	Active Phase (a)	CIP Approved Budget (b)	Current Approved Budget (c)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d)	% Cost Changes (g=f/c)	CIP Completion Date (h)	Approved Completion Date (i)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j)
	(**)	(+)	(++)			(+++)	(+++)	(+)	(++)		(+++)
<b>Water Transmission</b>											
10033816 Potable Emergency Firefighting Water System	PL	\$55,000	\$55,000	\$55,000	\$832	\$0	0%	06/30/2028	06/30/2028	06/30/2028	0
10033818 Town of Sunol Pipeline	DS	\$6,663	\$6,663	\$6,663	\$2,823	\$0	0%	04/04/2025	04/04/2025	04/04/2025	0
19063 Local Water Conveyance/ Distribution System	MP	\$1,211,536	\$1,211,536	\$1,211,536	\$446,055	\$0	0%	06/30/2032	06/30/2032	06/30/2032	0
<b>Local Water Supply</b>											
10015239 Lake Merced Water Level Restoration	DS	\$42,668	\$42,668	\$42,668	\$4,763	\$0	0%	03/03/2027	03/03/2027	03/03/2027	0
10015240 San Francisco Groundwater Supply	CN	\$66,552	\$66,552	\$66,552	\$63,889	\$0	0%	06/30/2022	06/30/2022	12/31/2023	(549)

\* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

<b>** Phase Status Legend</b>		
PL Planning	DS Design	
BA Bid & Award	CN Construction	MP Multiple-Phase

**Footnotes:**

- (+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.
- (++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.
- (+++) **Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule).** Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a)  (**)	CIP Approved Budget (b)  (+)	Current Approved Budget (c)  (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d)  (+++)	% Cost Changes (g=f/c)  (+++)	CIP Completion Date (h)  (+)	Approved Completion Date (i)  (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j)  (+++)
10015242 San Francisco Westside Recycled Water	CN	\$213,316	\$213,316	\$213,316	\$188,972	\$0	0%	04/06/2023	04/06/2023	04/06/2023	0
<b>Local Tanks/Reservoir Improvements</b>											
10015223 College Hill Reservoir Outlet	CN	\$19,283	\$19,283	\$19,283	\$6,569	\$0	0%	04/24/2024	04/24/2024	04/24/2024	0
<b>Pump Stations</b>											
10015231 Harding Park PS	PL	\$6,527	\$6,527	\$6,527	\$472	\$0	0%	04/03/2026	04/03/2026	04/03/2026	0
<b>Buildings and Grounds</b>											
10037249 New CDD Headquarters	DS	\$393,601	\$393,601	\$393,601	\$4,622	\$0	0%	06/28/2028	06/28/2028	06/28/2028	0
<b>Emergency Firefighting Water System</b>											
EFWS PL - EFWS Pipelines	MP	\$205,263	\$205,263	\$205,263	\$44,806	\$0	0%	12/29/2028	12/29/2028	12/29/2028	0
EFWS PS - EFWS Pump Station	MP	\$45,245	\$45,245	\$45,245	\$39,878	\$0	0%	12/29/2028	12/29/2028	12/29/2028	0

\* Does not include projects in closeout, completed, not initiated, on hold, deleted projects, and projects combined with other projects.

<b>** Phase Status Legend</b>		
PL	Planning	DS
BA	Bid & Award	CN
		MP
		Multiple-Phase

**Footnotes:**

- (+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.
- (++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.
- (+++) **Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.**



7. PROJECT STATUS REPORT

10033816 - Potable Emergency Firefighting Water System

**Project Description:** This project provides funding for the design and construction of about 2 to 3 miles of large diameter earthquake resistant pipeline to improve the fire water and potable supply reliability in the western area of San Francisco, particularly in the Sunset and Richmond Districts. This project is part of a larger effort to construct approximately 14 miles of the Potable Emergency Firefighting Water System (PEFWS), which also includes two planned pump stations. Current funding will fund the aforementioned 2 to 3 miles of pipeline and design work for a Lake Merced Pump Station. The pipeline will be designed as a potable AWSS pipeline, meaning it will convey low pressure potable water with connections to the distribution system during normal operations but can be isolated with motorized valves and operate under high pressure for firefighting after a major seismic event or emergency conditions by activating associated pumps. This funding will provide planning and design through FY 22-23 with construction funding in FY24 and 25. Additional funding will be provided by existing Earthquake Safety & Emergency Response (ESER) general obligation bond funds, with additional funding possibly approved in the March 2020 ESER referendum. The total Local Water funding commitment to this project is \$55M with \$12M carryover from FY 18-19 and FY19-20 budgets.

<b>Program:</b> Water Transmission	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Completed (Cat Ex)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 55 M	Approved Aug-19	Jun-28
Forecast	\$ 55 M	Forecast Aug-19	Jun-28
Actual	\$ 0.83 M	Project Percent Complete: 1.3%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/12/2019 A	N/A	TBD	04/15/2026

**Progress and Status:**

This project will fund construction of Potable Emergency Firefighting Water System (PEFWS) pipelines in the next several years. This project is in planning phase.

**Issues and Challenges:**

None at this time.





*Earthquake Resistant Ductile Iron Pipe with flexible joints (demonstrated) used for this project*

**10033818 - Town of Sunol Pipeline**

**Project Description:** Since 2000 the SFPUC has replaced the majority of the Town of Sunol pipeline system through the Town of Sunol Fire Suppression project, except for two segments. This project will complete the replacement of the last two segments of the system, by replacing sections of the pipeline that crosses the Arroyo de Laguna Creek (Creek Crossing) and under Highway 680. The upstream section of pipeline that feeds the Town of Sunol is exposed under the creek and in danger of failing under Highway 680. Pipeline failure at either location has significant consequences, since all fire and potable water in the Town of Sunol is dependent on the rehabilitation of this 12-inch diameter line. This project will reduce maintenance from pipe breaks and have less main flushing which may lower impact on operating expenses.

<b>Program:</b> Water Transmission	<b>Project Status:</b> Design	<b>Environmental Status:</b> Active (MND)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		Approved Jun-19	
Forecast	\$ 6.66 M	Forecast Jun-19	Apr-25
Actual	\$ 2.82 M	Project Percent Complete: 46.1%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/01/2023	07/12/2023	01/13/2024	10/09/2024

**Progress and Status:**

During this reporting period the project team completed the design criteria and 65% design. The environmental team continues preparation of the CEQA Addendum. The Highway 680 Crossing construction was completed last quarter, and the final tie-in work is anticipated to be completed in early 2023.

**Issues and Challenges:**

None at this time.








*Installation of pipeline by Highway 680*

**19063 - Local Water Conveyance/Distribution System**

**Project Description:** This long-term program funds management of linear assets in San Francisco’s potable water distribution system between transmission or storage and final customer service connection. The Linear Asset Management Program replaces and renews feeder and distribution mains for the 1,230 miles of pipe in San Francisco’s drinking water distribution system. The FY22-23 approved budget will include the following: 1) replacement of distribution pipelines at \$4.5M per mile; 2) replacement of 1 mile with seismically reliable pipelines at \$6.0M per mile; and 3) Pipe relining at \$3M per mile.

<b>Program:</b> Water Transmission	<b>Project Status:</b> Multi-Phases	<b>Environmental Status:</b> Active (Various)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 1211.54 M	Approved Jul-10 
Forecast		\$ 1211.54 M	Forecast Jul-10 
Actual		\$ 446.05 M	Project Percent Complete: 37.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	Various	Various	Various	Various

**Progress and Status:**

The Programmatic Project includes multiple active and upcoming construction contracts (refer to Section 7 for the active construction status). The forecast mileage for the main replacement program in FY23 is 9 miles. FY23 has an increased budget of \$51.7M with approximately \$10M of additional budget received due to the redirection of funds in FY22 for the Stern Grove Emergency Restoration Contract and approximately \$12M in funds which were previously not allocated to the main replacement program. The additional funds will be utilized for construction of main replacement projects which were previously planned but placed on hold due to shortage of available funds. The additional funds are not anticipated to be encumbered until the end of FY23 or beginning of FY24 due to the time to finalize contract documents (6 months) followed by the time to advertise, award, and certify the construction contracts (8 months). Projects under construction during the Q1 FY23 include the City streets of 17th Street, 19th Avenue, Vicente Street, Prospect Avenue, L-Taraval Segment B, and Diamond Street.



*Prospect Avenue Water Main Replacement*



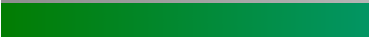


**Issues and Challenges:**

Same as reported since Q2, SFPUC’s Capital Improvement Plan has been updated with an overall main replacement budget increase from \$750M to \$1.2B. The forecasted cost increase of \$450M is attributed to the schedule extension along with the increased cost per mile for the main replacement projects.

**10015239 - Lake Merced Water Level Restoration**

**Project Description:** The project consists of the following subprojects. (1) The City of Daly City is proposing and working in coordination with the SFPUC to implement the Vista Grande Drainage Basin Improvements project to address storm related flooding in the Vista Grande Watershed Drainage Basin while providing the benefit of restoring connection to the natural watershed of Lake Merced, (2) The SFPUC is evaluating diversion of highly treated recycled water from the new Westside Recycled Water facility into Lake Merced to increase and stabilize lake levels.

<b>Program:</b> Local Water Supply	<b>Project Status:</b> Design	<b>Environmental Status:</b> Active (Various)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	 \$ 42.67 M	Approved Jun-03	 Mar-27
Forecast	 \$ 42.67 M	Forecast Jun-03	 Mar-27
Actual	 \$ 4.76 M	Project Percent Complete: 11.9%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
A	07/31/2018 A	11/18/2022	06/19/2023	08/24/2026
Current Forecast	B	11/10/2016 A	N/A	07/07/2017 A
	C	05/25/2023	12/29/2023	06/01/2024
				08/24/2026

**Progress and Status:**

Project includes multiple construction contracts. (A) Vista Grande Drainage Basin Improvement managed by Daly City ; (B) Lake Merced Aeration Mixing System - Phase 1 (JOC Contract); (C) Lake Merced Aeration Mixing System - Phase 3. Vista Grande Drainage Basin Improvement Project (Contract A): Daly City is currently working with staff at the California Coastal Commission to address concerns over construction of the outflow structure at Fort Funston. Daly City is negotiating with SF Public Works for a major encroachment permit for construction of the diversion structure for the approved flows to Lake Merced. This diversion structure would be constructed under John Muir Drive within the City's right of way. The Daly City staff working on this project have prepared an updated Lake Management Plan, which was reviewed by SFPUC and has been updated to address SFPUC comments. Daly City received approval for \$62.8M in funding from the State Revolving Fund and continues to work on attaining remaining project funding. Lake Merced Recycled Water Diversion (Contract C): SFPUC is continuing preliminary design to divert recycled water from the new Westside Recycled Water Plant into Lake Merced to manage lake levels. SFPUC completed a draft evaluation to further study project feasibility and is currently working on an alternatives analysis to evaluate the current design options and provide input to the 35% design documents.

**Issues and Challenges:**

Daly City issued an alternative 100% Design package last quarter that had not been shared with SFPUC staff. Following review by City Distribution Division, Engineering Management Bureau and Wastewater Engineering staff for



*View Looking West from Boat Launch in South Lake Merced*

potential utility conflicts, no additional issues have been identified. Real Estate Services work has resumed to confirm the assessed values of parcels identified to be needed by Daly City; final results are expected in November 2022. SFPUC staff determined that Daly City intends to modify project diversion criteria; as a result, SFPUC staff are evaluating these changes to determine what if any impacts the changes may have on lake resources.



**10015240 - San Francisco Groundwater Supply**

**Project Description:** This project consists of two phases, which combined will provide an annual average of 4 mgd of groundwater to San Francisco’s municipal water supply, and improvements at the existing San Francisco Zoo Well No. 5. Phase 1 is divided in two separate contracts. Under Contract A work to build four new groundwater well stations in the western part of San Francisco is currently in the final construction phase. Contract B work to install buried piping to connect three of these well stations to the Sunset Reservoir was completed and accepted on December 21, 2015. Groundwater from the fourth well station was piped to the nearby Lake Merced Pump Station, where it was distributed to both the Sunset Reservoir and Sutro Reservoir. Phase 2 includes Contract C work to install buried piping and convert two existing irrigation well facilities in Golden Gate Park to groundwater supply wells; this contract is currently in the final construction phase, and would be implemented after completion of the CUW30201, San Francisco Westside Recycled Water Project. Improvements at the existing San Francisco Zoo Well No. 5 were completed and accepted on February 15, 2007.

<b>Program:</b> Local Water Supply	<b>Project Status:</b> Construction	<b>Environmental Status:</b> Completed (EIR)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	\$ 66.55 M	Approved Jun-03	Jun-22
Forecast	\$ 66.55 M	Forecast Jun-03	Dec-23
Actual	\$ 63.89 M	Project Percent Complete: 98.5%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	A	12/19/2013 A	05/01/2014 A	03/16/2015 A	03/31/2021 A
	B		03/10/2014 A	08/04/2014 A	12/21/2015 A
	C		08/17/2016 A	08/07/2017 A	12/31/2022

**Progress and Status:**

This project includes multiple construction contracts. (A) San Francisco Groundwater Supply Well Stations Phase 1;(B) San Francisco Groundwater Supply Pipeline Phase 1;(C) San Francisco Groundwater Supply Phase 2. For Phase 2 (Contract C), during the quarter the contractor completed the punchlist items; this completion was verified by the Operations group. The contractor also continued to compile the closeout documents and to process remaining change orders, including deductive bid items and miscellaneous change order work. Contractor submitted as-built drawings and operation and maintenance manuals, which were in process for final approval at the close of the quarter.



*North Lake Well Station*






**Issues and Challenges:**

Phase 2 project final completion has been delayed due to additional time needed to complete and compile closeout documents.

**10015242 - San Francisco Westside Recycled Water**

**Project Description:** This project includes all facilities to produce and deliver about 2 mgd of recycled water for irrigation use in the western end of San Francisco. The project includes a new recycled water treatment facility consisting of membrane filtration, reverse osmosis, and ultraviolet light disinfection; a 1.1 million gallon storage reservoir; distribution pumping facilities; and 5 to 6 miles of new pipelines.

<b>Program:</b> Local Water Supply	<b>Project Status:</b> Construction	<b>Environmental Status:</b> Completed (EIR)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 213.32 M	Approved Mar-03  Apr-23
Forecast		\$ 213.32 M	Forecast Mar-03  Apr-23
Actual		\$ 188.97 M	Project Percent Complete: 88.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	A	09/03/2015 A	12/29/2016 A	10/18/2017 A	12/03/2022
	B		12/19/2018 A	07/01/2019 A	12/04/2022
	C		07/15/2016 A	02/21/2017 A	08/19/2018 A
	D		02/25/2020 A	01/25/2021 A	11/30/2022

**Progress and Status:**

This project includes multiple construction contracts. (A) Recycled Water Treatment Facilities; (B) Pump Station and Reservoir; (C) Pipeline; (D) Irrigation System Retrofit. Treatment Facility (Contract A): Miscellaneous mechanical, electrical, and architectural finish work continued in Buildings 580 and 581. Several working sessions were held with the Contractor and System Integrator to resolve issues with the Process Control and Instrumentation System. The yard area was paved. Work also continued on the development of the Operations Manual and Standard Operating Procedures (SOPs) for the new treatment facility. Distribution Pump Station and Reservoir (Contract B): Miscellaneous mechanical, and electrical work was conducted on the pump station. A preliminary start-up test plan was submitted by the Contractor for review by the City. Pipeline (Contract C) is complete. Irrigation System Retrofit (Contract D): Punchlist walkthrough of the retrofit work continued. The connection work at the Lincoln Park Golf Course was completed. The cross-connection control testing of Golden Gate Park was completed. The SFPUC worked on the revised Notice of Intent (NOI) document for coverage under the Recycled Water General Order, with plans to submit the updated document early next quarter.

**Issues and Challenges:**

For Contract A, potential issues with the completion of the Process Control and Instrumentation System (PCIS) work have been identified. The SFPUC has met with the contractor and the system integrator to assess current work status and proposed solutions. Delay in completion of the





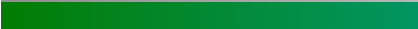


*Exterior of Buildings 580 and 581*

PCIS work will delay start-up testing and completion of the overall project. For Contract B, Distribution Pump Station and Reservoir, the project team will be moving forward with a new design for primary power service, due to PG&E's changed decision about the project's earlier agreement to connect using secondary power service. This will delay the full-scale operation of the new pump station and recycled water delivery to Lincoln Park Golf Course by several years.

**10015223 - College Hill Reservoir Outlet**

**Project Description:** This project provides funding for the design and construction of the College Hill Reservoir Outlet Structure and Pipeline Upgrade Project to address seismic, water quality, electrical, structural, and other deficiencies. This project includes installation of a new control valve vault; replacement of reservoir inlet and outlet piping; replacement of reservoir transmission pipelines up to Cortland Avenue; reservoir roof replacement; and miscellaneous piping, security, site access, electrical, instrumentation, and water quality improvements. This project is currently in final design phase with a 24-month construction duration starting in 2020. The estimated budget is \$18 million with \$14M in funding provided for FY1920 and additional \$3M provided for FY2021 and \$1M FY2021 for roof replacement.

<b>Program:</b> Local Tanks/Reservoir Improvements	<b>Project Status:</b> Construction	<b>Environmental Status:</b> Completed (Cat Ex)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	 \$ 19.28 M	Approved Jan-13	 Apr-24
Forecast	 \$ 19.28 M	Forecast Jan-13	 Apr-24
Actual	 \$ 6.57 M	Project Percent Complete: 32.3%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/20/2019 A	02/24/2021 A	09/27/2021 A	10/21/2023

**Progress and Status:**

During the quarter, the contractor completed installation of 36-inch diameter steel pipe through the use of a jack-and-bore tunneling technique from the reservoir to the valve control vault; a 24-inch diameter earthquake-resistant ductile iron pipe (ERDIP) from Cortland Avenue to the valve control vault; and installation of the reinforced concrete floor for the valve control vault. Upcoming construction activities next quarter include completion of valve vault construction; headwall and trash rack construction within the reservoir; and restoration work at the jack-and-bore jacking and receiving pits.

**Issues and Challenges:**

The contractor is currently evaluating if delays associated with the access road, material procurement delays, and reservoir shutdown can be mitigated without a time extension. Any necessary time extension should be able to be implemented during the second quarter of FY23.




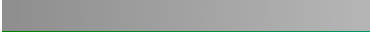



*Installation of 24-inch diameter ERDIP reservoir inlet pipe*



**10015231 - Harding Park PS**

**Project Description:** This project funds long term improvements to the Harding Park Pump Station to increase reliability and correct conditions that have led to the premature corrosion and failure of critical components. The current design places the pumping facility on top of the recycled water reservoir leading to high humidity levels within the facility. This project will seal the reservoir from the pump room, improve the HVAC system for humidity control, and relocate critical electrical panel and components out of the pump room. The project will also modify the current electrical feed to allow for the safe maintenance of the water pump electrical components while leaving the buildings lighting and auxiliary loads powered.

<b>Program:</b> Pump Stations	<b>Project Status:</b> Planning	<b>Environmental Status:</b> Not Initiated (TBD)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved	 \$ 6.53 M	Approved May-21	 Apr-26
Forecast	 \$ 6.53 M	Forecast May-21	 Apr-26
Actual	 \$ 0.47 M	Project Percent Complete: 8.6%	

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	TBD	02/02/2024	10/04/2024	10/03/2025

**Progress and Status:**

A field meeting was held in July with members from City Distribution Division Operations. The team secured additional architecture resources to assist with the evaluation of new building and building expansion alternatives. A draft Alternatives Analysis Report is anticipated to be issued the next quarter.

**Issues and Challenges:**

None at this time.

**10037249 - New CDD Headquarters**

**Project Description:** The City Distribution Division (CDD) Headquarters, currently located at 1990 Newcomb Avenue, San Francisco, was constructed in 1962. The majority of CDD's staff are located at Newcomb (approx. 260 people). Existing facilities include administrative offices, warehouse, shops, materials and equipment storage and vehicle fleet. CDD oversees the retail water distribution system with the City and County of San Francisco, responsible for the physical infrastructure of San Francisco's potable, auxiliary water system, groundwater, and recycled water systems. CDD's responsibilities include 24/7 emergency response to water main breaks and two-alarm or larger fires in addition to day-to-day operations and maintenance of over 1,250 miles of water main, 12 reservoirs, 9 pump stations, 7 hydro pneumatic stations, 6 tanks, the water meter program serving over 176,000 customers, and maintaining CDD's physical plant, equipment and vehicles and over 1,100 acres of grounds throughout the City.

<b>Program:</b> Buildings and Grounds	<b>Project Status:</b> Design	<b>Environmental Status:</b> Active (MND)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 393.6 M	Approved Feb-20
Forecast		\$ 393.6 M	Forecast Feb-20
Actual		\$ 4.62 M	Project Percent Complete: 2.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/29/2023	06/18/2021 A	10/01/2023	12/31/2027

**Progress and Status:**

The Construction Management/General Contractor (CM/GC) contract was awarded by the Commission in June. Execution of the contract is pending approval of the Social Impact Partnership Ordinance by the Board of Supervisors. The RFP for Design Services was rebid as PRO.0264 in September. Proposals are due on October 12. The current schedule for award of the design contract and issuance of the notice to proceed is March 2023.



*Aerial Rendering of Campus*

**Issues and Challenges:**

The delays in contracting design services results in delaying the Design phase; impacts to schedule will be reevaluated when the CM/GC contractor is on board.

**EFWS PL - EFWS Pipelines**

**Project Description:** These projects include construction of various pipelines using ESER bond funds.

<b>Program:</b> Emergency Firefighting Water System	<b>Project Status:</b> Multi-Phases	<b>Environmental Status:</b> Completed (Various)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 205.26 M	Approved Apr-11
Forecast		\$ 205.26 M	Forecast Apr-11
Actual		\$ 44.81 M	Project Percent Complete: 28.1%

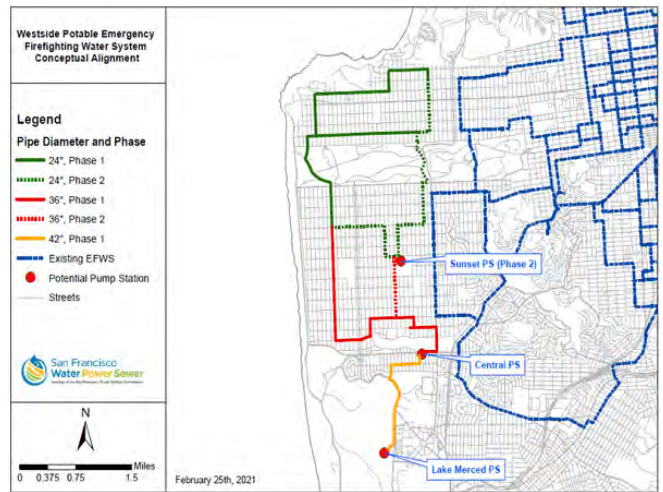
Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	Various	Various	Various	Various

**Progress and Status:**

19th Avenue Pipeline: Construction contract continued. Construction completion expected in July 2023. •Clarendon Supply: Construction contract continued. Construction completion expected in April 2023. •Fireboat Manifolds: Construction of new pipeline and fireboat manifold near Fort Mason Pier 2 and Pier 35.5 for fire suppression. Planning in progress. •Potable Emergency Firefighting Water System Pipeline: Planning continued. •Vicente Potable EFWS Pipeline: Construction contract continued. Construction completion expected in July 2024.

**Issues and Challenges:**

None at this time.








*Westside Potable EFWS Conceptual Alignment*

**EFWS PS - EFWS Pump Station**

**Project Description:** These projects include construction of various pump stations using ESER bond funds.

<b>Program:</b> Emergency Firefighting Water System	<b>Project Status:</b> Multi-Phases	<b>Environmental Status:</b> Completed (Various)
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<b>Project Cost:</b>		<b>Project Schedule:</b>	
Approved		\$ 45.25 M	Approved Apr-11 
Forecast		\$ 45.25 M	Forecast Apr-11 
Actual		\$ 39.88 M	Project Percent Complete: 95.8%

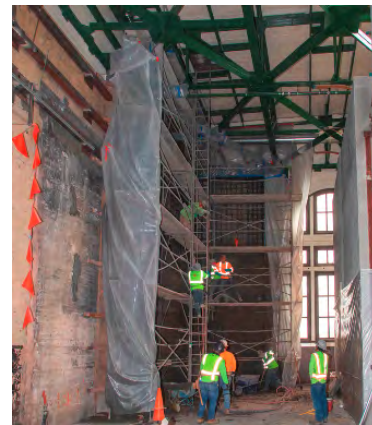
Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	Various	Various	Various	Various

**Progress and Status:**

Pump Station #2: Construction contract continued. Construction completion expected December 2022.  
 •PEFWS PS - Lake Merced: It is anticipated to complete the conceptual engineering phase for the pump station at Lake Merced during the beginning of 2024.

**Issues and Challenges:**

None at this time.



*Roof installation of Pump Station No. 2*

8. On-Going Construction\*

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecast Construction Final Completion**	Approved Contract Cost	Current Forecast Cost**	Schedule (Cal. Days)	Cost	
<b>Local Water Conveyance/Distribution System</b>								
19063 - WD-2811 17TH STREET/CLAYTON/ORD	05/26/20	09/24/22	01/02/23	\$6,701,609	\$7,346,745	(100)	(\$645,136)	68.9%
19063 - WD-2718 PROSPECT/CORTLAND/FAIR AVE	01/03/22	11/23/23	09/23/23	\$5,902,021	\$6,495,059	61	(\$593,038)	29.2%
19063 - WD-2616 BAKER STREET /SUTTER STREET	10/19/20	03/27/22	08/27/22	\$3,928,028	\$4,007,028	(153)	(\$79,000)	75.7%
19063 - WD-2739 CASTRO STREET 19TH/26TH STREET	08/17/20	08/16/22	10/23/22	\$10,915,782	\$11,287,636	(68)	(\$371,854)	95.2%
19063 - WD-2859 L-TARAVAL SEGMENT B	12/02/21	09/17/24	09/17/24	\$14,468,000	\$14,468,000	-	-	8.9%
19063 - WD-2775 19TH AVE/VICENTE/LINCOLN	10/19/20	01/09/23	01/09/23	\$6,725,506	\$6,772,387	-	(\$46,881)	33.6%
19063 - WD-2806 VICENTE 19TH TO 25TH AVE	07/26/21	04/07/24	02/11/24	\$6,267,815	\$6,458,657	56	(\$190,842)	38.7%

Note: \* This table reflects Active Construction Contracts with an original contract amount greater than \$1M.

\*\* The Forecast Cost includes all approved, pending, and potential change orders; and Final Completion includes all approved, pending, and potential change orders, and trends.

8. On-Going Construction\*

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecast Construction Final Completion**	Approved Contract Cost	Current Forecast Cost**	Schedule (Cal. Days)	Cost	
<b>Local Water Supply</b>								
10015240 - WD-2809 SF Groundwater Supply Phase 2	08/07/17	08/26/19	12/31/22	\$10,732,565	\$10,780,143	(1,233)	(\$47,578)	99.0%
10015242 - WD-2797 SFWRW Pump Station and Reservoir	03/08/21	06/30/22	12/04/22	\$18,413,260	\$18,413,260	(157)	-	91.0%
10015242 - WD-2852R Westside Recycled Irrigation Retrofits and Improvements	01/25/21	07/29/22	11/30/22	\$2,517,779	\$2,517,779	(124)	-	83.0%
10015242 - WD-2776 Westside Recycled Water Treatment Facility	10/16/17	07/29/22	12/03/22	\$94,637,405	\$94,637,405	(127)	-	95.0%
<b>Local Tanks/Reservoir Improvements</b>								
10015223 - WD-2717 COLLEGE HILL/PROSPECT/SANTA MARIA	09/27/21	10/21/23	10/21/23	\$12,180,497	\$12,180,497	-	-	20.7%
<b>Emergency Firefighting Water System</b>								
10029709/10030778 - WD-2687R Pump Station # 2	12/12/17	11/16/22	11/15/22	\$20,623,887	\$21,773,887	1	(\$1,150,000)	94.8%
10029724/10029695 - WD-2861 Clarendon Supply	02/01/21	07/29/22	07/29/22	\$2,706,081	\$2,706,081	-	-	60.4%

Program Total for On-Going Construction	Approved Contract Cost	Current Forecast	Variance	
			Cost	Percent
	\$216,720,234	\$219,844,563	(\$3,124,329)	(1.4%)

Note: \* This table reflects Active Construction Contracts with an original contract amount greater than \$1M.

\*\* The Forecast Cost includes all approved, pending, and potential change orders; and Final Completion includes all approved, pending, and potential change orders, and trends.

## 9. PROJECTS IN CLOSEOUT

*There are no active projects currently in closeout phase.*



## 10. COMPLETED PROJECTS

*There are no completed projects.*

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**APPENDICES**

**A PROJECT DESCRIPTIONS**

**B APPROVED PROJECT-LEVEL SCHEDULE**

**C LIST OF ACRONYMS**



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## APPENDIX A. PROJECT DESCRIPTION

### WATER REGIONAL

#### Water Treatment

##### **10033123 SVWTP Ozone (CUW27202)**

In recent years, SFPUC's Sunol Valley Water Treatment Plant (SVWTP) has experienced more frequent taste and odor (T&O) events from seasonal algal blooms than had occurred historically. This project's objective is to install ozone treatment facilities as a long-term solution to control T&O events encountered in the raw water supply from both the San Antonio and Calaveras Reservoir sources. This project will improve the reliability to meet water quality goals especially during warm months and during Hetch Hetchy shutdowns. The scope of this project is to install a raw water ozonation system at SVWTP including the following major components: • 10-inch through 66-inch diameter piping, elbows and valves • Concrete valve vaults • Ozone Generator Building (approx. 10,000 sq. ft. concrete structure) • Electrical Building (approx. 1250 sq. ft. concrete structure) • Loop Cooling Water Systems (approx. 375 sq. ft. concrete pad, skid system, pumps, valves, piping) • Cryogenic Oxygen Tank Systems (approx. 2300 sq. ft. foundation, liquid oxygen system equipment, stainless steel piping, valves, fittings and controls) • Liquid Oxygen Vaporizer Systems (equipment, piping, valves, fittings and controls) • Ozone Generators (generators, piping, valves, fittings and controls) • Ozone Injector Systems (approx. 3200 sq. ft. concrete structure, stainless steel injector units and piping, quenching chemical injection system, 66-inch diameter piping and manifold, valves, pumps and controls) • Ozone Contact Basin (approx. 12,000 sq. ft. concrete structure) • Ozone Destruct Systems (equipment, piping, valves, fittings and controls) • Pre-chloramination Facilities for Bromate Control • Instrumentation & Controls • Shop Space • Solar Panels; Standby Power Systems; High Voltage & Low Voltage Electrical Eq. & Distribution Systems • Minor Calaveras Substation Upgrades to support the Ozone facility power needs • Underground Utilities; Site Improvements

##### **10015064 SVWTP Short Term Improvements**

The primary objective of the SVWTP Short Term Improvements project is to improve regional delivery reliability by addressing various conditions and deficiencies of the Sunol Valley Water Treatment Plant (SVWTP). Upgrades were identified through condition assessments and operations staff observations, review of level of service, subsequent feasibility studies, and alternative analyses. The construction scope of work will include the following: • Structural and HVAC improvements at the Administration Building. • Water Quality Lab remodel at the Administration Building including cabinet, countertop, sink, plumbing and flooring replacement and mold remediation work. • Repair concrete spalling in the sedimentation basins. • Upgrade wash water tank and access system and install valve actuator. • Upgrade sludge system piping, valves, and monitoring system. • Upgrade chemical piping system. • Remediate leakage at expansion joint around settled water pipes from sedimentation basin. • Replace flocculator variable frequency drives (VFDs) for the flocculation basins. • Replace leaking wash water drain valves. • Replace corroded air scour piping and chlorine contact tank piping. • Install new flowmeters for the wash water backwash system and chlorine contact tank. • Install new fixed washdown system at sedimentation basin. • Install new lighting and plant intercom and paging systems. • Install new server room fire suppression system. • Install plate settler washdown piping system.

##### **10037628 SVWTP Polymer Feed Facility**

At the Sunol Valley Water Treatment Plant (SVWTP), the new flocculation/sedimentation basin built in 2013 as well as the other 4 existing basins that are each rated at a capacity of 40 million gallons per day (mgd) were not able to achieve their capacity under all operating and water quality scenarios. A basin optimization plan was prepared to address the performance; it recommended adding a flocculant aid

polymer system. The project will build a polymer feed facility that will serve all five sedimentation basins to optimize plant water production. The funding for the project is provided under WECIP and WSIP. The WSIP funding for this project, \$2.19M, is included with other Sunol Valley closeout projects and was completed in the Planning phase and a portion of the Design phase. The remaining funding for the project is provided under Water Enterprise 10-year CIP, \$19,046,104. The scope of this project includes installation of a new polymer feed facility for SVWTP Basins 1 through 5. The flocculant aid polymer system will consist of the following:

- Polymer Feed Building with polymer totes and tote storage area.
- Polymer blending units.
- Batch tanks.
- Tank and tote mixers.
- Batch tanks polymer transfer pump.
- Polymer feed pumps.
- Piping and valving.
- Site improvements.

### **10037349 HTWTP Filter Underdrain Replacement**

Over twenty projects have been identified to improve the performance and reliability of the Harry Tracy Water Treatment Plant (HTWTP). However, underdrains in two filters in a bank of six have failed since 2019 and replacement of the underdrains is being prioritized to restore the plant's treatment capacity and reliability. The remaining projects will be deferred to future CIP Planning. The scope of work includes the following:

- Remove and dispose existing filter media and provide new filter media,
- Procure and install new stainless steel filter underdrains for 6 filters,
- Modify air distribution piping beneath filter underdrains,
- Clean and recoat main air distribution piping,
- Demolition work, and
- Concrete work

### **10037350 Regional Groundwater Treatment Improvement**

The purpose of this project is to improve the performance of the Regional Groundwater Wells and treatment systems in the South Westside Basin for reliable use during dry years. In normal and wet years, the SFPUC will supply treated surface water to Daly City, San Bruno, and Cal Water to be used in place of their typical groundwater supply, thereby increasing the volume of groundwater in storage that can be pumped as supplemental water in dry years. This project will address emerging well water quality issues that require treatment, will provide additional reliability for treatment systems at the wells, and will evaluate the potential for a consolidated treatment facility (through Alternatives Analysis only). If a centralized treatment alternative is selected, the estimated project cost could potentially be \$250 million, which includes construction of approximately 14 miles of 8" to 24" diameter pipeline, a pump station, storage tanks, treatment facilities, and other ancillary facilities. This project will build auxiliary water treatment facilities as well as other enhancements to increase the reliability and efficiency for maintenance and operation of the well stations. While an evaluation for providing centralized treatment is included in the project, the current budget only includes design and construction of facilities at individual well sites, including the following:

- Install ammonia analyzer (1 site)
- Construct manganese enclosure (2 sites)
- Construct building, filtration and ammonia analyzer (1 site)
- Upsize pedestal & tank for 2-week storage for sodium hydroxide (5 sites)
- Upsize pedestal & tank for 2-week storage for liquid ammonium sulfate (7 sites)
- Upsize pedestal and tank for 2-week storage for sodium hypochlorite (1 site)
- Install detention (contact) tank to address high levels of ammonia w/o enclosure (1 site)
- Upsize pedestal, tank and overall chemical system for change in chemical concentration from 50% to 25% concentration (5 sites)
- Install chlorine detention (contact) tank to address high levels of ammonia
- Install venturi meter or mag meter with dismantling joint inside concrete vault (6 sites)
- Remove bucket elevator for sodium fluoride (7 sites)
- Study to compare liquid vs powder fluoride
- Study reverse flow (lockout study for minimum shutdown time)
- Reimburse Cal Water for supporting the project design & construction for SSF Main well

### **10038328 SVWTP Long Term Improvements**

The primary objective of the SVWTP Long Term Improvements project is to improve regional delivery reliability by addressing various conditions and deficiencies of the Sunol Valley Water Treatment Plant (SVWTP). Upgrades were identified through condition assessments and operations staff observations,

review of level of service, subsequent feasibility studies, and alternative analyses. The construction scope of work will include the following:

- Emergency Eyewash station installation at chlorine contact tank.
- Repair bird netting deficiencies at Flocculation/Sedimentation Basins and filters.
- Install new bird netting for fluoride storage and chemical delivery dock;
- Replace Main Switchboards 1 and 2, remove ATS-1, ATS-2 and ATS-3 and incorporate functionality into new switchgear.
- Add redundant 2MW standby generator with active particulate air filters.
- Replace all GE Power Circuit Breakers (not all are ARC flash rated).
- Repair concrete pad and coating at Caustic Tank farm.
- Cat-C polymer feed system re-configuration.
- Install wash water pumps soft starter system.
- Install air monitors for aqua ammonia tanks.
- Roadway and site improvements.

## Water Transmission

### 10034578 CSPL2 Reach 5 Lining Replacement

Crystal Springs Pipeline No. 2 (CSPL2) runs from Crystal Springs Pump Station to University Mound Reservoir. It delivers potable and emergency water supply to San Francisco and to several cities along the Peninsula. Reach 5 of CSPL2, 60" in diameter, from Millbrae Yard to Baden Pump Station (approximately 3.8 miles) in the cities of South San Francisco and San Bruno is over 80 years old and has extensive lining failures.

This project would replace approximately 3.8 miles of coal tar lining with cement mortar lining (CML), upgrade 34 appurtenances to meet current standards, and improve access and shutdown flexibility for maintenance by installing 5 manway structures and one 60" diameter valve on CSPL2 and one 48" diameter valve on San Andreas Pipeline No. 1 (SAPL1) near Baden Pump Station. In addition, a recent corrosion investigation found a segment of the CSPL2 to be severely corroded across from the Baden Pump Station due to a gas pipeline crossing and will need to be replaced. Since the Sunset Supply Pipeline, San Andreas Pipeline No. 2, and San Andreas Pipeline No. 3, run parallel to the CSPL2 and are crossed by the gas pipeline, a corrosion investigation will be performed to determine if corrosion has occurred on these pipelines and if any repairs are needed. The scope of work includes the following:

- Complete removal of coal tar lining
- Installation of cement mortar lining
- Installation of manway structures
- Procurement and installation of isolation valves
- Upgrade of appurtenances such as blow-offs, air release valves, etc. to meet current standards
- Replacement of pipeline segments
- Traffic control
- Pavement restoration work

### 10035029 As-Needed Pipeline Repairs

Water Supply and Treatment Division's (WSTD) maintenance and inspection program inspects the regional pipeline system on an ongoing basis. However, when repairs are identified to be needed following inspections and when emergency repairs are needed, a contractor is not readily available to perform the repairs. This project will increase system reliability by reducing the duration and number of outages since a prequalified, as-needed contractor will be available to complete repairs immediately following inspections or in emergencies. This project will repair/replace regional pipeline segments that will be inspected over the next five years, in addition to any emergency repairs that may be needed. The initial construction contract will be 3 years and combined with Project 10036840, BDPL1-4 Lining Repair to provide a sufficient guaranteed scope. Subsequent construction contract(s) will be issued to parallel WSTD's inspection program. The scope of work for the initial construction contract is as follows:

- Pipeline replacement by open trench
- Pipeline repair work
- Protecting sensitive (wetland and creek) areas
- Protecting utilities and infrastructure
- Traffic control
- Site/vegetation restoration
- Paving restoration
- Dewatering and providing temporary safe entry

### 10036839 BDPL4 PCCP Repair

Historically, when pre-stressed concrete cylinder pipe (PCCP) fails due to breaks in the spirally wound



wire, the high-pressure failure can have catastrophic consequences. Some segments of the Regional Water System are constructed of PCCP. From recent inspections of Bay Division Pipeline No. 4 (BDPL4) Segment D, constructed of PCCP, a large number of wire breaks and circumferential cracks were found in the last 1.25 miles of pipeline that parallels Edgewood Road in Redwood City. In addition, several leaks have surfaced at circumferential cracks and where the pipeline transitions from PCCP to steel. Segments where wire breaks are concentrated will need to be repaired/replaced to prevent catastrophic failure and circumferential cracks and leaks will also be repaired. The first phase of this project will be to repair segments where there are high concentrations of wire breaks, wide circumferential cracks and active leaks. This first phase will include planning, design and construction of repairs. The second phase of the project will be to address the remaining 1.25 miles of pipeline, which includes planning, design and partial encumbrance of a construction contract. The project budget will be reevaluated following completion of the Alternatives Analysis for the second phase. The first construction contract will increase system reliability by rehabilitating approximately 650 feet of 84-inch diameter BDPL4 PCCP in Redwood City and includes the following work:

- Excavation, shoring, backfilling, and compaction
- Demolition of PCCP
- Replacement of approximately 530 feet of pipeline by open trench
- Slip lining approximately 120 feet of pipeline
- Protecting sensitive (wetland and creek) areas and utilities/infrastructure
- Traffic control and
- Site/vegetation and paving restoration

#### **10036840 BDPL 1-4 Lining Repair**

Water Supply and Treatment Division's (WSTD) ongoing pipeline inspection program has identified segments of the BDPL 1-4 and other regional pipelines that require lining repairs. In addition, this project will retain an as-needed contractor to repair linings identified to be deficient by WSTD over the next 5-years. This project will repair the lining in segments of the BDPL 1-4 and other regional pipelines over the next 5 years. The initial construction contract for this project will be 3 years and combined with Project 10035029, As-Needed Pipeline Repair to provide a sufficient guaranteed scope. Subsequent construction contract(s) will be issued to parallel WSTD's inspection program. The scope of work entails the following:

- Cement mortar lining (CML) repair including removal, handling and disposal of existing coal tar lining
- Dielectric lining repair
- Dewatering and providing temporary safe entry measures, such as line stops, blind flanging, roll out spool pieces, welding bulkheads, etc.

#### **10015071 Corrosion Control**

This project will implement the corrosion protection and control program as recommended in the Corrosion Control Master Plan completed in August 2010. Sites identified with the worst levels of corrosion were bundled up in the master plan in three phases. Each phase will take several years to implementation. The scope for all phases will be similar, but the number of sites will vary at each phase. Phase 1 construction work for ten sites was completed and accepted on August 27, 2019. Phase 2 has eleven sites and is currently in the design phase. Phase 3 is anticipated to include up to twenty sites depending on the funding.

This project description is for all three phases. Scope of work includes the following:

- Furnish and install cathodic protection (CP) systems.
- Install rectifiers and anodes at a depth of approximately 300 feet
- Install testing station for pipelines.
- Install specialized galvanic and impressed current CP systems
- Install remote monitoring units.
- Install isolation protection systems.
- Install transformers/switchgears under Phase 3 only

#### **10015076 San Antonio Pump Station MCC Upgrades**

The San Antonio Pump Station (SAPS) is one of the key facilities in the Sunol Valley and was constructed in 1965 and modified in 1990. The existing motor control centers (MCC) MCC-A, MCC-B, and MCC-C have been in service since the 1960's and they are approaching the end of their useful life. In order to maintain

reliable operation at SAPS, the existing MCCs are being replaced and facility walls are being seismically retrofitted. In order to accommodate the retrofit work, the communications system is being relocated to an adjacent room and the HVAC will be replaced in affected rooms. In addition, a new propane generator will replace the existing diesel generator to serve as reliable backup power to the facility. The scope of work or construction will include the following: •Replace existing diesel generator with new 150KW propane generator •Install new fire suppression system •Replace existing lighting system •Replace existing HVAC system •Architectural design to accommodate clean agent fire suppression •Seismic Retrofit of walls •Replace existing MCC •Replace existing underground power and control conductors •Install new RTU with UPS •Replace existing communication system for Control and SCADA room

### **10015081 CSPL2 Reaches 2 and 3 Rehabilitation**

Crystal Springs Pipeline No. 2 (CSPL2) spans from Crystal Springs Pump Station to University Mound Reservoir. It delivers potable water supply to San Francisco and several cities along the Peninsula, Reaches 2 and 3 of CSPL2 in the Town of Hillsborough, unincorporated areas of San Mateo County, the City of San Mateo, and the City of Burlingame are over 80 years old and have deteriorated, with Reach 2 located on eroding slopes with difficult access and Reach 3 containing extensive lining failures. This project will relocate approximately 1.5 miles of 60-inch diameter CSPL2 (portion of Reaches 2 and 3 that traverses through steep terrain with a narrow access road) into Crystal Springs Road by removing the abandoned-in-place 48-inch diameter CSPL1, reline approximately 2.2 miles of CSPL2 (remaining portion of Reach 3) with cement mortar lining, and upgrade appurtenances to meet current standards. The scope of work includes the following: • Removal of approximately 2.2 miles coal tar lining • Installation of approximately 2.2 miles of cement mortar lining • Removal of 1.5 miles of existing CSPL1 • Pipeline installation work by open trench • Upgrade of appurtenances such as blow-offs, air release valves, etc. to meet current standards • Traffic control • Pavement restoration work

## **Water Supply & Storage**

### **10015232 Merced Manor Reservoir Facilities Repairs**

The Merced Manor Reservoir was upgraded in 2004 to seismically strengthen and repair the roof structure and foundations. After the completion of the upgrade, spalling of concrete at various locations on the roof structure was observed over the years due to the constant temperature gradient experienced in the roof structure. The design of the seismic retrofit of Merced Manor Reservoir was done without the benefit of the lessons learned from later roof retrofits and construction at Sunset North Basin and University Mound North Basin where the effect of temperature load on the roof due to expansion and contraction was analyzed and designed to accommodate the temperature loading. The scope of this project includes performing structural analysis of the effect of temperature gradient on the existing roof structure design; developing design modifications of the roof structure to accommodate the expansion and contraction loads; and construction of the roof modifications and repair of the spalled concrete.

### **10036998 Turner Dam and Reservoir Improvements**

Turner Dam is a 195-foot-high earth embankment dam that was completed in 1965 and impounds San Antonio Reservoir in the East Bay. The dam is regulated by the California Division of Safety of Dams (DSOD). This project is to investigate the seismic stability and hydraulic performance of the Turner Dam and San Antonio Reservoir facilities and to perform necessary upgrades identified during the Planning Phase.

### **10015091 Pilarcitos Dam Improvements**

The Pilarcitos Dam is an earthen embankment dam that was built in 1866 and raised in 1874; it is the

SFPUC's oldest dam regulated by the California Division of Safety of Dams (DSOD). This project will investigate the seismic stability and hydraulic performance of the Pilarcitos Dam and Reservoir facilities and perform necessary upgrades identified during the Planning Phase. The scope of work will be confirmed following the completion of the Condition and Needs Assessments, and Alternative Analysis for the dam and forebay outlet structure, spillway, outlet tunnel, and outlet pipeline.

### **10015092 San Andreas Dam Facility Improvements**

The San Andreas dam is a 105 foot high earthen embankment dam that was built in 1870; it impounds San Andreas Reservoir that is the raw water source for the Harry Tracy Water Treatment Plant, and it is regulated by the California Division of Safety of Dams (DSOD). This project will investigate the seismic stability and hydraulic performance of the San Andreas Dam and Reservoir facilities and perform necessary upgrades identified during the Planning Phase. The objectives are to perform Condition and Needs Assessments and Alternatives Analyses of the dam, spillway, emergency outlet, and ancillary facilities; to develop retrofit options if required; and to implement the selected alternatives.

## **Watershed & Lands Management**

### **10015110 EBRPD WATER SYSTEM**

As a mitigation for the Calaveras Dam Replacement Project, the SFPUC agreed to construct new potable water distribution facilities for the Sunol Regional Wilderness Park (SRP), managed by the East Bay Regional Park District (EBRPD). The EBRPD owns and maintains a water system located at SRP Headquarters which previously supplied potable water to four park facilities, as well as drinking water fountains and picnic areas interspersed throughout the park. Currently, the water system serves non potable water for use by EBRPD employees only. Since the system stopped producing potable water due to supply and sanitary deficiencies, EBRPD has been supplying park visitors with bottled water trucked in by a contracted vendor. The project purpose is to provide a reliable water supply for potable use at the EBRPD facilities and to provide potable uses at the SRP.

### **10015108 Sneath Lane Gate/North San Andreas**

The 2001 Peninsula Watershed Management Plan identified the need for a new trail connection between San Mateo County's Crystal Springs Regional Trail (North San Andreas) to Golden Gate National Recreation Area's (GGNRA) Sweeney Ridge property at the Sneath Lane Gate. The trail is a critical connection among existing regional trails at the north end of the Peninsula watershed, that will serve hikers, bikers and equestrians.

### **10015113 Southern Skyline Blvd Ridge Trail Extension**

The Bay Area Ridge Trail project was started in 1987 by the Bay Area Ridge Trail Council to create an approximately 550-mile long continuous trail for hikers, mountain bicyclists, and equestrians along the ridgelines overlooking San Francisco Bay. The objective of the project is to provide access to the Peninsula watershed, to enhance educational opportunities, and to ensure watershed protection. South of Highway 92, this proposed extension project would construct a 6-mile-long trail on the Peninsula Watershed in San Mateo County between Highway 92 and the Golden Gate National Recreation Area's (GGNRA) Phleger Estate. The project consists of a 6' foot wide, all-weather surface trails; retaining structures to stabilize cut and/or fill slopes; drainage facilities; a 15,000-square-foot parking lot accommodating up to 14 cars; two pre-fabricated restrooms along the trail; site security features; and landscape restoration. North of Highway 92, the project includes construction of a trail segment adjacent to the Fifield Cahill Trail that is compliant with the Americans with Disabilities Act, a 16,000-square foot parking lot, and one pre-fabricated restroom. In addition, the project includes the following related construction: • Removal of 160

trees • 9.3 miles of wildlife friendly security fencing • Grading and drainage work • 2000 LF soldier pile retaining walls • Paving of two trailheads parking areas with educational signage • Protecting sensitive habitat • Traffic control • Site/vegetation restoration

### **10030771 SA-1 Service Road/Ingoing Road**

The SFPUC has identified landslide and erosion damage that have destabilized service roads (East Shore Service Road and West Shore Service Road) and adjacent areas in three locations on San Francisco Peninsula Watershed lands situated along the San Andreas Reservoir in San Mateo County. The project is to evaluate and repair the damage, and to implement long term solutions for SFPUC staff and contractors to continue to use the roads to access, operate, and maintain SFPUC facilities and watershed lands. Construction for these locations can be done through phases to accommodate budget cash flow.

## **Buildings and Grounds**

### **10033555 Rollins Road Building Renovations (CUW27703)**

The SFPUC purchased a property that was previously leased long term on Rollins Road in Burlingame, San Mateo County, in September 2017, securing ownership of an additional 10,000 square feet of office space for the SFPUC Water Enterprise (WE). A capital project was initiated in 2018 for tenant improvements. In June 2020, the project scope for the 1657 Rollins Road was decreased significantly, and the scope of the Millbrae Yard Lab & Shop Project was increased. The program for Rollins Road Building Renovation Project will be achieved at the Millbrae Yard by adding two additional floors to the laboratory building as part of its Phase 1 project. The expanded laboratory building will accommodate the Rollins Road building staff. As a result of the scope change, personnel at 1657 Rollins Road will relocate to Millbrae Yard campus following the completion of the Millbrae Yard Lab & Shops Project.

### **10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC**

This project will construct improvements for two buildings located at the Millbrae Yard facility, the Millbrae Warehouse and the Administration Building. The Millbrae Warehouse Settlement project will provide a long term repair for the displacement (settlement) of the slab between the loading dock and the offices. The slab settlement resulted from expansive clay layers located seven feet below the top of the existing concrete slab. For the Millbrae Administration Building HVAC Upgrades, this project will provide long term reliable and economical improvements to heating and cooling systems. Two separate construction contracts will be used for the Millbrae Warehouse Settlement repairs and the Administration Building HVAC Upgrades. Construction for the Millbrae Warehouse loading dock repair is forecasted to begin in 2021 whereas the Millbrae Administration Building HVAC Upgrades construction is forecasted to begin in 2022.

### **10015124 Sunol Long Term Improvements**

The project includes redevelopment of the existing Sunol Yard and construction of a Watershed Center near the Sunol Water Temple. Most of the existing structures at the Sunol Yard date back to 1930 and were converted from the original purpose, residence and barn, to office and shop spaces. The structures contain lead-based paint, asbestos, bats, and bat guano, and did not meet current building, health, or safety codes. The project will demolish six existing dilapidated structures at the Sunol Yard and construct a LEED Gold administration building, shops, fuel station, backup generator system, truck wash station, paving and site restoration. Additional scope was requested for the Watershed Center that was not included as part of the construction contract. The scope is under review by Water Enterprise for consideration and budget. The scope includes backup generator to power the facility, 100 space parking lot, History terrace exhibit, picnic area restoration and fixtures, composing toilets, convert temporary construction areas to permanent areas for WSTD and NRD use and revisions to the interior exhibits. The scope of Center (Phase B) will consist of

the following: • Construction of a one-story LEED Gold facility that will include an interpretive display exhibit area, a freshwater stream profile aquarium, history display alcoves, a watershed discovery lab classroom, a community multi-purpose room, restrooms, an entry plaza, a reception area, patios, and administrative offices. • Construction of a 2.5-acre discovery trail area with native plant landscaping, irrigation, meandering trails, seating areas and water and landscape features. • Site restoration of the Temple area forecourt. • Construction of new stairs and ramps to the picnic area. • Installation of underground utilities. • Site restoration and paving

### **10015128 Millbrae Yard Laboratory and Shop Improvements**

SFPUC has determined that the existing Millbrae Administration Building must remain operational following a major earthquake, and therefore needs to be retrofitted or replaced to meet essential facility requirements. SFPUC also wants to expand the existing Millbrae Administration Building to merge and house the Water Enterprise staff and equipment from the Rollins Road Facility. This project is necessary to provide Water Enterprise personnel a long term and sustainable campus, and allow the consolidation of work groups for increased staff efficiency. This project will also alleviate shortage of program space, increase efficiency of operations, improve employee working environment with improved heating, ventilation, and air conditioning, improve employee health and safety, and enhance site and building security. A recent planning study has identified several alternatives to meet the project goals. The selected alternative for the Millbrae Yard campus improvements will be implemented in three phases. Phase 1 includes a new laboratory office and new south shop building to alleviate Water Enterprise undersized and outdated workspaces and desire to relocate mission-critical functions to code-compliant structures. This project will provide additional space in the laboratory building by constructing two additional floors on top of it to accommodate the relocation of all personnel from Rollins Road Facility. Phase 2 includes demolition of the existing Administration Building and construction of a new consolidated Administration Building adjacent to the new laboratory building to accommodate other Water Enterprise staff. Phase 3 includes new covered storage for materials and equipment. Only the scope of work for Phase 1 will be implemented under this project to meet near-term needs, minimize disruptions to operations, and allow gradual buildout of the master plan to stay within the 10-year CIP budget. The Phase 1 scope includes the following: • Construct a new 50,000 square foot 3-story laboratory building • Construction a new 12,800 square foot shop building • Renovate an existing 7,440 square foot warehouse • Perform site improvements such as driveways, hardscape, landscape, and parking (approximately 400 spaces)



## APPENDIX A. PROJECT DESCRIPTION

### WATER LOCAL

#### Water Transmission

##### **10033816 Potable Emergency Firefighting Water System**

This project provides funding for the design and construction of about 2 to 3 miles of large diameter earthquake resistant pipeline to improve the fire water and potable supply reliability in the western area of San Francisco, particularly in the Sunset and Richmond Districts. This project is part of a larger effort to construct approximately 14 miles of the Potable Emergency Firefighting Water System (PEFWS), which also includes two planned pump stations. Current funding will fund the aforementioned 2 to 3 miles of pipeline and design work for a Lake Merced Pump Station. The pipeline will be designed as a potable AWSS pipeline, meaning it will convey low pressure potable water with connections to the distribution system during normal operations but can be isolated with motorized valves and operate under high pressure for firefighting after a major seismic event or emergency conditions by activating associated pumps. This funding will provide planning and design through FY 22-23 with construction funding in FY24 and 25. Additional funding will be provided by existing Earthquake Safety & Emergency Response (ESER) general obligation bond funds, with additional funding possibly approved in the March 2020 ESER referendum. The total Local Water funding commitment to this project is \$55M with \$12M carryover from FY 18-19 and FY19-20 budgets.

##### **10033818 Town of Sunol Pipeline**

Since 2000 the SFPUC has replaced the majority of the Town of Sunol pipeline system through the Town of Sunol Fire Suppression project, except for two segments. This project will complete the replacement of the last two segments of the system, by replacing sections of the pipeline that crosses the Arroyo de Laguna Creek (Creek Crossing) and under Highway 680. The upstream section of pipeline that feeds both the potable line and fire suppression line to the Town of Sunol is exposed under the creek and in danger of failing under Highway 680. Pipeline failure at either location has significant consequences, since all fire and potable water in the Town of Sunol is dependent on the rehabilitation of this 12" line. This project will reduce maintenance from pipe breaks and have less main flushing which may lower impact on operating expenses. This project is broken up into two portions and the scope of work will include the following: Creek Crossing: •Replace approximately 550 feet of 12" diameter pipeline crossing Arroyo de Laguna Creek with 12" diameter Ductile Iron Pipe (DIP) class 53 •Open cut trench across the creek •New tie in points with gate valves •Creek restoration and tree removal in pipeline alignment Highway 680 Crossing: •MOU agreement with Alameda County Transportation Commission (ACTC) to replace existing 12" diameter Town of Sunol pipelines under Highway 680 for \$1.3M

##### **19063 Local Water Conveyance/Distribution System**

This long-term program funds management of linear assets in the potable water distribution system between transmission or storage and final customer service connection. 1. Main Replacement Program: replaces and renews feeder and distribution mains for the 1,230 miles of pipe distribution system. Improvements include replacement, rehabilitation, relining, and cathodic protection of all pipe size categories to extend or renew pipeline useful life. Coordination with construction projects by other City agencies, especially SFPUC Sewer and DPW Paving, is emphasized to optimize efficiencies and minimize customer disruptions. Starting in FY21-22, a new L-Taraval Transit Project has been created to provide separate funding for the main replacement project along this major transit corridor, where street improvement projects by other agencies (CalTrans, SFMTA, SFCTA, DPW) and are more expensive to implement due to their complexity, traffic and transit impacts, and multi-agency coordination. The L-

Taraval Project will provide separate project funding for the 4 miles of main replacement at a cost of \$6.0M per mile. Additionally, in FY21-22, a new Better Market Street Project has been created to provide separate funding for the water main replacement along the Market Street Corridor to be constructed over a period of 7 years with the assumption of 0.5 miles per year. The proposed budget will include the following: 1) replacement of distribution pipelines at \$4.5M per mile; 2) replacement of 1 mile with seismically reliable pipelines at \$6.0M per mile; and 3) Pipe relining at \$3M per mile. FY20 budget will be allocated from existing budget balance.

## Local Water Supply

### 10015239 Lake Merced Water Level Restoration

The project consists of the following subprojects. (1) The City of Daly City is proposing and working in coordination with the SFPUC to implement the Vista Grande Drainage Basin Improvements project to address storm related flooding in the Vista Grande Watershed Drainage Basin while providing the benefit of restoring connection to the natural watershed of Lake Merced, (2) The SFPUC is evaluating diversion of highly treated recycled water from the new Westside Recycled Water facility into Lake Merced to increase and stabilize lake levels.

### 10015240 San Francisco Groundwater Supply

This project consists of two phases, which combined will provide an annual average of 4 mgd of groundwater to San Francisco's municipal water supply, and improvements at the existing San Francisco Zoo Well No. 5. Phase 1 is divided in two separate contracts, which are Contracts A & B. Contract A work for building four new groundwater well stations in the western part of San Francisco is currently in the final construction phase. Contract B work for installing buried piping to connect three of these well stations to the Sunset Reservoir was completed and accepted on December 21, 2015. Groundwater from the fourth well station was piped to the nearby Lake Merced Pump Station, where it was distributed to both the Sunset Reservoir and Sutro Reservoir. Phase 2 has Contract C work for installing buried piping and converting two existing irrigation well facilities in Golden Gate Park to groundwater supply wells is currently in the final construction phase, and would be implemented after completion of the CUW30201, San Francisco Westside Recycled Water Project. Improvements at the existing San Francisco Zoo Well No. 5 were completed and accepted on February 15, 2007.

### 10015242 San Francisco Westside Recycled Water

This project includes all facilities to produce and deliver about 2 mgd of recycled water for irrigation use in the western end of San Francisco. The project includes a new recycled water treatment facility consisting of membrane filtration, reverse osmosis, and ultraviolet light disinfection; a 1.1 million gallon storage reservoir; distribution pumping facilities; and 5 to 6 miles of new pipelines.

## Local Tanks/Reservoir Improvements

### 10015223 College Hill Reservoir Outlet

This project provides funding for the design and construction of the College Hill Reservoir Outlet Structure and Pipeline Upgrade Project to address seismic, water quality, electrical, structural, and other deficiencies. This project includes installation of a new control valve vault; replacement of reservoir inlet and outlet piping; replacement of reservoir transmission pipelines up to Cortland Avenue; reservoir roof replacement; and miscellaneous piping, security, site access, electrical, instrumentation, and water quality improvements. This project is currently in final design phase with a 24-month construction duration starting in 2020. The estimated budget is \$18 million with \$14M in funding provided for FY1920 and additional \$3M provided for FY2021 and \$1M FY2021 for roof replacement.



## Pump Stations

### 10015231 Harding Park PS

This project funds long term improvements to the Harding Park Pump Station to increase reliability and correct conditions that have led to the premature corrosion and failure of critical components. The current design places the pumping facility on top of the recycled water reservoir leading to high humidity levels within the facility. This project will seal the reservoir from the pump room, improve the HVAC system for humidity control, and relocate critical electrical panel and components out of the pump room. The project will also modify the current electrical feed to allow for the safe maintenance of the water pump electrical components while leaving the buildings lighting and auxiliary loads powered.

## Buildings and Grounds

### 10037249 New CDD Headquarters

The City Distribution Division (CDD) Headquarters, currently located at 1990 Newcomb Avenue, San Francisco, was constructed in 1962. The majority of CDD's staff are located at Newcomb (approx. 260 people). Existing facilities include administrative offices, warehouse, shops, materials and equipment storage and vehicle fleet. CDD oversees the retail water distribution system with the City and County of San Francisco, responsible for the physical infrastructure of San Francisco's potable, auxiliary water system, groundwater, and recycled water systems. CDD's responsibilities include 24/7 emergency response to water main breaks and two-alarm or larger fires in addition to day-to-day operations and maintenance of over 1,250 miles of water main, 12 reservoirs, 9 pump stations, 7 hydro pneumatic stations, 6 tanks, the water meter program serving over 176,000 customers, and maintaining CDD's physical plant, equipment and vehicles and over 1,100 acres of grounds throughout the City.

## Emergency Firefighting Water System

### EFWS-PL EFWS PL - EFWS Pipelines

The Emergency Firefighting Water System (EFWS) includes several methods of delivering water to suppress fires during emergency situations. EFWS is vital for protecting against the loss of life, homes, and businesses from fire following an earthquake and non-earthquake multiple-alarm fires. One EFWS component is a high-pressure fire-suppression water system, formerly known as Auxiliary Water Supply System (AWSS), which was originally built in the decade following the catastrophic 1906 San Francisco earthquake. It consists of a resilient 135-mile high-pressure pipeline network, a high elevation reservoir, two large capacity tanks, two high-pressure seawater pumping stations, and manifolds that allow fireboats to inject Bay water into the City's pipelines. The Potable Emergency Firefighting Water System (PEFWS) will bring a seismically resilient high-pressure firefighting water system to the western neighborhoods of San Francisco, while also creating a seismically resilient pipeline that supplies drinking water to the west side during non fire situations. The proposed overall project will install over 14 miles of seismically resilient pipelines in multiple phases as funding is provided. The system will be capable of providing water to the SFFD firefighters at the high pressure needed to combat large fires after a seismic event. The proposed pipelines will be fed by pump stations delivering 30,000 gallons per minute with services to the Richmond and Sunset Districts. Fireboat manifolds allow fire boats to pump seawater from the bay into the EFWS. Existing fireboat manifolds at Fort Mason and Pier 33 ½ are located on piers of unknown condition and are likely susceptible to seismically induced failures. Rehabilitation of manifolds and connector pipelines is required at Fort Mason and Pier 33 ½ to provide adequate access for firefighters.

### EFWS-PS EFWS PS - EFWS Pump Station

The Emergency Firefighting Water System (EFWS) includes several methods of delivering water to

suppress fires during emergency situations. EFWS is vital for protecting against the loss of life, homes, and businesses from fire following an earthquake and non-earthquake multiple-alarm fires. One EFWS component is a high-pressure fire-suppression water system, formerly known as Auxiliary Water Supply System (AWSS), which was originally built in the decade following the catastrophic 1906 San Francisco earthquake. It consists of a resilient 135-mile high-pressure pipeline network, a high elevation reservoir, two large capacity tanks, two high-pressure seawater pumping stations, and manifolds that allow fireboats to inject Bay water into the City's pipelines.

The Potable Emergency Firefighting Water System (PEFWS) will bring a seismically resilient high-pressure firefighting water system to the western neighborhoods of San Francisco, while also creating a seismically resilient pipeline that can supply drinking water to the west side during non-fire situations. The proposed overall project will install over 14 miles of seismically resilient pipelines in multiple phases as funding is provided. The system will be capable of providing water to the SFFD firefighters at the high pressure needed to combat large fires after a seismic event. The proposed pipelines will be fed by pump stations delivering 30,000 gallons per minute with services to the Richmond and Sunset Districts.

## Appendix B. Water Enterprise Approved Project-Level Schedules Regional Programs

Project Name	Start	Finish	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
			F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F
<b>Water Regional Improvement Projects</b>	01-Jan-09	29-Jun-35											
<b>Water Treatment</b>	03-Mar-14	26-Feb-30											
10015064 SVWTP Short Term Improvements	03-Mar-14	17-May-2											
10033123 SVWTP Ozone (CUW27202)	27-Jun-17	30-Jun-28											
10037349 HTWTP Improvements Capital	02-Nov-20	28-Jun-24											
10037350 Regional Groundwater Treatment Improve	13-Aug-20	26-Feb-30											
10037628 SVWTP Polymer Feed Facility	01-Jul-21	01-Aug-2											
10038328 SVWTP Long Term Improvements	06-Jun-22	17-May-2											
<b>Water Transmission</b>	01-Jan-16	25-Aug-2											
10015071 Corrosion Control	01-Jan-16	31-Jan-28											
10015076 San Antonio Pump Station MCC Upgrade	12-May-16	19-Mar-25											
10015081 CSPL2 Reaches 2 and 3 Rehabilitation	12-Sep-16	18-Feb-27											
10034578 CSPL2 Reach 5 Lining Replacement	25-Feb-19	07-Apr-26											
10035029 As-Needed Pipeline Repair	01-Jul-20	25-Aug-2											
10036839 Pre-Stressed Concrete Cylinder Pipe (PCC	01-May-20	28-May-2											
10036840 BDPL 1-4 Lining Repair	12-Sep-16	25-Aug-2											
<b>Water Supply &amp; Storage</b>	11-Dec-13	29-Jun-35											
10015091 Pilarcitos Dam Improvements	07-Apr-14	29-Jun-29											
10015092 San Andreas Dam Facility Improvements	11-Dec-13	30-Dec-33											
10015232 Merced Manor Reservoir Facilities Repair	03-Jul-23	30-Jun-31											
10036998 Turner Dam and Reservoir Improvements	01-Oct-20	29-Jun-35											
<b>Watershed and Lands Management</b>	31-Oct-12	02-Aug-2											
10015108 Sneath Lane Gate/North San Andreas	01-Feb-21	02-Aug-2											
10015110 EBRPD Water System	02-Jun-14	31-Oct-22											
10015113 Southern Skyline Blvd Ridge Trail Extens	31-Oct-12	02-Feb-24											
10030771 San Andreas Service Road Upgrades	30-Jun-16	31-Dec-26											
<b>Buildings and Grounds</b>	01-Jan-09	30-Mar-29											
10015124 Sunol Long Term Improvements	01-Jan-09	14-Aug-2											
10015128 Millbrae Yard Laboratory and Shop Impro	02-Nov-15	30-Mar-29											
10033555 Rollins Road Building Renovations (CUW	01-Mar-18	30-Jun-22											
10034526 Millbrae Warehouse Settlement & Admin.	03-Jan-17	30-Sep-24											



## Appendix B. Water Enterprise Approved Project-Level Schedules Local Programs

Project Name	Start	Finish	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
			F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F	F F F F
<b>Water Local Improvement Projects</b>	03-Mar-03	30-Jun-32											
Local Water Conveyance / Distribution System	01-Jul-10	30-Jun-32											
10033816 Potable Emergency Firefighting Water Sys	12-Aug-19	30-Jun-28	■	■	■	■	■	■	■	■	■	■	■
10033818 Town of Sunol Pipeline	17-Jun-19	04-Apr-25	■	■	■	■	■	■	■	■	■	■	■
19063 Local Water Conveyance/Distribution System	01-Jul-10	30-Jun-32											
Local Water Supply	03-Mar-03	03-Mar-27											
10015239 Lake Merced Water Level Restoration	16-Jun-03	03-Mar-27	■	■	■	■	■	■	■	■	■	■	■
10015240 San Francisco Groundwater Supply	16-Jun-03	30-Jun-22	■	■	■	■	■	■	■	■	■	■	■
10015242 San Francisco Westside Recycled Water	03-Mar-03	06-Apr-23	■	■	■	■	■	■	■	■	■	■	■
Local Tanks/Reservoir Improvements	24-Jan-13	24-Apr-24											
10015223 College Hill Reservoir Outlet	24-Jan-13	24-Apr-24	■	■	■	■	■	■	■	■	■	■	■
Pump Stations	12-May-21	03-Apr-26											
10015231 Harding Park PS	12-May-21	03-Apr-26	■	■	■	■	■	■	■	■	■	■	■
Buildings and Grounds	01-Feb-20	28-Jun-28											
10037249 New CDD Headquarters	01-Feb-20	28-Jun-28	■	■	■	■	■	■	■	■	■	■	■
Emergency Firefighting Water System (EFWS)	01-Apr-11	29-Dec-28											
10015480 2014 AUXILIARY WATER SUPPLY SYS	06-Nov-14	30-Dec-22	■	■	■	■	■	■	■	■	■	■	■
10015482 AUXILIARY WATER SUPPLY SYSTEM	01-Apr-11	30-Jun-22	■	■	■	■	■	■	■	■	■	■	■
EFWSPS EFWS Pump Stations	04-Apr-11	29-Dec-28											
EFWSPL EFWS Pipelines	04-Apr-11	29-Dec-28											



**APPENDIX C. LIST OF ACRONYMS**

<b>AWSS</b>	Auxiliary Water Supply System	<b>SCADA</b>	Supervisory Control and Data Acquisition
<b>BDPL</b>	Bay Division Pipeline	<b>SF</b>	San Francisco
<b>BDPL 1 - 4</b>	Bay Division Pipeline Numbers 1 - 4	<b>SFPUC</b>	San Francisco Public Utilities Commission
<b>CalTrans</b>	California Department of Transportation	<b>SFPW</b>	San Francisco Public Works (formerly SFDPW)
<b>CATEX</b>	Categorical Exemption	<b>SVWTP</b>	Sunol Valley Water Treatment Plant
<b>CDD</b>	City Distribution Division	<b>T&amp;O</b>	Taste and Odor
<b>CEQA</b>	California Environmental Quality Act	<b>TBD</b>	To be determined
<b>CER</b>	Conceptual Engineering Report	<b>WE</b>	Water Enterprise
<b>CIP</b>	Capital Improvement Program	<b>WECIP</b>	Water Enterprise Capital Improvement Program
<b>CM</b>	Construction Management	<b>WSIP</b>	Water System Improvement Program
<b>CM/GC</b>	Construction Manager/General Contractor	<b>WSTD</b>	Water Supply and Treatment Division
<b>CSPL2</b>	Crystal Springs Pipeline Number 2		
<b>DIP</b>	Ductile Iron Pipe		
<b>DSOD</b>	Division of Safety of Dams (State of California)		
<b>EBRPD</b>	East Bay Regional Park District		
<b>EFWS</b>	Emergency Firefighting Water System		
<b>EIR</b>	Environmental Impact Report		
<b>ESER</b>	Earthquake Safety and Emergency Response		
<b>FY</b>	Fiscal Year		
<b>GGNRA</b>	Golden Gate National Recreation Area		
<b>HTWTP</b>	Harry Tracy Water Treatment Plant		
<b>HVAC</b>	Heating, Ventilation, and Air Conditioning		
<b>JOC</b>	Job Order Contract		
<b>LEED</b>	Leadership in Energy and Environmental Design		
<b>MCC</b>	Motor Control Centers		
<b>MGD</b>	Million Gallons per Day		
<b>MND</b>	Mitigated Negative Declaration		
<b>MOU</b>	Memorandum of Understanding		
<b>NEPA</b>	National Environmental Policy Act		
<b>NRD</b>	Natural Resources Division		
<b>NTP</b>	Notice to Proceed		
<b>PEFWS</b>	Potable Emergency Firefighting Water System		
<b>PS</b>	Pump Station		
<b>PUC</b>	Public Utilities Commission		
<b>RFP</b>	Request for Proposal		
<b>ROW</b>	Right-of-Way		
<b>SAPL1</b>	San Antonio Pipeline Number 1		
<b>SAPL2</b>	San Antonio Pipeline Number 2		
<b>SAPS</b>	San Antonio Pump Station		

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