

DATE: January 14, 2022

TO: Commissioner Anson Moran, President
Commissioner Newsha Ajami, Vice President
Commissioner Sophie Maxwell
Commissioner Tim Paulson
Commissioner Ed Harrington

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

RE: Water Enterprise Capital Improvement Program
Quarterly Report (1st Quarter / FY 2021-2022)

Enclosed please find the Water Enterprise Capital Improvement Program (WECIP) Quarterly Report for the 1st Quarter (Q1) of Fiscal Year (FY) 2021-2022. 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, 2021 to September 30, 2021. This quarterly report provides a summary update on both Regional and Local Water Enterprise CIP projects.

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 2021 Revised Baseline, presented to and adopted by this Commission on April 13, 2021 under Resolution No. 21-0055.

Quarterly Report Format Changes

In response to the Commission's request for improved tracking of program history and project performance status reporting for greater accountability, starting with the Q1 FY21-22 Quarterly Reports, staff incorporated the following revisions to the format of the CIP Quarterly Reports across all capital programs with the exception of the Water System Improvement Program Quarterly Reports, since that program is ninety-nine percent complete:

- This report includes an Executive Summary, which provides a high level summary of the program current status and key update that may be newsworthy or noticeable to the Commission, Stakeholders, and public.

London N. Breed
Mayor

Anson Moran
President

Newsha Ajami
Vice President

Sophie Maxwell
Commissioner

Tim Paulson
Commissioner

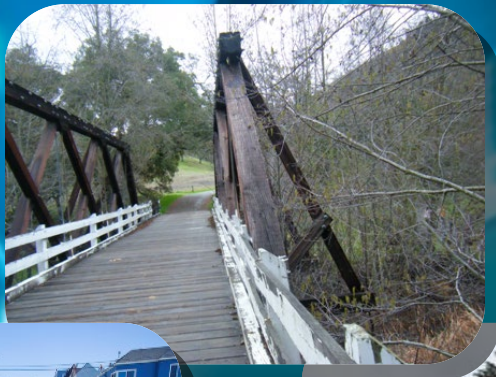
Ed Harrington
Commissioner

Dennis J. Herrera
General Manager

- This report now includes a new section titled as “Budget and Schedule Trend Summary,” (Section 5 of this report). The intent of this section is to provide a comprehensive view of each project’s budget and schedule status at milestones from initiation throughout implementation as projects are progressing toward completion. The new Budget and Schedule Trend Summary Table (Table 5) contains all approved Water Enterprise CIP Projects that are active in any of planning, design, bid and award, or construction phases of the project.
- The Cost Summary Table 3.1 in Section 3 of this report contains a new column, titled “Cost Variance Over Reporting Period,” intended to highlight forecasted budget changes during the reporting period and to provide new quarterly information “at a glance”.
- The Project Performance Summary Table 6, in Section 6 of the report, includes an additional column titled “% Cost Changes.” To move away from “traffic light” indicators but still provide useful information, projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted to visually draw attention to these projects.
- Project Status Reports are now provided in Section 7 of the report; the project order in this Section 7 is consistent with the order of projects listed in Tables 5 and 6 to facilitate consistent sequencing of projects throughout the report.



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



QUARTERLY REPORT

Water Enterprise Capital Improvement Program
Q1 FY 2021 | 2022
July 2021 — September 2021



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, 2021 to September 30, 2021.

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 2021 Revised Baseline, presented to and adopted by this Commission on April 13, 2021 under Resolution No. 21-0055.

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 as follows: one (1) project not initiated, twenty (20) projects in planning or design, three (3) projects in construction, and one (1) project in closeout.

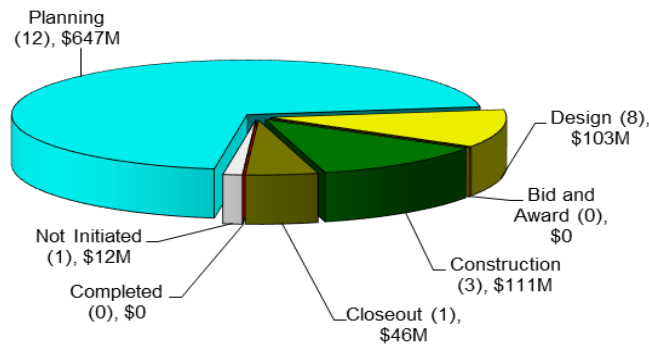


Figure A Total Current Approved Budget for Regional Projects Active in Each Phase

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

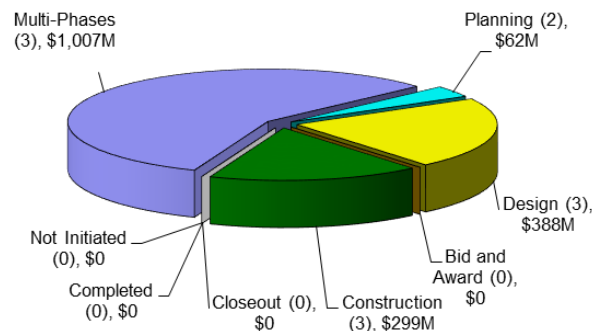


Figure B Total Current Approved Budget for Local Projects Active in Each Phase

The following Tables provides a high- level summary of the cost and schedule status for these programs.

Table A. Program Cost Summary

Programs	Expenditures To Date (\$ Million) (A)	Current Approved Budget (\$ Million) (B)	Q1/FY21-22 Forecasted Costs (\$ Million) (C)	Cost Variance (\$ Million) (D = B - C)	Variance Over Reporting Period* (\$ Million) (E)
Regional Program	\$164.26	\$918.79	\$951.76	(\$32.97)	(\$32.97)
Local Program	\$636.29	\$1,755.36	\$1,800.44	(\$45.07)	(\$45.07)
Programs Total	\$800.56	\$2,674.16	\$2,752.19	(\$78.04)	(\$78.04)

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

Table B 2021 Approved vs. Current Forecast Schedule Dates

Programs	2021 Approved Project Start	Actual Start	2021 Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Regional Program	01/01/09	01/01/09✓	06/29/35	06/29/35	-
Local Program	03/03/03	03/03/03✓	12/29/28	12/29/28	-
Overall Water Enterprise CIP	03/03/03	03/03/03✓	06/29/35	06/29/35	-

Program Key Update:

The key update for the Regional Water Enterprise Capital Improvement Program includes:

- In general, there were minor schedule impacts to projects in planning, design, and construction due to the need for consultants and contractors to submit revised site-specific Health and Safety Plans and implement protocols to address COVID-19 requirements.
- The planning work continued with the Conceptual Engineering and 10% design for the Sunol Valley Water Treatment Plant (SVWTP) Ozone project. The third round of treatability testing was nearly complete as the team awaits laboratory analysis in order to begin drafting the summary report. This analysis is expected to provide information to help mitigate bromate and halo acetic acid (HAA, a regulated disinfection byproduct) formation.
- Contractor has demobilized and is addressing the remaining punch list items for San Andreas Pipeline No. 2 Lockbar Replacement project. Final Completion anticipated to be achieved early next quarter.
- The Alternatives Analysis Report for the Crystal Springs Pipeline No. 2 (CSPL2) Reach 5 project was presented to the Technical Steering Committee and the recommended alternative was approved to be moved forward to the Conceptual Engineering phase. For the CSPL2

Reaches 2 and 3 project, geotechnical and survey work continued. Exploratory excavations for corrosion assessment were completed and a report is being drafted.

- The Southern Skyline Boulevard Ridge Trail Extension project team completed the 100% Design plans and technical specifications.
- Sunol Yard (Contract A): The draft project close-out dossier was prepared and is being reviewed. Watershed Center (Contract B): The construction work on the building interior electrical, HVAC, pond filter system, insulation, drywall, painting, bathroom tiling, bathroom fixtures, aquarium, and topping slab continued. Construction work on the exterior roofing system, PV system, pond and stream, pathways, bench seating, irrigation and electrical systems, Temple forecourt, site paving and PG&E power continued. Coordination on the exhibits, public art piece, bluestone paver etching and building exterior glass continued.

The key update for the Local Water Enterprise Capital Improvement Program includes:

- The forecast mileage for FY22 is 7.5 miles. The Capital Improvement Plan (CIP) Budget for FY22 is \$53M. Projects currently under construction during Q1 FY22 include the City streets of Pierce Street, Castro Street, 17th Street, Baker Street, 19th Avenue, and Casitas.
- Construction Notice to Proceed was issued to Ranger Pipelines on September 27, 2021 for the College Hill Reservoir Outlet. The overall construction duration is 755 calendar days with a substantial completion date of August 22, 2023. The Contractor has completed many of the major construction submittals including health and safety plan, baseline schedule, reservoir shutdown request, and material submittals and is mobilizing for initial clearing and grubbing and potholing activities in late November 2021.
- Schematic design will be completed by Public Works by the end of the year for the New CDD Headquarters. The Request for Proposals for design services was re-advertised in August with proposals due in October. The Construction Management/General Contractor (CM/GC) Request for Qualifications/Proposals (RFQ/P) is scheduled to be re-advertised before the end of the year.
- The San Francisco Westside Recycled Water project made substantial progress on three construction contracts:
 - At the treatment facility (Contract A): Miscellaneous electrical and mechanical work continued, and a revised start-up testing and commissioning sequence was submitted and reviewed by the project team. Classroom training sessions for operations, engineering, and maintenance staff were initiated, and work on the Operations Manual and Standard Operating Procedures (SOPs) continued.
 - Distribution Pump Station and Reservoir (Contract B): The reservoir water tightness test was completed. Electrical and mechanical work inside the pump station continued.
 - Irrigation System Retrofit (Contract D): The installation of a new pipeline on Transverse Drive was completed. The cross-connection control testing of Golden Gate Park continued, while the testing of the DeYoung and Legion of Honor museums were completed.

Page intentionally left blank.

Quarterly Report

Water Enterprise Capital Improvement Program

TABLE OF CONTENTS

I. REGIONAL CAPITAL IMPROVEMENT PROGRAM

1. Capital Improvement Program Description
2. Capital Improvement Program Status
3. Capital Improvement Program Cost Summary
4. Capital Improvement Program Schedule Summary
5. Budget and Schedule Trend Summary
6. Project Performance Summary
7. Projects Status Report
8. On-Going Construction
9. Projects In Close-Out
10. Completed Projects

II. LOCAL CAPITAL IMPROVEMENT PROGRAM

1. Capital Improvement Program Description
2. Capital Improvement Program Status
3. Capital Improvement Program Cost Summary
4. Capital Improvement Program Schedule Summary
5. Budget and Schedule Trend Summary
6. Project Performance Summary
7. Projects Status Report
8. On-Going Construction
9. Projects In Close-Out
10. Completed Projects

APPENDICES

- A. Project Descriptions
- B. Project Level Approved Schedule
- C. List of Acronyms



I. Regional Capital Improvement Program



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 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 (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

I. Regional WECIP Quarterly Report

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.

2. CAPITAL IMPROVEMENT PROGRAM STATUS

This Quarterly Report presents the progress made on Regional Water projects between July 1, 2021 and September 30, 2021. This document serves as the first (1st) Quarterly Report in Fiscal Year 2021-2022 (FY22) published for the Water Enterprise Capital Improvement Program.

On April 13, 2021, the SFPUC approved the Water Enterprise CIP 2021 Revised Baseline budget of \$918.8 million for Regional projects and \$1,755.4 million for Local projects (2021 Approved Baseline). The 2021 Approved Baseline is a subset of the Regional and Local Water Enterprise 10-year CIP for FY2021-2030 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 April 13, 2021. The status of projects included in the 2021 Approved Baseline are discussed in this quarterly report.

Going forward, changes to the approved baseline program and project scopes, schedules, and budgets will be proposed as part of the 10-year CIP that is updated every two years and approved by the SFPUC Commission. The proposed revisions to the program will become the new baseline for project scopes, schedules, and budgets in the beginning of the new fiscal year following SFPUC Commission approval.

Figure 2.1 shows the total Current Approved Budget for the 25 Regional projects in each phase of the program as of September 30, 2021. The number of projects currently active in each phase is shown in parentheses.

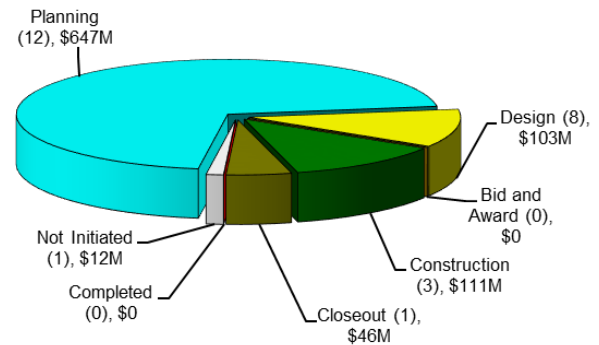


Figure 2.1 Total Current Approved Budget for Regional Projects Active in Each Phase

Figure 2.2 shows the number of Regional projects in the following stages as of September 30, 2021: Pre-construction, Construction, and Post-construction.

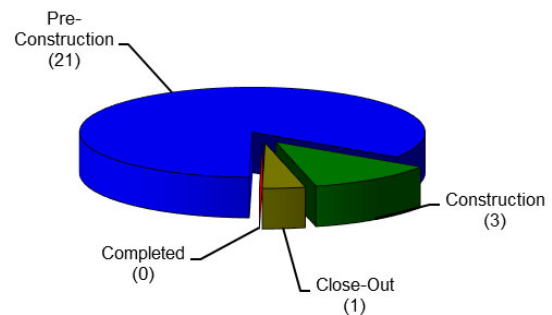


Figure 2.2 Number of Regional Projects in Pre-construction, Construction, and Post-construction

Figure 2.3 summarizes the environmental review status of the 25 Regional projects as of September 30, 2021.

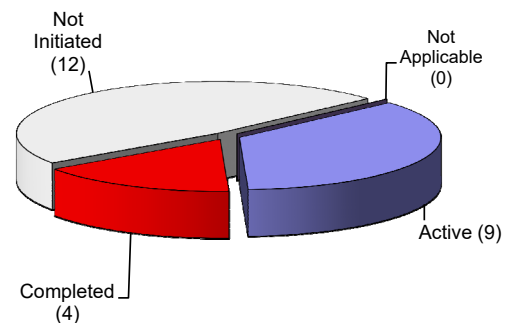


Figure 2.3 Regional Program Environmental Review

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/FY21-22 Forecasted Costs, Cost Variance between the Current Approved Budgets and Forecasted Costs, and Variance Over Reporting Period (difference between cost forecasts reported in Q4/FY20-21 and Q1/FY21-22).

The total Current Approved Budget (including Regional and Local Programs) and Current Forecasted Cost at completion are \$2,674.2 million, and \$2,752.2 million, respectively. The Current Approved Budget and Forecasted Cost at completion for only the Regional Water Program (including construction contingency) are \$918.8 million and \$951.8 million, respectively.

The overall Regional Water Program negative Cost Variance of \$32.9M in Table 3 can be attributed to the following factors:

- 10015071 Corrosion Control forecasted cost increased by \$11.6M due to increase of PG&E requirements and resulting higher costs for new power facilities at multiple sites.
- 10030771 SA-1 Service Road/Ingoing Road forecasted cost increased by \$6.2M due to the updated construction cost and additional slope stabilization work that is required.
- 10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC forecasted cost increased by \$10.6M due to the projected increase in construction associated with relocating HVAC system and addressing some seismic design issues.
- 10015124 Sunol Long Term Improvements forecast cost increased by \$4.5M due to additional scope items requested for the Alameda Creek Watershed Center.

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

Table 3 Program Cost Summary

Programs	Expenditures To Date (\$ Million) (A)	Current Approved Budget (\$ Million) (B)	Q1/FY21-22 Forecasted Costs (\$ Million) (C)	Cost Variance (\$ Million) (D = B - C)	Variance Over Reporting Period* (\$ Million) (D)
Regional Water Program	\$164.26	\$918.79	\$951.76	(\$32.97)	(\$32.97)
Water Treatment	\$12.84	\$295.80	\$295.80	-	-
Water Transmission	\$52.50	\$217.01	\$228.64	(\$11.64)	(\$11.64)
Water Supply & Storage	\$5.07	\$81.86	\$81.86	-	-
Watershed & Lands Management	\$7.43	\$43.45	\$49.70	(\$6.25)	(\$6.25)
Buildings and Grounds	\$86.43	\$280.67	\$295.75	(\$15.08)	(\$15.08)
Local Water Program	\$636.29	\$1,755.36	\$1,800.44	(\$45.07)	(\$45.07)
PROGRAM TOTAL	\$800.56	\$2,674.16	\$2,752.19	(\$78.04)	(\$78.04)

* Negative number is reflecting cost increases since last quarter, and positive number is reflecting cost reduction since last quarter.

4. CAPITAL IMPROVEMENT PROGRAM SCHEDULE SUMMARY

Figure 4 compares the 2021 Approved Schedule and the Current Forecast Schedule for the Regional Water CIP. As shown in Table 4, the 2021 Approved and Forecasted Schedule completion for the overall Water Enterprise CIP (including Regional and Local Programs) are each in June 2035. The 2021 Approved and Forecasted Schedule completion for the Regional Water CIP alone are also each in June 2035.

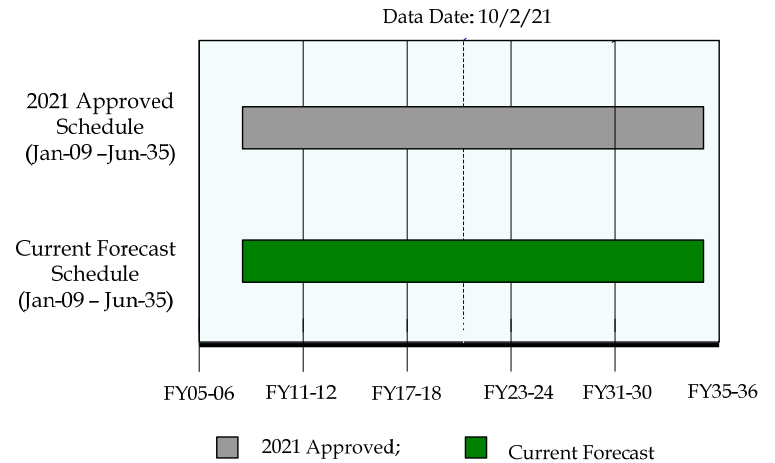


Figure 4. Regional Program Schedule Summary

Table 4. 2021 Approved vs. Current Forecast Schedule Dates

Program	2021 Approved Project Start	Actual Start	2021 Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Regional Program	01/01/09	01/01/09✓	06/29/35	06/29/35	-
Local Program	03/03/03	03/03/03✓	12/29/28	12/29/28	-
Overall Water Enterprise CIP	03/03/03	03/03/03✓	06/29/35	06/29/35	-

5. BUDGET AND SCHEDULE TREND SUMMARY

Starting with the Q1 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 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 Close-Out, or Completed.

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

- The SVWTP Polymer Feed Facility completed the 65% design.
- The Corrosion Control Phase 2 subproject completed 95% design.
- The Southern Skyline Blvd Ridge Trail Extension completed 100% design.

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 ¹		Current Status	
	Approved Budget	Approved Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
WECIP - Regional														
Water Treatment														
10033123 SVWTP Ozone	FY21-30		06/27/17		10/22/21		04/15/22		01/06/23		01/02/24		Q1-FY21-22	
	\$165.1	06/30/27	\$115	09/09/24	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$165.1	06/30/27
10015064 SVWTP Phase 3 and 4	FY21-30		03/03/14		06/30/22		10/04/22		03/15/23		03/12/24		Q1-FY21-22	
	\$70.1	06/30/26	\$7.1	10/01/18	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$70.1	06/30/26
10037628 SVWTP Polymer Feed Facility	FY21-30		07/16/16 ²		06/30/19 ²		08/17/20 ²		04/21/22		11/08/22		Q1-FY21-22	
	\$7.5	09/27/24	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	\$7.5	09/27/24
10037349 HTWTP Improvements Capital	FY21-30		11/02/20		06/29/21		10/13/21		05/20/22		12/30/22		Q1-FY21-22	
	\$14.4	06/28/24	\$14.4	06/28/24	\$14.4	06/28/24	TBD	TBD	TBD	TBD	TBD	TBD	\$14.4	06/28/24
10037350 Regional Groundwater Treatment Improvement	FY21-30		08/13/20		08/13/24		03/04/25		11/10/25		04/27/26		Q1-FY21-22	
	\$38.6	12/27/29	\$38.6	12/27/29	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$38.6	12/27/29
Water Transmission														
10034578 CSPL2 Reach 5 Lining Replacement	FY21-30		02/25/19		10/25/21		02/22/22		10/28/22		07/11/23		Q4 - FY21-22	
	\$13	11/30/22	\$12.8	11/30/22	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$13.0	09/19/25

Footnotes:

1. This represents Forecasted project cost and project completion date at the time of award of construction contract (or award of CM/GC scope).
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 ¹		Current Status	
	Approved Budget	Approved Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10035029 As-Needed Pipeline Repairs	FY21-30		10/22/16		06/30/21		10/20/21		06/13/22		03/22/23		Q1-FY21-22	
	\$6.8	08/25/28	\$6.8	08/25/28	\$6.8	08/25/28	TBD	TBD	TBD	TBD	TBD	TBD	\$6.8	08/25/28
10036839 BDPL4 PCCP Repair	FY21-30		05/01/20		12/30/21		02/04/22 ²		03/07/22		07/12/22		Q1-FY21-22	
	\$54.7	11/22/23	\$54.7	11/22/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$54.7	11/22/23
10036840 BDPL 1-4 Lining Repair	FY21-30		09/12/16		06/30/21		4/30/22 ²		07/31/22		03/24/23		Q1-FY21-22	
	\$9.3	8/25/28	\$9.3	8/25/28	\$9.3	8/25/28	TBD	TBD	TBD	TBD	TBD	TBD	\$9.3	08/25/28
10015071 Corrosion Control <i>Phase I</i> <i>Phase II</i> <i>Phase III</i>	FY21-30		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) 08/01/22 (Phase II) 08/01/25 (Phase III)		Q1-FY21-22	
	\$24.9	12/29/34	\$24.9	12/29/34	\$24.9	12/29/34	\$24.9	12/29/34	\$24.9	12/29/34	\$24.9	12/29/34	\$36.5	01/31/28
	FY21-30		05/12/16		NA ³		01/11/22		03/31/22		06/05/23		Q1-FY21-22	
10015076 San Antonio Pump Station MCC Upgrades	FY21-30		05/12/16		NA ³		01/11/22		03/31/22		06/05/23		Q1-FY21-22	
	\$12.5	03/19/25	\$7.2	01/27/23	NA	NA	TBD	TBD	TBD	TBD	TBD	TBD	\$12.5	03/19/25
10015081 CSPL2 Reaches 2 and 3 Rehabilitation	FY21-30		09/12/16		04/04/22		08/19/22		08/09/23		03/12/24		Q4 - FY21-22	
	\$55.9	10/10/23	\$55.9	10/10/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$50.0	06/12/26
Water Supply & Storage														
10036998 Turner Dam and Reservoir Improvements	FY21-30		10/01/20		06/30/27		06/29/28		12/31/30		01/02/32		Q1-FY21-22	
	\$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. This represents Forecasted 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.

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction ¹		Current Status	
	Approved Budget	Approved Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10015091 Pilarcitos Dam Improvements	FY21-30		04/07/14		06/30/23		02/08/24		02/07/25		01/02/26		Q1-FY21-22	
	\$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 <i>Scope I</i> <i>Scope II</i>	FY21-30		12/11/13 ³		09/29/23 ³		09/30/24 ³		05/26/26 ³		07/1/27 (Scope I) 07/2/29 (Scope II)		Q1-FY21-22	
	\$32.2	12/30/33	\$26.8	04/20/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$32.2	12/30/33
Watershed & Lands Management														
10015110 EBRPD Water System	FY21-30		06/02/14		01/31/19		08/09/19 ²		12/02/19		05/10/21		Q1-FY21-22	
	\$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	\$5.4	10/31/22	\$5.4	10/31/22
10015108 Sneath Lane Gate/North San Andreas	FY21-30		02/01/21		01/31/22		10/16/24		05/09/25		01/02/26		Q1-FY21-22	
	\$6.7	01/27/28	\$6.7	01/27/28	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$6.7	08/02/27
10015113 Southern Skyline Blvd Ridge Trail Extension	FY21-30		10/31/12		03/09/15		9/10/15 ²		01/05/18		05/02/22		Q1-FY21-22	
	\$21.8	09/11/23	\$18.7	02/25/19	\$18.7	02/25/19	\$18.7	02/25/19	\$19.3	07/22/21	TBD	TBD	\$21.8	09/11/23
10030771 SA-1 Service Road/Ingoing Road	FY21-30		06/30/16		12/30/21		05/18/22		02/27/23		01/02/24		Q1-FY21-22	
	\$9.6	12/31/26	\$9.6	12/31/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$15.8	12/31/26
Buildings and Grounds														
10033555 Rollins Road Building Renovations	FY21-30		03/01/18		05/31/19		11/16/20		01/28/21		04/01/21		Q1-FY21-22	
	\$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	06/30/22

Footnotes:

1. This represents Forecasted 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 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 ¹		Current Status	
	Approved Budget	Approved Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC	FY21-30		1/3/17		12/29/17 (Scope I) 01/2/18 (Scope II)		12/29/18(Scope I) 02/11/22 (Scope II)		08/03/20(Scope I) 07/27/22 (Scope II)		03/09/21 (Scope I) 01/10/23(Scope II)		Q1-FY21-22	
<i>Scope I</i> <i>Scope II</i>	\$5.5	11/30/23	\$5.5	11/30/23	\$5.5	11/30/23	\$5.5	11/30/23	\$5.5	11/30/23	\$5.5	11/30/23	\$16.1	09/30/24
10015124 Sunol Long Term Improvements	FY21-30		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)		Q4 - FY21-22	
<i>Scope I</i> <i>Scope II</i>	\$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	\$91.7	09/01/21	\$104.9	08/14/23
10015128 Millbrae Yard Laboratory and Shop Improvements	FY21-30		11/02/15		10/03/22		04/17/23		07/19/24		02/11/25		Q1-FY21-22	
	\$169.6	03/31/28	\$24.5	05/03/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$169.6	03/30/29

Footnotes:

1. This represents Forecasted project cost and project completion date at the time of award of construction contract (or award of CM/GC scope).

6. PROGRAM PERFORMANCE SUMMARY*

All costs are shown in \$1,000s as of 10/02/21

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 Project Completion Date (h) (+)	Current Approved Completion (i) (++)	Current Forecast Completion (j)	Schedule Variance (Days) (k = i - j) (+++)
Water Treatment											
10033123 - SVWTP Ozone (CUW27202)	PL	\$ 165,130	\$ 165,130	\$ 165,130	\$ 4,522	-	0%	06/30/27	06/30/27	06/30/27	0
10015064 - SVWTP Phase 3 and 4	PL	\$ 70,132	\$ 70,132	\$ 70,132	\$ 7,824	-	0%	06/30/26	06/30/26	06/30/26	0
10037628 - SVWTP Polymer Feed Facility	DS	\$ 7,537	\$ 7,537	\$ 7,537	\$ 117	-	0%	09/27/24	09/27/24	09/27/24	0
10037349 - HTWTP Improvements Capital	DS	\$ 14,404	\$ 14,404	\$ 14,404	\$ 251	-	0%	06/28/24	06/28/24	06/28/24	0
10037350 - Regional Groundwater Treatment Improvement	PL	\$ 38,600	\$ 38,600	\$ 38,600	\$ 125	-	0%	12/27/29	12/27/29	12/27/29	0
Water Transmission											
10034578 - CSPL2 Reach 5 Lining Replacement	PL	\$ 13,031	\$ 13,031	\$ 13,031	\$ 783	-	0%	09/19/25	09/19/25	09/19/25	0
10035029 - As-Needed Pipeline Repairs	DS	\$ 6,795	\$ 6,795	\$ 6,795	\$ 184	-	0%	08/25/28	08/25/28	08/25/28	0
10036839 - BDPL4 PCCP Repair	PL	\$ 54,750	\$ 54,750	\$ 54,750	\$ 152	-	0%	11/22/23	11/22/23	11/22/23	0
10036840 - BDPL 1-4 Lining Repair	DS	\$ 9,350	\$ 9,350	\$ 9,350	\$ 155	-	0%	08/25/28	08/25/28	08/25/28	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	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 FY21-30.
- (++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY21-30, 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 Project Completion Date (h) (+)	Current Approved Completion (i) (++)	Current Forecast Completion (j)	Schedule Variance (Days) (k = i - j) (+++)
Water Transmission											
10015071 - Corrosion Control	DS	\$ 24,900	\$ 24,900	\$ 36,536	\$ 7,483	(\$11,636)	-47%	12/29/34	12/29/34	01/31/28	2524
10015076 - San Antonio Pump Station MCC Upgrades	DS	\$ 12,500	\$ 12,500	\$ 12,500	\$ 726	-	0%	03/19/25	03/19/25	03/19/25	0
10015081 - CSPL2 Reaches 2 and 3 Rehabilitation	PL	\$ 50,041	\$ 50,041	\$ 50,041	\$ 1,494	-	0%	06/12/26	06/12/26	06/12/26	0
Water Supply & Storage											
10036998 - Turner Dam and Reservoir Improvements	PL	\$ 7,500	\$ 7,500	\$ 7,500	\$ 338	-	0%	06/29/35	06/29/35	06/29/35	0
10015091 - Pilarcitos Dam Improvements	PL	\$ 30,087	\$ 30,087	\$ 30,087	\$ 3,462	-	0%	06/29/29	06/29/29	06/29/29	0
10015092 - San Andreas Dam Facility Improvements	PL	\$ 32,195	\$ 32,195	\$ 32,195	\$ 1,268	-	0%	12/30/33	12/30/33	12/30/33	0
Watershed & Lands Management											
10015110 - EBRPD WATER SYSTEM	CN	\$ 5,376	\$ 5,376	\$ 5,376	\$ 1,754	-	0%	10/31/22	10/31/22	10/31/22	0
10015108 - Sneath Lane Gate/North San Andreas	PL	\$ 6,698	\$ 6,698	\$ 6,698	\$ 43	-	0%	01/27/28	01/27/28	08/02/27	178

* 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	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 FY21-30.
- (++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY21-30, 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 Project Completion Date (h) (+)	Current Approved Completion (i) (++)	Current Forecast Completion (j)	Schedule Variance (Days) (k = i - j) (+++)
Watershed & Lands Management											
10015113 - Southern Skyline Blvd Ridge Trail Extension	DS	\$ 21,805	\$ 21,805	\$ 21,805	\$ 5,186	-	0%	09/11/23	09/11/23	09/11/23	0
10030771 - SA-1 Service Road/Ingoing Road	PL	\$ 9,568	\$ 9,568	\$ 15,817	\$ 446	(\$6,249)	-65%	12/31/26	12/31/26	12/31/26	0
Buildings and Grounds											
10033555 - Rollins Road Building Renovations (CUW27703)	CN	\$ 5,192	\$ 5,192	\$ 5,192	\$ 2,912	-	0%	06/30/22	06/30/22	06/30/22	0
10034526 - Millbrae Warehouse Settlement & Admin. Bldg. HVAC	DS	\$ 5,500	\$ 5,500	\$ 16,080	\$ 537	(\$10,580)	-192%	11/30/23	11/30/23	09/30/24	(305)
10015124 - Sunol Long Term Improvements	CN	\$ 100,414	\$ 100,414	\$ 104,914	\$ 81,002	(\$4,500)	-4%	09/13/22	09/13/22	08/14/23	(335)
10015128 - Millbrae Yard Laboratory and Shop Improvements	PL	\$ 169,563	\$ 169,563	\$ 169,563	\$ 1,974	-	0%	03/31/28	03/31/28	03/30/29	(364)

* 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	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 FY21-30.
(++) Current Approved Budget and Schedule: The budget and schedule approved as part of 10-year CIP for FY21-30, 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.

I. Regional WECIP Quarterly Report

7. PROJECTS 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.

Program: Water Treatment	Project Status: Planning	Environmental Status: Not Initiated (CatEx)		
Project Cost:		Project Schedule:		
Approved	 \$165.13 M	Approved Jun-17		Jun-27
Forecast	 \$165.13 M	Forecast Jun-17		Jun-27
Actual	 \$4.52 M	Project Percent Complete: 2.6%		
				
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/02/23	08/09/23	01/02/24	12/31/26

Progress and Status:

During this reporting period, the planning work is drawing to a close, with the Conceptual Engineering and 10% design almost complete. The third round of treatability testing was nearly completed in the quarter, and the team awaits laboratory analysis in order to begin drafting the summary report. This analysis is expected to provide information to help mitigate bromate and halo acetic acid (HAA, a regulated disinfection byproduct) formation.

Issues and Challenges:

None at this time.









Example of Ozone Generator Unit

10015064 - SVWTP Phase 3 and 4

Project Description: The primary objective of the SVWTP Phase 3 and 4 Project is to improve regional water delivery reliability by addressing various deficiencies and needs for improvements at the Sunol Valley Water Treatment Plant (SVWTP). Many of the scoped upgrades were identified through condition assessments, Operations staff’s observations, reviews of levels of service, feasibility studies, and alternative analyses.

Program: Water Treatment	Project Status: Planning	Environmental Status: Not Initiated
---------------------------------	---------------------------------	--

Project Cost:		Project Schedule:	
Approved  \$70.13 M	Approved Mar-14  Jun-26		
Forecast  \$70.13 M	Forecast Mar-14  Jun-26		
Actual  \$7.82 M	Project Percent Complete: 11.1%		
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/31/22	01/24/24	07/01/24	12/31/25

Progress and Status:

The project team continued analyzing and delineating the current total of twenty-five (25) scope items and developing the project delivery strategies and the work plan. The project team continued to review background Technical Memoranda prepared for some of the scope items and to collect information needed to start planning phase. Site visits necessary to further refine scope requirements will occur during the next reporting period.

Issues and Challenges:







None at this time.



Concrete Scaling within SVWTP Sedimentation Basin to be Repaired by Project

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 aid polymer system. The project will build a polymer feed facility that will serve all five sedimentation basins to optimize plant water production. Planning and some design were performed under the Water System Improvement Program (WSIP); this project will finish design and construct the improvements.

Program: Water Treatment		Project Status: Design		Environmental Status: Not Initiated	
Project Cost:			Project Schedule:		
Approved		\$7.54 M	Approved Mar-21		Sep-24
Forecast		\$7.54 M	Forecast Jul-21		Sep-24
Actual		\$0.12 M	Project Percent Complete: 0.0%		
					
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	04/01/22	08/01/22	02/02/23	06/01/24	

Progress and Status:

The project has completed the 65% design. Due to the higher than anticipated engineer’s estimate, the project is using Value Engineering to further evaluate cost saving alternatives prior to proceeding with the 95% design.

Issues and Challenges:







None at this time.



Sunol Valley Water Treatment Plant Basins 1-5

10037349 - HTWTP Improvements Capital

Project Description: Twenty-one sub-projects have been identified to improve the performance, efficiency and reliability of the Harry Tracy Water Treatment Plant (HTWTP). However, one of the projects, the filter underdrains, has become a priority because two of the underdrains have recently failed and a third is showing signs of imminent failure. Although 21 projects have been identified, funding is only available for the filter underdrain project, which has been deemed the highest priority. The remaining projects will be deferred to a future round of CIP planning.

Program: Water Treatment	Project Status: Design	Environmental Status: Active
Project Cost:		Project Schedule:
Approved  \$14.40 M	Approved Nov-20  Jun-24	
Forecast  \$14.40 M	Forecast Nov-20  Jun-24	
Actual  \$0.25 M	Project Percent Complete: 17.6%	
		

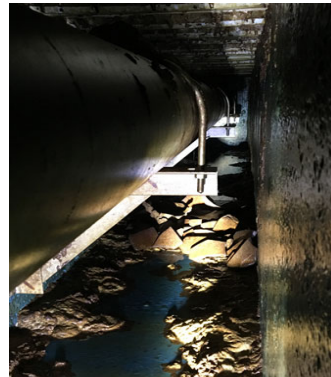
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/29/22	07/20/22	12/30/22	12/30/23

Progress and Status:

The 50% design to replace the plastic underdrains of Filters 1 through 6 with stainless steel underdrains was completed this quarter, and the 95% design is anticipated to be completed next quarter.

Issues and Challenges:

None at this time.








Filter Gullet beneath Plastic Underdrains with Failed Grout

10037350 - Regional Groundwater Treatment Improvement

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 aid polymer system. The project will build a polymer feed facility that will serve all five sedimentation basins to optimize plant water production. Planning and some design were performed under the Water System Improvement Program (WSIP); this project will finish design and construct the improvements.

Program: Water Treatment	Project Status: Planning	Environmental Status: Not Initiated
---	---	--

Project Cost:		Project Schedule:	
Approved	 \$38.60 M	Approved Aug-20	 Dec-29
Forecast	 \$38.60 M	Forecast Aug-20	 Dec-29
Actual	\$0.13 M	Project Percent Complete: 0.2%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/03/25	01/29/26	06/18/26	06/25/29

Progress and Status:

A draft Regional Groundwater Treatment Evaluation report was prepared this quarter. The report will be reviewed and finalized next quarter. In addition, a Request for Proposals is being drafted to procure a consultant to assist with the planning, design, engineering services during construction, and closeout of the project.

Issues and Challenges:







None at this time.



Typical well station equipment

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 inches in diameter and located in the Cities of South San Francisco and San Bruno between Millbrae Yard and Baden Pump Station, is over 80 years old and has extensive lining failures. This project would replace approximately 3.3 miles of coal tar lining with cement mortar or dielectric lining, upgrade about 30 appurtenances to meet current standards, and improve access and shutdown flexibility for maintenance by installing five manway structures and one 48-inch diameter valve on San Andreas Pipeline No. 1 (SAPL1) near Baden Pump Station.

Program: Water Transmission	Project Status: Planning	Environmental Status: Active
Project Cost: Approved  \$13.03 M Forecast  \$13.03 M Actual  \$0.78 M		Project Schedule: Approved Feb-19  Sep-25 Forecast Feb-19  Sep-25 Project Percent Complete: 6.0%
		

Key Milestones:	Environmental** Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	See Note	04/24/23	10/02/23	03/21/25

** Environmental CatEx was obtained under project CUW2730504 - SAPL2 Lockbar Replacement on 06/20/17.

Progress and Status:

The highest scoring alternative in the alternatives analysis, lining replacement of the existing pipeline with cement mortar lining, was approved by the Technical Steering Committee during the quarter, and the Alternatives Analysis Report is now being finalized. The scope of work to draft the Conceptual Engineering Report is being prepared as a task order for the new pipeline engineering consultant. Estimated NTP for the task order is next quarter.








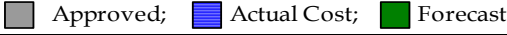
Typical coal tar lining failure

Issues and Challenges:

None at this time.

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 pre-qualified, 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 construction contract for this project will be combined with Project 10036840, BDPL1-4-B Lining Repair to provide a sufficient guaranteed scope.

Program: Water Transmission	Project Status: Design	Environmental Status: Active
Project Cost:		Project Schedule:
Approved  \$6.80 M	Approved Oct-16  Aug-28	
Forecast  \$6.80 M	Forecast Oct-16  Aug-28	
Actual  \$0.18 M	Project Percent Complete: 33.7%	
		

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/04/23	10/13/22	03/22/23	02/21/28

Progress and Status:

The Conceptual Engineering Report was finalized this quarter and design will begin next quarter. A consultant is being procured to further analyze alternatives for safe personnel entry procedures in active pipelines. Temporary and permanent safe entry measures are being considered. If permanent safe entry measures such as the addition of multiple in-line valves for more secured pipeline isolation are selected, there may be cost and schedule impacts.



Typical Pipeline Repair with WEKO Seals





Issues and Challenges:

None at this time.

10036839 - BDPL4 PCCP Repair

Project Description: Historically, when prestressed concrete cylinder pipe (PCCP) fails due to wrapped wire breaks, the failure can result in widespread damage to the pipe and ground surface due to multiple wires breaking at the same time along the pressurized pipe. From recent inspections of Bay Division Pipeline No. 4 (BDPL4) Segment D, constructed of PCCP, a large number of defects were found in the last mile of pipe that parallels Edgewood Road in Redwood City; this project will address those defects. This project will increase system reliability by rehabilitating approximately 350 feet of 84-inch diameter BDPL4 PCCP in Redwood City.

Program: Water Transmission	Project Status: Planning	Environmental Status: Active
--	---	---

Project Cost:		Project Schedule:	
Approved	 \$54.75 M	Approved May-20	 Nov-23
Forecast	 \$54.75 M	Forecast May-20	 Nov-23
Actual	\$0.15 M	Project Percent Complete: 0.5%	

 Approved;  Actual Cost;  Forecast

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	03/31/22	04/22/22	09/29/22	05/26/23

Progress and Status:

A draft technical memorandum with recommendations for proposed interim improvements was submitted during the quarter. The new pipeline consultant under the newly approved professional services contract will review this technical memorandum, all existing inspection reports, and background information and will prepare a needs assessment report. The scope, budget and schedule may change depending on the discovery of any new leaks or areas of concern.



Location of leak on BDPL4 PCCP in Redwood City






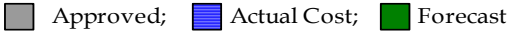
Issues and Challenges:

None at this time.

I. Regional WECIP Quarterly Report

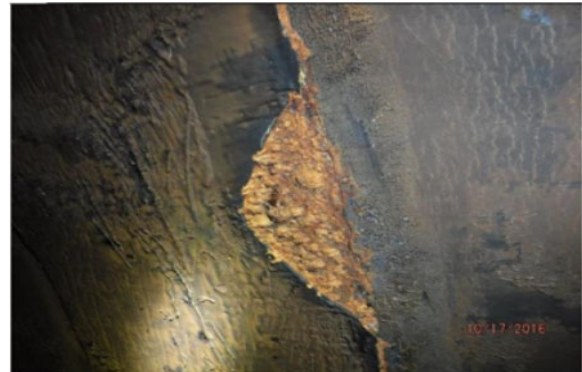
10036840 - BDPL 1-4 Lining Repair

Project Description: Water Supply and Treatment Division's (WSTD) ongoing pipeline inspection program has identified segments of the Bay Division Pipeline Nos. 1 through 4 (BDPL 1-4) that require lining repairs and replacement. This project will retain an as-needed contractor to repair or replace sections of lining that are identified by WSTD over the next 5-years.

Program: Water Transmission		Project Status: Design		Environmental Status: Active	
Project Cost:			Project Schedule:		
Approved		\$9.35 M	Approved Sep-16		Aug-28
Forecast		\$9.35 M	Forecast Sep-16		Aug-28
Actual		\$0.16 M	Project Percent Complete: 3.4%		
					
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	11/30/22	10/18/22	03/24/23	01/04/28	

Progress and Status:

The Conceptual Engineering Report was finalized this quarter and design will begin next quarter. A consultant is being procured to further analyze alternatives for safe personnel entry procedures in active pipelines. Temporary and permanent safe entry measures are being considered. If permanent safe entry measures such as the addition of multiple in-line valves for more secured pipeline isolation are selected, there may be cost and schedule impacts.



Typical Lining Defect

Issues and Challenges:

None at this time.

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 worst levels of corrosion were bundled up in the masterplan into four phases. Each phase will take several years for 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 fourteen sites and is currently in the design phase. Phase 3 is anticipated to include work at eighteen sites and to begin planning in 2025. The number of sites and locations for Phase 4 will be determined from the corrosion database resulting from WST’s annual inspection reports. Planning phase for Phase 4 will commence after Phase 3 is completed.

Program: Water Transmission		Project Status: Design		Environmental Status: Active (CatEx)	
Project Cost:			Project Schedule:		
Approved		\$24.90 M	Approved Jan-16		Dec-34
Forecast		\$36.54 M	Forecast Jan-16		Jan-28
Actual		\$7.48 M	Project Percent Complete: 45.0%		
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	01/31/22	02/08/22	08/01/22	07/31/24	

Progress and Status:

The Corrosion Control Phase 2 sub-project is at 95% design and was presented during the quarter to the Technical Steering Committee and Change Control Board for approval. The project team continues to develop the 100% design. The Bid and Award Phase will start in the third quarter, early next year. The categorical exemption environmental permit is being modified to reflect a change in the number of sites from 14 sites to 11 sites.

Issues and Challenges:

The variance in the forecast schedule and budget is due to the project team not receiving a response from PG&E for new power facilities at three (3) of the fourteen (14) sites within the design period. In order to not delay construction for the other sites, in the event this information is not received by bid date, construction at these three (3) sites will be postponed until the next phase. There is a higher cost than included in the previous cost estimate for power at each of the sites due to PG&E’s change of decision to now require all new electrical connections to provide facilities to step down the power. The Technical Steering Committee requested that the Phase 3 for the project be accelerated in order to complete cathodic protection installations at an earlier date; impacts from these changes will be evaluated and included in









Deep Anode Installation – Corrosion Phase 1

the future 10-Year CIP proposal.

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.

Program: Water Transmission	Project Status: Design	Environmental Status: Not Initiated (CatEx)
------------------------------------	-------------------------------	--

Project Cost:		Project Schedule:	
Approved	 \$12.50 M	Approved May-16	 Mar-25
Forecast	 \$12.50 M	Forecast May-16	 Mar-25
Actual	 \$0.73 M	Project Percent Complete: 6.7%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	04/14/22	12/07/22	06/05/23	10/09/24

Progress and Status:

During this reporting period, the design team continued with the 65% design and further established the design criteria. A geotechnical consultant is needed to update seismic design parameters to current code for the structural design. While seismic improvements were made to the entire facility under the WSIP contract WD-2566 completing in 2012, the MCCs and some of the internal walls may require additional seismic improvements triggered by the construction and to bring the facility up to current code. The project team is working towards getting a task order in place to support this design effort.



San Antonio Pump Station building looking southeast







Issues and Challenges:

None at this time.

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 deteriorated in some locations with Reach 2 located on slopes that are eroding and Reach 3 containing extensive lining failures. This project would realign Reach 2 to the existing abandoned CSPL1 alignment, replace the coal tar lining of Reach 3, and improve access to the pipeline.

Program: Water Transmission	Project Status: Planning	Environmental Status: Not Initiated (MND)
------------------------------------	---------------------------------	--

Project Cost:		Project Schedule:	
Approved	 \$50.04 M	Approved Sep-16	 Jun-26
Forecast	 \$50.04 M	Forecast Sep-16	 Jun-26
Actual	 \$1.49 M	Project Percent Complete: 1.7%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/21/23	12/13/23	05/23/24	12/16/25

Progress and Status:

A JOC contractor completed excavation of the pipeline at two locations identified as having potential for corrosion, and a corrosion investigation was conducted. The draft report is being prepared and is anticipated to be available next quarter. San Francisco Public Works is undertaking additional surveying and geotechnical investigation work, the results of which will be included in the draft Conceptual Engineering Report.



Portion of CSPL2 that will be re-lined

Issues and Challenges:






None at this time.



I. Regional WECIP Quarterly Report

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.

Program: Water Supply & Storage	Project Status: Planning	Environmental Status: Not Initiated (EIR)
--	---------------------------------	--

Project Cost:		Project Schedule:	
Approved	 \$7.50 M	Approved Oct-20	 Jun-35
Forecast	 \$7.50 M	Forecast Oct-20	 Jun-35
Actual	 \$0.34 M	Project Percent Complete: 2.4%	

 Approved;  Actual Cost;  Forecast

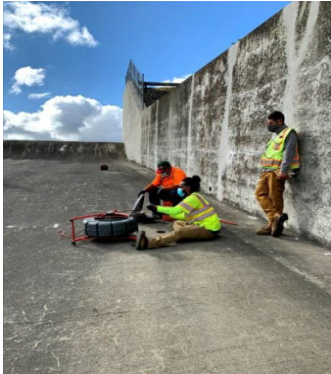
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/31	07/01/31	01/02/32	12/29/34

Progress and Status:

A preliminary spillway condition assessment was presented during the reporting period. The assessment indicated that additional investigation is needed to better understand the condition of the subdrain system and the spillway subgrade. The geotechnical investigation work plan for the site will be submitted together with the dam alteration permit application to the Department of Safety of Dams (DSOD) early next quarter. Environmental clearance and DSOD review for the geotechnical investigation will continue in the next two quarters.

Issues and Challenges:

None at this time.






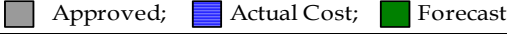


Spillway drain inspection crew inserting camera for visual inspection of drain holes

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.

Program: Water Supply & Storage	Project Status: Planning	Environmental Status: Not Initiated (MND)
--	---------------------------------	--

Project Cost:		Project Schedule:	
Approved	 \$30.09 M	Approved Apr-14	 Jun-29
Forecast	 \$30.09 M	Forecast Apr-14	 Jun-29
Actual	 \$3.46 M	Project Percent Complete: 19.7%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/25	07/09/25	01/02/26	12/31/28

Progress and Status:

The project team completed the draft report for the overall condition and needs assessment for the dam embankment, spillway, forebay outlet, and forebay outlet works; findings were presented to stakeholders in a workshop. The report will be finalized early next quarter. Findings indicated that the dam embankment, spillway, and forebay outlet works all have deficiencies, do not meet all performance objectives, and require improvements. Nine alternatives were identified to address the deficiencies. These alternatives will be analyzed and then screened for further evaluation during the Alternative Analysis Report (AAR) phase, which will start in the next quarter.



Spillway cleaning and mapping for condition assessment






Issues and Challenges:

None at this time.

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.

Program: Water Supply & Storage	Project Status: Planning	Environmental Status: Not Initiated (Various)
--	---------------------------------	--

Project Cost:	Project Schedule:
Approved  \$32.20 M	Approved Dec-13  Dec-33
Forecast  \$32.20 M	Forecast Dec-13  Dec-33
Actual  \$1.27 M	Project Percent Complete: 3.2%

 Approved;  Actual Cost;  Forecast

Key Milestones:	Environmental** Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	(A) 07/02/24 (B) 12/31/26	01/04/27 01/02/29	07/01/27 07/02/29	06/29/29 06/30/33

** (A) CatEx; (B) MND

Progress and Status:

The project team completed the draft report for the overall condition and needs assessment for the dam embankment, spillway, and emergency drawdown outlet structures. Next quarter, a workshop to present the results will be held and the report will be finalized. Findings indicated that the facilities do not meet all performance objectives and require improvements. Nine alternatives that were identified to address the deficiencies. Will be analyzed and then screened for further evaluation during the Alternative Analysis Report (AAR) phase, which will start in the next quarter. In the meantime, the geotechnical investigation work will be initiated in the AAR phase early next quarter, and a workplan will be submitted together with the dam alteration permit application to DSOD. Environmental clearance and DSOD review for the geotechnical investigation will continue in the next two quarters.

Issues and Challenges:

The baseline schedule assumes the work on the spillway and emergency drawdown outlet structures will proceed independently of, and two years earlier than, the work on the dam embankment. However, based on the preliminary findings, it is recommended









Launching of barge for the Bathymetric Survey

that the alternatives analysis include analysis of the interdependence of all system components. This interdependence analysis may change the assumptions for construction sequencing. For the geotechnical investigation work, additional time is required for DSOD to review and approve the workplan and also due to the limited construction windows (based on environmental permits) in which to perform geotechnical investigation. The schedule will be reforecast when these schedule impacts are better understood.

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.

Program: Watershed & Lands Management	Project Status: Construction	Environmental Status: Completed
--	-------------------------------------	--

Project Cost:		Project Schedule:	
Approved 	\$5.38 M	Approved Jun-14 	Oct-22
Forecast 	\$5.38 M	Forecast Jun-14 	Oct-22
Actual 	\$1.75 M	Project Percent Complete: 27.0%	
			

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/05/20✓	10/09/20✓	05/10/21✓	05/28/22

Progress and Status:

During this reporting period, the Contractor completed a pre-construction investigation to determine the levels of Naturally Occurring Asbestos (NOA) at the job site as a requirement for Bay Area Air Quality Management District (BAAQMD) to approve an Asbestos Dust Mitigation Plan (ADMP). Groundbreaking construction work will commence after the ADMP is approved by BAAQMD. The Contractor continues to prepare the job site to start work as soon as the plan is approved.

Issues and Challenges:

The review and approval of the ADMP by the BAAQMD has taken longer than anticipated. While the contractor is performing as much other work as possible and is considering how to optimize and expedite the sequence of work, this may impact the construction schedule. Impacts will be evaluated and reported in the forecast next quarter.








Sunol Regional Wilderness Park High Valley Area

I. Regional WECIP Quarterly Report

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 Sweeney Ridge property at the Sneath Lane Gate. The trail is a critical connection among existing regional trails, and will provide access to hikers, bikers and equestrians.

Program: Watershed & Lands Management	Project Status: Planning	Environmental Status: Not Initiated
--	---------------------------------	--

Project Cost:		Project Schedule:	
Approved	 \$6.70 M	Approved Feb-21	 Jan-28
Forecast	 \$6.70 M	Forecast Feb-21	 Aug-27
Actual	 \$0.04 M	Project Percent Complete: 3.1%	

 Approved;  Actual Cost;  Forecast

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/31/25	07/01/25	01/02/26	02/01/27

Progress and Status:
This quarter, San Francisco Public Works continued work on the conceptual engineering report.







Issues and Challenges:
None at this time.



Sneath Lane Trailhead

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 this project is to provide access to the Peninsula watershed, to enhance educational opportunities, and to ensure watershed protection. This proposed trail 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 would consist of 8 to 10-foot wide, all-weather surface trails; retaining structures to stabilize cut and/or fill slopes; drainage facilities; two parking lots; two prefabricated restrooms along the trail; site security features; and landscape restoration.

Program: Watershed & Lands Management		Project Status: Design		Environmental Status: Active (EIR)	
Project Cost:			Project Schedule:		
Approved		\$21.81 M	Approved Oct-12		Sep-23
Forecast		\$21.81 M	Forecast Oct-12		Sep-23
Actual		\$5.19 M	Project Percent Complete: 27.4%		
					
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	05/11/21✓	11/01/21	05/02/22	08/01/23	

Progress and Status:

During the past quarter, the project team completed the 100% design documents, incorporating National Environmental Policy Act (NEPA) requirements into the documents in order to qualify for Federal grant funding under Caltrans’ Local Assistance program. As part of the NEPA review process, notices were sent to representatives of local Native American tribes to inform them of the results of the archaeological survey that was performed for the project. The Tamien Tribe has requested a consultation.



View of southern trail alignment

Issues and Challenges:






None at this time.

I. Regional WECIP Quarterly Report

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.

Program: Watershed & Lands Management	Project Status: Planning	Environmental Status: Not Initiated (MND)
--	---------------------------------	--

Project Cost:		Project Schedule:	
Approved	 \$9.57 M	Approved Jun-16	 Dec-26
Forecast	 \$15.82 M	Forecast Jun-16	 Dec-26
Actual	 \$0.45 M	Project Percent Complete: 2.2%	

 Approved;  Actual Cost;  Forecast

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/15/23	07/25/23	01/02/24	12/30/25

Progress and Status:

The project team continues to develop the Conceptual Engineering Report (CER) this quarter and intends to complete the CER early next year. This quarter, the replacement and installation of debris boom in San Andreas Reservoir has been added to the scope due to its past failure. The draft CER this quarter also elaborates the change in road re-alignment at east shore road to avoid a habitat zone for butterflies. A consultant, Saylor, is on board to provide an independent engineer's estimate for the project at CER level.









Project Map – SA-1 Service Road/Ingoing Road

Issues and Challenges:

The variance in the forecast cost is due to the construction cost estimate produced for the AAR was higher than the approved baseline construction cost estimate due to increased scope recommended for slope stabilization and also due to further definition of the existing project scope. The project team will evaluate potential means to reduce the project cost to bring the cost back to the baseline.

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.

Program: Buildings and Grounds	Project Status: Construction	Environmental Status: Completed (CatEx)		
Project Cost:		Project Schedule:		
Approved	 \$5.19 M	Approved Mar-18		Jun-22
Forecast	 \$5.19 M	Forecast Mar-18		Jun-22
Actual	 \$2.91 M	Project Percent Complete: 56.6%		
				
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/30/20✓	N/A	12/08/20✓	12/30/21

Progress and Status:

During this quarter, interior and exterior electrical work as well as exterior lighting installation was largely completed. Additionally, rolling gates were delivered and installed. Next quarter, the JOC contractor will mobilize to perform the remaining scope of work, including security hardware installation and software integration, testing, and training.

Issues and Challenges:

None at this time.









View of newly installed fence on north property line

I. Regional WECIP Quarterly Report

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.

Program: Buildings and Grounds	Project Status: Design	Environmental Status: Active		
Project Cost:		Project Schedule:		
Approved 	\$5.50 M	Approved Jan-17 	Nov-23	
Forecast 	\$16.08 M	Forecast Jan-17 	Sep-24	
Actual 	\$0.54 M	Project Percent Complete: 9.1%		
				
Key Milestones:	Environmental** Approval	Bid+ Advertisement	Construction+ NTP	Construction+ Final Completion
Current Forecast	(A) 08/31/20✓ (B) 01/31/23	(A) 09/01/20✓ (B) 10/25/22	(A) 06/16/21✓ (B) 04/03/23	03/08/22 03/29/24

+ Project includes multiple construction contracts: (A) WD-2870 (I) Millbrae Warehouse Settlement; (B) WD-2869 Millbrae Admin Building HVAC Upgrade

** The CatEx was approved in 2017, however it needs to be modified to include tree removal for the HVAC Upgrades only.

Progress and Status:

The construction phase for the Millbrae Warehouse is 95% complete. In addition to approximately \$250k savings in construction hard cost, the currently anticipated substantial completion date is ahead of schedule by 3 months. The Millbrae Administration Building HVAC Upgrades subproject will be presented to the Technical Steering Committee next quarter for approval of a proposed engineering solution to mitigate the building's seismic vulnerability by installing the HVAC infrastructure outside the building. When approved, the project team will proceed with design. An independent consultant has provided a high-level estimate during the quarter for the new concept for externally located HVAC equipment. The project will also be presented to the Change Control Board due to changes required in scope, budget and schedule for the new concept. The Memorandum of Understanding with San Francisco Public Works multi-discipline engineers for design support was modified during the quarter, and the modifications are being finalized. The project team anticipates starting the design phase early next year.









Existing Millbrae Administration Building

Issues and Challenges:

The variances in the forecast cost and schedule are due to the need to relocate the HVAC system outdoors due to building seismic and structural load requirements, and also increased ventilation requirements for some laboratory analyses. The design changes and additional construction scope for the relocation have significantly increased the cost forecast. The design team is investigating options to reduce the cost.

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. 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. The SFPUC Alameda Creek Watershed Center (Center) will be a gathering place for increasing the awareness and appreciation of the natural, cultural, scenic, historic and recreational resources of the Alameda Creek watershed. Consistent with the SFPUC Water Enterprise Environmental Stewardship Policy, and as described in the SFPUC Alameda Watershed Management Plan, the Center will enhance public awareness and provide education opportunities related to water quality, water supply, conservation and environmental stewardship issues.

Program: Buildings and Grounds		Project Status: Construction		Environmental Status: Completed (MND)	
Project Cost:			Project Schedule:		
Approved		\$100.41 M	Approved Jan-09		Sep-22
Forecast		\$104.91 M	Forecast Jan-09		Aug-23
Actual		\$81.00 M	Project Percent Complete: 82.7%		
					
Key Milestones:	Environmental Approval	Bid+ Advertisement	Construction+ NTP	Construction+ Final Completion	
Current Forecast	12/02/15✓	(A) 03/01/16✓ (B) 08/30/19✓	(A) 01/17/17✓ (B) 03/09/20✓	09/15/20✓ 08/14/22	

+ Project includes multiple construction contracts: (A) Sunol Yard; and (B) Watershed Center

Progress and Status:

Sunol Yard (Contract A): The draft project close-out dossier was prepared and is being reviewed.

Watershed Center (Contract B): The construction work on the building interior electrical, HVAC, pond filter system, insulation, drywall, painting, bathroom tiling, bathroom fixtures, aquarium, and topping slab continued. Construction work on the exterior roofing system, PV system, pond and stream, pathways, bench seating, irrigation and electrical systems, Temple forecourt, site paving and PG&E power continued. Coordination on the exhibits, public art piece, bluestone paver etching and building exterior glass continued.



Drywall and Framing of the History Alcove and Interpretative Display Areas

the interior exhibits is also delayed due to extended time to procure services from the vendor. Additional scope was requested during the quarter for the Watershed Center, including overflow parking space, a backup power system, an exterior exhibit, picnic area restoration, purchase of compositing toilets and exhibit revisions. The \$4.5M project budget variance is due to the work related to this additional scope requested for the Watershed Center.

Issues and Challenges:

The forecasted schedule exceeds the approved completion date for several reasons. The bluestone etching work is delayed due to a nationwide shortage of sandblasting stencil materials and difficulties in procurement and shipment of bluestone pavers and boulders. Additionally, manufacturing and shipping of building exterior glass that is specially designed to deter birds is delayed. The design and installation of

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 facilitate the consolidation of work groups for increased staff efficiency. The Millbrae Yard campus improvements will be implemented in three phases. Phase 1 includes a new laboratory and new south shop building; Phase 2 includes demolition of the existing Administration Building and construction of a new consolidated Administration Building; Phase 3 includes new covered storage for materials and equipment. This project includes planning for all three phases, but only design and construction for Phase 1.

Program: Buildings and Grounds		Project Status: Planning		Environmental Status: Active (MND)	
Project Cost:			Project Schedule:		
Approved		\$169.56 M	Approved Nov-15		Mar-28
Forecast		\$169.56 M	Forecast Nov-15		Mar-29
Actual		\$1.97 M	Project Percent Complete: 1.2%		
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	04/11/24	N/A	04/15/25	03/31/28	

Progress and Status:

The project is currently in the Conceptual Engineering Report (CER) phase. The draft alternative options study was completed during the quarter. The scope of work for the utility survey and for potholing of the existing transmission water line adjacent to the proposed location of the new laboratory/office building was developed. An independent construction cost estimate prepared in draft during the quarter is currently being reviewed. Preparation of the new PRO.0221 - Request for Proposals (RFP) for engineering design support services has started; this will be a new contract without architectural design services since those services will be provided by Public Works. The site and tree surveys for the entire Millbrae Yard campus have started as well. Cost proposals prepared by Public Works as-needed consultants for laboratory and office building detailed programming and concept design, site utility, geotechnical exploration, LEED and MEP engineering design support were received during the quarter and are currently being reviewed.



Existing Administration Building

Issues and Challenges:

In reviewing the proposed construction schedule, Public Work’s Bureau of Construction Management proposed extending the construction duration from 30 months to 36 months to be better aligned with recent building projects. The close-out phase is also recommended to be extended from 6 months to 12 months due to the likelihood of longer time needed to complete punchlist items for this complex building project.

8. On-Going Construction*

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion**	Current Forecasted Construction Final Completion	Approved Contract Cost	Current Forecasted Cost**	Schedule (Cal. Days)	Cost	
Watershed & Lands Management								
10015110 - WD-2865 PUC Sunol Rgnl WP WTR Sys	05/10/21	05/28/22	05/28/22	\$ 2,634,808	\$ 2,634,808	-	-	0.0%
Buildings and Grounds								
10015124 - WD-2794B Sunol Long Term Improvements - Watershed Center	03/09/20	03/16/22	03/16/22	\$ 29,440,773	\$ 29,440,773	-	-	43.0%

Program Total for On-Going Construction	Approved Contract Cost	Current Forecasted Cost	Variance	
			Cost	Percent
	\$ 32,075,581	\$ 32,075,581	\$0	0 %

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

** The Forecasted 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 CLOSE-OUT

Project Title	Current Approved Construction Phase Completion	Actual Construction Phase Completion	Current Approved Construction Phase Budget	Construction Phase Expenditures To Date
Water Transmission				
10015080- San Andreas Pipeline No. 2 Replacement	06/07/21	04/13/21	\$ 35,517,646	\$ 32,540,499
TOTAL			\$ 35,517,646	\$ 32,540,499

10. COMPLETED PROJECTS

There are no completed projects.

This page is intentionally left blank.

II. Local Capital Improvement Program



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 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 (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 27 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**.

II. Local WECIP Quarterly Report

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.

2. CAPITAL IMPROVEMENT PROGRAM STATUS

This Quarterly Report presents the progress made on Local Water projects between July 1, 2021 and September 30, 2021. This document serves as the first (1st) Quarterly Report in Fiscal Year 2021-2022 (FY22) published for the Water Enterprise Capital Improvement Program.

On April 13, 2021, the SFPUC approved the Water Enterprise CIP 2021 Revised Baseline budget of \$918.8 million for Regional projects and \$1,755.4 million for Local projects (2021 Approved Baseline). The 2021 Approved Baseline is a subset of the Regional and Local Water Enterprise 10-year CIP for FY2021-2030 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 April 13, 2021. The status of projects included in the 2021 Approved Baseline are discussed in this quarterly report.

Going forward, changes to the approved baseline program and project scopes, schedules, and budgets will be proposed as part of the 10-year CIP that is updated every two years and approved by the SFPUC Commission. The proposed revisions to the program will become the new baseline for project scopes, schedules, and budgets in the beginning of the new fiscal year following SFPUC Commission approval.

Figure 2.1 shows the total Current Approved Budget for the Local projects in each phase of

the program as of September 30, 2021. The number of projects currently active in each phase is shown in parentheses.

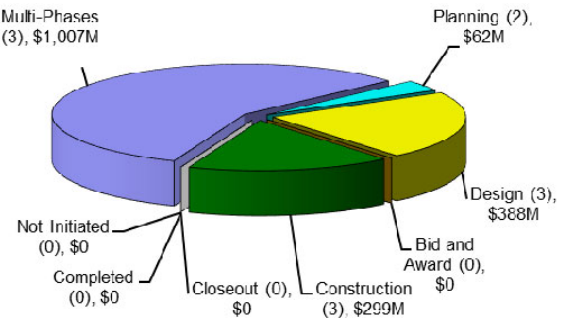


Figure 2.1 Total Current Approved Budget for Local Projects Active in Each Phase

Figure 2.2 shows the number of Local projects in the following phases as of September 30, 2021: Pre-construction, Construction, and Post-construction.

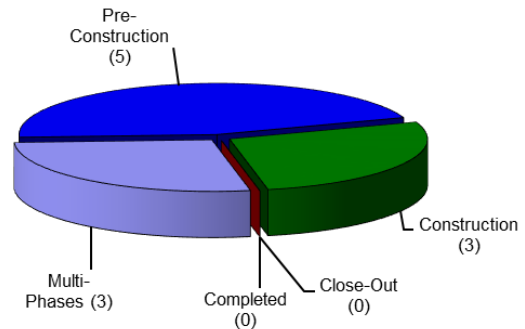


Figure 2.2 Number of Local Projects in Pre-construction, Construction, and Post-construction

Figure 2.3 summarizes the environmental review status of the Local projects as of September 30, 2021.

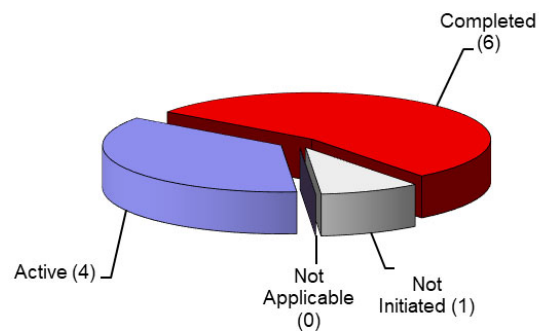
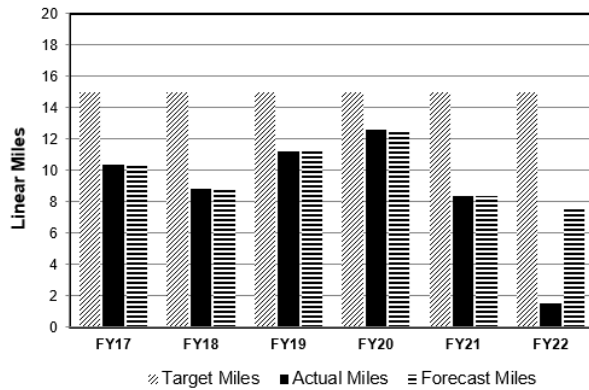


Figure 2.3 Local Program Environmental Status

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. At the end of FY22, 7.5 miles of pipe are forecasted to be replaced.



	FY17	FY18	FY19	FY20	FY21	FY22
Target Miles	15.0	15.0	15.0	15.0	15.0	15.0
Actual Miles	10.4	8.8	11.2	12.6	8.4	1.5
Forecast Miles						7.5

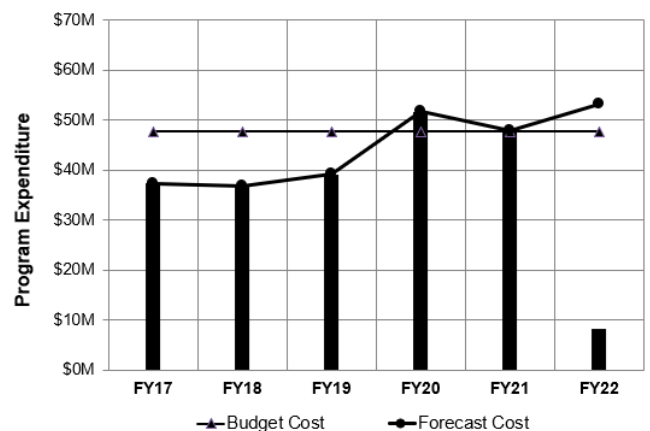
Figure 2.4 Water Conveyance/Distribution System Program - Linear Miles by Fiscal Year

Water main replacement projects with construction underway in the 1st quarter of FY22 included the City streets of Pierce Street, Castro Street, 17th Street, Baker Street, 19th Avenue, and Casitas. Projects anticipated to start in the 2nd quarter of FY22 include Wawona Area Stormwater Improvement and Vicente Street Water Main Replacement (Vicente) as well as College Hill Reservoir and Pipeline (College Hill). Below are highlights of key projects scheduled to issue notice to proceed next quarter:

- Prospect: Installation of 4,200 feet of 8-inch diameter ductile iron water distribution mains and 3,300 feet of 24-inch diameter ductile iron and Earthquake Resistant Ductile Iron Pipe (ERDIP) water

transmission mains on Prospect, Fair and Coso Avenues and Coleridge Street. This project is part of a phased program to improve the reliability of the water distribution system from College Hill Reservoir to San Francisco General Hospital to withstand a major seismic event.

- L-Taraval Segment B: Installation of 22,000 feet (4.4 miles) of 8-inch diameter ductile iron water distribution mains on Taraval Street from Sunset to West Portal as part of the L-Taraval Transit Improvement Project.



	FY17	FY18	FY19	FY20	FY21	FY22
Budget	\$47.7M	\$47.7M	\$47.7M	\$47.7M	\$47.7M	\$47.7M
Actual Expenditure	\$37.3M	\$36.8M	\$39.2M	\$51.7M	\$47.8M	\$8.2M
Forecast Expenditure						\$53.1M

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

Figure 2.5 shows the annual total program expenditure by fiscal year for the pipeline replacement program. Program expenditures are forecast to be higher than the budgeted annual amount of \$47.7M over the next three years to account for the delayed start of several large streetscape improvement projects mentioned above. The budgeted cost per mile has been updated for FY22 from \$3.18 million per mile to \$5.4 million per mile for replacement of water distribution mains. The updated cost per mile for streetscape, transit, or ERDIP type projects is approximately \$8 million per mile.

II. Local WECIP Quarterly Report

The updated cost per mile for water main replacement projects is due to the following factors:

- The program has previously focused on replacing smaller, less expensive distribution mains to coordinate with San Francisco Public Works' (SFPW) Paving Program.
- Projects will increasingly include more expensive and/or larger diameter pipe replacement for larger distribution mains as well as special earthquake-resistant pipe installation to increase seismic reliability of the City's local water distribution.
- Projects along designated state highway routes such as Van Ness Avenue, 19th Avenue, and Lombard Street are significantly more expensive due to CalTrans permitting requirements, which include costly utility protection requirements and restricted work hours.
- Changes in SFPW's pavement restoration, ADA curb ramps, and permitting requirements in the City continue to increase the cost of pipe replacement projects over earlier estimates.

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/FY21-22 Forecasted Costs, Cost Variance between the Current Approved Budgets and Forecasted Costs, and Variance Over Reporting Period (difference between cost forecasts reported in Q4/FY20-21 and Q1/FY21-22).

The total Current Approved Budget (including Regional and Local Programs) and Current Forecasted Cost at completion are \$2,674.2 million and \$2,752.2 million, respectively. The Current Approved Budget and Forecasted Cost at completion for only the Local Water Program (including construction contingency) are \$1,755.4 million and \$1,800.4 million, respectively.

The overall Local Water Program negative Cost Variance of \$45M in Table 3 can be attributed to the following factors:

- 10033818 Town of Sunol Pipeline forecasted cost increased by \$1.7M due to the change in construction method from tunneling to open cut trench, requiring CEQA updates and schedule extension.
- 10037249 New CDD Headquarters forecasted cost increased by \$43.4M due to increase in construction escalation cost associated with contracting delays and current market conditions.

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)	Current Approved Budget (\$ Million)	Q1/FY21-22 Forecasted Costs (\$ Million)	Cost Variance (\$ Million)	Variance Over Reporting Period* (\$ Million)
	(A)	(B)	(C)	(D = B - C)	(E)
Local Program	\$636.29	\$1,755.36	\$1,800.44	(\$45.07)	(\$45.07)
Local Water Conveyance/ Distribution System	\$314.01	\$810.58	\$812.24	(\$1.66)	(\$1.66)
Local Water Supply	\$242.03	\$312.54	\$312.54	-	-
Local Tanks/Reservoir Improvements	\$1.09	\$19.28	\$19.28	-	-
Pump Stations	\$0.33	\$6.53	\$6.53	-	-
Buildings and Grounds	\$2.65	\$350.19	\$393.60	(\$43.41)	(\$43.41)
Emergency Firefighting Water System	\$76.18	\$256.25	\$256.25	-	-
Regional Program	\$164.26	\$918.79	\$951.76	(\$32.97)	(\$32.97)
PROGRAM TOTAL	\$800.56	\$2,674.16	\$2,752.19	(\$78.04)	(\$78.04)

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

II. Local WECIP Quarterly Report

4. CAPITAL IMPROVEMENT PROGRAM SCHEDULE SUMMARY

Figure 4 compares the 2021 Approved Schedule and the Current Forecast Schedule for the Local Water CIP. As shown in Table 4, the 2021 Approved and Forecasted Schedule completion for the overall Water Enterprise CIP (including Regional and Local Programs) are each in June 2035. The 2021 Approved and Forecasted Schedule completion for the Local CIP are each in December 2028.

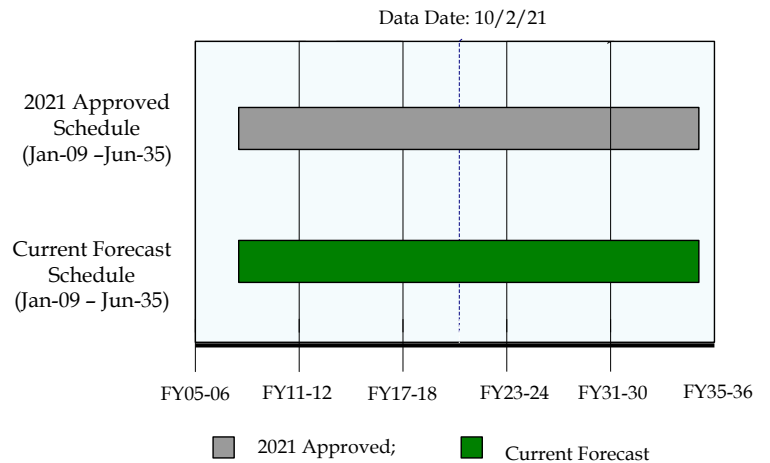


Figure 4. Local Program Schedule Summary

Table 4 2021 Approved vs. Current Forecast Schedule Dates

Sub-Program	2018 Approved Project Start	Actual Start	2021 Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Local Program	03/03/03	03/03/03✓	12/29/28	12/29/28	-
Regional Program	01/01/09	01/01/09✓	06/29/35	06/29/35	-
Overall Water Enterprise CIP	03/03/03	03/03/03✓	06/29/35	06/29/35	-

5. BUDGET AND SCHEDULE TREND SUMMARY

Starting with the Q1 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 Close-Out, or Completed.

During this quarter (Q1 FY21-22), the following major milestones were achieved, and the project cost and schedule forecasts were updated based on the updated milestone cost estimates accordingly for the following Local Water projects:

- The Construction Notice to Proceed was issued for the College Hill Reservoir Outlet project.
- The Harding Park Pump Station project was initiated.

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 ¹		Current Status	
	Approved Budget	Approved Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
WECIP - Local														
Local Water Conveyance/Distribution System														
10033816 Potable Emergency Firefighting Water System ²	FY21-30		8/12/19		N/A		N/A		N/A		N/A		Q1 - FY21-22	
	\$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	FY21-30		06/17/19		11/01/21		05/10/22 ³		03/21/23		12/04/23		Q1-FY21-22	
	\$5.0	04/03/23	\$5.0	04/03/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$6.7	04/07/25
19063 Local Water Conveyance / Distribution System ⁴	FY21-30		N/A		Various		Various		Various		Various		Q1 - FY21-22	
	\$750.6	06/30/28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$750.6	06/30/28
Local Water Supply														
10015239 Lake Merced Water Level Restoration	FY21-30		06/16/03		04/30/10		01/26/22		04/27/22		01/12/23		Q4 - FY21-22	
	\$32.7	01/31/19	\$32.7	01/31/19	\$32.7	01/31/19	TBD	TBD	TBD	TBD	TBD	TBD	\$32.7	01/30/26
10015240 San Francisco Groundwater Supply	FY21-30		06/16/03		12/08/06		10/19/10		03/11/16		08/22/17		Q1-FY21-22	
	\$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	06/30/22

Footnotes:

1. This represents Forecasted project cost and project completion date at the time of award of construction contract (or award of CM/GC scope).
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.

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction ¹		Current Status	
	Approved Budget	Approved Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion	Forecasted Cost	Forecasted Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10015242 San Francisco Westside Recycled Water	FY21-30		03/03/03		05/15/09		12/08/14		06/29/16		10/17/17		Q1-FY21-22	
	\$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
Local Tank/Reservoir Improvements														
10015223 College Hill Reservoir Outlet ²	FY21-30		01/24/13		10/14/16		12/15/16		02/15/19		06/08/21		Q1 - FY21-22	
	\$19.3	01/29/24	\$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
Buildings and Grounds														
10015223 New CDD Headquarters	FY21-30		02/01/20		08/31/21		12/30/21		12/29/23		03/08/22		Q1 - FY21-22	
	\$350.2	06/28/28	\$350.2	06/28/28	\$393.6	06/28/28	TBD	TBD	TBD	TBD	TBD	TBD	\$393.6	06/28/28
Pump Stations														
10015231 Harding Park PS	FY21-30		07/06/21		09/26/22		03/31/23		09/30/23		07/01/24		Q1-FY21-22	
	\$6.5	04/03/26	\$6.5	04/03/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	\$6.5	04/03/26
Emergency Firefighting Water System														
EFWSPL EFWS Pipelines ³	FY21-30		04/01/11		Various		Various		Various		Various		Q1 - FY21-22	
	\$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 ⁴	FY21-30		04/01/11		Various		Various		Various		Various		Q1 - FY21-22	
	\$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. This represents Forecasted project cost and project completion date at the time of award of construction contract (or award of CM/GC scope).
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.

6. PROGRAM PERFORMANCE SUMMARY*

All costs are shown in \$1,000s as of 10/02/21

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 Project Completion Date (h) (+)	Current Approved Completion (i) (++)	Current Forecast Completion (j)	Schedule Variance (Days) (k = i - j) (+++)
Local Water Conveyance/Distribution System											
10033816 - Potable Emergency Firefighting Water System	PL	\$ 55,000	\$ 55,000	\$ 55,000	\$ 817	-	0%	06/30/28	06/30/28	06/30/28	0
10033818 - Town of Sunol Pipeline	DS	\$ 5,000	\$ 5,000	\$ 6,663	\$ 2,137	(\$1,663)	-33%	04/03/23	04/03/23	04/07/25	(735)
19063 - Local Water Conveyance/Distribution System	MP	\$ 750,581	\$ 750,581	\$ 750,581	\$ 311,055	-	0%	06/30/28	06/30/28	06/30/28	0
Local Water Supply											
10015239 - Lake Merced Water Level Restoration	DS	\$ 32,668	\$ 32,668	\$ 32,668	\$ 4,579	-	0%	01/30/26	01/30/26	01/30/26	0
10015240 - San Francisco Groundwater Supply	CN	\$ 66,552	\$ 66,552	\$ 66,552	\$ 62,245	-	0%	06/30/22	06/30/22	06/30/22	0
10015242 - San Francisco Westside Recycled Water	CN	\$ 213,316	\$ 213,316	\$ 213,316	\$ 175,205	-	0%	01/12/23	01/12/23	01/12/23	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	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 FY21-30.
(++) Current Approved Budget and Schedule: The budget and schedule approved as part of 10-year CIP for FY21-30, 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.

II. Local WECIP Quarterly Report

Q1-FY2021-2022 (07/01/21 - 09/30/21)

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 Project Completion Date (h) (+)	Current Approved Completion (i) (++)	Current Forecast Completion (j)	Schedule Variance (Days) (k = i - j) (+++)
Local Tanks/Reservoir Improvements											
10015223 - College Hill Reservoir Outlet	CN	\$ 19,283	\$ 19,283	\$ 19,283	\$ 1,094	-	0%	01/29/24	01/29/24	04/24/24	(86)
Pump Stations											
10015231 - HARDING PARK PS	PL	\$ 6,527	\$ 6,527	\$ 6,527	\$ 333	-	0%	04/03/26	04/03/26	04/03/26	0
Buildings and Grounds											
10037249 - New CDD Headquarters	DS	\$ 350,192	\$ 350,192	\$ 393,601	\$ 2,649	(\$43,409)	-12%	06/28/28	06/28/28	06/28/28	0
Emergency Firefighting Water System											
EFWS PL - EFWS Pipelines	MP	\$ 205,263	\$ 205,263	\$ 205,263	\$ 31,626	-	0%	12/29/28	12/29/28	12/29/28	0
EFWS PS - EFWS Pump Stations	MP	\$ 45,245	\$ 45,245	\$ 45,245	\$ 39,088	-	0%	12/29/28	12/29/28	12/29/28	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	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 FY21-30.
- (++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY21-30, 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. PROJECTS STATUS REPORT

10033816 - Potable Emergency Firefighting Water System

Project Description: This project, the Potable Emergency Firefighting Water System (PEFWS) proposes to design and construct earthquake-resistant water pipelines in western San Francisco, particularly the Sunset and Richmond areas. These pipelines will connect to the existing potable water distribution system to help deliver water to businesses, institutions, and residences during normal operations. It will also be designed to provide high-pressure fire suppression water when needed after a major earthquake or other emergency. When so needed, it will be isolated from the remainder of the potable distribution system by strategically located valves and can then be pumped to achieve pressures comparable to the existing conventional Emergency Firefighting Water System (EFWS), which is located in other areas of San Francisco. The system will be capable of pumping potable water, but also switching to non-potable water in Lake Merced for a much larger supply. 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.

Program: Local Water Conveyance/Distribution System	Project Status: Planning	Environmental Status: Completed (CatEx)
--	---------------------------------	--

Project Cost:	Project Schedule:
Approved  \$55.00 M	Approved Aug-19  Jun-28
Forecast  \$55.00 M	Forecast Aug-19  Jun-28
Actual  \$0.82 M	Project Percent Complete: 0.8%
	

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/12/19✓	N/A	TBD	12/31/25

Progress and Status:

Under the EFWS Pipelines project during this quarter, the configuration, routes, and construction sequencing for the multiple PEFWS pipeline contracts were analyzed. The project funding in this project will fund construction of PEFWS pipelines in the next several years. These pipelines are in planning phase. Construction completion expected December 2025.

Issues and Challenges:

None at this time.









Earthquake Resistant Ductile Iron Pipe with flexible joints (demonstrated) used in the project

II. Local WECIP Quarterly Report

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.

Program: Local Water Conveyance/Distribution System		Project Status: Design		Environmental Status: Active (MND)	
Project Cost:			Project Schedule:		
Approved		\$5.00 M	Approved Jun-19		Apr-23
Forecast		\$6.66 M	Forecast Jun-19		Apr-25
Actual		\$2.14 M	Project Percent Complete: 41.5%		
					
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	02/01/23	07/12/23	01/13/24	10/09/24	

Progress and Status:

During this reporting period the project completed the 10% design of the open cut trenching across the Arroyo de la Laguna creek. The project team continues toward development of the design criteria and 65% design. The Highway 680 Crossing construction continues, with SFPUC inspectors monitoring the work.

Issues and Challenges:







The variance to the forecast schedule and cost is due to the change in construction method from tunneling to open cut trench, as explained in the last quarter. This change in scope triggers the need to update the CEQA documents, environmental permits, and real estate negotiations. This change is anticipated to delay the project by two years and to add soft costs and escalation costs for construction.



Exposed Town of Sunol Pipeline crossing Arroyo de la Laguna Creek

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 SFPUC’s goal is to replace 10 to 15 miles of pipe per year, depending on funding availability. 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 SFPW Paving, is emphasized to optimize efficiencies and minimize customer disruptions. Some street improvement projects led by other agencies (CalTrans, SFMTA, SFCTA, SFPW) are more expensive to implement due to their complexity, traffic and transit impacts, and multi-agency coordination. Starting in FY21-22, separate funding for 4 miles of main replacement at a cost of \$6.0M per mile has been provided for the L-Taraval Transit Project. 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.

Program: Local Water Conveyance/Distribution System	Project Status: Multiple Phases	Environmental Status: Active (Various)
Project Cost: Approved  \$750.58 M Forecast  \$750.58 M Actual  \$311.06 M		Project Schedule: Approved Jul-10  Jun-28 Forecast Jul-10  Jun-28 Project Percent Complete: 36.4%
		

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

+ The Programmatic Project includes multiple active and upcoming construction contracts (Refer to Section 7 for the active construction status).

Progress and Status:

CDD is coordinating with Wastewater Enterprise sewer replacement projects as well as San Francisco Public Works paving projects to avoid conflicts, reduce construction costs, and minimize disruption in commercial and residential areas. The forecast mileage for FY22 is 7.5 miles. The budgeted cost per mile has been updated for FY22 from \$3.18 million per mile to \$5.4 million per mile for replacement of water distribution mains. The updated cost per mile for streetscape, transit, or ERDIP type projects is approximately \$8 million per mile. The increased cost per mile is attributed to changes in SFPW’s pavement restoration, ADA curb ramps, permitting requirements in the City, increased material and labor costs, support costs when working under SFMTA’s overhead catenary system, and increased complexity in working in crowded utility corridors. These factors continue to increase the overall cost of pipe replacement projects.

Projects under construction in the next quarter are on the City streets of Pierce Street, Castro Street, 17th Street, Baker Street, 19th Avenue, and Casitas.







Issues and Challenges:

None at this time.

II. Local WECIP Quarterly Report

10015239 - Lake Merced Water Level Restoration

Project Description: The project consists of three 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) In addition, the SFPUC is implementing a Demonstration/Full Scale Aeration Mixing Project to evaluate whether additional lake mixing might result in improved dissolved oxygen concentrations in the Lake and finally (3) 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.

Program: Local Water Supply		Project Status: Design		Environmental Status: Active (Various)	
Project Cost:			Project Schedule:		
Approved		\$32.67 M	Approved Jun-03		Jan-26
Forecast		\$32.67 M	Forecast Jun-03		Jan-26
Actual		\$4.58 M	Project Percent Complete: 16.0%		
					
Key Milestones:	Environmental** Approval	Bid+ Advertisement	Construction+ NTP	Construction+ Final Completion	
Current Forecast	(A) 07/31/18✓ (B) 11/10/16✓ (C) 08/25/22	10/05/21 N/A 09/13/22	07/08/22 06/13/17✓ 03/14/23	07/29/25 07/07/17✓ 10/08/23	

+ 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 2

** (A) EIR/EIS; (B) CatEx; (C) MND

Progress and Status:

Vista Grande Drainage Basin Improvement Project (Contract A): SFPUC and Daly City have restarted regulatory coordination with the Regional Water Quality Control Board (RWQCB) in order to facilitate project discharge permitting. Daly City, with facilitation of SFPUC is working with Department of Public Works' (SFPW) staff to facilitate application for and authorization of a major encroachment permit. The encroachment permit would authorize construction of the structure allowing for diversion of approved flows to Lake Merced. This structure would be constructed underneath existing John Muir Drive within an SFPW ROW. During the quarter, Daly City also completed the required legal descriptions for parcels that will need to be transferred from the SFPUC to Daly City as part of the project.

Aeration Mixing System (Contract B): In August 2017 the SFPUC implemented a demonstration project to improve the dissolved oxygen levels in the lower portion of the lake, which typically run below 5 mg/l due to seasonal lake stratification. In February 2019 staff finalized and submitted to the RWQCB a report

summarizing the testing and data monitoring from the aeration system and received comments back on the report from RWQCB staff. Due to the above-mentioned delays in the Vista Grande Drainage Basin Project, no additional evaluations or decisions have been made to determine whether to proceed with the Aeration Mixing Phase II.







Lake Merced Recycled Water Diversion (Contract C): SFPUC is continuing preliminary design and water quality evaluation of the proposal to divert excess recycled water from the new Westside Recycled Water Plant into Lake Merced to manage lake levels. As part of the evaluation, the Recycled Water Project team is working with other SFPUC staff to prepare an evaluation of connection alternatives and an operational narrative in order to evaluate the viability of various options to efficiently deliver water to Lake Merced.

Issues and Challenges:

None at this time.

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.

Program: Local Water Supply	Project Status: Construction	Environmental Status: Completed (EIR)
Project Cost:		Project Schedule:
Approved  \$66.55 M	Approved Jun-03  Jun-22	
Forecast  \$66.55 M	Forecast Jun-03  Jun-22	
Actual  \$62.24 M	Project Percent Complete: 95.2%	
		

Key Milestones:	Environmental Approval	Bid+ Advertisement	Construction+ NTP	Construction+ Final Completion
Current Forecast	12/19/13✓	(A) 05/01/14✓ (B) 03/10/14✓ (C) 08/17/16✓	(A) 03/16/15✓ (B) 08/04/14✓ (C) 08/07/17✓	03/31/21✓ 12/21/15✓ 10/02/21

+ 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

Progress and Status:

For Phase 1 well station construction (Contract A), the Contractor has submitted all the as-builts. This will be the last report for Contract A.

For Phase 2 (Contract C), during the quarter the contractor continued working on punchlist items (subject to Operations’ verification); closeout documents; processing of remaining change orders, including miscellaneous change orders for completion of the project, deductive bid items, extended warranties, and miscellaneous work; preparation of as-builts; and the operational and maintenance manuals.



North Lake Well Station







Issues and Challenges:

None at this time.

II. Local WECIP Quarterly Report

10015242 - San Francisco Westside Recycled Water

Project Description: This project consists of a new recycled water treatment facility located at the SFPUC's existing Oceanside Plant, along with the associated distribution system components, to produce and deliver an annual average of approximately 1.6 mgd of recycled water to Golden Gate Park, Lincoln Park, and the Presidio. The treatment process includes membrane filtration, reverse osmosis, and ultraviolet light disinfection. A new pump station and reservoir will be constructed in Golden Gate Park to deliver water to Lincoln Park and the Presidio. Approximately 8 miles of new recycled water pipeline connect the treatment facility to the new reservoir in Golden Gate Park and extends to the Lincoln Park and Presidio points of connection. The project also includes the retrofitting of the existing irrigation systems to bring them into compliance with Title 22 regulations. The treatment facility includes additional capacity to serve potential future customers, such as the SF Zoo.

Program: Local Water Supply	Project Status: Construction	Environmental Status: Completed (EIR)
Project Cost:		Project Schedule:
Approved  \$213.32 M	Approved Mar-03  Jan-23	
Forecast  \$213.32 M	Forecast Mar-03  Jan-23	
Actual  \$175.21 M	Project Percent Complete: 83.8%	
		

Key Milestones:	Environmental Approval	Bid+ Advertisement	Construction+ NTP	Construction+ Final Completion
Current Forecast	09/03/15✓	(A) 12/29/16✓ (B) 12/19/18✓ (C) 07/15/16✓ (D) 02/25/20✓	(A) 10/18/17✓ (B) 07/01/19✓ (C) 02/21/17✓ (D) 01/25/21✓	04/05/22 04/29/22 08/19/18✓ 06/23/22

+ Project includes multiple construction contracts. (A) Recycled Water Treatment Facilities; (B) Pump Station and Reservoir; (C) Pipeline; (D) Irrigation System Retrofit. Contract (D) was previously advertised on 09/13/19.

Progress and Status:

Treatment Facility (Contract A): Miscellaneous electrical and mechanical work continued in Building 580 and 581. Work on the chemical trench across the Oceanside Plant (OSP) yard continued, along with installation of the channel glass façade at Building 580. A revised draft of the start-up test and commissioning sequence and schedule was submitted and reviewed by the project team; start-up activities are scheduled to begin in October 2021. The State Department of Drinking Water (DDW) submitted their comments on the ultraviolet light disinfection test protocol. Classroom training sessions for operations, engineering, and maintenance staff were initiated, with three sessions held this quarter. Work continued on the development of the Operations Manual and Standard Operating Procedures for the new treatment facility.

Distribution Pump Station and Reservoir (Contract B): The structural work on the compost wall was completed. Waterproofing on the reservoir roof was

installed. A reservoir water tightness test was conducted. Electrical and mechanical/HVAC work inside the new pump station continued.

Pipeline (Contract C) is complete.

Irrigation System Retrofit (Contract D): The installation of purple quick connect couplers and valve tags continued. The installation of a new pipeline on Transverse Drive was completed. Multiple gate valves were installed, and various minor plumbing modifications completed. The cross-connection control testing of Golden Gate Park continued, while the testing of the DeYoung and Legion of Honor Museums was completed this quarter.







Issues and Challenges:

None at this time.

10015223 - College Hill Reservoir Outlet

Project Description: The College Hill Reservoir is located in San Francisco's Bernal Heights residential district and is a critical reservoir responsible for delivering water to the eastern and northern areas of San Francisco including General Hospital, Upper Market Street, Civic Center, and City Hall. The College Hill Reservoir, constructed in 1870 and San Francisco's oldest water reservoir, was seismically retrofitted in 2001. SFPUC is currently undertaking a phased program to improve the seismic reliability of the water distribution system from College Hill Reservoir to SF General Hospital to withstand a major seismic event. This project addresses essential seismic improvements within the reservoir including installation of a new control valve vault; replacement of reservoir inlet and outlet piping; reservoir roof replacement; miscellaneous piping, security, site access, electrical, instrumentation, and water quality improvements; and replacement of the first section of transmission pipelines for the College Hill system up to Cortland Avenue.

Program: Local Tanks/Reservoir Improvements	Project Status: Construction	Environmental Status: Completed (CatEx)
--	-------------------------------------	--

Project Cost: Approved  \$19.28 M Forecast  \$19.28 M Actual  \$1.09 M	Project Schedule: Approved Jan-13  Jan-24 Forecast Jan-13  Apr-24 Project Percent Complete: 6.0%
	

Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/20/19✓	02/24/21✓	09/27/21✓	10/21/23

Progress and Status:

Construction Notice to Proceed was issued to Ranger Pipelines on September 27, 2021. The overall construction duration is 755 calendar days with a substantial completion date of August 22, 2023.

Issues and Challenges:

The variance in the project schedule is due to unanticipated delay in notice to proceed and also due to adjusting the length of the project's closeout phase to 6 months. Notice to proceed was delayed due to additional time needed to certify the construction contract and also due to the need for project subcontractors to establish supplier IDs in the City financial payment system.






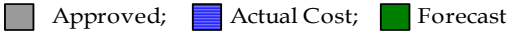


Aerial View of College Hill Reservoir

II. Local WECIP Quarterly Report

10015231 - HARDING PARK PS

Project Description: The Harding Park irrigation pump station and recycled water storage tank was commissioned in 2012. The pump station draws recycled water from an underground reservoir and delivers the pressurized water to the Tournament Players Club (TPC) Harding Park golf course. In the summer of 2016, the pump station was taken off-line because electrical terminations in the pump station control panel had corroded. This resulted in an arc flash event, which damaged the main switch, making the pump station inoperable. Temporary repairs have been made, allowing for the facility to resume operation. The primary objective of the Harding Park Pump Station Project is to implement a permanent solution to the electrical system deficiencies and improve pump station reliability.

Program: Pump Stations		Project Status: Planning		Environmental Status: Not Initiated	
Project Cost:			Project Schedule:		
Approved		\$6.53 M	Approved Jul-21		Apr-26
Forecast		\$6.53 M	Forecast May-21		Apr-26
Actual		\$0.33 M	Project Percent Complete: 2.6%		
					
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	N/A	02/02/24	10/04/24	10/03/25	

Progress and Status:

The scope of work and cost proposal for Needs Assessment and Alternatives Analysis were finalized during the quarter. Additionally, the funding transfer to DPW completed in the quarter. Needs Assessment work will begin next quarter.

Issues and Challenges:

None at this time.

10037249 - New CDD Headquarters

Project Description: The City Distribution Division (CDD) oversees the retail water distribution system within the City and County of San Francisco and is responsible for the physical infrastructure of San Francisco’s potable water, Emergency Firefighting Water System (EFWS), recycled water distribution, and ground 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 mains; 12 reservoirs; 9 pump stations; 7 hydro-pneumatic stations; 6 tanks; the water meter program serving over 176,000 customers; CDD’s physical buildings, equipment and fleet; and over 1,100 acres of grounds throughout the City. The buildings and facilities at the existing main CDD campus are functionally obsolete, in disrepair and are not in compliance with current building codes, and do not meet standards for safety, accessibility and environmental requirements. The campus requires full replacement. New buildings will provide greater reliability, safety, security, and higher productivity. This project builds an entirely new campus located at 2000 Marin Street in San Francisco for the CDD staff and facilities.

Program: Buildings and Grounds		Project Status: Design		Environmental Status: Active	
Project Cost:			Project Schedule:		
Approved		\$350.19 M	Approved Feb-20		Jun-28
Forecast		\$393.60 M	Forecast Feb-20		Jun-28
Actual		\$2.65 M	Project Percent Complete: 9.8%		
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	06/30/23	06/18/21✓	10/01/23	12/31/27	

Progress and Status:

The project team achieved 50% schematic design in July and completed review of floor plans. The PRO. 0232 Design Services RFP to be used for this project was rebid in September to avoid protracted legal delays and allow the project team to revise minimum qualifications to increase the bidding pool. The SFPUC chose to rebid the contract after the previous request for bids in April was cancelled due to two of the four Proposers unable to proceed through the evaluation process. Responses are due October 14. The WD-2879R CM/GC RFP is scheduled to be rebid; the SFPUC chose to rebid this contract after two of the four teams proposed Key Team Members that failed to meet minimum qualifications.

Issues and Challenges:

There has been impact to the schedule from the failure of the initial requests for bid proposals for design services and construction management to garner successful bids, and consequent need for rebidding for these contracted services. It will result in a delayed start for the next phase of design, but may not have an








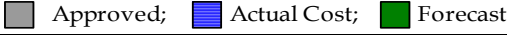
Aerial Rendering of Campus

overall impact on the project if we phase design documents and start construction on schedule. Due to the rising cost of escalation, the project cost is forecasted to increase by \$43.4M.

II. Local WECIP Quarterly Report

EFWS PL - EFWS Pipelines

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

Program: Emergency Firefighting Water System		Project Status: Multiple Phases		Environmental Status: Completed	
Project Cost:			Project Schedule:		
Approved		\$205.26 M	Approved Apr-11		Dec-28
Forecast		\$205.26 M	Forecast Apr-11		Dec-28
Actual		\$31.63 M	Project Percent Complete: 23.3%		
					
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion	
Current Forecast	Various	Various	Various	Various	

Progress and Status:

- 19th Avenue Pipeline:
Construction completion expected December 2022.
- Clarendon Supply:
Construction completion expected July 2022.
- Emergency Firefighting Water System 2050 Planning Study:
Study completion expected December 2021.
- Fireboat Manifolds:
Alternatives Analysis Review completion expected March 2022.
- Potable Emergency Firefighting Water System Pipeline:
Construction completion expected July 2027.
- Terry Francois Blvd (TFB) Mission South Pipeline:
Construction completion expected December 2021.
- Street Valve Motorization:
This project has been cancelled.







Issues and Challenges:

None at this time.

EFWS PS - EFWS Pump Stations

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

Program: Emergency Firefighting Water System	Project Status: Multiple Phases	Environmental Status: Completed
---	--	--

Project Cost:		Project Schedule:	
Approved	 \$45.25 M	Approved Apr-11	 Dec-28
Forecast	 \$45.25 M	Forecast Apr-11	 Dec-28
Actual	 \$39.09 M	Project Percent Complete: 93.7%	
			

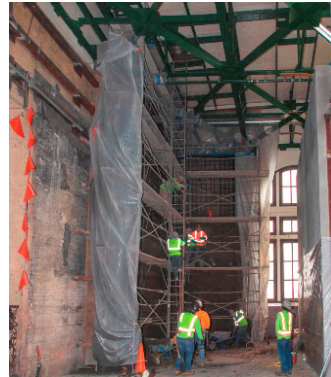
Key Milestones:	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	Various	Various	Various	Various

Progress and Status:

- Pump Station #2:
Construction completion expected December 2022.
- PEFWS PS - Lake Merced:
Planning completion expected December 2022. CER for LMPS will be part of the Pipeline CER. Draft in May 2022, Final in July 2022.

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 Forecasted Construction Final Completion	Approved Contract Cost	Current Forecasted Cost**	Schedule (Cal. Days)	Cost	
Local Water Supply								
10015240 - WD-2809 SF Groundwater Supply Phase 2	08/07/17	08/26/19	12/31/21	\$ 11,685,130	\$ 11,732,708	(858)	(\$47,578)	98.0%
10015242 - WD-2797 Westside Recycled Water Pump Station and Reservoir	07/01/19	05/20/21	10/08/21	\$ 17,707,924	\$ 17,707,924	(141)	-	80.6%
10015242 - WD-2776 Westside Recycled Water Treatment Facility	10/16/17	03/18/21	04/05/22	\$ 92,413,186	\$ 92,413,186	(383)	-	90.0%
10015242 - WD-2852R Westside Recycled Irrigation Retrofits and Improvements	01/25/21	06/23/22	06/23/22	\$ 2,483,525	\$ 2,483,525	-	-	38.1%
Emergency Firefighting Water System								
- WD-2861 Clarendon Supply	02/01/21	12/24/21	12/24/21	\$ 2,685,720	\$ 2,685,720	-	-	7.0%
- WD-2687R Pump Station # 2	12/12/17	12/30/21	12/30/22	\$ 20,623,887	\$ 20,623,887	(365)	-	69.6%

Program Total for On-Going Construction	Approved Contract Cost	Current Forecasted Cost	Variance	
			Cost	Percent
	\$ 205,658,957	\$ 206,931,216	(\$1,272,258)	(0.6%)

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

** The Forecasted 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 CLOSE-OUT

Project Title	Current Approved Construction Phase Completion	Actual Construction Phase Completion	Current Approved Construction Phase Budget	Construction Phase Expenditures To Date
Emergency Firefighting Water System				
10029710- Pump Station #1	04/30/19	04/30/19	\$ 9,827,981	\$ 9,549,140
TOTAL			\$ 9,827,981	\$ 9,549,140

10. COMPLETED PROJECTS

There are no completed projects.

APPENDICES

A PROJECT DESCRIPTIONS

B APPROVED PROJECT-LEVEL SCHEDULE

C LIST OF ACRONYMS

This page is intentionally left blank

APPENDIX A. PROJECT DESCRIPTION

REGIONAL PROJECTS

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.

10015064 SVWTP Phase 3 and 4

The primary objective of the SVWTP Phase 3 and 4 Project is to improve regional water delivery reliability by addressing various deficiencies and needs for improvements at the Sunol Valley Water Treatment Plant (SVWTP). Many of the scoped upgrades were identified through condition assessments, Operations staff's observations, reviews of levels of service, feasibility studies, and alternative analyses.

10037628 SVWTP Polymer Feed

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 will complete the Planning phase and a portion of the Design

phase. The remaining funding for the project is provided under Water Enterprise 10-year CIP, \$7,537,000.

10037349 HTWTP Improvements Capital

Twenty-one sub-projects have been identified to improve the performance, efficiency and reliability of the Harry Tracy Water Treatment Plant (HTWTP). However, one of the projects, the filter underdrains, has become a priority because two of the underdrains have recently failed and a third is showing signs of imminent failure. Although 21 projects have been identified, funding is only available for the filter underdrain project, which has been deemed the highest priority. The remaining projects will be deferred to a future round of CIP planning.

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).

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 inches in diameter and located in the Cities of South San Francisco and San Bruno between Millbrae Yard and Baden Pump Station, is over 80 years old and has extensive lining

failures. This project would replace approximately 3.3 miles of coal tar lining with cement mortar or dielectric lining, upgrade about 30 appurtenances to meet current standards, and improve access and shutdown flexibility for maintenance by installing five manway structures and one 48-inch diameter valve on San Andreas Pipeline No. 1 (SAPL1) near Baden Pump Station.

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 pre-qualified, 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 construction contract for this project will be combined with Project 10036840, BDPL1-4-B Lining Repair to provide a sufficient guaranteed scope.

10036839- Pre-Stressed Concrete Cylinder Pipe (PCCP) Repair

Historically, when prestressed concrete cylinder pipe (PCCP) fails due to wrapped wire breaks, the failure can result in widespread damage to the pipe and ground surface due to multiple wires breaking at the same time along the pressurized pipe. From recent inspections of Bay Division Pipeline No. 4 (BDPL4) Segment D, constructed of PCCP, a large number of defects were found in the last mile of pipe that parallels Edgewood Road in Redwood City; this project will address those defects. This project will increase system reliability by rehabilitating approximately 350 feet of 84-inch diameter BDPL4 PCCP in Redwood City.

10036840 BDPL 1 4 Lining Repair

Water Supply and Treatment Division's (WSTD)

ongoing pipeline inspection program has identified segments of the Bay Division Pipeline Nos. 1 through 4 (BDPL 1-4) that require lining repairs and replacement. This project will retain an as-needed contractor to repair or replace sections of lining that are identified by WSTD over the next 5-years.

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 worst levels of corrosion were bundled up in the masterplan in four phases. Each phase will take several years for 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 fourteen sites and is currently in the design phase. Phase 3 is anticipated to include work at eighteen sites and to begin planning in 2025. The number of sites and locations for Phase 4 will be determined from the corrosion database resulting from WST's annual inspection reports. Planning phase for Phase 4 will commence after Phase 3 is completed. .

10015076 San Antonio Pump Station MCC Upgrades

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.

10015080 San Andreas Pipeline No. 2 Replacement

San Andreas Pipeline No. 2 (SAPL2) provides key water supply redundancy from the Harry Tracy Water Treatment Plant (HTWTP) to the Sunset Reservoir. The lock bar steel sections of SAPL2 between the HTWTP and the Golden Gate National Cemetery are almost 90 years old, pitted, deteriorated, and in need of replacement. This project will replace/rehabilitate approximately 6,500 linear feet of SAPL2 in the City of San Bruno. In addition, as part of this project, two valves will be installed on SAPL1 and CSPL2 near the Baden Valve Lot to improve access to these pipelines.

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 deteriorated in some locations with Reach 2 located on slopes that are eroding and Reach 3 containing extensive lining failures. This project would realign Reach 2 to the existing abandoned CSPL1 alignment, replace the coal tar lining of Reach 3, and improve access to the pipeline.

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. The scope of work will be confirmed once Condition and Needs Assessments, and Alternative Analysis of the dam, outlet structures, and spillway are complete.

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 Sweeney Ridge property at the Sneath Lane Gate. The trail is a critical connection among existing regional trails, and will provide access to 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 this project is to provide

access to the Peninsula watershed, to enhance educational opportunities, and to ensure watershed protection. This proposed trail 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 would consist of 8 to 10-foot wide, all-weather surface trails; retaining structures to stabilize cut and/or fill slopes; drainage facilities; two parking lots; two prefabricated restrooms along the trail; site security features; and landscape 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.

The SFPUC Alameda Creek Watershed Center (Center) will be a gathering place for increasing the awareness and appreciation of the natural, cultural, scenic, historic and recreational resources of the Alameda Creek watershed.

Consistent with the SFPUC Water Enterprise Environmental Stewardship Policy, and as described in the SFPUC Alameda Watershed Management Plan, the Center will enhance public awareness and provide education opportunities related to water quality, water supply, conservation and environmental stewardship issues.

This project is comprised of the following related projects: CUW2630601, Sunol Master Plan Support covering the planning and partial environmental and design phases, \$5,764,341, and CUW27701 (10015124), Sunol Long Term Improvements, covering partial environmental and design phases and the construction phase, \$100,414,000. The preconstruction phases were combined with the Sunol Yard and Center scope. The construction work was separated into two phases with the Sunol Yard under Phase A and the Center under Phase B. The Sunol Yard construction work was completed in September 5, 2020 with a total construction amount of \$37,584,195 and included Phase A and JOC work. The Phase B construction notice to proceed was issued January 17, 2020 under WD-2794B for a contract amount of \$27,577,000. The total project cost is \$106,178,000.

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 facilitate 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 and new south shop building to alleviate Water Enterprise undersized and outdated workspaces and desire to relocate mission-critical functions to code-compliant structures. 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.

In May 2020, the scope for the Rollins Road Project was significantly decreased, and the scope of the Millbrae Yard Lab & Shop Project was increased. 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.

LOCAL PROJECTS

Local Water Conveyance/Distribution System

10033816 Potable Emergency Firefighting Water System

This project, the Potable Emergency Firefighting Water System (PEFWS) proposes to design and construct earthquake-resistant water pipelines in western San Francisco, particularly the Sunset and Richmond areas. These pipelines will connect to the existing potable water distribution system to help deliver water to businesses, institutions, and residences during normal operations. It will also be designed to provide high-pressure fire suppression water when needed after a major earthquake or other emergency. When so needed, it will be isolated from the remainder of the potable distribution system by strategically located valves and can then be pumped to achieve pressures comparable to the existing conventional Emergency Firefighting Water System (EFWS), which is located in other areas of San Francisco. The system will be capable of pumping potable water, but also switching to non-potable water in Lake Merced for a much larger supply. This project also includes Lake Merced and Sunset Reservoir pump stations, which will increase water pressure when needed for fire suppression. Pipeline alignment, diameter, and related features will be determined during the planning phase, as will pump station schematic design. Phased construction scheduling and associated budgets will be determined in conjunction with finalizing these pipeline and pump station details. The 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.

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.

19063 Local Water Conveyance/Distribution System

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 SFPUC's goal is to replace 10 to 15 miles of pipe per year, depending on funding availability. 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 SFPW Paving, is emphasized to optimize efficiencies and minimize customer disruptions. Some street improvement projects led by other agencies (CalTrans, SFMTA, SFCTA, SFPW) are more expensive to implement due to their complexity, traffic and transit impacts, and multi-agency coordination. Starting in FY21-22, separate funding for 4 miles of main replacement at a cost of \$6.0M per mile has been provided for the L-Taraval Transit Project, where

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.

Local Water Supply

10015239 Lake Merced Water Level Restoration

The project consists of three 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) In addition, the SFPUC is implementing a Demonstration/Full Scale Aeration Mixing Project to evaluate whether additional lake mixing might result in improved dissolved oxygen concentrations in the Lake and finally (3) 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 consists of a new recycled water treatment facility located at the SFPUC's existing Oceanside Plant, along with the associated distribution system components, to produce and deliver an annual average of approximately 1.6 mgd of recycled water to Golden Gate Park, Lincoln Park, and the Presidio. The treatment process includes membrane filtration, reverse osmosis, and ultraviolet light disinfection. A new pump station and reservoir will be constructed in Golden Gate Park to deliver water to Lincoln Park and the Presidio. Approximately 8 miles of new recycled water pipeline connect the treatment facility to the new reservoir in Golden Gate Park and extends to the Lincoln Park and Presidio points of connection. The project also includes the retrofitting of the existing irrigation systems to bring them into compliance with Title 22 regulations. The treatment facility includes additional capacity to serve potential future customers, such as the SF Zoo.

Local Tanks/Reservoir Improvements

10015223 College Hill Reservoir Outlet

The College Hill Reservoir is located in San Francisco's Bernal Heights residential district and is a critical reservoir responsible for delivering water to the eastern and northern areas of San Francisco including General Hospital, Upper Market Street, Civic Center, and City Hall. The College Hill Reservoir, constructed in 1870 and San Francisco's oldest water reservoir, was seismically retrofitted in 2001. SFPUC is currently undertaking a phased program to improve the seismic reliability of the water distribution system from College Hill Reservoir to SF General Hospital to withstand a major seismic event. This project addresses essential seismic improvements within the reservoir including installation of a new control valve vault; replacement of reservoir inlet and outlet piping; reservoir roof replacement; miscellaneous piping, security, site

access, electrical, instrumentation, and water quality improvements; and replacement of the first section of transmission pipelines for the College Hill system up to Cortland Avenue.

Pump Stations

□

10015231 Harding Park PS

The Harding Park irrigation pump station and recycled water storage tank was commissioned in 2012. The pump station draws recycled water from an underground reservoir and delivers the pressurized water to the Tournament Players Club (TPC) Harding Park golf course. In the summer of 2016, the pump station was taken off-line because electrical terminations in the pump station control panel had corroded. This resulted in an arc flash event, which damaged the main switch, making the pump station inoperable. Temporary repairs have been made, allowing for the facility to resume operation. The primary objective of the Harding Park Pump Station Project is to implement a permanent solution to the electrical system deficiencies and improve pump station reliability.

Buildings and Grounds

10037249 New CDD Headquarters

The City Distribution Division (CDD) oversees the retail water distribution system within the City and County of San Francisco and is responsible for the physical infrastructure of San Francisco's potable, auxiliary water supply and ground 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 mains, 12 reservoirs, 9 pump stations, 7 hydro-pneumatic stations, 6 tanks, the water meter program serving over 176,000 customers, and maintain CDD's physical plant, equipment and fleet and over 1,100 acres of grounds through the City.

The buildings and facilities at the existing CDD campus are functionally obsolete, in disrepair and are not in compliance with current building codes, and do not meet standards for safety, accessibility and environmental requirements. The campus requires full replacement. New

buildings will provide greater reliability, safety, security, and higher productivity.

Emergency Firefighting Water System

EFWS PL Emergency Firefighting Water System (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 Emergency Firefighting Water System (EFWS) Pump Stations

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 C. Water Enterprise Proposed Project-Level Schedules Regional Programs



Project Name	Start	Finish	FY2022				FY2023				FY2024				FY2025				FY2026				FY2027				FY2028				FY2029				FY2030
			FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1
Water Regional Improvement Projects	01-Jan-09	29-Jun-35																																	
Water Treatment	03-Mar-14	27-Dec-29																																	
10015064 SVWTP Phases 3 and 4	03-Mar-14	30-Jun-26																																	
10033123 SVWTP Ozone (CUW27202)	27-Jun-17	30-Jun-27																																	
10037349 HTWTP Improvements Capital	02-Nov-20	28-Jun-24																																	
10037350 Regional Groundwater Treatment Improvements	13-Aug-20	27-Dec-29																																	
10037628 SVWTP Polymer Feed Facility	08-Mar-21	27-Sep-24																																	
Water Transmission	01-Jan-16	29-Dec-34																																	
10015071 Corrosion Control	01-Jan-16	29-Dec-34																																	
10015076 San Antonio Pump Station MCC Upgrades	12-May-16	19-Mar-25																																	
10015080 San Andreas Pipeline No. 2 Replacement	01-Mar-16	08-Dec-21																																	
10015081 CSPL2 Reaches 2 and 3 Rehabilitation	22-Oct-16	12-Jun-26																																	
10034578 CSPL2 Reach 5 Lining Replacement	25-Feb-19	19-Sep-25																																	
10035029 As-Needed Pipeline Repair	01-Jul-20	25-Aug-28																																	
10036839 Pre-Stressed Concrete Cylinder Pipe (PCCP) Repair	01-May-20	22-Nov-23																																	
10036840 BDPL 1-4 Lining Repair	12-Sep-16	25-Aug-28																																	
Water Supply & Storage	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 Repairs	04-Jan-22	30-Jun-31																																	
10036998 Turner Dam and Reservoir Improvements	01-Oct-20	29-Jun-35																																	
Watershed and Lands Management	31-Oct-12	27-Jan-28																																	
10015108 Sneath Lane Gate/North San Andreas	01-Feb-21	27-Jan-28																																	
10015110 EBRPD Water System	02-Jun-14	31-Oct-22																																	
10015113 Southern Skyline Blvd Ridge Trail Extension	31-Oct-12	11-Sep-23																																	
10030771 San Andreas Service Road Upgrades	30-Jun-16	31-Dec-26																																	
Buildings and Grounds	01-Jan-09	31-Mar-28																																	
10014124 Sunol Long Term Improvements	01-Jan-09	13-Sep-22																																	
10015128 Millbrae Yard Laboratory and Shop Improvements	02-Nov-15	31-Mar-28																																	
10033555 Rollins Road Building Renovations (CUW27703)	01-Mar-18	30-Jun-22																																	
10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC	03-Jan-17	30-Nov-23																																	

- Project Management
- Design
- Construction Mgmt
- Planning
- Right-of-Way
- Construction
- Environmental
- Bid & Award
- Closeout

Appendix C. Water Enterprise Proposed Project-Level Schedules

Local Programs

Project Name	Start	Finish	FY2021				FY2022				FY2023				FY2024				FY2025				FY2026				FY2027				FY2028				FY2029
			FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1	FQ2	FQ3	FQ4	FQ1
Water Local Improvement Projects	03-Mar-03	30-Dec-28																																	
Local Water Conveyance / Distribution System	01-Jul-10	30-Jun-28																																	
10033816 Potable Emergency Firefighting Water System	12-Aug-19	30-Jun-28	[Gantt bar with phases: Design, Bid & Award, Construction, Closeout]																																
10033818 Town of Sunol Pipeline	17-Jun-19	03-Apr-23	[Gantt bar with phases: Planning, Design, Bid & Award, Construction, Closeout]																																
19063 Local Water Conveyance/Distribution System	01-Jul-10	30-Jun-28	[Gantt bar with phases: Construction, Closeout]																																
Local Water Supply	03-Mar-03	30-Jan-26																																	
10015239 Lake Merced Water Level Restoration	16-Jun-03	30-Jan-26	[Gantt bar with phases: Design, Bid & Award, Construction, Closeout]																																
10015240 San Francisco Groundwater Supply	16-Jun-03	30-Jun-22	[Gantt bar with phases: Construction, Closeout]																																
10015242 San Francisco Westside Recycled Water	03-Mar-03	12-Jan-23	[Gantt bar with phases: Construction, Closeout]																																
Local Tanks/Reservoir Improvements	24-Jan-13	29-Jan-24																																	
10015223 College Hill Reservoir Outlet	24-Jan-13	29-Jan-24	[Gantt bar with phases: Design, Bid & Award, Construction, Closeout]																																
Pump Stations	06-Jul-21	03-Apr-26																																	
10015231 Harding Park PS	06-Jul-21	03-Apr-26	[Gantt bar with phases: Design, Bid & Award, Construction, Closeout]																																
Buildings and Grounds	01-Feb-20	28-Jun-28																																	
10037249 New CDD Headquarters	01-Feb-20	28-Jun-28	[Gantt bar with phases: Planning, Design, Bid & Award, Construction, Closeout]																																
Emergency Firefighting Water System (EFWS)	01-Apr-11	30-Dec-28																																	
10015480 2014 AUXILIARY WATER SUPPLY SYSTEM*	06-Nov-14	30-Dec-22	[Gantt bar with phases: Construction, Closeout]																																
10015482 AUXILIARY WATER SUPPLY SYSTEM*	01-Apr-11	30-Jun-22	[Gantt bar with phases: Construction, Closeout]																																
EFWSPS EFWS Pump Stations	01-Apr-11	30-Dec-28	[Gantt bar with phases: Construction, Closeout]																																
EFWSPL EFWS Pipelines	01-Apr-11	29-Dec-28	[Gantt bar with phases: Construction, Closeout]																																

- | | | |
|---|--|---|
|  Project Management |  Design |  Construction Mgmt |
|  Planning |  Right-of-Way |  Construction |
|  Environmental |  Bid & Award |  Closeout |

APPENDIX C. LIST OF ACRONYMS

AAR	Alternative Analysis Report	MCP	Main Control Panel
ADEIR	Administrative Draft of the Environmental Impact Report	MG	Million Gallons
AWMP	Automated Water Meter Program	MGD	Million Gallons per Day
AWSS	Auxiliary Water Supply System	MIB	2-Methylisoborneol
BARR	Bay Area Regional Reliability	MND	Mitigated Negative Declaration
BRT	Bus Rapid Transit	MOU	Memorandum of Understanding
C&M	Construction and Maintenance	MW	Megawatt
CalTrans	California Department of Transportation	NEPA	National Environmental Policy Act
CATEX	Categorical Exemption	NLWS	North Lake Well Station
CDD	City Distribution Division	NRD	Natural Resources Division
CEQA	California Environmental Quality Act	NTP	Notice to Proceed
CER	Conceptual Engineering Report	O&M	Operation and Maintenance
CIP	Capital Improvement Program	PAC	Powdered Activated Carbon
CM	Construction Management	PAH	Polycyclic Aromatic Hydrocarbons
CM/GC	Construction Manager/General Contractor	PEFWS	Potable Emergency Firefighting Water System
CMB	Construction Management Bureau	PMF	Probable Maximum Flood
COVID-19	Coronavirus Disease of 2019	PREP	Potable Reuse Exploratory Plan
CSPL2	Crystal Springs Pipeline Number 2	PRGC	Pacific Rod and Gun Club
DCU	Data Collection Unit	PS	Pump Station
DDW	Department of Drinking Water (State of California)	PUC	Public Utilities Commission
DFI	Dam Facility Improvements	RF	Radio Frequency
DIP	Ductile Iron Pipe	RFP	Request for Proposal
DSOD	Division of Safety of Dams (State of California)	RFQ	Request for Qualifications
EFWS	Emergency Firefighting Water System	ROW	Right-of-Way
EIR	Environmental Impact Report	RWOCB	Regional Water Quality Control Board
EIS	Environmental Impact Statement	RWS	Regional Water System
EMB	Engineering Management Bureau	SAD	San Andreas Dam
ESER	Earthquake Safety and Emergency Response	SAPL1	San Antonio Pipeline Number 1
FCC	Federal Communications Commission	SAPL2	San Antonio Pipeline Number 2
FY	Fiscal Year	SAPS	San Antonio Pump Station
GGNRA	Golden Gate National Recreation Area	SCADA	Supervisory Control and Data Acquisition
GGP	Golden Gate Park	SF	San Francisco
GPR	Ground Penetrating Radar	SFPUC	San Francisco Public Utilities Commission
HTWTP	Harry Tracy Water Treatment Plant	SFPW	San Francisco Public Works (formerly SFDPW)
HVAC	Heating, Ventilation, and Air Conditioning	SOP	Standard Operating Procedure
I&C	Instrumentation and Controls	STATEX	Statutory Exemption
ITS	Information Technology Services	SVWTP	Sunol Valley Water Treatment Plant
IOC	Job Order Contract	SWWS	South Windmill Well Station
MCC	Motor Control Centers	T&O	Taste and Odor
		TBD	To be determined
		TCE	Temporary Construction Easement
		TFB	Terry Francois Boulevard

Appendices

UV	Ultra Violet
VNBRT	Van Ness Bus Rapid Transit
WE	Water Enterprise
WECIP	Water Enterprise Capital Improvement Program
WQD	Water Quality Division
WSIP	Water System Improvement Program
WSTD	Water Supply and Treatment Division