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DATE: December 5, 2023

TO: Commissioner Tim Paulson, President
Commissioner Anthony Rivera, Vice President
Commissioner Newsha K. Ajami
Commissioner Sophie Maxwell
Commissioner Kate H. Stacy

FROM: Dennis J. Herrera, General Manager DJH

RE: Water Enterprise Capital Improvement Program
Quarterly Report (1st Quarter / FY 2023-2024)

Enclosed please find the Water Enterprise Capital Improvement Program (WECIP) Quarterly Report for the 1st Quarter (Q1) of Fiscal Year (FY) 2023-2024. 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, 2023 to September 30, 2023.

This quarterly report incorporates all the changes made to the Regional Water Enterprise CIP projects and the Local Water Enterprise CIP projects according to the 10-Year Water Enterprise Capital Plan for FY2023-2 to FY2032-33, presented to and approved by this Commission on February 1 , 2023.

Attachment

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

QUARTERLY REPORT

Water Enterprise Capital Improvement Program

Q1 FY 2023 | 2024

July 2023 — September 2023

Published: December 5, 2023

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EXECUTIVE SUMMARY

This quarterly report provides a summary update on both Regional and Local Water Enterprise CIP projects. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the Water Enterprise Capital Improvement Program based on data for the period of July 1, 2023 to September 30, 2023.

This quarterly report incorporates all the changes made to the Regional Water Enterprise CIP projects and the Local Water Enterprise CIP projects according to the 10-Year Water Enterprise Capital Plan for FY2023-24 to FY2032-33, presented to and approved by this Commission on February 14, 2023.

The 2023 approved Regional Water Enterprise CIP (2023 Regional WECIP) has twenty-five (25) projects, only one of which is not yet initiated – Merced Manor Reservoir Facilities Repairs. Two projects – EBRPD Water System and Rollins Road Building Renovations – completed construction under the previous program and are not part of the 2023 Regional WECIP. Two new projects – Sunol Valley Chloramination Facility Improvements and Millbrae Yard Security Upgrades – were added to the twenty-three (23) projects that continued from the previous program.

The 2023 approved Local Water Enterprise CIP (2023 Local WECIP) has thirteen (13) projects, all of which are in progress. Two new projects - Local Water Lead Component Services Program, and Reservoir Roof and Tank Coatings – were added to the eleven (11) projects that continued from the previous program.

Program Current Status:

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

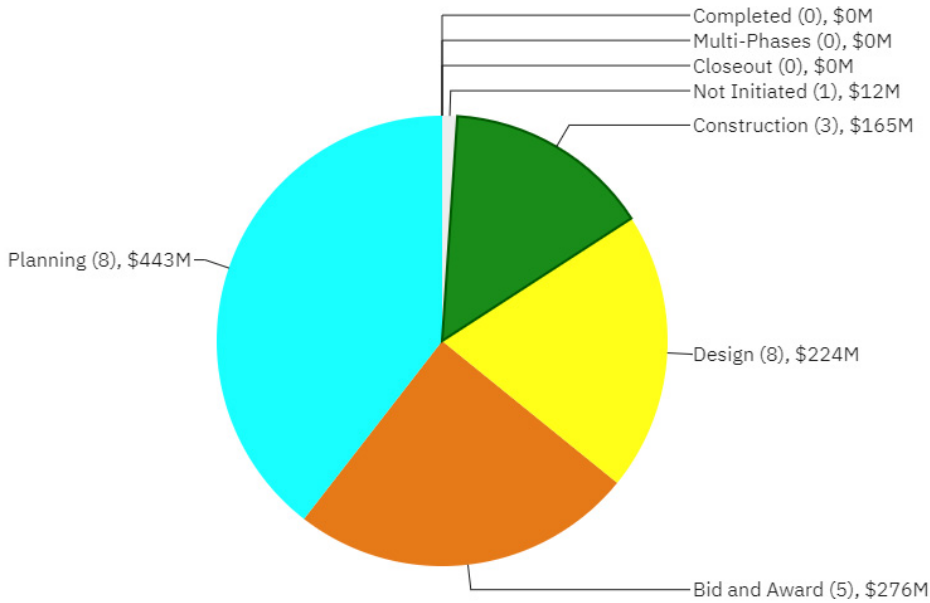

Figure A Total Current Approved Budget for Regional Projects Active in Each Phase

As of the end of the reporting period, the Local Water Enterprise CIP includes 13 projects in various phases as follows: four (4) projects in multiple phases, five (5) projects in planning and design, three (3) projects in construction, and one (1) project in closeout.

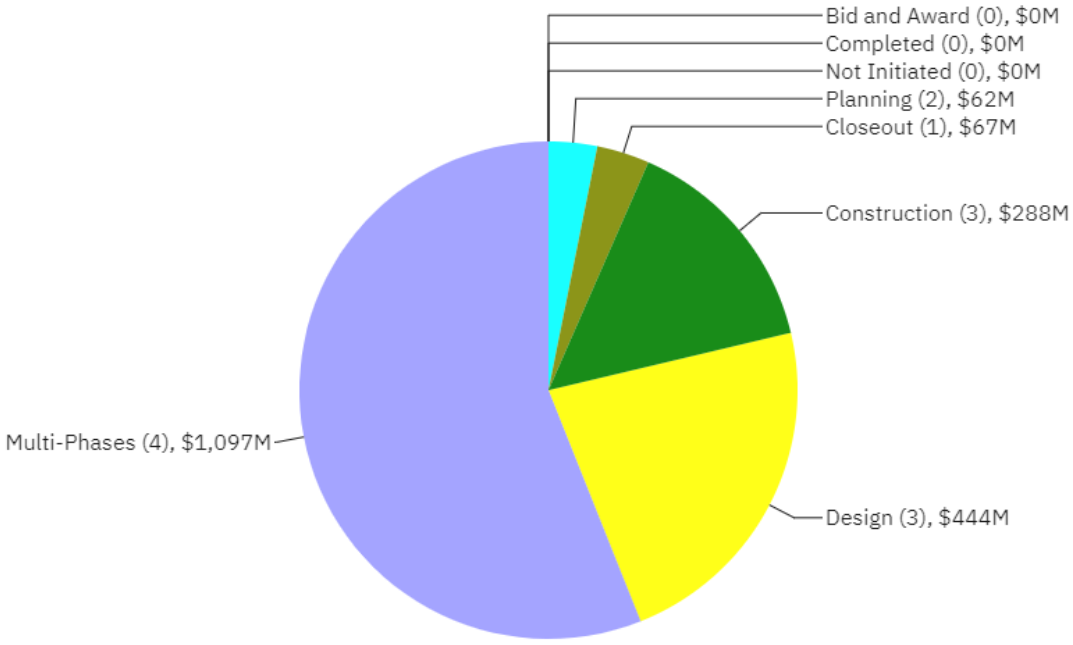

Figure B Total Current Approved Budget for Local Projects Active in Each Phase

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

Table A. Program Cost Summary

Programs	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q1/FY23-24 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Variance Over Reporting Period* ($ Million) (E)
Regional Program	$195.94	$1,120.58	$1,137.45	($16.86)	($16.86)
Local Program	$843.05	$1,958.28	$1,958.28	-	-
Programs Total	**$1,038.98**	**$3,078.87**	**$3,095.73**	**($16.86)**	**($16.86)**

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

The total Current Approved Budget (including Regional and Local Programs) and Current Forecast Cost at completion are $3,078.9 million and $3,095.7 million, respectively. The Current Approved Budget and Forecast Cost at completion for only the Regional Water Program (including construction contingency) are $1,120.6 million and $1,137.4 million, respectively. The Current Approved Budget and Forecasted Cost at completion for only the Local Water Program (including construction contingency) is the same at $1,958.3 million.

Table B. Current Approved vs. Current Forecast Schedule Dates

Programs	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Regional	01/01/09	01/01/09 A*	06/29/35	06/29/35	-
Water Local	03/03/03	03/03/03 A*	06/30/33	06/30/33	-
Overall Water Enterprise CIP	**03/03/03**	**03/03/03 A***	**06/29/35**	**06/29/35**	**-**

** "A" represents the actual date*

The Regional program is forecasted to complete by the approved completion date and the Local program is also forecasted to complete by the approved completion date.

Program Key Updates:

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

- For the Sunol Valley Water Treatment Plant - Ozone project, during the reporting period, the 100% design package was finalized and the contract was advertised.
- For the Sunol Valley Water Treatment Plant - Short Term Improvements project, the 100% design work and 95% independent construction cost estimate work continued. The 95% construction schedule was completed. Scope for a Utility Water/Fire Protection System pump station was added to the project to meet plant demands after addition of the future Ozone facility.
- The Sunol Valley Chloramination Facility project was added to the program in Q1 since the budget is greater than $5 million. The 100% design was reviewed by stakeholders, and the contract is anticipated to be advertised for construction bid in the next reporting period.
- The Sunol Valley Water Treatment Plant Polymer Feed Facility project team decided to defer this project until after the Ozonation facility is installed and operational, anticipated in 2028. The scope for the Polymer Feed project will be re-evaluated after the benefits from ozone addition and the impacts to the polymer addition can be evaluated at full-scale.

- For HTWTP Filter Underdrain Replacement project, construction under Contract WD-2887, Harry Tracy Water Treatment Plant - Filters No. 1 to 6 Underdrain Replacement has been completed. The filters were turned over to Operations, and the contractor has demobilized. During testing and commissioning of the underdrains, however, it was discovered that the air scour blowers were not providing a sufficient flow of air to efficiently backwash the filter media. The project team is investigating possible solutions.
- For Regional Groundwater Treatment Improvements project, the project team completed drafting a Request for Proposals (RFP) to procure a consultant for project planning and long-term implementation strategy, and it is currently undergoing City Attorney review.
- For Crystal Springs Pipeline Rehabilitation Reaches 2 and 3 project, the pipeline design consultant completed review of the Conceptual Engineering Report (CER) and other background information and has submitted a design proposal for review. Geotechnical and structural design support through San Francisco Public Works has also been procured.
- For the Crystal Springs Pipeline No. 2 Reach 5 Lining Replacement project, Notice to Proceed was issued for consultant design support services, and detailed design for the re-lining work began. Detailed design for the pre-purchase of valves for safe pipeline entry also began. Outreach to property owners and agencies where construction will be occurring continued.
- For As-Needed Pipeline Repairs and Bay Division Pipeline Nos. 1-4 Lining Repair projects (which will be constructed together), an Addendum to the Conceptual Engineering Report (CER) for installing valves to achieve safe pipeline entry was completed by the team and has been approved by the Technical Steering Committee (TSC). These valves will be used to facilitate safe worker entry into the pipelines for the current construction as well as for all future pipeline entry by Operations staff.
- For Corrosion Control, Phase 2, installation of anodes at several locations has been completed. For Phase 3, a kickoff meeting presentation for the planning phase was held on August 4.
- For Bay Division Pipeline No. 4 Pre-Stressed Concrete Cylinder Pipe (PCCP) Repair project, the project team is continuing to prepare responses to comments on the draft Needs Assessment Report (NAR) for 1.3 miles of PCCP in Redwood City. Six segments, approximately 650 feet, were identified to be high priority for repair due to extensive wire breaks, wide circumferential cracks, and active leaks. A draft Conceptual Engineering Report for an initial phase to repair these six segments was completed and is under review. Determination of whether a second phase may be needed will be based on the final NAR.
- For San Antonio Pump Station MCC Upgrades, an Addendum to the construction contract was issued for revisions to the fire alarm panel, HVAC, and power requirements. Bid opening is scheduled for October 19th.
- For the Turner Dam and Reservoir Improvements project, the project team completed the geotechnical investigation and material characterization analysis during the quarter.
- For Pilarcitos Dam Improvements, the project team started development of the conceptual engineering report for two alternatives, permanent reservoir restriction (Alternative 5) and dam replacement (Alternative 1).

- For San Andreas Dam Facility Improvements, the project team completed the material characterization report and geotechnical data report and continued preparing the alternatives analysis for five shortlisted alternatives.
- For the Southern Skyline Blvd Ridge Trail Extension project, the construction contract was awarded on September 26, 2023.
- For the SA-1 Service Road/Ingoing Road project, the project was advertised on July 27. Five bids were received on August 31. Multiple environmental permit applications were sent to State and Federal agencies. The date forecast to obtain environmental clearance is by the end of December 2023. Notice to Proceed for construction will not be issued until all environmental permits are acquired.
- For Sneath Lane Gate/North San Andreas project, a draft Biological Resources Assessment report was submitted and reviewed.
- For Sunol Long Term Improvements project, Watershed Center (Contract B), negotiations continued on repairs to the berm that settled. The exhibit submittals and fabrication work, furniture, fixtures, equipment fabrication, building commissioning, and punchlist work continued. A job order contract was initiated to investigate and repair the sink hole over the existing pipeline crossing the landscaped area.
- For Millbrae Yard Laboratory and Shop Improvements project, the team received confirmation of the final scope of work that will be implemented in the project. Preparation of the conceptual design and the Request for Proposals (RFP) for engineering services through SF Public Works has resumed with confirmation of final scope.

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

- For Town of Sunol Pipeline project, 95% design was completed by the team and was reviewed by stakeholders. The team is addressing stakeholder review comments and will prepare the final contract documents for advertisement next quarter.
- For the Local Water Conveyance/Distribution System, projects under construction during Q1 FY24 included the City streets of 19th Avenue, Vicente Street, Prospect Avenue, L-Taraval Segment B, Diamond Street, and Laidley Street. Water work was completed on Prospect Avenue, 19th Avenue, and Vicente Street during the quarter. The construction contract for Diamond Heights residential district on Gold Mine Drive was awarded by the SFPUC Commission. Additionally, the construction contract for Glen Park residential District on Joost Street advertised in Q1 FY24.
- For the College Hill Reservoir Outlet project, the contractor completed fabrication and installation of the valve control vault staircase and platform, installation of valve vault roof and hatches, shipment of 24-inch and 26-inch gate valves and motorized actuators, installation of 24-inch gate valves at the control valve vault, demolition of the reservoir roof membrane and substructure, and installation of reservoir roof joists.
- For the New City Distribution Division (CDD) Headquarters project, final design is underway.

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Quarterly Report

Water Enterprise Capital Improvement Program

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I. Regional Capital Improvement Program

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1. CAPITAL IMPROVEMENT PROGRAM DESCRIPTION

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

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

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

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

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

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

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

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

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

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

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

2. CAPITAL IMPROVEMENT PROGRAM STATUS

This Quarterly Report presents the progress made on Regional Water projects between July 1, 2023 and September 30, 2023. This document serves as the first (1st) Quarterly Report in Fiscal Year 2023-2024 (FY24) published for the Water Enterprise Capital Improvement Program.

This quarterly report incorporates all the changes made to the Regional Water Enterprise CIP projects and the Local Water Enterprise CIP projects in the Water Enterprise Capital Improvement Program according to the 10-Year Capital Plan for FY2023-24 to FY2032-33, presented to and adopted by the Commission on February 14, 2023, under Resolution No. 23-0037. The 10-Year Capital Plan for FY2023-24 to FY2032-33 serves as the new baseline for project scopes, schedules, and budgets starting as of the first quarter (Q1) of FY2023-24. The 2023 Approved Water Enterprise CIP is a subset of the Regional and Local Water Enterprise 10-year CIP for FY2024-2033 and includes individual projects over $5 million that were then currently active or intended to be active by July 1, 2023 at the time proposed to the Commission on February 14, 2023.

The 2023 Approved Regional Water Enterprise CIP (2023 Regional WECIP) has twenty-five (25) projects, twenty-three (23) of which remain from the previously approved program. Two projects – EBRPD Water System and Rollins Road Building Renovations – completed construction under the previous program and are not part of the 2023 Regional WECIP. Two new projects – Sunol Valley Chloramination Facility Improvements and Millbrae Yard Security Upgrades – were added. These two new projects together with the 23 continuing projects from the previous program are the 25 projects continuing the 2023 Regional WECIP. The only Regional project of the 25 not yet initiated and therefore not reported on herein is Merced Manor Reservoir Facilities Repairs; a project description is included in Appendix A.

Figure 2.1 shows the total Current Approved Budget for the 25 Regional projects in each phase of the program as of September 30, 2023. The number of projects currently active in each phase is shown in parentheses.

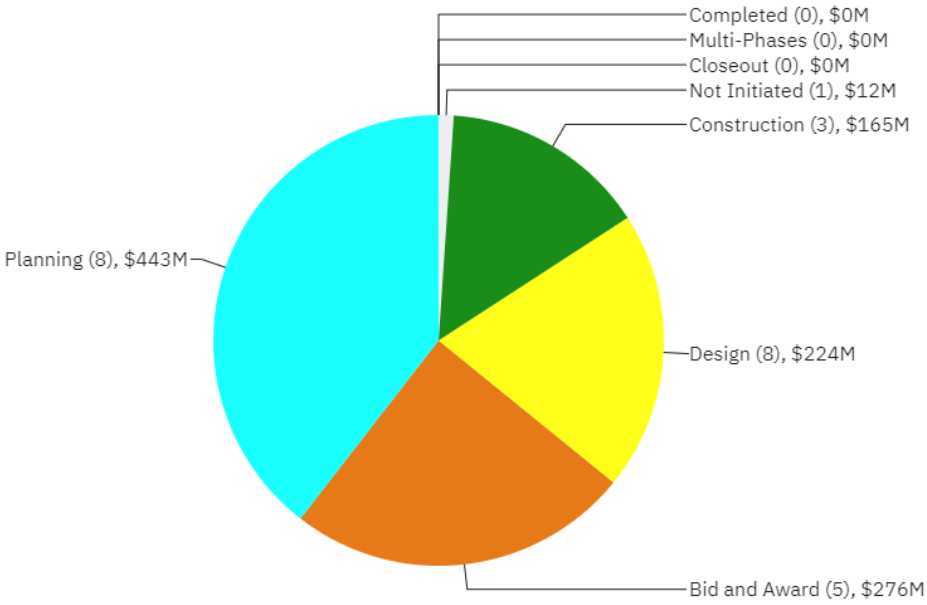

Figure 2.1 Total Current Approved Budget for Regional Projects Active in Each Phase

Figure 2.2 shows the number of Regional projects in the following stages as of September 30, 2023: Pre-construction, Construction, and Post-construction.

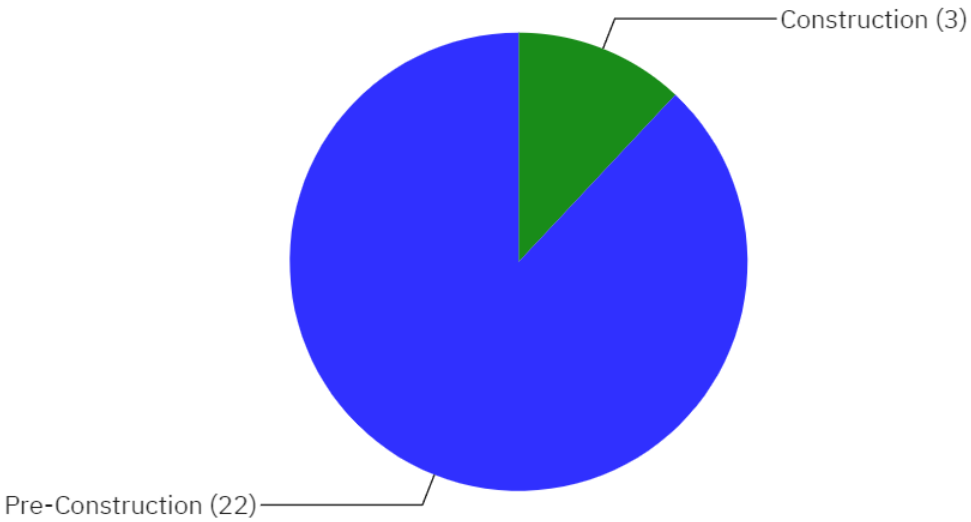

Figure 2.2 Number of Regional Projects in Pre-construction, Construction, and Post-construction

Figure 2.3 summarizes the environmental review status of the 25 Regional projects as of September 30, 2023.

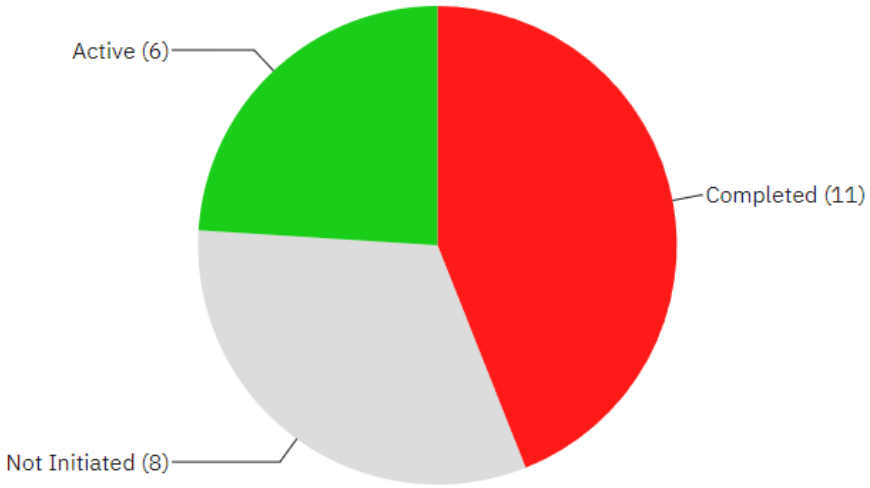

Figure 2.3 Regional Program Environmental Review

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/FY23-24 Forecast Costs, Cost Variance between the Current Approved Budgets and Forecast Costs, and Variance Over Reporting Period (difference between cost forecasts reported in Q4/FY22-23 and in Q1/FY23-24).

The total Current Approved Budget (including Regional and Local Programs) and Current Forecast Cost at completion are $3,078.9 million, and $3,095.7 million, respectively. The Current Approved Budget and Forecast Cost at completion for only the Regional Water Program (including construction contingency) are $1,120.6 million and $1,137.4 million, respectively.

The project budgets and schedules, including for new projects, that were included in the 10-Year CIP budget proposal that was presented to, and approved by, the Commission on February 14, 2023 became fully approved in Q1FY23-24 through Board of Supervisors action. Any variances from the budgets and schedules approved on February 14, 2023 are reported herein.

The 2023 Regional WECIP has an approved budget of $1,120.58M. This is $125.46M greater than the 2022 Regional WECIP approved budget of $995.12M. The increase in the program's approved budget is attributed to the following factors:

- 10015110 EBRPD Water System was a project in the 2022 Regional WECIP with an approved budget of $5.55M that was closed-out and has been removed from the program.
- 10033555 Rollins Road Building Renovations was a project in the 2022 Regional WECIP with an approved budget of $5.19M that has completed construction and has been removed from the program.
- 10037277 Sunol Valley Chloramination Facility with an approved budget of $10.59M is an ongoing project that has been added to the 2023 Regional WECIP since the budget has been increased to greater than $5 million.
- 10034825 Millbrae Security Upgrades with an approved budget of $7.55M is a new project that has been added to the program.
- The 2022 Regional WECIP carried a negative cost variance forecast in Q4/FY22-23 of $122.32M; $118.07M of this variance has been approved as part of the 2023 Regional WECIP approved budget. The remaining $4.25M in variance is carried forward into the 2023 Regional WECIP due to the continuation of $5.84M negative cost variance for the SA-1 Service Road/Ingoing Road project, and the removal of Rollins Road Building Renovations project with its positive cost variance of $1.59M.

The overall 2023 Regional WECIP negative Cost Variance of $16.86M in Table 3 can be attributed to the following projects and their variances provided below; the reasons for the project variances are reported in Section 7:

- 10015113 Southern Skyline Blvd Ridge Trail Extension forecast cost increased by $11.02M.
- 10030771 SA-1 Service Road/Ingoing Road approved cost decreased by $0.61M for a total project variance of $5.84M

Table 3 Program Cost Summary

Programs	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q1/FY23-24 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Variance Over Reporting Period* ($ Million) (E)
Regional Water Program	**$195.94**	**$1,120.58**	**$1,137.45**	**($16.86)**	**($16.86)**
Water Treatment	$40.78	$388.65	$388.65	-	-
Water Transmission	$20.10	$228.78	$228.78	-	-
Water Supply & Storage	$12.93	$81.86	$81.86	-	-
Watershed & Lands Management	$9.04	$54.56	$71.42	($16.86)	($16.86)
Buildings and Grounds	$113.09	$366.73	$366.73	-	-
Local Water Program	**$843.05**	**$1,958.28**	**$1,958.28**	**-**	**-**
PROGRAMS TOTAL	**$1,038.98**	**$3,078.87**	**$3,095.73**	**($16.86)**	**($16.86)**

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

4. CAPITAL IMPROVEMENT PROGRAM SCHEDULE SUMMARY

Figure 4 compares the 2023 Approved Schedule completion date and the Current Forecast Schedule completion date for the Regional Water CIP. As shown in Table 4, the Current Approved and Current Forecast Schedule completion for the overall Water Enterprise CIP (including Regional and Local Programs) are each in June 2035. The Current Approved and Current Forecast Schedule completion for the Regional Water CIP alone are also each in June 2035.

Figure 4. Regional Program Schedule Summary

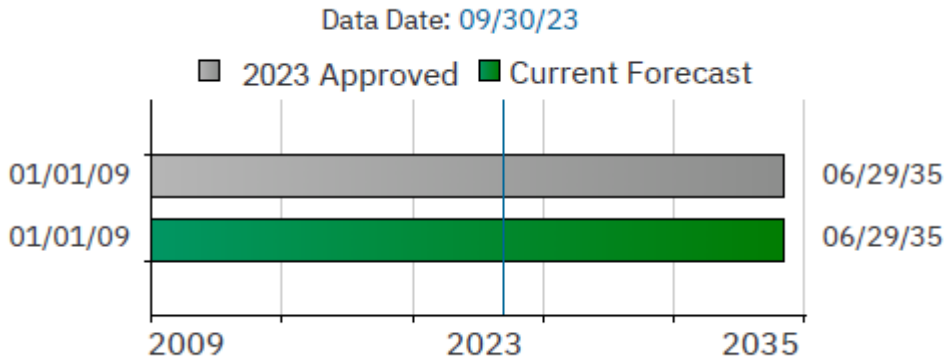

Table 4. Current Approved vs. Current Forecast Schedule Dates

Programs	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Regional	01/01/09	01/01/09 A*	06/29/35	06/29/35	-
Water Local	03/03/03	03/03/03 A*	06/30/33	06/30/33	-
Overall Water Enterprise CIP	**03/03/03**	**03/03/03 A***	**06/29/35**	**06/29/35**	**-**

** "A" represents the actual date*

5. BUDGET AND SCHEDULE TREND SUMMARY

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

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

- SVWTP Ozone project achieved Environmental Approval and was advertised for construction contract bids.
- SVWTP Short Term Improvements achieved Environmental Approval.
- SVWTP Polymer Feed Facility achieved Environmental Approval.
- SA-1 Service Road/Ingoing Road project was advertised for construction contract bids.

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	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
WECIP - Regional														
Water Treatment														
10033123 SVWTP Ozone	FY24-33		06/27/17		01/18/22		05/10/22		02/28/23		12/19/23		Q1-FY23-24	
	$214.0	11/21/28	$115	09/09/24	$192.8	06/30/28	$192.8	06/30/28	$192.8	06/30/28	TBD	TBD	$214.0	11/21/28
10015064 SVWTP Short Term Improvements	FY24-33		03/03/14		07/29/22		03/24/23		10/02/23		03/12/24		Q1-FY23-24	
	$65.9	12/29/27	$7.1	10/01/18	$60.0	05/17/27	$60.0	05/17/27	$65.9	09/29/23	TBD	TBD	$65.9	12/29/27
10037628 SVWTP Polymer Feed Facility	FY24-33		07/16/16[2]		06/30/19[2]		08/17/20[2]		05/21/24		11/12/24		Q1-FY23-24	
	$15.6	07/09/27	$9.4	06/17/20	$10.2	02/15/23	$10.2	02/15/23	TBD	TBD	TBD	TBD	$15.6	07/09/27
10037349 HTWTP Filter Underdrain Replacement	FY24-33		11/02/20		06/29/21		10/22/21		01/14/22		09/02/22		Q1-FY23-24	
	$14.4	06/28/24	$14.4	06/28/24	$14.4	06/28/24	$14.4	06/28/24	$14.4	06/28/24	$14.4	06/28/24	$14.4	06/28/24
10037350 Regional Groundwater Treatment Improvement	FY24-33		08/13/20		09/30/27		06/07/28		06/28/29		06/28/30		Q1-FY23-24	
	$38.6	12/31/33	$38.6	12/27/29	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$38.6	12/31/33
10038328 SVWTP Long Term Improvements	FY24-33		11/01/21		06/27/25		11/17/25		07/28/26		06/21/27		Q1-FY23-24	
	$29.6	08/10/29	$10.5	05/17/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$29.6	08/10/29
10037277 Sunol Valley Choramination Facility	FY24-33		01/02/19		12/31/19		TBD		02/27/23		09/26/23		Q1-FY23-24	
	$10.6	12/31/25	$4.5	12/01/24	$4.5	12/01/24	TBD	TBD	TBD	TBD	TBD	TBD	$10.6	12/31/25
Water Transmission														
10034578 CSPL2 Reach 5 Lining Replacement	FY24-33		02/25/19		01/31/23		09/29/23		06/05/24		12/24/24		Q1-FY23-24	
	$23.7	11/30/27	$12.8	11/30/22	$23.7	11/30/27	TBD	TBD	TBD	TBD	TBD	TBD	$23.7	11/30/27

Footnotes:

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

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10035029 As-Needed Pipeline Repairs	FY24-33		10/22/16		06/30/21		12/29/23		08/30/24		03/25/25		Q1-FY23-24	
	$7.7	08/25/28	$6.8	08/25/28	$6.8	08/25/28	TBD	TBD	TBD	TBD	TBD	TBD	$7.7	08/25/28
10036839 BDPL4 PCCP Repair	FY24-33		05/01/20		10/31/23		04/29/24		07/10/24		04/22/25		Q1-FY23-24	
	$54.7	12/31/26	$54.7	11/22/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$54.7	12/31/26
10036840 BDPL 1-4 Lining Repair	FY24-33		09/12/16		06/30/21		12/29/23		08/30/24		03/25/25		Q1-FY23-24	
	$10.8	08/25/28	$9.3	08/25/28	$9.30	08/25/28	TBD	TBD	TBD	TBD	TBD	TBD	$10.8	08/25/28
10015071 Corrosion Control	FY24-33		01/01/16		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) 02/24/23 (Phase II) 10/28/25 (Phase III)		Q1-FY23-24	
Phase I Phase II Phase III	$36.5	06/30/28	$24.9	12/29/34	$24.9	12/29/34	$24.9	12/29/34	$36.5	01/31/28	$36.5	06/30/28	$36.5	06/30/28
10015076 San Antonio Pump Station MCC Upgrades	FY24-33		05/12/16		NA[2]		01/28/22[3]		08/30/22		12/12/23		Q1-FY23-24	
	$12.5	06/30/26	$7.2	01/27/23	NA	NA	$12.5	03/19/25	$12.5	03/19/25	TBD	TBD	$12.5	06/30/26
10015081 CSPL2 Reaches 2 and 3 Rehabilitation	FY24-33		09/12/16		01/31/23		02/29/24		07/31/24		12/24/24		Q1-FY23-24	
	$82.8	11/30/27	$55.9	10/10/23	$82.8	11/30/27	TBD	TBD	TBD	TBD	TBD	TBD	$82.8	11/30/27
Water Supply & Storage														
10036998 Turner Dam and Reservoir Improvements	FY24-33		10/01/20		06/30/27		06/29/28		12/31/30		10/21/31		Q1-FY23-24	
	$7.5	06/29/35	$7.5	06/29/35	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$7.5	06/29/35

Footnotes:

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

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
10015091 Pilarcitos Dam Improvements	FY24-33		04/07/14		09/30/24		02/08/24		02/07/25		11/12/25		Q1-FY23-24	
	$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	FY24-33		12/11/13[3]		09/29/23[3]		09/30/24[3]		05/26/26[3]		05/04/27 (Scope I) 04/10/29 (Scope II)		Q1-FY23-24	
Scope I	$32.2	12/30/33	$26.8	04/20/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$32.2	12/30/33
Scope II														
Watershed & Lands Management														
10015108 Sneath Lane Gate/North San Andreas	FY24-33		02/01/21		03/24/22		10/16/24		05/09/25		10/28/25		Q1-FY23-24	
	$12.4	08/02/27	$6.7	01/27/28	$6.7	08/02/27	TBD	TBD	TBD	TBD	TBD	TBD	$12.4	08/02/27
10015113 Southern Skyline Blvd Ridge Trail Extension	FY24-33		10/31/12		03/09/15		09/10/15[2]		01/05/18		09/26/23		Q1-FY23-24	
	$27.0	06/30/25	$18.7	02/25/19	$18.7	02/25/19	$18.7	02/25/19	$19.3	07/22/21	$38.0	3/30/2026	$38.0	03/30/26
10030771 SA-1 Service Road/Ingoing Road	FY24-33		06/30/16		01/06/22		03/01/23[2]		03/31/23		02/29/24		Q1-FY23-24	
	$15.2	03/03/27	$9.6	12/31/26	$15.8	12/31/26	$15.8	12/31/26	$15.8	12/31/26	TBD	TBD	$21.1	03/03/27

Footnotes:

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

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Buildings and Grounds														
10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC	FY24-33		01/03/17		12/29/17 (Scope I) 01/2/18 (Scope II)		12/29/18(Scope I) 08/12/22 (Scope II)		08/03/20(Scope I) 03/29/23 (Scope II)		03/09/21 (Scope I) N/A[2]		Q1-FY23-24	
Scope I Scope II	$7.1	06/02/25	$5.5	11/30/23	$5.5	11/30/23	$7.1	06/02/25	$5.5	11/30/23	$5.5	11/30/23	$7.1	06/02/25
10015124 Sunol Long Term Improvements	FY24-33		01/01/09		04/27/12		05/28/13 (Scope I) 08/07/14 (Scope II)		03/30/15 (Scope I) 10/02/15 (Scope II)		11/08/16 (Scope I) 12/10/19 (Scope II)		Q1-FY23-24	
Scope I Scope II	$114.5	12/31/25	$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	$114.5	12/31/25
10015128 Millbrae Yard Laboratory and Shop Improvements	FY24-33		11/02/15		10/31/23		04/05/24		10/03/24		04/28/26		Q1-FY23-24	
	$237.5	09/13/30	$24.5	05/03/23	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$237.5	09/13/30
10034825 Millbrae Security Upgrades	FY24-33		09/01/19		10/01/20		03/01/21		11/30/21		TBD		Q1-FY23-24	
	$7.6	08/30/24	$3.9	12/31/23	$3.90	12/31/23	$3.9	12/31/23	$3.9	12/31/23	TBD	TBD	$7.6	08/30/24

Footnotes:

1. These columns represent forecast project cost and project completion date at the time of award of construction contract (or Award for CM/GC construction work).
2. To be constructed via a JOC contract.

6. PROJECT PERFORMANCE SUMMARY*

All costs are shown in $1,000s

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
Water Treatment											
10033123 SVWTP Ozone (CUW27202)	BA	$213,972	$213,972	$213,972	$15,593	$0	0%	11/21/28	11/21/28	11/21/28	0
10015064 SVWTP Short Term Improvements	DS	$65,871	$65,871	$65,871	$10,319	$0	0%	12/29/27	12/29/27	12/29/27	0
10037628 SVWTP Polymer Feed Facility	DS	$15,620	$15,620	$15,620	$569	$0	0%	07/09/27	07/09/27	07/09/27	0
10037349 HTWTP Filter Underdrain Replacement	CN	$14,404	$14,404	$14,404	$11,359	$0	0%	06/28/24	06/28/24	06/28/24	0
10037350 Regional Groundwater Treatment Improvement	PL	$38,605	$38,605	$38,605	$2,068	$0	0%	12/31/33	12/31/33	12/31/33	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 FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10038328 SVWTP Long Term Improvements	PL	$29,587	$29,587	$29,587	$91	$0	0%	08/10/29	08/10/29	08/10/29	0
10037277 Sunol Valley Chloramination Facility	DS	$10,586	$10,586	$10,586	$778	$0	0%	12/31/25	12/31/25	12/31/25	0
Water Transmission											
10034578 CSPL2 Reach 5 Lining Replacement	DS	$23,696	$23,696	$23,696	$2,069	$0	0%	11/30/27	11/30/27	11/30/27	0
10035029 As-Needed Pipeline Repairs	DS	$7,723	$7,723	$7,723	$814	$0	0%	08/25/28	08/25/28	08/25/28	0
10036839 BDPL4 PCCP Repair	PL	$54,751	$54,751	$54,751	$1,322	$0	0%	12/31/26	12/31/26	12/31/26	0
10036840 BDPL 1-4 Lining Repair	DS	$10,764	$10,764	$10,764	$670	$0	0%	08/25/28	08/25/28	08/25/28	0
10015071 Corrosion Control	CN	$36,536	$36,536	$36,536	$9,945	$0	0%	06/30/28	06/30/28	06/30/28	0

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**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multiple-Phase

Footnotes:

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Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10015076 San Antonio Pump Station MCC Upgrades	BA	$12,500	$12,500	$12,500	$2,474	$0	0%	06/30/26	06/30/26	06/30/26	0
10015081 CSPL2 Reaches 2 and 3 Rehabilitation	DS	$82,813	$82,813	$82,813	$2,807	$0	0%	11/30/27	11/30/27	11/30/27	0
Water Supply & Storage											
10036998 Turner Dam and Reservoir Improvements	PL	$7,500	$7,500	$7,500	$3,416	$0	0%	06/29/35	06/29/35	06/29/35	0
10015091 Pilarcitos Dam Improvements	PL	$30,087	$30,087	$30,087	$4,844	$0	0%	06/29/29	06/29/29	06/29/29	0
10015092 San Andreas Dam Facility Improvements	PL	$32,195	$32,195	$32,195	$4,671	$0	0%	12/30/33	12/30/33	12/30/33	0
Watershed & Lands Management											
10015108 Sneath Lane Gate/North San Andreas	PL	$12,393	$12,393	$12,393	$649	$0	0%	08/02/27	08/02/27	08/02/27	0

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**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multiple-Phase

Footnotes:

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(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10015113 Southern Skyline Blvd Ridge Trail Extension	BA	$26,956	$26,956	$37,977	$6,445	($11,020)	(41%)	06/30/25	06/30/25	03/30/26	(273)
10030771 SA-1 Service Road/Ingoing Road	BA	$15,210	$15,210	$21,054	$1,944	($5,844)	(38%)	03/03/27	03/03/27	03/03/27	0
Buildings and Grounds											
10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC	DS	$7,149	$7,149	$7,149	$2,262	$0	0%	06/02/25	06/02/25	06/02/25	0
10015124 Sunol Long Term Improvements	CN	$114,494	$114,494	$114,494	$102,171	$0	0%	12/31/25	12/31/25	12/31/25	0
10015128 Millbrae Yard Laboratory and Shop Improvements	PL	$237,533	$237,533	$237,533	$7,306	$0	0%	09/13/30	09/13/30	09/13/30	0
10034825 Millbrae Security Upgrades	BA	$7,553	$7,553	$7,553	$1,353	$0	0%	08/30/24	08/30/24	08/30/24	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 FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

7. PROJECT STATUS REPORT

10033123 - SVWTP Ozone (CUW27202)

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

Program: Water Treatment	**Project Status:** Bid and Award	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 213.97 M
Forecast	$ 213.97 M
Actual	$ 15.59 M

Project Schedule:

Approved 06/27/17	11/21/28
Forecast 06/27/17	11/21/28

Project Percent Complete: 9.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/13/23 A	09/29/23 A	03/05/24	11/22/27

Progress and Status:

During the reporting period, the 100% design package was finalized and the construction contract was advertised. The 100% construction cost estimate and the Amendment to the SVWTP Expansion and Treated Water Reservoir Environmental Impact Report were completed.

Issues and Challenges:

None at this time.

Existing Facilities at the Project Site

10015064 - SVWTP Short Term Improvements

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

Program: Water Treatment	**Project Status:** Design	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 65.87 M
Forecast	$ 65.87 M
Actual	$ 10.32 M

Project Schedule:

Approved 03/03/14	12/29/27
Forecast 03/03/14	12/29/27

Project Percent Complete: 17.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/13/23 A	12/11/23	07/01/24	07/01/27

Progress and Status:
During the reporting period the 100% design work continued. The 95% construction cost estimate and construction schedule were completed. The Utility Water/Fire Protection System pump station scope was added to the project to upgrade the existing system and meet the plant demands with the future Ozone facility. The Amendment to the SVWTP Expansion and Treated Water Reservoir Environmental Impact Report were completed.

Issues and Challenges:
None at this time.

Corrosion on Existing Air Scour Pipeline

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.

Program: Water Treatment	**Project Status:** Design	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 15.62 M
Forecast	$ 15.62 M
Actual	$ 0.57 M

Project Schedule:

Approved 07/01/21	07/09/27
Forecast 07/01/21	07/09/27

Project Percent Complete: 7.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/13/23 A	06/28/24	03/03/25	08/31/26

Progress and Status:

During the reporting period, the project team discussed reducing the scope to include only the design and installation of polymer testing equipment for full scale plant testing. The full implementation of the project would be deferred until after the ozonation facility is installed and operational at the plant, anticipated in June 2028. The scope for the Polymer Feed project may be re- evaluated after the ozonation installation is completed.

Issues and Challenges:

None at this time.

Unit for Full Scale Test

10037349 - HTWTP Filter Underdrain Replacement

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

Program: Water Treatment	**Project Status:** Construction	**Environmental Status:** Completed (Not Applicable)

Project Cost:

Approved	$ 14.40 M
Forecast	$ 14.40 M
Actual	$ 11.36 M

Project Schedule:

Approved 11/02/20	06/28/24
Forecast 11/02/20	06/28/24

Project Percent Complete: 83.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/29/21 A	04/21/22 A	10/03/22 A	12/29/23

Progress and Status:
Construction under Contract WD-2887, Harry Tracy Water Treatment Plant - Filters No. 1 to 6 Underdrain Replacement has been substantially and successfully completed. The filters were turned back over to Operations, and the contractor has demobilized.

Issues and Challenges:
None at this time.

Filter Box and New Underdrain Testing

10037350 - Regional Groundwater Treatment Improvement

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

Program: Water Treatment	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 38.61 M
Forecast	$ 38.61 M
Actual	$ 2.07 M

Project Schedule:

Approved 08/13/20	12/31/33
Forecast 08/13/20	12/31/33

Project Percent Complete: 5.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/21/29	11/30/29	07/01/30	06/30/33

Progress and Status:

The project team completed the draft Request for Proposals (RFP), and the City Attorney commenced review of it. The RFP will procure a consultant to assist with project planning and long-term implementation strategy.

Issues and Challenges:

None at this time

Typical Well Station Equipment

10038328 - SVWTP Long Term Improvements

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

Program: Water Treatment	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 29.59 M
Forecast	$ 29.59 M
Actual	$ 0.09 M

Project Schedule:

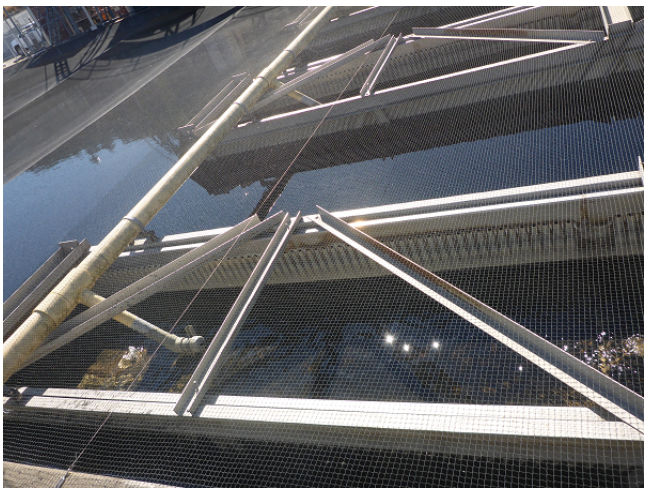
Approved 11/01/21	08/10/29
Forecast 11/01/21	08/10/29

Project Percent Complete: 1.1%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/26/25	01/11/27	08/23/27	02/14/29

Progress and Status:
During the quarter, work on the Request for Proposals for professional services support for project planning and design services continued. The Civil Service Commission gave its approval to proceeding to advertise for the contract.

Issues and Challenges:
None at this time.



Bird Netting on Sedimentation Basin

10037277 - Sunol Valley Chloramination Facility

Project Description: The Sunol Valley Chloramination Facility (SVCF) is a chemical feed facility that provides chloramine disinfection, pH control, and fluoride addition for the unfiltered Hetch Hetchy (HH) water supply. In addition, the chemical systems for removing chlorine and adjust ing the pH of waters entering into Alameda Siphons 1, 2, and 3. The primary objective of the project is to increase reliability at the Fluoridation (HFA) Facility, Sunol Valley Chloramination Facility (SVCF), and Dechlorination Facility by addressing various deficiencies of the chemical feed systems, controls, main programmable logic controller (PLC), and various related equipment, which will lower the current maintenance costs of the existing equipment.

Program: Water Treatment	**Project Status:** Design	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 10.59 M
Forecast	$ 10.59 M
Actual	$ 0.78 M

Project Schedule:

Approved 01/02/19	12/31/25
Forecast 01/02/19	12/31/25

Project Percent Complete: 7.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/31/20 A	11/29/23	07/08/24	06/30/25

Progress and Status:

During this reporting period, the Commission approved a sole source recommendation for the chemical injection pumps required for the project. The team completed the 100% design, which includes the sole source language for 16 chemical injection pumps in this contract, and the contract language is being reviewed by stakeholders before being advertised for bids. A Job Order Contract (JOC) was issued for the chemical system carrier water scope to be completed earlier than the main contract to support Water Enterprise Operations by providing greater plant reliability during the upcoming Hetch Hetchy shutdown work. The JOC contractor is preparing its proposal for this work.

Issues and Challenges:

None at this time.

Sunol Valley Chloramination Facility Sodium Hydroxide Tanks

10034578 - CSPL2 Reach 5 Lining Replacement

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

Program: Water Transmission	**Project Status:** Design	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 23.70 M
Forecast	$ 23.70 M
Actual	$ 2.07 M

Project Schedule:

Approved 02/25/19	11/30/27
Forecast 02/25/19	11/30/27

Project Percent Complete: 15.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/18/20 A	09/20/24	05/01/25	05/31/27

Progress and Status:

Thirty-five percent design was completed late this quarter and will be reviewed early next quarter. Design for the pre-purchase of valves for safe pipeline entry continued this quarter. Outreach to property owners and agencies in the vicinity of where construction will be occurring continued.

Issues and Challenges:

None at this time.

Typical Air Valve to be Upgraded

10035029 - As-Needed Pipeline Repairs

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

Program: Water Transmission	**Project Status:** Design	**Environmental Status:** Active (Cat Ex)

Project Cost:

Approved	$ 7.72 M
Forecast	$ 7.72 M
Actual	$ 0.81 M

Project Schedule:

Approved 10/22/16	08/25/28
Forecast 10/22/16	08/25/28

Project Percent Complete: 11.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/27/24	12/26/24	08/01/25	02/27/28

Progress and Status:

An Addendum to the Conceptual Engineering Report (CER) for installing valves to achieve safe pipeline entry was completed by the project team and approved by the Technical Steering Committee (TSC). These valves will be used to provide safe access to workers during construction and for future maintenance requirements.

Issues and Challenges:

None at this time.

Valve Lot where New Valve will be Installed for Safe Entry

10036839 - BDPL4 PCCP Repair

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

Program: Water Transmission	**Project Status:** Planning	**Environmental Status:** Active (Cat Ex)

Project Cost:

Approved	$ 54.75 M
Forecast	$ 54.75 M
Actual	$ 1.32 M

Project Schedule:

Approved 05/01/20	12/31/26
Forecast 05/01/20	12/31/26

Project Percent Complete: 4.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/31/24	11/25/24	07/01/25	06/30/26

Progress and Status:

The project team is continuing to prepare responses to comments on the draft Needs Assessment Report (NAR) for 1.3 miles of Bay Division Pipeline No. 4 Pre-Stressed Concrete Cylinder Pipe (PCCP) in Redwood City. Six segments, approximately 650 feet, were identified to be a high priority for repair due to extensive wire breaks, wide circumferential cracks, and active leaks. A draft Conceptual Engineering Report for an initial phase to repair these six segments was completed and began undergoing review. Exploratory geotechnical work was completed. Determination of whether a second phase may be needed will be based on the final NAR.

Issues and Challenges:

None at this time.

Typical Pre-Stressed Concrete Cylinder Pipe Joint

10036840 - BDPL 1-4 Lining Repair

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

Program: Water Transmission	**Project Status:** Design	**Environmental Status:** Active (Cat Ex)

Project Cost:

Approved	$ 10.76 M
Forecast	$ 10.76 M
Actual	$ 0.67 M

Project Schedule:

Approved 09/12/16	08/25/28
Forecast 09/12/16	08/25/28

Project Percent Complete: 7.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/27/24	12/31/24	08/01/25	02/27/28

Progress and Status:

An Addendum to the Conceptual Engineering Report for installing valves to achieve safe pipeline entry was completed by the project team and approved by the Technical Steering Committee (TSC). These valves will be used to provide safe access to workers during construction and for future maintenance requirements.

Issues and Challenges:

None at this time.

Valve Lot where New Valve will be Installed for Safe Entry

10015071 - Corrosion Control

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

Program: Water Transmission	**Project Status:** Construction	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 36.54 M
Forecast	$ 36.54 M
Actual	$ 9.95 M

Project Schedule:

Approved 01/01/16	06/30/28
Forecast 01/01/16	06/30/28

Project Percent Complete: 36.8%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	A	A	11/09/16 A	12/31/18 A
	B	01/31/22 A	05/27/22 A	03/13/23 A	03/06/25
	C	TBD	09/10/25	05/04/26	09/03/27

Progress and Status:

For Phase 2, payment to PG&E for electric service extension at four (4) corrosion protection facility sites that are currently in construction has been approved. Installation of anodes at several locations has been completed. For Phase 3, a kickoff meeting presentation for planning phase was held on August 4th.

Issues and Challenges:

None at this time.

Typical Anode Well Drilling

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:** Bid and Award	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 12.50 M
Forecast	$ 12.50 M
Actual	$ 2.47 M

Project Schedule:

Approved 05/12/16	06/30/26
Forecast 05/12/16	06/30/26

Project Percent Complete: 23.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/03/23 A	06/29/23 A	01/31/24	01/02/26

Progress and Status:

During this reporting period, the design team addressed contractors' questions on the bid documents. The team prepared addendum drawings to address questions on the fire alarm control design, as well as additional HVAC components and power requirements. The additional scope included in addendum extended the bid opening date to October 19, to provide bidders enough time to prepare their bids to include the addendum scope.

Issues and Challenges:

None at this time.

Existing Fire Alarm Control Panel to be Upgraded

10015081 - CSPL2 Reaches 2 and 3 Rehabilitation

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

Program: Water Transmission	**Project Status:** Design	**Environmental Status:** Not Initiated (MND)

Project Cost:

Approved	$ 82.81 M
Forecast	$ 82.81 M
Actual	$ 2.81 M

Project Schedule:

Approved 09/12/16	11/30/27
Forecast 09/12/16	11/30/27

Project Percent Complete: 4.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/27/24	09/24/24	05/01/25	05/31/27

Progress and Status:

A pipeline design consultant has completed review of the Conceptual Engineering Report (CER) and other background information and has submitted a proposal for review. Geotechnical and structural design support through San Francisco Public Works has also been procured.

Issues and Challenges:

None at this time.

Typical Air Valve to be Upgraded

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:

Approved	$ 7.50 M
Forecast	$ 7.50 M
Actual	$ 3.42 M

Project Schedule:

Approved 10/01/20	06/29/35
Forecast 10/01/20	06/29/35

Project Percent Complete: 30.1%

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:

During this reporting period, the project team completed the material characterization analysis of the embankment and foundation materials. New information collected from the geotechnical investigation validates most of the assumed properties based on data gathered prior to 2011. The team will continue preparing the material characterization report and initiate the stability analysis in the next quarter. Evaluation of the emergency drawdown capacity of the outlet works has been completed. Inspection of the outlet conduit and coring of the spillway chute will be completed in early 2024.

Issues and Challenges:

None at this time.

View of the Concrete Intake Shaft from the Control House

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:

Approved	$ 30.09 M
Forecast	$ 30.09 M
Actual	$ 4.84 M

Project Schedule:

Approved 04/07/14	06/29/29
Forecast 04/07/14	06/29/29

Project Percent Complete: 23.7%

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 presented to the Technical Steering Committee two recommended draft preferred alternative(s) to move forward to conceptual design development. Permanent reservoir restriction (Alternative 5) was selected as the most favorable alternative for cost and other reasons. Given potential regulatory requirement challenges, dam replacement (Alternative 1) was also selected as a backup to avoid schedule impact. Development of the conceptual engineering report for these two alternatives started during the reporting period.

Issues and Challenges:

The planning phase has been extended to accommodate the additional time taken for the geotechnical investigation and the additional studies performed for the condition and needs assessment. The overall project schedule and budget will be reforecast in the FY25-34 CIP based on scope developed for Alternative 5 (the lower cost alternative).

View from Pilarcitos Dam Looking Upstream

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 (Not Applicable)

Project Cost:

Approved	$ 32.20 M
Forecast	$ 32.19 M
Actual	$ 4.67 M

Project Schedule:

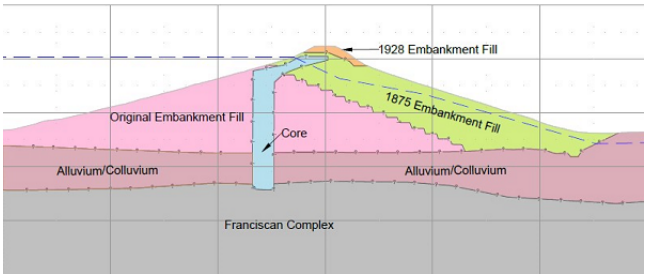
Approved 12/11/13	12/30/33
Forecast 12/11/13	12/30/33

Project Percent Complete: 18.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/31/26	01/04/27	07/01/27	06/29/33

Progress and Status:

During this quarter, the project team completed the materials characterization report and geotechnical data report. Based on the preliminary findings, the dam is potentially susceptible to liquefaction. Further analyses are in progress to help understand the expected seismic performance of the dam. In addition, the project team continued preparing a draft Alternatives Analysis Report (AAR) for the five shortlisted alternatives. Work on the draft AAR will continue in the next quarter.



San Andreas Transverse Profile

Issues and Challenges:

None at this time.

10015108 - Sneath Lane Gate/North San Andreas

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

Program: Watershed & Lands Management	**Project Status:** Planning	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 12.39 M
Forecast	$ 12.39 M
Actual	$ 0.65 M

Project Schedule:

Approved 02/01/21	08/02/27
Forecast 02/01/21	08/02/27

Project Percent Complete: 6.6%

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:

During this reporting period, the project team reviewed the Draft Biological Resources Assessment Report and initiated work on the Air Quality Assessment for the environmental document.

Issues and Challenges:

None at this time.

View South from Proposed Trail Alignment

10015113 - Southern Skyline Blvd Ridge Trail Extension

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

Program: Watershed & Lands Management	**Project Status:** Bid and Award	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 26.96 M
Forecast	$ 37.98 M
Actual	$ 6.45 M

Project Schedule:

Approved 10/31/12	06/30/25
Forecast 10/31/12	03/30/26

Project Percent Complete: 25.1%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	05/11/21 A	06/09/23 A	02/01/24	08/29/25

Progress and Status:

On July 27, the SFPUC received four bids for the project construction, and the Commission awarded the construction contract on September 26 to Gordon N. Ball, Inc. Next quarter, the project team will work to issue notice to proceed.

Issues and Challenges:

All four construction contract bids exceeded the approved construction phase funding by more than $5.0M for the base bid scope of work. Two miles of trail construction and supporting facilities were bid as additive alternates to ensure the ability to award a construction contract with the limited funding. In order to deliver the entire project and construct the complete trail alignment as promised to project partners, the Water Enterprise selected to add funding to the project in order to exercise the additive alternates. Of the resulting $11,020,033 budget variance, $10,291,380 results from increased construction contract costs, $556,000 from higher environmental compliance costs, and $172,000 from higher construction phase support costs. The schedule variance is due to the additional time required to secure National Environmental Protection Agency approval for the Federal Highway Administration grant, and to revise the bid documents in accordance with the Biological Opinion.

View of the Southern Trail Alignment

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:** Bid and Award	**Environmental Status:** Active (EIR)

Project Cost:

Approved	$ 15.21 M
Forecast	$ 21.05 M
Actual	$ 1.94 M

Project Schedule:

Approved 06/30/16	03/03/27
Forecast 06/30/16	03/03/27

Project Percent Complete: 12.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/16/23	07/27/23 A	04/01/24	03/30/26

Progress and Status:
The project was advertised on July 27. 5 bids were received on August 31. Multiple environmental permit applications were sent to State and Federal agencies. The forecast to obtain environmental clearance is anticipated by the end of December 2023. Notice to Proceed for construction will not be issued until all environmental permits are acquired.

Issues and Challenges:
The variance between approved and forecast cost is due to design refinement of soldier piles from 8 feet deep to 25 feet deep between 95% and 100% design to comply with safety standards, increasing the budget from $15.8M to $21M. No change in project schedule is currently forecast.

Existing San Andreas Wetlands culvert to be replaced

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:** Completed (Various)

Project Cost:

Approved	$ 7.15 M
Forecast	$ 7.15 M
Actual	$ 2.26 M

Project Schedule:

Approved 01/03/17	06/02/25
Forecast 01/03/17	06/02/25

Project Percent Complete: 34.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	08/31/20 A	09/01/20 A	06/16/21 A	11/24/21 A
	B	01/12/22 A	10/24/23	01/08/24	09/27/24

Progress and Status:

Contract A) Warehouse Settlement; Completed. (Contract B) Administration Building HVAC Upgrades (Job Order Contract (JOC)): The scope of work consists of the retrofit of the existing heating, ventilation, and air conditioning (HVAC) system inside the building rather than replacement of the HVAC system external to the building. Additional scope of work has been identified, which consists of upgrade of the existing pneumatic controls to new electronic controls and refurbishment of the existing fans to allow the HVAC system to be more reliable. These scope elements are essential to be performed prior to performing other repairs or replacements such as individual zone temperature control. A cost proposal from the JOC contractor has been received which exceeds the task order cost threshold for JOCs of $1M. The cost proposal is being revised to reflect the accurate scope of work such as the number of variable frequency drives (VFDs) and amount of corresponding activities related to the replacement of the VFDs with the intention of reducing the scope and cost to less than $1M.

Existing Fans inside the Millbrae Yard Administration Building

Issues and Challenges:

None at this time.

10015124 - Sunol Long Term Improvements

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

Program: Buildings and Grounds	Project Status: Construction	Environmental Status: Completed (MND)

Project Cost:

Approved	$ 114.49 M
Forecast	$ 114.49 M
Actual	$ 102.17 M

Project Schedule:

Approved 01/01/09	12/31/25
Forecast 01/01/09	12/31/25

Project Percent Complete: 97.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	12/02/15 A	03/01/16 A	01/17/17 A	09/15/20 A
	B		08/30/19 A	03/09/20 A	11/28/24

Progress and Status:

Sunol Yard (Contract A): Completed. Watershed Center (Contract B): During the reporting period, discussions on the berm settlement repairs, exhibit submittals and fabrication, furniture, fixtures and equipment fabrication, building commissioning and punchlist work all continued. A job order contract was initiated to investigate and repair the sink hole over the existing pipeline crossing the landscaped area. Sixty (60) bluestone pavers were replaced as discoloration and/or exfoliation was occurring.

Issues and Challenges:

An issue with the heating, ventilation, and air-conditioning (HVAC) system was discovered during the Building Management System commissioning. There is concern as the HVAC system is similar to the system installed at the Sunol Yard, which itself was recently repaired due to issues arising with the air conditioning.

Watershed Center Landscaping

10015128 - Millbrae Yard Laboratory and Shop Improvements

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

Program: Buildings and Grounds	**Project Status:** Planning	**Environmental Status:** Not Initiated (MND)

Project Cost:

Approved	$ 237.53 M
Forecast	$ 237.53 M
Actual	$ 7.31 M

Project Schedule:

Approved 11/02/15	09/13/30
Forecast 11/02/15	09/13/30

Project Percent Complete: 3.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/03/25	12/12/25	10/01/26	09/17/29

Progress and Status:

Separate workshops were held with the Water Enterprise divisions and the Information and Technology Systems (ITS) group to review the revised program layouts. A summary of the results from the workshops were presented to Water Enterprise (WE) staff on September 28. The team received confirmation from WE staff of the final scope of work that will be implemented in the project. Now that the scope has been finalized, preparation of the conceptual design and the Request for Proposals (RFP) for engineering services through SF Public Works Contracts group has resumed. The RFP focuses on civil, structural, mechanical, electrical, and plumbing design support services.

Rendering of the Proposed Laboratory Building; View from inside Millbrae Yard Campus

Issues and Challenges:

None at this time.

10034825 - Millbrae Security Upgrades

Project Description: Millbrae Yard is currently vulnerable to unauthorized intrusion, trespassing, theft, vandalism and physical damage. Site concerns include lack of adequate fencing around the perimeter of the site, lack of electronic security measures to monitor and control access into the Administration Building during normal business hours and after hours, lack of video surveillance to monitor the secure areas within the fenced perimeter, and lack of a physical barrier separating access to the shops/yard areas from visitor parking. This project would address the security concerns and would enhance the overall physical and electronic security components of the Millbrae Yard.

Program: Buildings and Grounds	**Project Status:** Bid and Award	**Environmental Status:** Completed (Various)

Project Cost:

Approved	$ 7.55 M
Forecast	$ 7.55 M
Actual	$ 1.35 M

Project Schedule:

Approved 09/01/19	08/30/24
Forecast 09/01/19	08/30/24

Project Percent Complete: 19.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/31/22 A	10/02/23	01/08/24	06/06/24

Progress and Status:

During this reporting period, the project team continued to finalize the plans and specifications including adding a pedestrian gate to secure the west side of the administration building and modifying the parking area to include Americans with Disabilities Act (ADA) accessibility. It was confirmed that Lenel OnGuard and Milestone XProtect security system are sole source products that will be used for the project. Lenel OnGuard will be used to manage access controls for the building, and Milestone XProtect will be used to manage the video from surveillance cameras.

Issues and Challenges:

None at this time.

Millbrae Yard - Security Gate

8. ON-GOING CONSTRUCTION*

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Percent Complete
	NTP Date	Approved Construction Final Completion**	Current Forecasted Construction Final Completion	Approved Contract Cost	Current Forecasted Cost**	Schedule (Cal Days)	Cost	
Water Treatment								
10037349 - HTWTP Filter Underdrain Replacement - (WD-2887)	10/03/22	12/29/23	12/29/23	$9,264,300	$9,264,300	0	$0	97.0%
Water Transmission								
10015071 - Corrosion Control - (WD-2845)	03/13/23	03/06/25	03/06/25	$3,601,885	$3,601,885	0	$0	25.0%
Buildings and Grounds								
10015124 - Sunol Long Term Improvements - Watershed Center - (WD-2794B)	03/09/20	03/16/22	11/28/24	$34,626,853	$34,626,853	(988)	$0	94.0%

	Approved Contract Cost	Current Forecast Cost	Variance Cost	Variance Percent
Program Total for On-Going Construction	**$47,493,038**	**$47,493,038**	**$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 CLOSEOUT

There are no active projects currently in closeout phase.

10. COMPLETED PROJECTS

There are no completed projects.

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II. Local Capital Improvement Program

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1. CAPITAL IMPROVEMENT PROGRAM DESCRIPTION

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

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

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

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

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

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

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

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

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

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

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

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

2. CAPITAL IMPROVEMENT PROGRAM STATUS

This Quarterly Report presents the progress made on Local Water projects between July 1, 2023 and September 30, 2023. This document serves as the first (1st) Quarterly Report in Fiscal Year 2023-2024 (FY24) published for the Water Enterprise Capital Improvement Program.

This quarterly report incorporates all the changes made to the Regional Water Enterprise CIP projects and the Local Water Enterprise CIP projects in the Water Enterprise Capital Improvement Program according to the 10-Year Capital Plan for FY2023-24 to FY2032-33, presented to and adopted by the Commission on February 14, 2023, under Resolution No. 23-0037. The 10-Year Capital Plan for FY2023-24 to FY2032-33 serves as the new baseline for project scopes, schedules, and budgets starting as of the first quarter (Q1) of FY2023-24. The 2023 Approved Water Enterprise CIP is a subset of the Regional and Local Water Enterprise 10-year CIP for FY2024-2033 and includes individual projects over $5 million that were then currently active or intended to be active by July 1, 2023 at the time proposed to the Commission on February 14, 2023.

The 2023 Approved Local Water Enterprise CIP (2023 Local WECIP) has thirteen (13) projects, eleven (11) of which remain from the previously approved program. Two new projects - Local Water Lead Component Services Program, and Reservoir Roof and Tank Coatings – were added. No Local project is in "Not Initiated" status.

Figure 2.1 shows the total Current Approved Budget for the Local projects in each phase of the program as of September 30, 2023. The number of projects currently active in each phase is shown in parentheses.

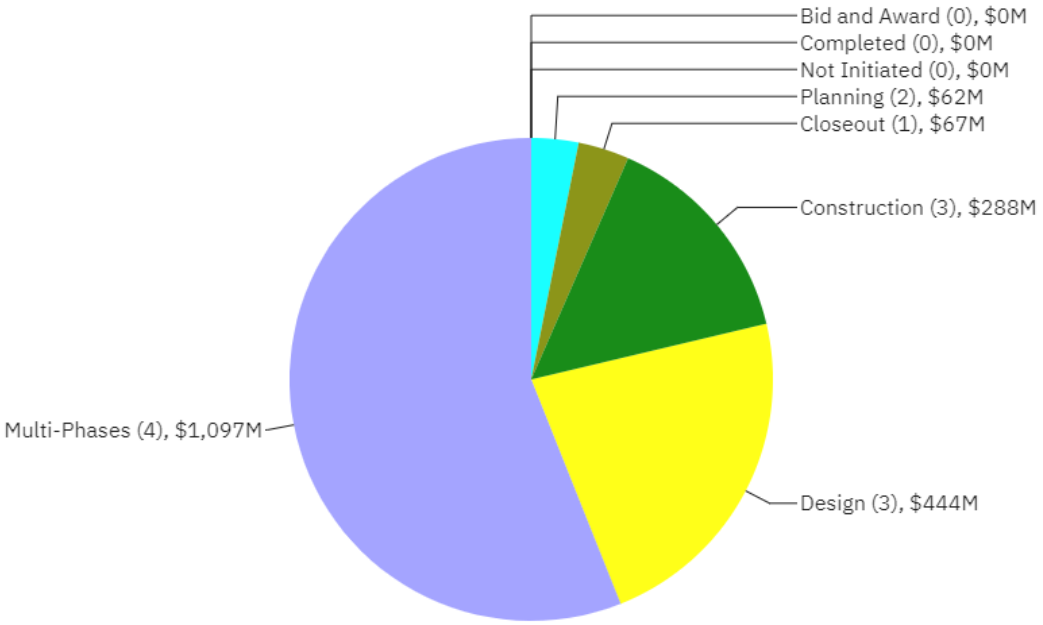


Figure 2.1 Total Current Approved Budget for Local Projects Active in Each Phase

Figure 2.2 shows the number of Local projects in the following phases as of September 30, 2023: Pre-construction, Construction, and Post-construction.

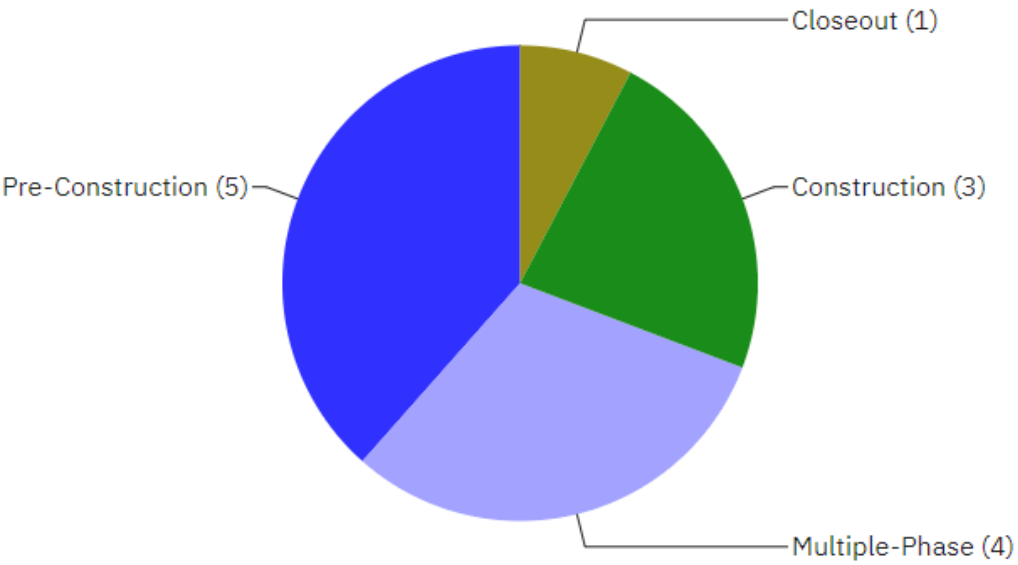


Figure 2.2 Number of Local Projects in Pre-construction, Construction, and Post-construction

Figure 2.3 summarizes the environmental review status of the Local projects as of September 30, 2023.

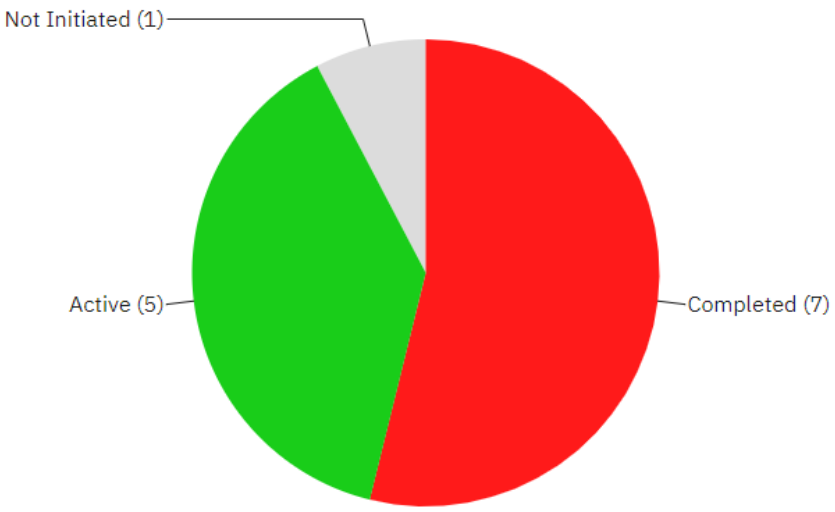
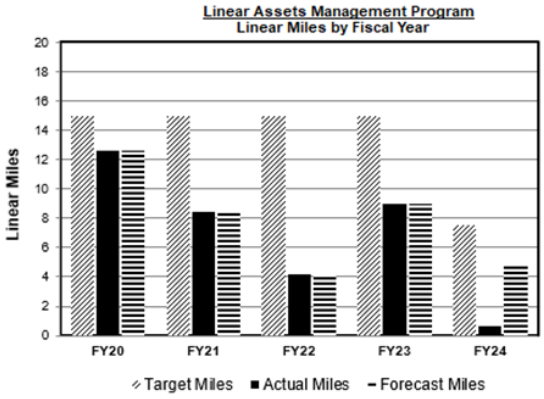


Figure 2.3 Local Program Environmental Status

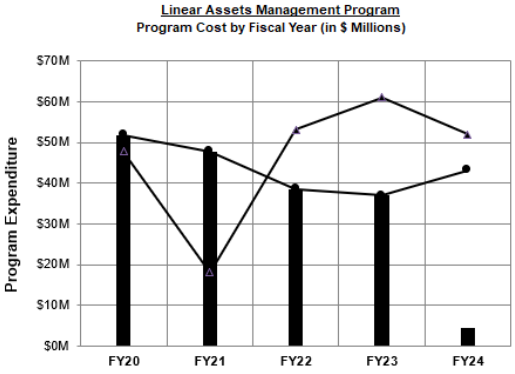
The Local Water Conveyance/Distribution System Program has an annual goal to replace or improve a target of 12 to15 miles of water mains in San Francisco. Figure 2.4 shows the planned and actual miles of pipeline projects that have reached substantial completion since FY20. The forecast mileage for FY24 is 4.5 miles; the project teams are evaluating methods to accelerate future contracts to increase the mileage in FY24.



	FY20	FY21	FY22	FY23	FY24
Target Miles	15.0	15.0	15.0	15.0	15.0
Actual Miles	12.6	8.4	4.2	9.0	0.6
Forecast Miles					4.5

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

Water main replacement projects with construction underway in the 1st quarter of FY24 included the City streets of 19th Avenue, Vicente Street, Prospect Avenue, L-Taraval Segment B, Diamond Street, and Laidley Street. During this reporting period, water work was completed on Prospect Avenue, 19th Avenue, and Vicente Street. The Notice to Proceed for Hampshire Street project was issued on June 13, as reported last quarter. The Hampshire project includes water, sewer, and paving work in which the sewer work has started and the water work is anticipated to start during Q3 FY24. During this reporting period, Construction Contract WD-2848, which includes water work in the Diamond Heights residential district on Gold Mine Drive, was awarded by the SFPUC Commission with construction estimated to start in Q3 FY24. Additionally, Construction Contract WD-2874, with water work in the Glen Park residential District on Joost Street, advertised in Q1 FY24 with SFPUC Commission Award scheduled for Q2 FY24 and construction starting in Q3 FY24.



	FY20	FY21	FY22	FY23	FY24
Budget	$47.7M	$18.M	$53.1M	$61.M	$51.9M
Actual Expenditure	$51.7M	$47.8M	$38.5M	$36.9M	$4.5M
Forecast Expenditure					$43.2M

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. The budget for FY24 is $51.9M.

3. CAPITAL IMPROVEMENT PROGRAM COST SUMMARY

Table 3 provides an overall program-level cost summary of the Local Water Program. It shows by categories of projects the Expenditures to Date, Current Approved Budgets, Q1/FY23-24 Forecast Costs, Cost Variance between the Current Approved Budgets and Forecast Costs, and Variance Over Reporting Period (difference between cost forecasts reported in Q4/FY22-23 and in Q1/FY23-24).

The total Current Approved Budget (including Regional and Local Programs) and Current Forecast Cost at completion are $3,078.9 million and $3,095.7 million, respectively. The Current Approved Budget and Forecast Cost at completion for only the Local Water Program (including construction contingency) is the same at $1,958.3 million.

The project budgets and schedules, including for new projects, that were included in the 10-Year CIP budget proposal that was presented to, and approved by, the Commission on February 14, 2023 became fully approved in Q1FY23-24 through Board of Supervisors action. Any variances from the budgets and schedules approved on February 14, 2023 are reported herein.

The 2023 Local WECIP has an approved budget of $1,958.28M. This is $313.11M less than the 2022 Local WECIP approved budget of $2,271.39M. The decrease in the program's approved budget is attributed to the following factors:

- EFWS Emergency Firefighting Water System was a project in the 2022 Local WECIP with an approved budget of $256.25M, $77.31M of which is attributable to completed subprojects that have been removed from the program.
- 10036916 Lead Component Service Program with approved budget of $49.18M is a new project that has been added to the program.
- 10037794 Reservoir Roof and Tank Coatings with approved budget of $13.00M is a new project that has been added to the program.
- The 2022 Local WECIP carried a positive cost variance forecast in Q4/FY22-23 of $297.97M; this variance has been excluded in the 2023 Local WECIP approved budget due to the Local Water Conveyance/Distribution System budget being rebaselined.

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

Table 3. Program Cost Summary

Programs	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q1/FY23-24 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Variance Over Reporting Period* ($ Million) (E)
Local Program	**$843.05**	**$1,958.28**	**$1,958.28**	**-**	**-**
Water Transmission	$492.23	$1,013.69	$1,013.69	-	-
Local Water Supply	$269.52	$322.88	$322.88	-	
Local Tanks/Reservoir Improvements	$14.06	$38.78	$38.78	-	-
Pump Stations	$0.72	$6.72	$6.72	-	-
Buildings and Grounds	$7.34	$393.60	$393.60	-	-
Emergency Firefighting Water System	$59.18	$182.61	$182.61	-	-
Regional Program	**$195.94**	**$1,120.58**	**$1,137.45**	**($16.86)**	**($16.86)**
PROGRAMS TOTAL	**$1,038.98**	**$3,078.87**	**$3,095.73**	**($16.86)**	**($16.86)**

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

4. CAPITAL IMPROVEMENT PROGRAM SCHEDULE SUMMARY

Figure 4 compares the 2023 Approved Schedule and the Current Forecast Schedule for the Local Water CIP. As shown in Table 4, the Current Approved and Forecast Schedule completion for the overall Water Enterprise CIP (including Regional and Local Programs) are each in June 2035. The Current Approved and Forecast Schedule completion for the Local CIP are each in June 2033.

Figure 4. Local Program Schedule Summary

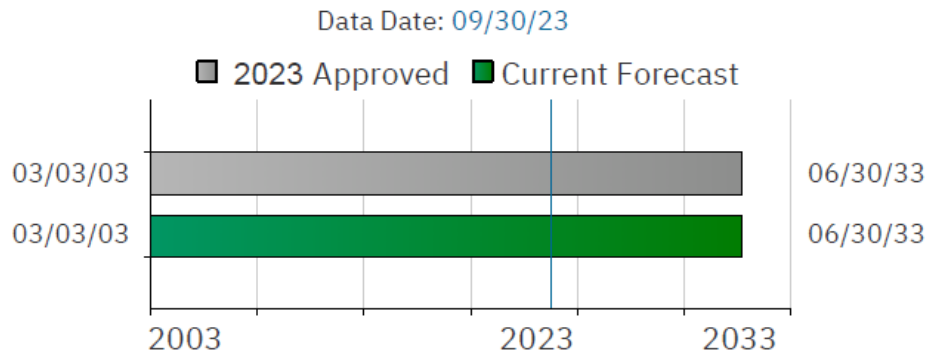


Table 4. Current Approved vs. Current Forecast Schedule Dates

Programs	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Regional	01/01/09	01/01/09 A*	06/29/35	06/29/35	-
Water Local	03/03/03	03/03/03 A*	06/30/33	06/30/33	-
Overall Water Enterprise CIP	**03/03/03**	**03/03/03 A***	**06/29/35**	**06/29/35**	**-**

** "A" represents the actual date*

5. BUDGET AND SCHEDULE TREND SUMMARY

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

During the reporting period, the following Local WECIP project achieved a major project milestone:

- Town of Sunol Pipeline project achieved 95% 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	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
WECIP - Local														
Water Transmission														
10033816 Potable Emergency Firefighting Water System[2]	FY24-33		08/12/19		N/A		N/A		N/A		N/A		Q1-FY23-24	
	$55.0	06/30/29	$44.8	06/30/28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$55.0	06/30/29
10033818 Town of Sunol Pipeline	FY24-33		06/17/19		11/01/21		10/14/22[3]		07/14/23		05/20/24		Q1-FY23-24	
	$8.0	05/30/25	$5.0	04/03/23	$5.0	04/03/23	$8.0	05/30/25	$8.0	05/30/25	TBD	TBD	$8.0	05/30/25
19063 Local Water Conveyance / Distribution System[4]	FY24-33		N/A		Various		Various		Various		Various		Q1-FY23-24	
	$901.5	06/30/33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$901.5	06/30/33
10036916 Lead Component Service Program	FY24-33		09/13/21		N/A		N/A		05/06/22		01/24/23		Q1-FY23-24	
	$49.18	12/13/27	$49.18	12/13/27	N/A	N/A	N/A	N/A	$49.18	12/13/27	$49.18	12/13/27	$49.18	12/13/27
Local Water Supply														
10015239 Lake Merced Water Level Restoration	FY24-33		06/16/03		04/30/10		6/28/24[5]		11/21/24		09/08/25		Q1-FY23-24	
	$42.7	07/22/27	$32.7	01/31/19	$32.7	01/31/19	TBD	TBD	TBD	TBD	TBD	TBD	$42.7	07/22/27
10015242 San Francisco Westside Recycled Water	FY24-33		03/03/03		05/15/09		12/08/14		06/29/16		10/17/17		Q1-FY23-24	
	$213.3	05/20/26	$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	05/20/26

Footnotes:

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

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Local Tank/Reservoir Improvements														
10015223 College Hill Reservoir Outlet[2]	FY24-33		01/24/13		10/14/16		12/15/16		02/15/19		06/08/21		Q1-FY23-24	
	$25.8	04/24/24	$16.30	09/28/21	$16.30	09/28/21	$16.30	09/28/21	$16.30	09/28/21	$19.30	01/29/24	$25.8	04/04/25
10037794 Reservoir Roof and Tank Coatings	FY24-33		07/01/21		Various		Various		Various		TBD		Q1-FY23-24	
	$13.0	06/15/27	$13.0	06/15/27	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	$13.0	06/15/27
Pump Stations														
10015231 Harding Park PS	FY24-33		05/12/21		12/29/23		03/27/24		08/23/24		03/25/25		Q1-FY23-24	
	$6.7	11/30/26	$6.5	04/03/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$6.7	11/30/26
Buildings and Grounds														
10037249 New CDD Headquarters	FY24-33		02/01/20		08/31/21		12/30/21		03/28/25		06/28/22[5]		Q1-FY23-24	
	$393.6	05/31/29	$350.2	06/28/28	$393.6	06/28/28	$393.6	06/28/28	TBD	TBD	$393.6	06/28/28	$393.6	05/31/29
Emergency Firefighting Water System														
EFWSPL EFWS Pipelines[3]	FY24-33		04/04/11		Various		Various		Various		Various		Q1-FY23-24	
	$158.1	12/29/28	$31.6	09/29/17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$158.1	12/29/28
EFWSPPS EFWS Pump Stations[4]	FY24-33		04/04/11		Various		Various		Various		Various		Q1-FY23-24	
	$24.5	12/29/28	$17.5	09/26/16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$24.5	12/29/28

Footnotes:

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

6. PROJECT PERFORMANCE SUMMARY*

All costs are shown in $1,000s

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
Water Transmission											
10033816 Potable Emergency Firefighting Water System	PL	$55,000	$55,000	$55,000	$836	$0	0%	06/30/29	06/30/29	06/30/29	0
10033818 Town of Sunol Pipeline	DS	$8,013	$8,013	$8,013	$3,716	$0	0%	05/30/25	05/30/25	05/30/25	0
19063 Local Water Conveyance/ Distribution System	MP	$901,496	$901,496	$901,496	$480,513	$0	0%	06/30/33	06/30/33	06/30/33	0
10036916 Lead Component Service Program	CN	$49,181	$49,181	$49,181	$7,161	$0	0%	12/13/27	12/13/27	12/13/27	0
Local Water Supply											
10015239 Lake Merced Water Level Restoration	DS	$42,668	$42,668	$42,668	$4,932	$0	0%	07/22/27	07/22/27	07/22/27	0
10015242 San Francisco Westside Recycled Water	CN	$213,316	$213,316	$213,316	$199,526	$0	0%	05/20/26	05/20/26	05/20/26	0
Local Tanks/Reservoir Improvements											

* 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 FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10015223 College Hill Reservoir Outlet	CN	$25,783	$25,783	$25,783	$13,938	$0	0%	04/24/24	04/24/24	04/04/25	(345)
10037794 Reservoir Roof and Tank Coatings	MP	$13,000	$13,000	$13,000	$120	$0	0%	06/15/27	06/15/27	06/15/27	0
Pump Stations											
10015231 Harding Park PS	PL	$6,717	$6,717	$6,717	$722	$0	0%	11/30/26	11/30/26	11/30/26	0
Buildings and Grounds											
10037249 New CDD Headquarters	DS	$393,601	$393,601	$393,601	$7,337	$0	0%	05/31/29	05/31/29	05/31/29	0
Emergency Firefighting Water System											
EFWS PL - EFWS Pipelines	MP	$158,108	$158,108	$158,108	$41,603	$0	0%	12/29/28	12/29/28	12/29/28	0
EFWS PS - EFWS Pump Station	MP	$24,500	$24,500	$24,500	$17,579	$0	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 FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

7. PROJECT STATUS REPORT

10033816 - Potable Emergency Firefighting Water System

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

Program: Water Transmission	**Project Status:** Planning	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 55.00 M
Forecast	$ 55.00 M
Actual	$ 0.84 M

Project Schedule:

Approved 08/12/19	06/30/29
Forecast 08/12/19	06/30/29

Project Percent Complete: 1.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/12/19 A	N/A	TBD	12/29/28

Progress and Status:
Potable EFWS Pipeline – Install new Potable Emergency Firefighting Water System (PEFWS) pipeline in Richmond and Sunset neighborhoods of San Francisco. The Conceptual Engineering Report (CER) for Contract A and B is being finalized. Contract A and B will install new potable EFWS pipeline from Lake Merced Pump Station to Sloat Blvd/19th Avenue, and 23rd Avenue /Vicente Street to Lawton Street respectively. Contract A design started, and the 35% design milestone is anticipated by November 2023. Contract B design has not yet commenced. PEFWS pipeline is funded by both the ESER General Obligation (GO) Bond 2020 and the SFPUC Water CIP bonds. Water CIP bond funding will be utilized during the construction phase of PEFWS pipelines in the next several years.

Issues and Challenges:
None at this time.

Installation of a New 36-inch (36") Diameter Welded Steel Pipe (WSP) at 19th Avenue and Sloat Boulevard

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: Water Transmission	**Project Status:** Design	**Environmental Status:** Completed (MND)

Project Cost:

Approved	$ 8.01 M
Forecast	$ 8.01 M
Actual	$ 3.72 M

Project Schedule:

Approved 06/17/19	05/30/25
Forecast 06/17/19	05/30/25

Project Percent Complete: 50.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/25/23	01/02/24	09/04/24	04/29/25

Progress and Status:
During this reporting period the project team completed the 95% design and commenced addressing stakeholder comments. Monthly coordination meetings between SFPUC and Caltrans are ongoing concerning the Arroyo de la Laguna bridge replacement. Two field visits with Caltrans were held to coordinate relocation of SFPUC pipelines and permitting challenges in the creek. The replacement pipeline under highway 680 was completed by a Caltrans contractor; the tie-in work was implemented by Water Supply and Treatment Division (WSTD). As WSTD placed the new line into service, a pipe joint slipped out, leading to a substantial leak. WSTD was able to temporarily fix the issue, but a more permanent solution will be required before the construction area is restored. A Job Order Contract is being prepared by SFPUC to provide the more permanent solution outside of this project.

Coordination Meeting with Caltrans

Issues and Challenges:
The project schedule is expected to increase beyond the approved completion date due to the additional coordination effort required with Caltrans and due to time required for environmental permitting. Although the coordination will likely not take a full year, the project is constrained by performing work during the summer months since a portion of the work crosses the Sunol Glen School, which has required construction be performed only during summer break. An updated schedule forecast will be provided in the next report.

19063 - Local Water Conveyance/Distribution System

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

Program: Water Transmission	**Project Status:** Multi-Phases	**Environmental Status:** Active (Various)

Project Cost:

Approved	$ 901.50 M
Forecast	$ 901.50 M
Actual	$ 480.51 M

Project Schedule:

Approved 07/01/10	06/30/33
Forecast 07/01/10	06/30/33

Project Percent Complete: 48.0%

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

Progress and Status:

This programmatic project includes multiple active and upcoming construction contracts (refer to Section 8 for the active construction status). Projects under construction during Q1 FY24 included the City streets of 19th Avenue, Vicente Street, Prospect Avenue, L-Taraval Segment B, Diamond Street, and Laidley Street. During this reporting period, water work was completed on Prospect Avenue, 19th Avenue, and Vicente Street. The Hampshire Street project, which had Notice to Proceed issue last quarter, includes water, sewer, and paving work. Sewer work has started, but water work is anticipated to start only during Q3FY24. During this reporting period, Construction Contract WD-2848 which includes water work in the Diamond Heights residential district on Gold Mine Drive was awarded by the SFPUC Commission, with construction estimated to start in Q3FY24. Additionally, Construction Contract WD-2874, with water work in the Glen Park residential district on Joost Street, advertised in Q1FY24, and SFPUC Commission award is anticipated for Q2FY24, with construction starting in Q3FY24.

Issues and Challenges:

Forecasted mileage of pipelines to be installed this FY is less than the goal; however, approximately 7 projects totaling $68M in construction are anticipated to be advertised by the end of FY24, which should allow for increased mileage of main replacement in FY25 and FY26.

Diamond Street Water Main Replacement

10036916 - Lead Component Service Program

Project Description: In 2016, the California Legislature enacted SB-1398 “Public Water Systems: Lead User Service Lines” which compelled water agencies to replace Lead User Service Lines (LUSL) and service lines with unknown material by July 1, 2030. This program was established to replace approximately 1,300 galvanized service lines throughout the City by 2026. The Contractor provides excavation, permitting, restoration, and work related the service line replacements while SFPUC plumbers will be replacing the 1,300 services.

Program: Water Transmission	**Project Status:** Construction	**Environmental Status:**

Project Cost:

Approved	$ 49.18 M
Forecast	$ 49.18 M
Actual	$ 7.16 M

Project Schedule:

Approved 09/13/21	12/13/27
Forecast 09/13/21	12/13/27

Project Percent Complete: 15.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/23	09/27/22 A	03/27/23 A	03/15/26

Progress and Status:

Approximately 184 water service lines made of galvanized steel were replaced with copper at an estimated cost of $5,600 per replacement. Approximately 200 additional galvanized service lines will be replaced during the next quarter.

Issues and Challenges:

None at this time.

City Distribution Division Construction Staff Performing Service Line Replacement

10015239 - Lake Merced Water Level Restoration

Project Description: The project includes the following subprojects: (A) Vista Grande Drainage Basin Improvement managed by Daly City; (B) Lake Merced Recycled Water Diversion. For Vista Grande Drainage Basin Improvement Project (Contract A): Daly City received draft permit conditions from the California Coastal Commission which would severely impact project feasibility and objectives. Daly City continues working to ensure project funding is in place. Daly City prepared and SFPUC reviewed a Draft Funding Memorandum Of Agreement (MOA). Following an initial round of review and response from Daly City, the draft MOA is currently undergoing additional review and revisions by Daly City. For Lake Merced Recycled Water Diversion (Contract B): Preliminary design work for plans to divert recycled water from the new Westside Recycled Water Plant into Lake Merced to manage lake levels continued during the quarter. Design Phase has been delayed as a result of lack of staff availability in addition to significant delay in completing the Westside Recycled Water Project.

Program: Local Water Supply	**Project Status:** Design	**Environmental Status:** Active (Various)

Project Cost:

Approved	$ 42.67 M
Forecast	$ 42.67 M
Actual	$ 4.93 M

Project Schedule:

Approved 06/16/03	07/22/27
Forecast 06/16/03	07/22/27

Project Percent Complete: 12.3%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	07/31/18 A	08/26/24	04/03/25	01/22/27
	B	11/10/16 A	N/A	N/A	N/A
	C	12/31/24	03/04/25	11/01/25	09/30/26

Progress and Status:

The project includes multiple construction contracts. (A) Vista Grande Drainage Basin Improvement managed by Daly City – Phase 1; (B) Lake Merced Aeration Mixing System - Phase 2 (Job Order Contract); and (C) Lake Merced Recycled Water Diversion - Phase 3. Vista Grande Drainage Basin Improvement Project (Contract A): Daly City received draft permit conditions from the California Coastal Commission which would severely impact project feasibility and objectives. Daly City continues working to ensure project funding is in place. Daly City prepared and SFPUC reviewed a Draft Funding Memorandum Of Agreement (MOA). Following an initial round of review and response from Daly City, the draft MOA is currently undergoing additional review and revisions by Daly City. Lake Merced Recycled Water Diversion (Contract C): Preliminary design work for plans to divert recycled water from the new Westside Recycled Water Plant into Lake Merced to manage lake levels continued during the quarter. Design Phase has been delayed as a result of lack of staff availability in addition to significant delay in completing the Westside Recycled Water Project.

View Looking Southwest Across South Lake Merced

Issues and Challenges:

The draft permit conditions proposed by the California Coastal Commission (CCC) are extremely restrictive and would potentially jeopardize Daly City's ability to construct as well as SFPUC justification for financial contribution to the project. Daly City is working closely with SFPUC as well as stakeholders and other regulatory agencies to have CCC staff modify these restrictive conditions. Delays in anticipated completion of the Westside Recycled Water Project as well as staffing shortages have impacted progress on Lake Merced Recycled Water Diversion - Phase 3.

10015242 - San Francisco Westside Recycled Water

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

Program: Local Water Supply	**Project Status:** Construction	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 213.32 M
Forecast	$ 213.32 M
Actual	$ 199.53 M

Project Schedule:

Approved 03/03/03	05/20/26
Forecast 03/03/03	05/20/26

Project Percent Complete: 95.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	09/03/15 A	12/29/16 A	10/18/17 A	11/20/25
	B		12/19/18 A	07/01/19 A	10/24/23
	C		07/15/16 A	02/21/17 A	08/19/18 A
	D		02/25/20 A	01/25/21 A	11/24/23
	E		09/23/24	05/21/25	11/20/25

Progress and Status:
This project includes multiple construction contracts. (A) Recycled Water Treatment Facility; (B) Pump Station and Reservoir; (C) Pipeline; (D) Irrigation System Retrofits; (E) (proposed) Primary Power for Distribution Pump Station. Treatment Facility (Contract A): The majority of construction work at the treatment facility is complete. In June 2023, the secondary effluent and reverse osmosis pump variable frequency drives (VFDs) were found to have failed due to the corrosive environment. The manufacturer's report recommended replacement of most of the interior components of the reverse osmosis pump VFDs and select components of the secondary effluent VFDs as the minimum solution. The project team is awaiting equipment pricing and procurement timelines so that a change order can be issued. (Contract B): Start-up testing was completed in September, and the Contractor began addressing punch-list items. PG&E also agreed to move forward with secondary power service to the project; a draft service agreement and preliminary design documents were submitted by PG&E for project team review and approval. Pipeline (Contract C) is complete. Irrigation System Retrofit (Contract D): Major construction work has been completed. Punchlist walkthrough of the retrofit work continued. The Irrigation System Operations Plan and Standard Operating Procedures (for recycled water use) for Lincoln Park Golf Course was completed.

Exterior of Buildings 580 and 581

Issues and Challenges:
Contract A: The cost and schedule impacts due to the need to replace the VFD's at the Treatment Facility is being analyzed and will be forecasted in future reports. Contract B: The timeline for PG&E to provide secondary power has not been provided by PG&E; this will delay energization of the pump station.

10015223 - College Hill Reservoir Outlet

Project Description: This project provides funding for the design and construction of the College Hill Reservoir Outlet Structure and Pipeline Upgrade Project to address seismic, water quality, electrical, structural, and other deficiencies. This project includes installation of a new control valve vault; replacement of reservoir inlet and outlet piping; replacement of reservoir transmission pipelines up to Cortland Avenue; reservoir roof replacement; and miscellaneous piping, security, site access, electrical, instrumentation, and water quality improvements.

Program: Local Tanks/Reservoir Improvements	**Project Status:** Construction	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 25.78 M
Forecast	$ 25.78 M
Actual	$ 13.94 M

Project Schedule:

Approved 01/24/13	04/24/24
Forecast 01/24/13	04/04/25

Project Percent Complete: 68.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/20/19 A	02/24/21 A	09/27/21 A	09/30/24

Progress and Status:

During the quarter the contractor completed the following: fabrication and installation of valve control vault structural steel for staircase and platform; installation of valve vault roof and hatches; shipment of 24-inch and 26-inch diameter gate valves and motorized actuators; installation of 24-inch gate valves at control valve vault; demolition of reservoir roof membrane and substructure; and installation of reservoir roof joists.

Issues and Challenges:

On-going delays associated with manufacturing, testing, and selection of correct valve flanges has resulted in the contractor resequencing portions of the work in order to minimize any potential schedule impacts. Pacific Gas and Electric (PG&E) has not provided the new electric service necessary for the motorized actuators, water quality sampling equipment, and controls equipment due to an unresolved dispute with SFPUC over a rate tariff. The delayed electrical service will impact the schedule for field testing of the new equipment and for returning the reservoir to service if SFPUC and PG&E are not able to resolve the rate tariff issue by Q2 FY24.

Installation of 24-inch Gate Valve inside the Valve Control Vault at College Hill Reservoir

10037794 - Reservoir Roof and Tank Coatings

Project Description: The City Distribution Division (CDD) tanks and reservoirs that were upgraded during the Water System Improvement Project (WSIP) are currently, or in the very near future, in need of replacement of their exterior coatings and/or roofing. The useful service life of most of these coatings is approximately ten years and many have begun to deteriorate in the last few years due to the harsh marine environment towhich they are exposed. This project will provide the R&R funding necessary to maintain these coating and extend the useful service life of these critical assets.

Program: Local Tanks/Reservoir Improvements	**Project Status:** Multi-Phases	**Environmental Status:** Active (Cat Ex)

Project Cost:

Approved	$ 13.00 M
Forecast	$ 13.00 M
Actual	$ 0.12 M

Project Schedule:

Approved 07/01/21	06/15/27
Forecast 07/01/21	06/15/27

Project Percent Complete: 1.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/23 A	12/01/23	04/24/24	05/14/27

Progress and Status:

During the reporting period, the project team continued with preparing the contract for University Mound North Basin roof coating work for advertisement. A cost estimate to perform a condition assessment of the interior and exterior coatings at the La Grande tank was received and evaluated.

Issues and Challenges:

None at this time.

Premature Coating Failure and Corrosion at La Grande Tank

10015231 - Harding Park PS

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

Program: Pump Stations	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 6.72 M
Forecast	$ 6.72 M
Actual	$ 0.72 M

Project Schedule:

Approved 05/12/21	11/30/26
Forecast 05/12/21	11/30/26

Project Percent Complete: 15.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/14/23	09/30/24	06/02/25	06/01/26

Progress and Status:
Conceptual engineering was in progress during the quarter, and is anticipated to be completed by next quarter.

Issues and Challenges:
None at this time.

Rendering of Electrical Equipment Enclosure Alternative

10037249 - New CDD Headquarters

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

Program: Buildings and Grounds	**Project Status:** Design	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 393.60 M
Forecast	$ 393.60 M
Actual	$ 7.34 M

Project Schedule:

Approved 02/01/20	05/31/29
Forecast 02/01/20	05/31/29

Project Percent Complete: 3.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/12/24	06/18/21 A	10/01/24	11/30/28

Progress and Status:

The team is focused on advancing design to start construction in 2024. To ensure the facilities are future proofed, an industrial engineer is on board to develop plans for the shops and the team is working with the Power Enterprise to develop a strategy for maintaining a fleet that includes electric vehicles. Progress was also made on the environmental review, and the process for selecting the public art was initiated.

Issues and Challenges:

None at this time.

Rendering of new City Distribution Division Headquarters at 2000 Marin

EFWS PL - EFWS Pipelines

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

Program: Emergency Firefighting Water System	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Various)

Project Cost:

Approved	$ 158.11 M
Forecast	$ 158.11 M
Actual	$ 41.60 M

Project Schedule:

Approved 04/04/11	12/29/28
Forecast 04/04/11	12/29/28

Project Percent Complete: 25.8%

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

Progress and Status:

19th Avenue Pipeline: Construction completed in July 2023. Clarendon Supply: Construction continued; construction completion anticipated in December 2023. This construction completion date has been extended due to material delivery delay and additional time needed to complete punchlist items and conduct trainings on operation. Fireboat Manifolds: Planning for new pipelines and fireboat manifolds near Fort Mason Pier 2 and Pier 35.5 is underway. Potable Emergency Firefighting Water System Pipeline: The Conceptual Engineering Report (CER) for Contract A and B is anticipated to be finalized by December 2023. Contract A Design continued. Vicente Potable EFWS Pipeline: Construction continued; construction completion is expected in July 2024.

Issues and Challenges:

None at this time.

Enclosure Installation for Clarendon Supply Facility at Dellbrook and Clarendon

EFWS PS - EFWS Pump Station

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

Program: Emergency Firefighting Water System	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Various)

Project Cost:

Approved	$ 24.50 M
Forecast	$ 24.50 M
Actual	$ 17.58 M

Project Schedule:

Approved 04/04/11	12/29/28
Forecast 04/04/11	12/29/28

Project Percent Complete: 76.2%

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

Progress and Status:

Pump Station #2: Construction substantial completion was reached on May 9. The team continued work on close out documentation during the reporting period. Potable Emergency Firefighting Water System (PEFWS) Pump Station - Lake Merced: Planning continues.

Issues and Challenges:

None at this time.

EFWS Pump Station No. 2

8. ON-GOING CONSTRUCTION*

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Percent Complete
	NTP Date	Approved Construction Final Completion**	Current Forecasted Construction Final Completion	Approved Contract Cost	Current Forecasted Cost**	Schedule (Cal Days)	Cost	
Water Transmission								
19063 - PROSPECT/CORTLAND/FAIR AVE - (WD-2718)	01/03/22	11/23/23	11/23/23	$5,939,459	$6,494,459	0	($555,000)	70.4%
19063 - 19TH AVE/VICENTE/LINCOLN - (WD-2775)	10/19/20	06/14/23	12/30/23	$6,665,411	$7,778,411	(199)	($1,113,000)	45.0%
19063 - VICENTE 19TH TO 25TH AVE - (WD-2806)	07/26/21	04/07/24	12/03/23	$6,267,815	$6,458,657	126	($190,842)	78.1%
19063 - Diamond street (27th to Diamond Heights) - (WD-2843)	07/25/22	05/17/24	05/17/24	$9,096,593	$9,111,993	0	($15,400)	39.7%
19063 - Laidley Street from Harper to Castro Streets - (WD-2847)	03/06/23	11/23/24	11/23/24	$5,800,618	$6,282,018	0	($481,400)	17.4%
19063 - L-TARAVAL SEGMENT B - (WD-2859R)	12/02/21	09/17/24	09/17/24	$12,057,248	$12,158,248	0	($101,000)	18.8%
10036916 - Lead Component Service Program (WD-2889)	03/27/23	03/15/26	03/15/26	$26,663,850	$26,663,850	0	$0	1.2%
Local Water Supply								
10015242 - Westside Recycled Water Treatment Facility - (WD-2776)	10/16/17	07/29/22	11/20/25	$94,637,405	$94,637,405	(1,210)	$0	97.7%
10015242 - SFWRW Pump Station and Reservoir - (WD-2797)	03/08/21	06/30/22	10/24/23	$18,413,260	$18,413,260	(481)	$0	99.0%
10015242 - Westside Recycled Irrigation Retrofits and Improvements - (WD-2852R)	01/25/21	07/29/22	11/29/23	$2,517,778	$2,517,778	(488)	$0	94.0%
Local Tanks/Reservoir Improvements								
10015223 - College Hill/Prospect/Santa Maria - (WD-2717)	09/27/21	09/30/24	09/30/24	$18,730,497	$18,730,497	0	$0	41.4%

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.

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Percent Complete
	NTP Date	Approved Construction Final Completion**	Current Forecasted Construction Final Completion	Approved Contract Cost	Current Forecasted Cost**	Schedule (Cal Days)	Cost	
Emergency Firefighting Water System								
10029709/10030778 - Pump Station # 2 - (WD-2687R)	12/12/17	11/16/22	09/30/23	$21,597,070	$21,597,070	(318)	$0	99.0%
10029724/10029695 - Clarendon Supply - (WD-2861)	02/01/21	07/29/22	07/31/23	$2,954,292	$2,974,292	(367)	($20,000)	75.0%

	Approved Contract Cost	Current Forecast Cost	Variance	
			Cost	Percent
Program Total for On-Going Construction	**$231,341,296**	**$233,817,938**	**($2,476,642)**	**(1.1%)**

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 CLOSEOUT

Project Title	Current Approved Construction Phase Completion	Actual Construction Phase Completion	Current Approved Construction Phase Budget	Construction Phase Expenditures To Date
Local Water Supply				
10015240 - San Francisco Groundwater Supply	02/23/23	02/23/23	$40,494,110	$40,494,110
TOTAL			**$40,494,110**	**$40,494,110**

10. COMPLETED PROJECTS

There are no completed projects.

APPENDICES

A PROJECT DESCRIPTIONS

B APPROVED PROJECT-LEVEL SCHEDULE

C LIST OF ACRONYMS

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APPENDIX A. PROJECT DESCRIPTIONS

WATER REGIONAL

Water Treatment

10033123 SVWTP Ozone (CUW27202)

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

10015064 SVWTP Short Term Improvements

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

10037628 SVWTP Polymer Feed Facility

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

polymer system. The project will build a polymer feed facility that will serve all five sedimentation basins to optimize plant water production. The funding for the project is provided under WECIP and WSIP. The WSIP funding for this project, $2.19M, is included with other Sunol Valley closeout projects and was completed in the Planning phase and a portion of the Design phase. The remaining funding for the project is provided under Water Enterprise 10-year CIP, $19,046,104. The scope of this project includes installation of a new polymer feed facility for SVWTP Basins 1 through 5. The flocculant aid polymer system will consist of the following: • Polymer Feed Building with polymer totes and tote storage area. • Polymer blending units. • Batch tanks. • Tank and tote mixers. • Batch tanks polymer transfer pump. • Polymer feed pumps. • Piping and valving. • Site improvements.

10037349 HTWTP Filter Underdrain Replacement

Over twenty projects have been identified to improve the performance and reliability of the Harry Tracy Water Treatment Plant (HTWTP). However, underdrains in two filters in a bank of six have failed since 2019 and replacement of the underdrains is being prioritized to restore the plant's treatment capacity and reliability. The remaining projects will be deferred to future CIP Planning. The scope of work includes the following: • Remove and dispose existing filter media and provide new filter media, • Procure and install new stainless steel filter underdrains for 6 filters, • Modify air distribution piping beneath filter underdrains, • Clean and recoat main air distribution piping, • Demolition work, and • Concrete work

10037350 Regional Groundwater Treatment Improvement

The purpose of this project is to improve the performance of the Regional Groundwater Wells and treatment systems in the South Westside Basin for reliable use during dry years. In normal and wet years, the SFPUC will supply treated surface water to Daly City, San Bruno, and Cal Water to be used in place of their typical groundwater supply, thereby increasing the volume of groundwater in storage that can be pumped as supplemental water in dry years. This project will address emerging well water quality issues that require treatment, will provide additional reliability for treatment systems at the wells, and will evaluate the potential for a consolidated treatment facility (through Alternatives Analysis only). If a centralized treatment alternative is selected, the estimated project cost could potentially be $250 million, which includes construction of approximately 14 miles of 8" to 24" diameter pipeline, a pump station, storage tanks, treatment facilities, and other ancillary facilities. This project will build auxiliary water treatment facilities as well as other enhancements to increase the reliability and efficiency for maintenance and operation of the well stations. While an evaluation for providing centralized treatment is included in the project, the current budget only includes design and construction of facilities at individual well sites, including the following: • Install ammonia analyzer (1 site) • Construct manganese enclosure (2 sites) • Construct building, filtration and ammonia analyzer (1 site) • Upsize pedestal & tank for 2-week storage for sodium hydroxide (5 sites) • Upsize pedestal & tank for 2-week storage for liquid ammonium sulfate (7 sites) • Upsize pedestal and tank for 2-week storage for sodium hypochlorite (1 site) • Install detention (contact) tank to address high levels of ammonia w/o enclosure (1 site) • Upsize pedestal, tank and overall chemical system for change in chemical concentration from 50% to 25% concentration (5 sites) • Install chlorine detention (contact) tank to address high levels of ammonia • Install venturi meter or mag meter with dismantling joint inside concrete vault (6 sites) • Remove bucket elevator for sodium fluoride (7 sites) • Study to compare liquid vs powder fluoride • Study reverse flow (lockout study for minimum shutdown time) • Reimburse Cal Water for supporting the project design & construction for SSF Main well

10038328 SVWTP Long Term Improvements

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

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

10037277 Sunol Valley Chloramination Facility

The Sunol Valley Chloramination Facility (SVCF) is a chemical feed facility that provides chloramine disinfection, pH control, and fluoride addition for the unfiltered Hetch Hetchy (HH) water supply. In addition, the chemical systems for removing chlorine and adjust ing the pH of waters entering into Alameda Siphons 1, 2, and 3. The primary objective of the project is to increase reliability at the Fluoridation (HFA) Facility, Sunol Valley Chloramination Facility (SVCF), and Dechlorination Facility by addressing various deficiencies of the chemical feed systems, controls, main programmable logic controller (PLC), and various related equipment, which will lower the current maintenance costs of the existing equipment.

Water Transmission

10034578 CSPL2 Reach 5 Lining Replacement

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

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

10035029 As-Needed Pipeline Repairs

Water Supply and Treatment Division's (WSTD) maintenance and inspection program inspects the regional pipeline system on an ongoing basis. However, when repairs are identified to be needed following inspections and when emergency repairs are needed, a contractor is not readily available to perform the repairs. This project will increase system reliability by reducing the duration and number of outages since a prequalified, as-needed contractor will be available to complete repairs immediately following inspections or in emergencies. This project will repair/replace regional pipeline segments that will be inspected over the next five years, in addition to any emergency repairs that may be needed. The initial construction

contract will be 3 years and combined with Project 10036840, BDPL1-4 Lining Repair to provide a sufficient guaranteed scope. Subsequent construction contract(s) will be issued to parallel WSTD's inspection program. The scope of work for the initial construction contract is as follows: • Pipeline replacement by open trench • Pipeline repair work • Protecting sensitive (wetland and creek) areas • Protecting utilities and infrastructure • Traffic control • Site/vegetation restoration • Paving restoration • Dewatering and providing temporary safe entry

10036839 BDPL4 PCCP Repair

Historically, when pre-stressed concrete cylinder pipe (PCCP) fails due to breaks in the spirally wound wire, the high-pressure failure can have catastrophic consequences. Some segments of the Regional Water System are constructed of PCCP. From recent inspections of Bay Division Pipeline No. 4 (BDPL4) Segment D, constructed of PCCP, a large number of wire breaks and circumferential cracks were found in the last 1.25 miles of pipeline that parallels Edgewood Road in Redwood City. In addition, several leaks have surfaced at circumferential cracks and where the pipeline transitions from PCCP to steel. Segments where wire breaks are concentrated will need to be repaired/replaced to prevent catastrophic failure and circumferential cracks and leaks will also be repaired. The first phase of this project will be to repair segments where there are high concentrations of wire breaks, wide circumferential cracks and active leaks. This first phase will include planning, design and construction of repairs. The second phase of the project will be to address the remaining 1.25 miles of pipeline, which includes planning, design and partial encumbrance of a construction contract. The project budget will be reevaluated following completion of the Alternatives Analysis for the second phase. The first construction contract will increase system reliability by rehabilitating approximately 650 feet of 84-inch diameter BDPL4 PCCP in Redwood City and includes the following work: • Excavation, shoring, backfilling, and compaction • Demolition of PCCP • Replacement of approximately 530 feet of pipeline by open trench • Slip lining approximately 120 feet of pipeline • Protecting sensitive (wetland and creek) areas and utilities/infrastructure • Traffic control and • Site/vegetation and paving restoration

10036840 BDPL 1-4 Lining Repair

Water Supply and Treatment Division's (WSTD) ongoing pipeline inspection program has identified segments of the BDPL 1-4 and other regional pipelines that require lining repairs. In addition, this project will retain an as-needed contractor to repair linings identified to be deficient by WSTD over the next 5-years. This project will repair the lining in segments of the BDPL 1-4 and other regional pipelines over the next 5 years. The initial construction contract for this project will be 3 years and combined with Project 10035029, As-Needed Pipeline Repair to provide a sufficient guaranteed scope. Subsequent construction contract(s) will be issued to parallel WSTD's inspection program. The scope of work entails the following: • Cement mortar lining (CML) repair including removal, handling and disposal of existing coal tar lining • Dielectric lining repair • Dewatering and providing temporary safe entry measures, such as line stops, blind flanging, roll out spool pieces, welding bulkheads, etc.

10015071 Corrosion Control

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

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

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

10015076 San Antonio Pump Station MCC Upgrades

The San Antonio Pump Station (SAPS) is one of the key facilities in the Sunol Valley and was constructed in 1965 and modified in 1990. The existing motor control centers (MCC) MCC-A, MCC-B, and MCC-C have been in service since the 1960's and they are approaching the end of their useful life. In order to maintain reliable operation at SAPS, the existing MCCs are being replaced and facility walls are being seismically retrofitted. In order to accommodate the retrofit work, the communications system is being relocated to an adjacent room and the HVAC will be replaced in affected rooms. In addition, a new propane generator will replace the existing diesel generator to serve as reliable backup power to the facility. The scope of work or construction will include the following: Replace existing diesel generator with new 150KW propane generator - Install new fire suppression system - Replace existing lighting system - Replace existing HVAC system - Architectural design to accommodate clean agent fire suppression - Seismic Retrofit of walls - Replace existing MCC - Replace existing underground power and control conductors - Install new RTU with UPS - Replace existing communication system for Control and SCADA room

10015081 CSPL2 Reaches 2 and 3 Rehabilitation

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

Water Supply & Storage

10015232 Merced Manor Reservoir Facilities Repairs

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

10036998 Turner Dam and Reservoir Improvements

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

10015091 Pilarcitos Dam Improvements

The Pilarcitos Dam is an earthen embankment dam that was built in 1866 and raised in 1874; it is the SFPUC's oldest dam regulated by the California Division of Safety of Dams (DSOD). This project will investigate the seismic stability and hydraulic performance of the Pilarcitos Dam and Reservoir facilities and perform necessary upgrades identified during the Planning Phase. The scope of work will be confirmed following the completion of the Condition and Needs Assessments, and Alternative Analysis for the dam and forebay outlet structure, spillway, outlet tunnel, and outlet pipeline.

10015092 San Andreas Dam Facility Improvements

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

Watershed & Lands Management

10015108 Sneath Lane Gate/North San Andreas

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

10015113 Southern Skyline Blvd Ridge Trail Extension

The Bay Area Ridge Trail project was started in 1987 by the Bay Area Ridge Trail Council to create an approximately 550-mile long continuous trail for hikers, mountain bicyclists, and equestrians along the ridgelines overlooking San Francisco Bay. The objective of the project is to provide access to the Peninsula watershed, to enhance educational opportunities, and to ensure watershed protection. South of Highway 92, this proposed extension project would construct a 6-mile-long trail on the Peninsula Watershed in San Mateo County between Highway 92 and the Golden Gate National Recreation Area's (GGNRA) Phleger Estate. The project consists of a 6' foot wide, all-weather surface trails; retaining structures to stabilize cut and/or fill slopes; drainage facilities; a 15,000-square-foot parking lot accommodating up to 14 cars; two pre-fabricated restrooms along the trail; site security features; and landscape restoration. North of Highway 92, the project includes construction of a trail segment adjacent to the Fifield Cahill Trail that is compliant with the Americans with Disabilities Act, a 16,000-square foot parking lot, and one pre-fabricated restroom. In addition, the project includes the following related construction: • Removal of 160 trees • 9.3 miles of wildlife friendly security fencing • Grading and drainage work • 2000 LF soldier pile retaining walls • Paving of two trailheads parking areas with educational signage • Protecting sensitive habitat • Traffic control • Site/vegetation restoration

10030771 SA-1 Service Road/Ingoing Road

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

Buildings and Grounds

10034526 Millbrae Warehouse Settlement & Admin. Bldg. HVAC

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

10015124 Sunol Long Term Improvements

The project includes redevelopment of the existing Sunol Yard and construction of a Watershed Center near the Sunol Water Temple. Most of the existing structures at the Sunol Yard date back to 1930 and were converted from the original purpose, residence and barn, to office and shop spaces. The structures contain lead-based paint, asbestos, bats, and bat guano, and did not meet current building, health, or safety codes. The project will demolish six existing dilapidated structures at the Sunol Yard and construct a LEED Gold administration building, shops, fuel station, backup generator system, truck wash station, paving and site restoration. Additional scope was requested for the Watershed Center that was not included as part of the construction contract. The scope is under review by Water Enterprise for consideration and budget. The scope includes backup generator to power the facility, 100 space parking lot, History terrace exhibit, picnic area restoration and fixtures, composing toilets, convert temporary construction areas to permanent areas for WSTD and NRD use and revisions to the interior exhibits. The scope of Center (Phase B) will consist of the following: • Construction of a one-story LEED Gold facility that will include an interpretive display exhibit area, a freshwater stream profile aquarium, history display alcoves, a watershed discovery lab classroom, a community multi-purpose room, restrooms, an entry plaza, a reception area, patios, and administrative offices. • Construction of a 2.5-acre discovery trail area with native plant landscaping, irrigation, meandering trails, seating areas and water and landscape features. • Site restoration of the Temple area forecourt. • Construction of new stairs and ramps to the picnic area. • Installation of underground utilities. • Site restoration and paving

10015128 Millbrae Yard Laboratory and Shop Improvements

SFPUC has determined that the existing Millbrae Administration Building must remain operational following a major earthquake, and therefore needs to be retrofitted or replaced to meet essential facility requirements. SFPUC also wants to expand the existing Millbrae Administration Building to merge and house the Water Enterprise staff and equipment from the Rollins Road Facility. This project is necessary to provide Water Enterprise personnel a long term and sustainable campus, and allow the consolidation of work groups for increased staff efficiency. This project will also alleviate shortage of program space,

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

10034825 Millbrae Security Upgrades

Millbrae Yard is currently vulnerable to unauthorized intrusion, trespassing, theft, vandalism and physical damage. Site concerns include lack of adequate fencing around the perimeter of the site, lack of electronic security measures to monitor and control access into the Administration Building during normal business hours and after hours, lack of video surveillance to monitor the secure areas within the fenced perimeter, and lack of a physical barrier separating access to the shops/yard areas from visitor parking. This project would address the security concerns and would enhance the overall physical and electronic security components of the Millbrae Yard.

APPENDIX A. PROJECT DESCRIPTION

WATER LOCAL

Water Transmission

10033816 Potable Emergency Firefighting Water System

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

10033818 Town of Sunol Pipeline

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

19063 Local Water Conveyance/Distribution System

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

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

10036916 Lead Component Services Program

In September 2016, the California State Legislature passed Senate Bill 1398 (SB 1398) requiring all public water systems to compile an inventory of known lead user service lines in use in its distribution system and identify areas that may have lead user service lines. In addition, SB 1398 requires public water systems to provide a timeline to the board for the replacement of user service lines whose content cannot be determined. This new CIP program funds the management of and replacement of a.) Unknown user service lines, and b.) Galvanized service lines with possible lead whips or appurtenances over a 10-year period: a.) Unknown user service lines: There are 10,912 unknown user service lines. CDD has field investigated 900 unknown user service lines distributed throughout the City and based upon a recommended statistical analysis, approximately 4% (36) of the 900 have been identified as galvanized. The new CIP program will continue the discovery of the remaining 10,012 service lines through consultant services over a 2-year period at a cost of approximately $1 million/year. In addition, the program estimates that approximately 15% (1,640) of the unknown service lines will need to be renewed; however, this figure may change depending on the results of the discovery process: $2.0M over 2 years to determine the service line material for unknown services, $24.6M over 10 years to renew approximately (15%) 1,640 services potentially found to have a galvanized service. Although only 4% of unknown services have currently been found to be galvanized, this new CIP program is projecting that conservatively 15% of unknown services will be renewed. b.) Galvanized service lines: There are 4,524 galvanized services with a potential lead whip or appurtenances. Currently, CDD has field inspected 200 galvanized services and 20% are galvanized with the remaining 80% consisting of another material. Based on this, the new CIP program will fund the continuation of field investigations as well as the service renewal of 30% (1,360) galvanized services over a 10-year period; $1.0M over 2 years to confirm the service line material for galvanized services; $20.4M over 10 years to renew 1,360 galvanized services. Although only 20% of galvanized services have been found to be galvanized, this new CIP program is projecting that conservatively 30% of the services will be found to actually be galvanized.

Local Water Supply

10015239 Lake Merced Water Level Restoration

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

10015240 San Francisco Groundwater Supply

This project consists of two phases, which combined will provide an annual average of 4 mgd of groundwater to San Francisco's municipal water supply, and improvements at the existing San Francisco Zoo Well No. 5. Phase 1 is divided in two separate contracts, which are Contracts A & B. Contract A work

for building four new groundwater well stations in the western part of San Francisco is currently in the final construction phase. Contract B work for installing buried piping to connect three of these well stations to the Sunset Reservoir was completed and accepted on December 21, 2015. Groundwater from the fourth well station was piped to the nearby Lake Merced Pump Station, where it was distributed to both the Sunset Reservoir and Sutro Reservoir. Phase 2 has Contract C work for installing buried piping and converting two existing irrigation well facilities in Golden Gate Park to groundwater supply wells is currently in the final construction phase, and would be implemented after completion of the CUW30201, San Francisco Westside Recycled Water Project. Improvements at the existing San Francisco Zoo Well No. 5 were completed and accepted on February 15, 2007.

10015242 San Francisco Westside Recycled Water

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

Local Tanks/Reservoir Improvements

10015223 College Hill Reservoir Outlet

This project provides funding for the design and construction of the College Hill Reservoir Outlet Structure and Pipeline Upgrade Project to address seismic, water quality, electrical, structural, and other deficiencies. This project includes installation of a new control valve vault; replacement of reservoir inlet and outlet piping; replacement of reservoir transmission pipelines up to Cortland Avenue; reservoir roof replacement; and miscellaneous piping, security, site access, electrical, instrumentation, and water quality improvements.

10037794 Reservoir Roof and Tank Coatings

The City Distribution Division (CDD) tanks and reservoirs that were upgraded during the Water System Improvement Project (WSIP) are currently, or in the very near future, in need of replacement of their exterior coatings and/or roofing. The useful service life of most of these coatings is approximately ten years and many have begun to deteriorate in the last few years due to the harsh marine environment to which they are exposed. This project will provide the R&R funding necessary to maintain these coating and extend the useful service life of these critical assets.

Pump Stations

10015231 Harding Park PS

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

Buildings and Grounds

10037249 New CDD Headquarters

The City Distribution Division (CDD) Headquarters, currently located at 1990 Newcomb Avenue, San

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

Emergency Firefighting Water System

EFWS PL - EFWS Pipelines

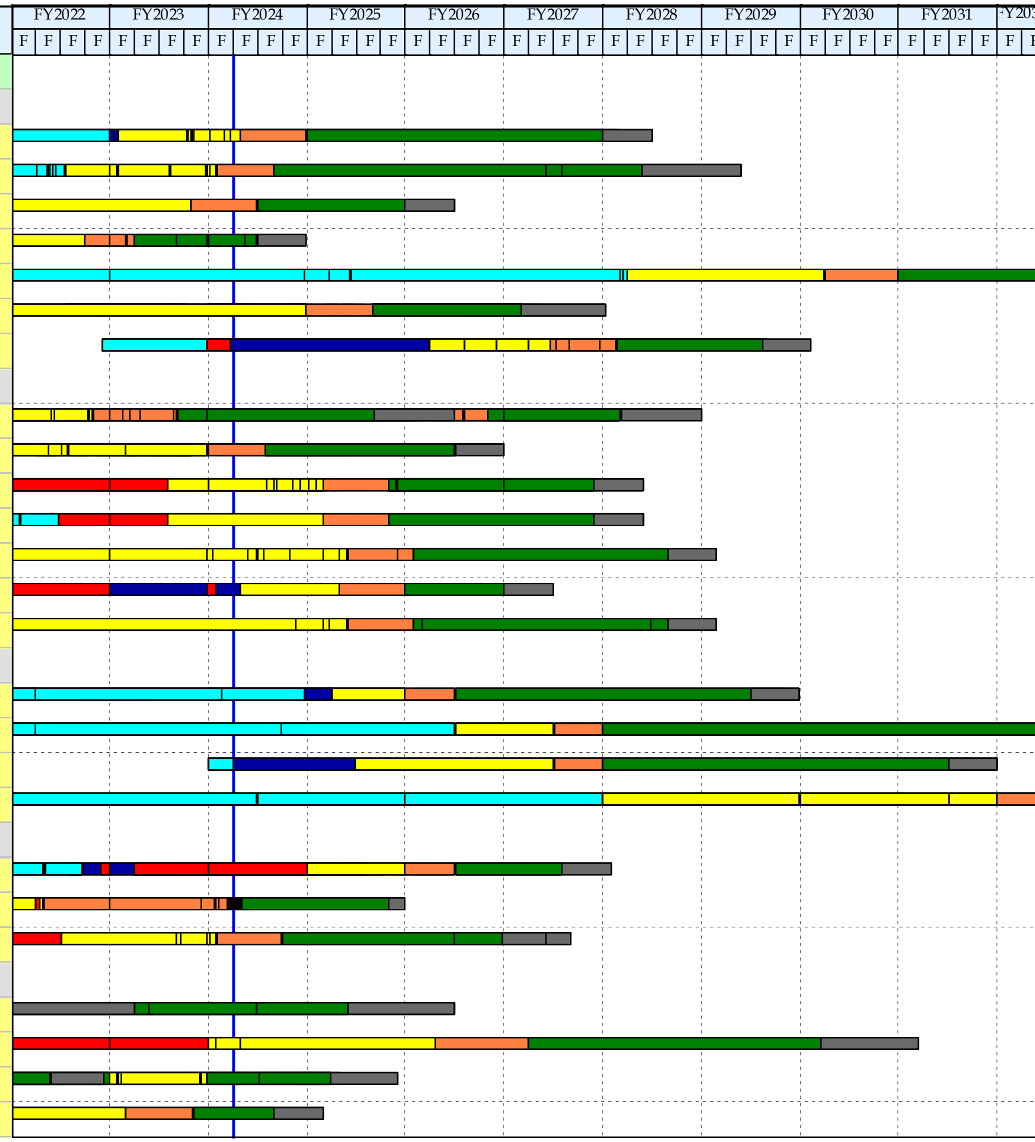
The Emergency Firefighting Water System(EFWS) includes several methods of delivering water to suppress fires during emergency situations. EFWS is vital for protecting against the loss of life, homes, and businesses from fire following an earthquake and non-earthquake multiple-alarm fires. One EFWS component 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 ressure 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 nonfi re situations. The proposed overall project will install over 14 miles of seismically resilient pipelines in multiple phases as funding is provided. The system will be capable of providing water to the SFFD firefighters at the high pressure needed to combat large fires after a seismic event. The proposed pipelines will be fed by pump stations delivering 30,000 gallons per minute with services to the Richmond and Sunset Districts. Fireboat manifolds allow fire boats to pump seawater from the bay into the EFWS. Existing fireboat manifolds at Fort Mason and Pier 33 ½ are located on piers of unknown condition and are likely susceptible to seismically induced failures. Rehabilitation of manifolds and connector pipelines is required at Fort Mason and Pier 33 ½ to provide adequate access for firefighters.

EFWS PS - EFWS Pump Station

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

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

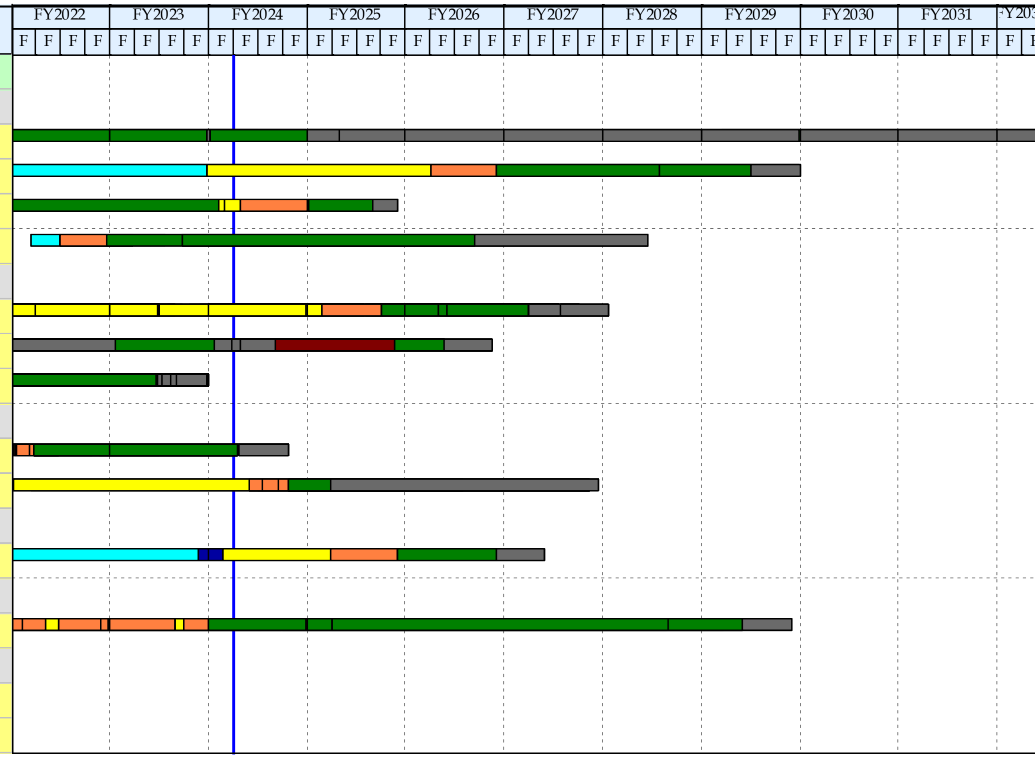
Project Name	Start	Finish
Water Regional Improvement Projects	01-Jan-09	29-Jun-35
Water Treatment	03-Mar-14	31-Dec-33
WTR Projects.10015064 SVWTP Phase 3	03-Mar-14	29-Dec-27
WTR Projects.10033123 SVWTP Ozone (CUW27202)	27-Jun-17	21-Nov-28
WTR Projects.10037277 Sunol Valley Chloramination Facility	02-Jan-19	31-Dec-25
WTR Projects.10037349 HTWTP Improvements Capital	02-Nov-20	28-Jun-24
WTR Projects.10037350 Regional Groundwater Treatment Improve	13-Aug-20	31-Dec-33
WTR Projects.10037628 SVWTP Polymer Feed Facility	01-Jul-21	09-Jul-27
WTR Projects.10038328 SVWTP Long Term Improvements	01-Nov-21	10-Aug-29
Water Transmission	01-Jan-16	25-Aug-28
WTR Projects.10015071 Corrosion Control	01-Jan-16	30-Jun-28
WTR Projects.10015076 SAPS MCCs	12-May-16	30-Jun-26
WTR Projects.10015081 CSPL2 Rehabilitation Reaches 2 and 3	12-Sep-16	30-Nov-27
WTR Projects.10034578 CSPL2 Rehabilitation Reach 5	25-Feb-19	30-Nov-27
WTR Projects.10035029 WSTD As-Needed Pipeline Repairs	22-Oct-16	25-Aug-28
WTR Projects.10036839 BDPL4 PCCP Repair	01-May-20	31-Dec-26
WTR Projects.10036840 BDPL 1-4 Lining Repair	12-Sep-16	25-Aug-28
Water Supply & Storage	11-Dec-13	29-Jun-35
WTR Projects.10015091 Pilarcitos Dam and Reservoir Improvemer	07-Apr-14	29-Jun-29
WTR Projects.10015092 San Andreas Dam Facility Improvements	11-Dec-13	30-Dec-33
WTR Projects.10015232 Merced Manor Reservoir Facilities	03-Jul-23	30-Jun-31
WTR Projects.10036998 Turner Dam and Reservoir Improvements	01-Oct-20	29-Jun-35
Watershed and Lands Management	31-Oct-12	02-Aug-27
WTR Projects.10015108 Sneath Lane Gate/North San And	01-Feb-21	02-Aug-27
WTR Projects.10015113 Southern Skyline Blvd Ridge Trail Extensi	31-Oct-12	30-Jun-25
WTR Projects.10030771 SA-1 Service Road/Ingoing Road	30-Jun-16	03-Mar-27
Buildings and Grounds	01-Jan-09	13-Sep-30
WTR Projects.10015124 Sunol Long Term Improvements	01-Jan-09	31-Dec-25
WTR Projects.10015128 Millbrae Yard Laboratory and Shop Improv	02-Nov-15	13-Sep-30
WTR Projects.10034526 Millbrae Warehouse Settlements	03-Jan-17	02-Jun-25
WTR Projects.10034825 Millbrae Security Upgrades - MLTI	01-Sep-19	30-Aug-24



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

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

Project Name	Start	Finish
Water Local Improvement Projects	03-Mar-03	30-Jun-33
Local Water Conveyance / Distribution System	01-Jul-10	30-Jun-33
CUW28000 Local Water Conveyance/Distribution System	01-Jul-10	30-Jun-33
10033816 Potable Emergency Firefighting Water System	12-Aug-19	30-Jun-29
10033818 Town of Sunol Pipeline	17-Jun-19	30-May-25
10036916 Lead Component Service Program	13-Sep-21	13-Dec-27
Local Water Supply	03-Mar-03	22-Jul-27
CUW30101 Lake Merced Water Level Restoration	16-Jun-03	22-Jul-27
CUW30201 San Francisco Westside Recycled Water	03-Mar-03	20-May-26
CUW30102 San Francisco Groundwater Supply	16-Jun-03	30-Jun-23
Local Tanks/Reservoir Improvements	24-Jan-13	15-Jun-27
CUW28301 College Hill Reservoir Outlet	24-Jan-13	24-Apr-24
10037794 Reservoir Roof and Tank Coatings	01-Jul-21	15-Jun-27
Pump Stations	12-May-21	30-Nov-26
10015231 Harding Park PS	12-May-21	30-Nov-26
Buildings and Grounds	01-Feb-20	31-May-29
10037249 New CDD Headquarters	01-Feb-20	31-May-29
Emergency Firefighting Water System (EFWS)	04-Apr-11	29-Dec-28
EFWS PL - EFWS Pipelines	04-Apr-11	29-Dec-28
EFWS PS - EFWS Pump Station	04-Apr-11	29-Dec-28



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APPENDIX C. LIST OF ACRONYMS

AGM	Assistant General Manager
AWSS	Auxiliary Water Supply
BDPL	Bay Division Pipeline
BDPL 1 - 4	Bay Division Pipeline Numbers 1 - 4
CalTrans	California Department of Transportation
CATEX	Categorical Exemption
CDD	City Distribution Division
CEQA	California Environmental Quality Act
CER	Conceptual Engineering Report
CIP	Capital Improvement Program
CM	Construction Management
CM/GC	Construction Management/General Contractor
CMR	Cement Mortar Lining
COVID-19	Coronavirus Disease 2019
CSPL1	Crystal Springs Pipeline Number 1
CSPL2	Crystal Springs Pipeline Number 2
DIP	Ductile Iron Pipe
DSOD	Division of Safety of Dams (State of California)
EBRPD	East Bay Regional Park District
EFWS	Emergency Firefighting Water System
EFWSPL	Emergency Firefighting Water System Pipelines
EFWSPPS	Emergency Firefighting Water System Pump Station
EIR	Environmental Impact Report
ESER	Earthquake Safety and Emergency Response
FY	Fiscal Year
GGNRA	Golden Gate National Recreation Area
GO	General Obligation
HH	Hetch Hetchy
HTWTP	Harry Tracy Water Treatment Plant
HVAC	Heating, Ventilation, and Air Conditioning
JOC	Job Order Contract
LEED	Leadership in Energy and Environmental Design
MCC	Motor Control Centers
MGD	Million Gallons per Day
MND	Mitigated Negative Declaration
MOU	Memorandum of Understanding
NAR	Needs Assessment Report
NEPA	National Environmental Policy Act
NRD	Natural Resources Division
NTP	Notice to Proceed
PCCP	Pre-stressed Concrete Cylinder Pipe
PEFWS	Potable Emergency Firefighting Water System
PG&E	Pacific Gas & Electric
PLC	Program Logic Controller
PS	Pump Station
PUC	Public Utilities Commission
RFP	Request for Proposal
RO	Reverse Osmosis
ROW	Right-of-Way
SAPL1	San Antonio Pipeline Number 1
SAPL2	San Antonio Pipeline Number 2
SAPS	San Antonio Pump Station
SCADA	Supervisory Control and Data Acquisition
SF	San Francisco
SFPUC	San Francisco Public Utilities Commission
SFPW	San Francisco Public Works (formerly SFDPW)
SVWTP	Sunol Valley Water Treatment Plant
T&O	Taste and Odor
TBD	To be determined
TSC	Technical Streeting Committee
TWR	Treated Water Reservoir
WE	Water Enterprise
WECIP	Water Enterprise Capital Improvement Program
WQD	Water Quality Department
WSIP	Water System Improvement Program
WSTD	Water Supply and Treatment Division

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