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DATE: May 30, 2025

TO: Commissioner Kate H. Stacy, President
Commissioner Joshua Arce, Vice President
Commissioner Avni Jamdar
Commissioner Steve Leveroni
Commissioner Meghan Thurlow

FROM: Dennis J. Herrera, General Manager DJH

RE: Hetch Hetchy Capital Improvement Program Quarterly Report
Quarterly Report (3rd Quarter / FY 2024-2025)

Enclosed please find the Hetch Hetchy Capital Improvement Program (HCIP) Quarterly Report for the 3rd Quarter (Q3) of Fiscal Year (FY) 2024-2025. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the HCIP based on data for the period of January 1, 2025 to March 31, 2025.

Attachment

OUR MISSION: To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.

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San Francisco
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Services of the San Francisco Public Utilities Commission

QUARTERLY REPORT

Hetch Hetchy Capital Improvement Program

January 2025 – March 2025

Published: May 30, 2025

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EXECUTIVE SUMMARY

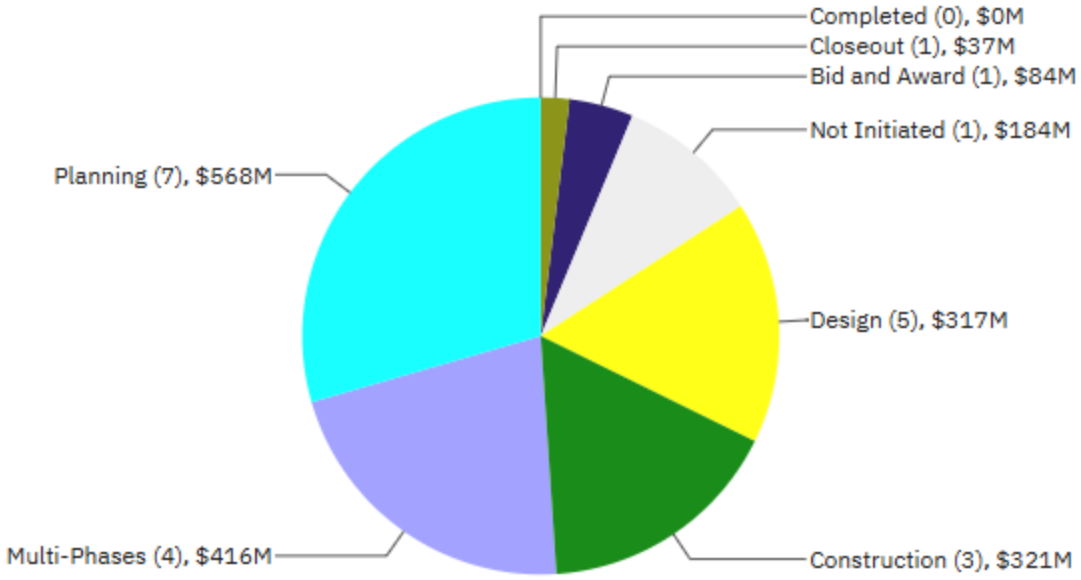
This quarterly report provides a summary update on the Hetch Hetchy Capital Improvement Program (HCIP) that is part of the larger Hetch Hetchy Water Capital Improvement Program. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the HCIP based on data for the period of January 1, 2025 to March 31, 2025.

This quarterly report includes all approved HCIP projects in the Hetch Hetchy Water Capital Improvement Program according to the 10-Year Capital Plan for FY2024-25 to FY2033-34, presented to and adopted by the Commission on February 13, 2024 (2024 HCIP). There are twenty-two (22) projects in the 2024 HCIP together with three (3) project development (PD) accounts for program-level expenditures for each of the Water, Power, and Joint Programs. As part of the recent Update to the 10-Year Capital Plan for FY2025-26 to FY2034-35 that was adopted by the Commission during the quarter on February 11, 2025, none of the 22 HCIP project budgets or schedules were changed from the 2024 HCIP.

Program Current Status:

As of the end of the reporting period, the status of the 22 HCIP projects (excluding for these purposes the 3 PD accounts) is as follows: one (1) project is not yet initiated; thirteen (13) projects are in planning, design, or bid & award; three (3) projects are in construction; four (4) projects have subprojects in multiple phases including construction; and one (1) project is in closeout. During this quarter, the following major project milestones were achieved:

- Two projects - the SJPL Valve Remote Control and Monitoring, and Cherry-Eleanor Pumps were initiated, and the planning phase began.
- The Moccasin Dam & Reservoir Long Term Improvement project moved from planning phase to design phase.



Approved Budget for Projects in Each Phase

The following Tables provide a high-level summary of the cost and schedule status for this program (including the 3 PD accounts).

Table A shows the Current Approved Budget and Current Forecast Cost of $2,016.81 million and $2,063.87 million, respectively. Reasons for the cost variances are included in Section 7 of this report.

Table A. Program Cost Summary

Program	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q3/FY24-25 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Cost Variance Over Reporting Period * ($ Million) (E)
Program Total	**$435.46**	**$2,016.81**	**$2,063.87**	**($47.06)**	**($9.87)**

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

Table B shows the Approved and Forecast Completion Dates.

Table B. Current Approved vs. Current Forecast Schedule Dates

Program	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Overall HCIP Program	**10/03/11**	**10/03/11 A***	**12/31/41**	**12/31/41**	**-**

** "A" is used after a date to represents an actual date as opposed to a forecast or approved date.*

Program Key Updates:

The key updates for the HCIP include:

- For the SJPL Valve and Safe Entry Improvements project, all valves for Phase 1A (HH-1005) passed factory acceptance tests were successfully installed by the contractor during the Hetch Hetchy water outage, subsequently passed functional testing, and are awaiting final wet testing. Similarly, the Phase 2A (HH-1012) contractor installed all successfully tested valves and was awaiting final wet testing. For Phases 2B&C (HH-1016) SFPUC received a responsive bid that was ten percent lower than the engineers estimate; contract Notice to Proceed is expected in early May. In Phase 3 (HH-1009) the contractor successfully installed the 60-inch diameter surge pipe and surge tower and tied them into the water system.

- For the Moccasin Powerhouse Bypass Upgrades project, the 95% design package review is complete and project team is progressing with the 100% design deliverable.
- For the Moccasin Powerhouse and Generator Step-Up (GSU) Rehabilitation project, during this quarter, the contractor for Subproject B (contract DB-121R2) discovered alignment problems with the existing generator shaft for Unit 1; the project team is coordinating with the contractor and HHWP to address anticipated delays to final completion. For Subproject C, the design team is incorporating 65% design comments into the 95% design deliverable.
- For the Warnerville Substation Rehabilitation – Phase 2 project, the second shutdown period was removed from the contract because of an update in PG&E's scope of work at the South Yard. The contract is scheduled for advertisement to bid in April 2025.
- For the Moccasin Switchyard project, a final Needs Assessment Report was completed, and consultant team is on schedule to deliver the Alternatives Analysis Report in August 2025.
- For the Moccasin Penstock Rehabilitation project, the Alternative Analysis workshops were held to present the preferred alternatives. The draft Alternatives Analysis Report has been revised to incorporate stakeholder's comments and recent Right of Way developments.
- For the Moccasin Engineering & Records Building project, work on the Design Development Package continues. Scheduled completion date for this package is June 2025. Design team and Project Manager are preparing for upcoming Civic Design Review phase 2 on April 21, 2025.
- For the Moccasin Warehouse Building project, a scope increase from a 9,000 square feet building to a 15-20,000 square feet building was proposed and is being evaluated for impacts to budget. A 3rd party cost estimate will be produced in May 2025 to confirm the new budget. The design team is working towards completion of the Project Development package, expected in May 2025.
- For the O'Shaughnessy Dam Outlet Works Phase 1 Subproject A (contract DB-135 for bulkheads rehabilitation), the new bulkheads were delivered, installed, and tested during the Hetch Hetchy water system outage. For Subproject B (contract HH-1015 Drainage & Miscellaneous Dam Improvements), construction is in progress starting with concrete demolition work. For Subproject C (contract HH-1011 Instream Flow Release Valve Replacement), the Instream Flow Release system is operational, and punchlist items are being addressed. For Subproject D (Slide Gates) and Subproject E (Drum Gates), the draft Needs Assessment and Alternative Analysis Report are being revised based on comments received.
- For the Moccasin Dam & Reservoir Long-Term Improvements project, the 35% design has begun with a target due date of end of April 2025.
- For the Cherry Dam Spillway - Short Term Improvements project, the consultant delivered the 65% design package for review; 95% design is expected in May 2025.
- For the Eleanor Dam Rehabilitation and the Interim Bridge Repair subproject, the project team is coordinating a 'mock-up' test for proposed bridge overlay materials, which is scheduled for Spring 2025. The testing of the proposed bridge overlay materials is required to ensure that the selected product will meet the project objectives. The 35% Design Criteria Memo for the subproject has also been delivered for review. For Eleanor Dam and Bridge Long-Term Rehabilitation subproject, the project team received the draft Needs Assessment Review Memo and Erodibility Analysis Report and is sharing this information amongst project stakeholders. A finalized Needs Assessment Review Memo is expected in May 2025.

- For the Early Intake Dam – Long Term project, the final draft Alternatives Analysis Report (AAR) was issued this quarter, and the SFPUC is performing an internal review and comparison of the alternatives before further development of the AAR occurs.
- For the Mountain Tunnel Improvements Project Subproject A (HH-1000R) contract, The Hetch Hetchy water system outage that occurred from December to March this past quarter was Shutdown No. 4 for the Project. The contractor completed all the remaining tunnel lining repair of the existing concrete lining, including a total of eleven miles of tunnel lining repaired, and completed about 50 percent of the contact grouting replacement behind the lining. In addition, two of the four 72-inch Double Disc Knife Gate valves were successfully installed in the bottom of the Flow Control Facility shaft. The Commission approved a modification to the contract to remove scope of work for the South Fork Siphon Extension, South Fork Roadway Improvements, and Adit 5/6 and 8/9 Roadway. This work is planned to be completed in future contract(s). Subproject B (HH-1013) Moccasin Water System Filtration Plant: Construction was delayed due to differing site conditions that resulted in the need to redesign the building foundation. Construction started back up again near the end of this second quarter with construction of some of the drilled piers for the foundation.
- For Transmission Line Clearance Mitigation – Moderate and Low Risk subproject, the contract specification development is ongoing.
- For the Moccasin Wastewater Treatment Plant Replacement (contract HH-1010) project, the slab was constructed and influent tank was placed. Rebar was erected for the walls.
- For the Cherry Eleanor Pumps – the project was initiated to replace and upgrade pumps and electrical equipment at the Cherry-Eleanor Pump Station to restore its water transfer capabilities. As part of the planning phase, the kickoff meeting for the Needs Assessment Report took place on March 17, 2025. Currently, the consultant is reviewing as-built drawings, equipment records, engineering reports, and other relevant background information.
- For the SJPL Valve Remote Control & Monitoring – the project was initiated to enable full remote operation of SJPL valve actuators from Moccasin through upgrades to reliable power sources, enhanced security measures, infrastructure improvements, and hydraulic modeling to maintain operations and minimize the risk of asset failure. The kickoff meeting for the Needs Assessment was held on March 14, 2025. Currently, the consultant is reviewing as-built drawings, equipment records, engineering reports, and other relevant background materials.

Quarterly Report
Hetch Hetchy
Capital Improvement Program

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HETCH HETCHY WATER AND POWER (HHWP)–

WATER DIVISION CAPITAL IMPROVEMENT PROGRAMS

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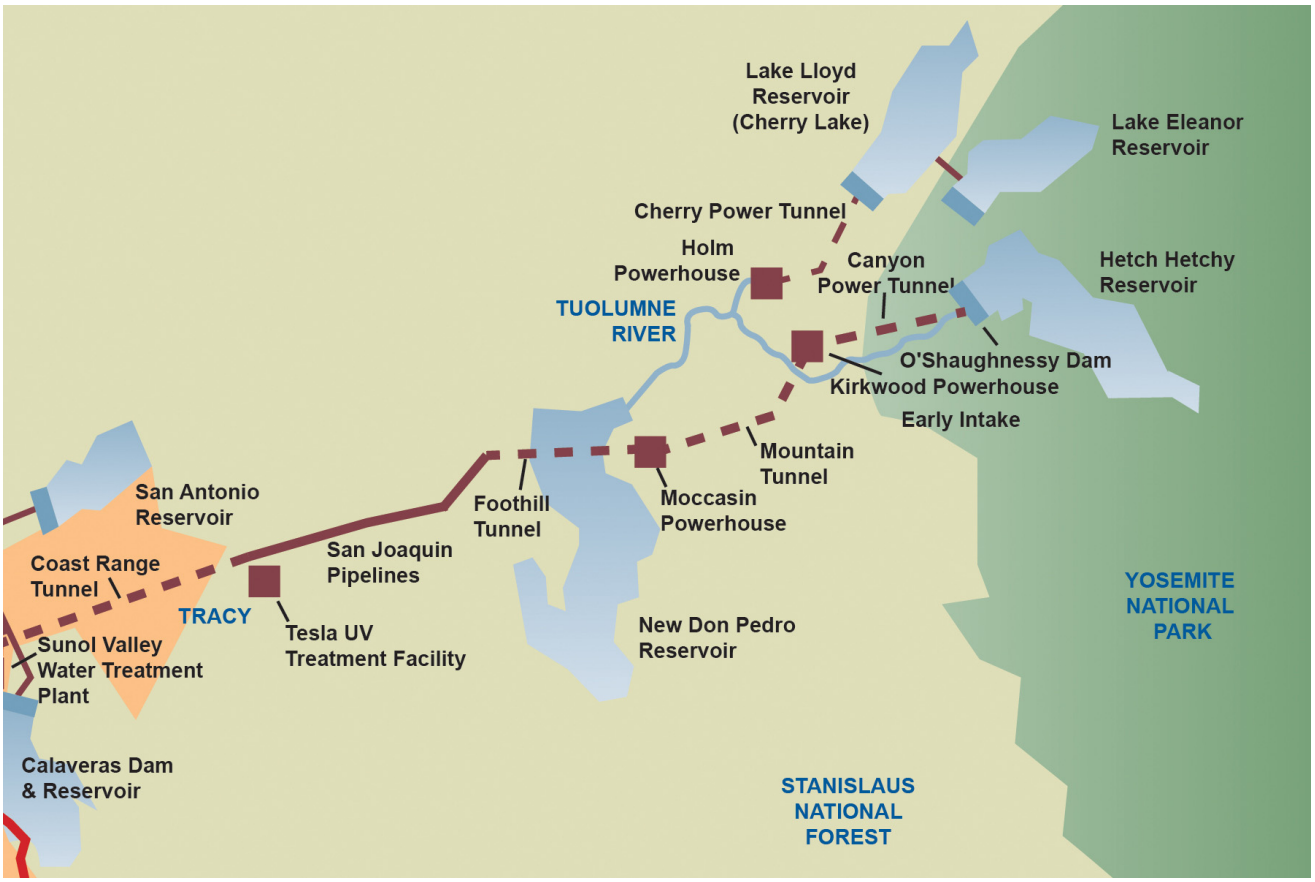
INTRODUCTION

The Hetch Hetchy Water and Power (HHWP) Water Division is responsible for operating, managing, and maintaining the HHWP system and facilities. This includes water facilities that are part of the Regional Water System from Hetch Hetchy Reservoir, located in Yosemite National Park, to Alameda East Portal, located in Sunol Valley and power facilities located from Early Intake to Newark. The HHWP Water Division operates, manages, and maintains three impoundment reservoirs, three regulating reservoirs, four powerhouses, one switchyard, three substations, 170 miles of pipeline and tunnels, almost 50 miles of paved road, over 160 miles of transmission lines, watershed land, and right-of-way property. HHWP Water Division provides 85 percent of the San Francisco Public Utilities Commission (SFPUC) water supply for 2.7 million residential, commercial, and industrial customers in Alameda, Santa Clara, San Mateo, and San Francisco counties. On average, HHWP Water Division generates about 1,650 gigawatt hours (GWH) of clean hydro-generated power annually. A majority of HHWP staff is based in Moccasin, CA, which is 140 miles east of San Francisco.

The HHWP Water Division's capital improvement programs are divided into two programs: Hetch Hetchy Capital Improvement Program (HCIP) and Renewal and Replacement (R&R). This report provides a quarterly status update on the HCIP, a group of capital improvement projects that are greater than $5M in value and have been approved by the Commission as part of the SFPUC's 10-Year Capital Improvement Program. The status of the Hetch Hetchy R&R projects is reported annually in the Annual Report on Water Enterprise-Managed Capital Improvement Projects.

The map below shows the location of the assets and facilities associated with HHWP.



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HETCH HETCHY CAPITAL IMPROVEMENT PROGRAM (HCIP)

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1. PROGRAM DESCRIPTION

The Hetch Hetchy Capital Improvement Program (HCIP) is a group of multi-year capital projects to upgrade existing, aging infrastructure so that it will meet the challenges of today and the future. These projects will deliver improvements that enhance the SFPUC's ability to provide reliable, affordable, high-quality water to its 2.7 million customers in an environmentally sustainable manner. The goals are

1) to provide capital improvements needed to cost-effectively ensure that water quality, seismic reliability, delivery reliability, and water supply objectives established for the Regional Water System facilities managed by HHWP are met, and 2) to optimize the benefits of HHWP power facilities operations. Ongoing development of the HCIP will sustain the Regional Water System's status as an unfiltered water source and a gravity-driven system.

The scope of HCIP is divided into three major project types: Water, Power, and Joint. The Water sub-program includes only asset improvements benefiting the SFPUC's water customers. The Power sub-program includes only asset improvements used to generate environmentally friendly hydroelectric energy. The Joint sub-program includes projects for assets that are used for both water delivery and power generation. In addition, projects in each sub-program of the HCIP have been further organized by asset type consisting of the following:

Water Infrastructure

- Water Conveyance – projects to enhance the reliability of water delivery through pipelines and penstocks, allowing for both delivery of water to SFPUC customers and delivery of water to powerhouses for power generation.

Power Infrastructure

- Powerhouse – projects to improve facilities at the Holm, Kirkwood, and Moccasin powerhouses.
- Switchyard & Substations – projects to meet operational objectives for power, including reliability, regulatory compliance, and sustainability.
- Transmission Lines – projects to expand or improve power assets for electricity transmission.

Joint (Water and Power) Infrastructure

- Dams & Reservoirs – projects to improve assets used for storage and delivery of water to SFPUC customers, as well as for water storage for power generation.
- Mountain Tunnel – projects to address deficiencies with the Mountain Tunnel, a critical, non-redundant link in the Hetch Hetchy and Regional Water System that conveys water from Kirkwood Powerhouse to Priest Reservoir.
- Roads & Bridges – projects to replace or improve bridges that are utilized to access HHWP assets.
- Tunnels – projects to repair tunnels along the HHWP system (other than Mountain Tunnel).
- Utilities – projects to expand or improve utilities for asset and work locations such as water and wastewater treatment facilities.
- Buildings – projects to provide safe and code compliant workspaces.

2. PROGRAM STATUS

This Quarterly Report presents the progress made on HCIP between January 1, 2025 and March 31, 2025. This document serves as the third (3rd) Quarterly Report in Fiscal Year 2024-2025 (FY25) published for the HCIP.

This quarterly report includes all HCIP projects in the Hetch Hetchy Water Capital Improvement Program according to the 10-Year Capital Plan for FY2024-25 to FY2033-34 (FY25-34 CIP), presented to and adopted by the Commission on February 13, 2024, under Resolution No. 24-0032 (2024 HCIP). The 2024 HCIP is a subset of the Hetch Hetchy Water 10-Year CIP for FY2025-2034 and includes individual projects over $5 million that were then currently active or intended to be active by July 1, 2024 at the time proposed to the Commission on February 13, 2024. This baseline for comparison will remain the same until adoption of a new 10-Year CIP; the baseline will be updated with the changes in the adopted CIP at the start of the new fiscal year following adoption. As part of the recent Update to the 10-Year Capital Plan for FY2025-26 to FY2034-35 that was adopted by the Commission during the quarter on February 11, 2025, none of the 22 HCIP project budgets or schedules were changed from the 2024 HCIP.

There are twenty-two (22) projects in the 2024 HCIP together with three (3) project development (PD) accounts for program-level expenditures for each of the Water, Power, and Joint Programs. A description of each project and of each project development account is provided in the Appendix A of this report.

The accrued PD expenditures are included in the Cost Summary in Table 3 in order to give an accurate report of the overall HCIP cost performance.

Figure 2.1 shows the total Approved Budget for all twenty-two (22) projects in each phase of the program as of March 31, 2025 (PD accounts do not have phases and are not included in Figure 2.1). The number of projects currently in each phase is shown in parentheses.

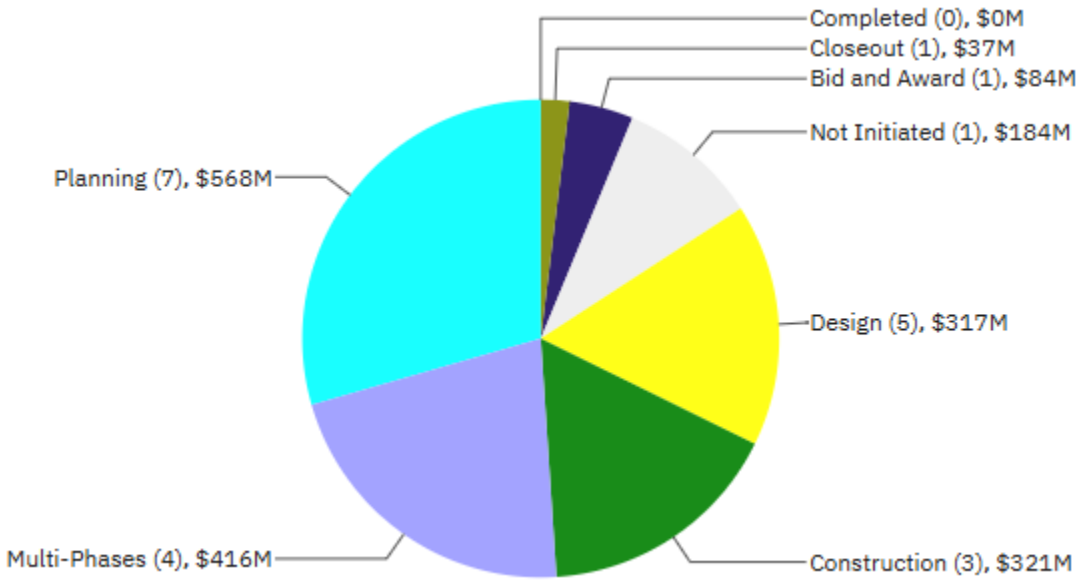

Figure 2.1 Approved Budget for Projects in Each Phase

Figure 2.2 shows the total number of projects in the following stages as of March 31, 2025: Pre-construction, Construction, and Post-construction.

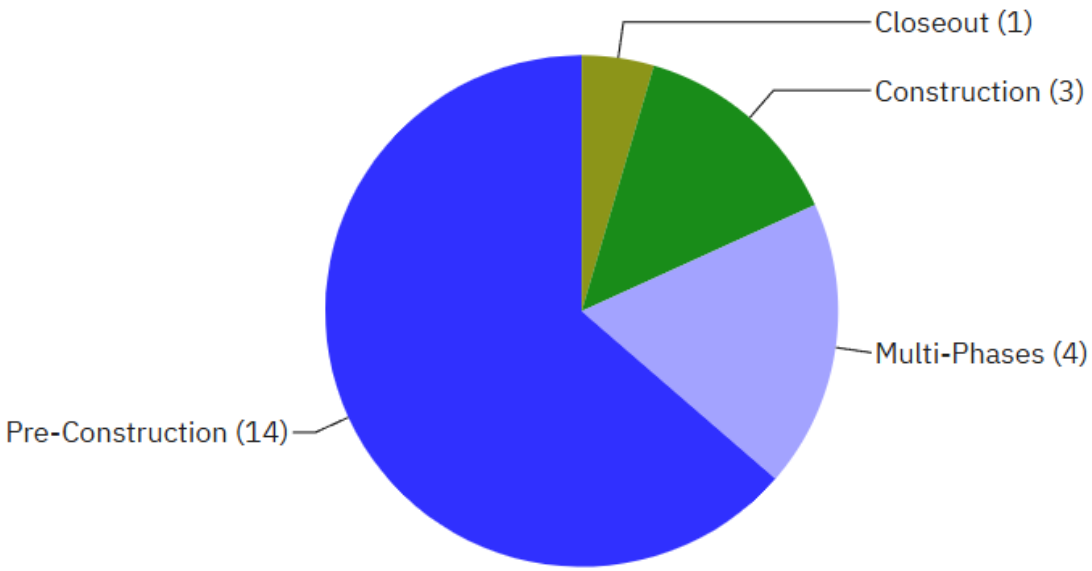

Figure 2.2 Number of Projects in Pre-construction, Construction, and Post-Construction

Figure 2.3 summarizes the environmental review status of the HCIP projects as of March 31, 2025. Environmental review is performed for projects under California Environmental Quality Act (CEQA).

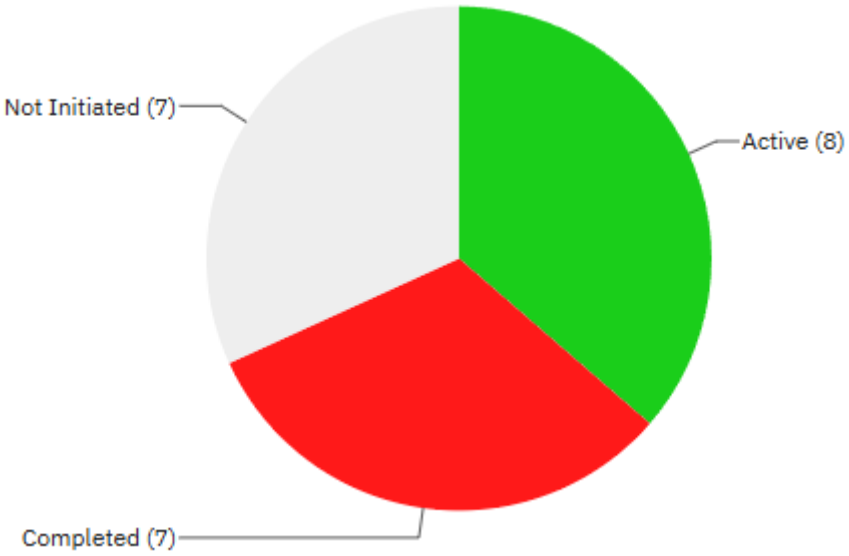

Figure 2.3 Program Environmental Review

3. PROGRAM COST SUMMARY

Table 3 provides an overall cost summary of the 22 HCIP projects and 3 HCIP PD accounts at the end of the quarter. It shows the Expenditures to Date, Current Approved Budget, Current Forecast Cost, the Cost Variance between the Approved and Forecast Costs, and the Cost Variance Over the Reporting Period (difference between cost forecasts reported in Q2/FY2024-25 and in Q3/FY2024-25). The Current Approved Budget and Forecast Cost for the HCIP are $2,016.81 million and $2,063.87 million, respectively.

The overall 2024 HCIP negative Cost Variance of $47.06 million in Table 3 can be attributed to the following projects and their variances are provided below: the reasons for the project variances are reported in section 7:

- The Moccasin Powerhouse and GSU Rehabilitation $15.63M negative variance is a continuation of $13.48M and $2.15M negative variances from Q4 of FY23/24 and Q2 FY24/25 respectively.
- The Warnerville Substation Rehabilitation Project $1.92M negative variance is a continuation of $0.92M from Q2 of FY24/25 plus a forecast increase of $1.00M during the quarter.
- The Transmission Lines 7/8 Upgrades $1.90M positive variance is a continuation from Q4 of FY23/24.
- The Moccasin Warehouse Building forecast cost increased by $8.87M during the quarter.
- The Moccasin Dam & Reservoir Long Term Improvements $22.54M negative variance is a continuation from Q1 of FY24/25.

Table 3. Cost Summary

Subprograms	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q3/FY2024-25 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Cost Variance Over Reporting Period * ($ Million) (E)
Water Infrastructure	**$64.29**	**$209.41**	**$209.41**	**-**	**-**
Water Conveyance (Water)	$58.33	$196.49	$196.49	-	-
Water Infrastructure Project Development	$5.96	$12.91	$12.91	-	-
Power Infrastructure	**$138.09**	**$376.41**	**$392.06**	**($15.65)**	**($1.00)**
Dams & Reservoir (Power)	$0.35	$38.80	$38.80	-	-
Powerhouse	$55.30	$141.61	$157.24	($15.63)	-
Switchyard & Substations (Power)	$27.51	$57.12	$59.04	($1.92)	($1.00)
Transmission Lines	$49.87	$121.01	$119.11	$1.90	-
Power Infrastructure Project Development	$5.06	$17.87	$17.87	-	-
Joint Infrastructure	**$233.08**	**$1,431.00**	**$1,462.41**	**($31.41)**	**($8.87)**
Water Conveyance (Joint)	$8.87	$331.17	$331.17	-	-

Subprograms	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q3/FY2024-25 Forecast Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Cost Variance Over Reporting Period * ($ Million) (E)
Buildings (Joint)	$2.39	$115.02	$123.89	($8.87)	($8.87)
Dams & Reservoirs (Joint)	$40.30	$598.86	$621.40	($22.54)	-
Mountain Tunnel	$162.57	$268.67	$268.67	-	-
Powerhouse (Joint)	$0.93	$13.47	$13.47	-	-
Tunnels (Joint)	$2.51	$30.14	$30.14	-	-
Utilities (Joint)	$4.44	$15.38	$15.38	-	-
Joint Infrastructure Project Development	$11.06	$58.29	$58.29	-	-
Overall Program Total	**$435.46**	**$2,016.81**	**$2,063.87**	**($47.06)**	**($9.87)**

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

4. PROGRAM SCHEDULE SUMMARY

Figure 4 and Table 4 compare the FY2025–2034 CIP Approved Schedule and the Current Forecast Schedule for the HCIP. As shown in Table 4, the HCIP approved and forecast schedule is December 2041.

Figure 4. Program Schedule Summary

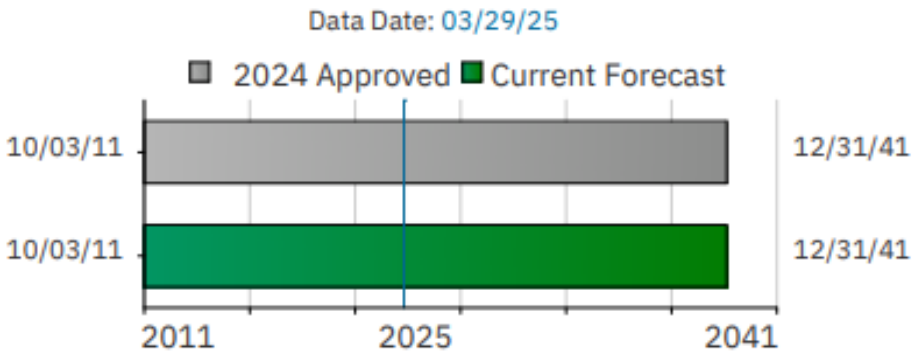

Table 4. FY2025-2034 CIP Approved vs. Current Forecast Schedule Dates

Sub-Program	CIP Approved Project Start	Actual Start	CIP Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Infrastructure	03/26/12	03/26/12 A*	06/30/34	06/30/34	-
Power Infrastructure	05/29/12	05/29/12 A*	06/30/34	06/30/34	-
Joint Infrastructure	10/03/11	10/03/11 A*	12/31/41	12/31/41	-
Overall HCIP Projects	**10/03/11**	**10/03/11 A***	**12/31/41**	**12/31/41**	**-**

* *"A" is used after a date to reference an actual date as opposed to a forecast or approved date.*

5. BUDGET AND SCHEDULE TREND SUMMARY

Table 5 contains all approved HCIP projects that are active and in any of the planning, design, bid and award, or construction phases. The table excludes all Project Development accounts, as well as any projects that are either not-initiated, on-hold, in closeout, or completed.

During this Quarter (Q3 FY2024-25), the following major project milestones were achieved:

- Two projects - the SJPL Valve Remote Control and Monitoring, and Cherry-Eleanor Pumps, were initiated, and the planning phase began.
- The Moccasin Dam & Reservoir Long Term Improvement project moved from planning phase to design phase.

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
Water Infrastructure														
10035575 - SJPL Valve and Safe Entry Improvement	FY2025-34		07/01/19		04/16/21		03/03/21 (Phase 1A), 05/28/21 (Phase 1B), 08/19/22 (Phase 2) & 12/30/21 (Phase 3)		07/14/21 (Phase 1A), 10/29/21 (Phase 1B), 06/08/23 (Phase 2A), 05/21/24 (Phase 2B/2C) & 03/31/23 (Phase 3)		03/08/22 (Phase 1A), 08/23/22 (Phase 1B), 02/27/24 (Phase 2A), 06/02/25 (Phase 2B/2C) & 01/09/24 (Phase 3)		Q3 - FY2024-25	
Phase 1A Phase 1B Phase 2A Phase 2B/2C Phase 3	$157.8	02/28/29	$95.3	07/01/25	$95.3	07/01/25	$98.9	03/13/28	$157.8	02/28/29	$157.8	02/28/29	$157.8	02/28/29
10041725 - SJPL Valve Remote Control and Monitoring	FY2025-34		11/14/24		11/30/25		03/31/26		11/30/26		07/30/27		Q3 - FY2024-25	
	$38.7	12/31/28	$38.7	12/31/28	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$38.7	12/31/28
Power Infrastructure														
10014079 - Cherry-Eleanor Pumps	FY2025-34		01/01/25		03/31/27		09/30/27		07/31/28		01/31/29		Q3 - FY2024-25	
	$38.8	06/30/31	$38.8	06/30/31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$38.8	06/30/31
10036809 - HHW - Moccasin Powerhouse Bypass Upgrade	FY2025-34		09/18/20		03/31/23		03/13/24		02/28/25		11/26/25		Q3 - FY2024-25	
	$41.1	12/01/27	$15.0	12/01/27	$40.7	12/01/27	$41.1	12/01/27	$41.1	12/01/27	TBD	TBD	$41.1	12/01/27
10014086 - Moccasin Powerhouse and GSU Rehabilitation	FY2025-34		09/18/20		05/14/21		07/29/19 (Phase 1), 10/01/19 (Phase 2) & 12/29/23 (Phase 3)		09/09/20 (Phase 1), 05/11/22 (Phase 2) & 05/06/25 (Phase 3)		04/13/21 (Phase 1), 05/11/21 (Phase 2) & 01/16/26 (Phase 3)		Q3 - FY2024-25	
Phase 1 Phase 2 Phase 3	$100.6	12/31/28	$18.0	10/03/18	$66.7	04/13/27	$100.6	12/31/28	$66.7	12/03/27	$66.7	12/03/27	$116.2	12/31/28
10014089 - Transmission Lines Clearance Mitigation	FY2025-34		07/01/17		12/16/24		02/02/26		06/30/26		09/30/25		Q3 - FY2024-25	
	$83.7	06/30/29	$83.7	06/30/29	$83.7	06/30/29	TBD	TBD	TBD	TBD	TBD	TBD	$83.7	06/30/29
10014087 - Warnerville Substation Rehabilitation Project	FY2025-34		09/01/15 (Phase A), 01/01/21 (Phase B)		N/A (Phase A), 02/25/22 (Phase B)		N/A (Phase A), N/A (Phase B)		N/A (Phase A), 03/20/24 (Phase B)		05/23/17 (Phase A), 11/18/25 (Phase B)		Q3 - FY2024-25	
Phase A - DB-127R Phase B - HH-1017	$37.4	11/25/26	$27.2	11/25/26	$34.2	11/25/26	$34.2	11/25/26	$37.4	11/25/26	$39.3	11/04/27	$39.3	11/08/27
10039568 - Moccasin Switchyard Rehabilitation	FY2025-34		11/01/22		03/13/26		08/17/26		07/19/27		04/20/28		Q3 - FY2024-25	
	$19.7	01/31/30	$9.7	11/30/28	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$19.7	01/31/30
Joint Infrastructure														
10014088 - Moccasin Penstock Rehabilitation	FY2025-34		02/03/14		09/03/26		03/05/27		03/02/29		03/06/31		Q3 - FY2024-25	
	$331.2	12/08/34	$13.2	12/31/24	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$331.2	12/08/34
10039680 - Moccasin Engineering and Records Building[4]	FY2025-34		12/14/22		05/31/24		10/31/24		06/30/26		12/18/26		Q3 - FY2024-25	
	$88.7	05/31/29	$60.7	06/30/31	$88.7	05/31/29	$88.7	05/31/29	TBD	TBD	TBD	TBD	$88.7	05/31/29

Table 5. Budget and Schedule Trend Summary (continued)

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
Water Infrastructure														
10041727 - Moccasin Warehouse Building	FY2025-34		10/15/24		08/29/25		01/23/26		11/25/26		01/18/28		Q3 - FY2024-25	
	$26.3	04/01/31	$26.3	04/01/31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$35.2	11/04/30
10032903 - O'Shaughnessy Dam Outlet Works Phase I[2]	FY2025-34		02/01/18		09/30/21 (Subproject A), Complete (Subproject B), 09/30/22 (Subproject C),		01/12/24 (Subproject A)[5], N/A (Subproject B) & 11/16/22 (Subproject C)		03/18/24 (Subproject A)[5], N/A (Subproject B) & 12/23/22 (Subproject C)		06/13/23 (Subproject A), 08/13/24 (Subproject B) & 06/13/23 (Subproject C)		Q3 - FY2024-25	
Subproject A Subproject B Subproject C Subproject D (Planning Only) Subproject E (Planning Only)	$43.7	12/31/25	$17.2	12/31/24	$47.9	09/16/25	$48.0	09/16/25	$48.0	09/16/25	$43.7	06/30/26	$43.7	06/30/26
10037351 - Moccasin Dam & Reservoir Long Term Improvement	FY2025-34		05/03/21		09/30/24		03/06/26		03/06/28		12/04/29		Q3 - FY2024-25	
	$142.2	12/31/34	$83.2	07/01/27	$164.7	12/31/34	TBD	TBD	TBD	TBD	TBD	TBD	$164.7	12/31/34
10014115 - Cherry Dam Spillway - Short Term Improvements	FY2025-34		03/01/21		06/28/24		11/22/24		05/16/25		01/20/26		Q3 - FY2024-25	
	$14.9	06/30/27	$11.9	07/01/27	$14.9	06/30/27	$14.9	06/30/27	TBD	TBD	TBD	TBD	$14.9	06/30/27
10039119 - Early Intake Dam – Long Term	FY2025-34		07/01/23		06/30/26		12/31/27		06/30/29		01/31/31		Q3 - FY2024-25	
	$100.1	12/31/35	$88.7	06/30/31	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$100.1	12/31/35
10030759 - Eleanor Dam Rehabilitation	FY2025-34		06/01/20		09/04/24 06/30/27		2/25/25 06/30/28		06/27/25 06/28/30		02/28/26 09/30/33		Q3 - FY2024-25	
Subproject A Subproject B	$113.9	12/31/38	$113.9	12/31/38	$113.9	12/31/38	$113.9	12/31/38	TBD	TBD	TBD	TBD	$113.9	12/31/38
10014114 - Mountain Tunnel Improvement Project	FY2025-34		10/03/11		12/29/17		05/15/18		07/31/19		10/13/20		Q3 - FY2024-25	
	$268.7	06/03/27	$114.0	12/30/21	$246.1	12/31/26	$238.2	12/31/26	$238.2	12/31/26	$238.2	06/03/27	$268.7	06/03/27
10037077 - Moccasin Old Powerhouse Hazard Mitigation	FY2025-34		01/01/21		01/30/25		03/04/29		11/06/29		06/17/30		Q3 - FY2024-25	
	$13.5	07/01/32	$12.2	01/31/25	$13.5	07/01/32	TBD	TBD	TBD	TBD	TBD	TBD	$13.5	07/01/32
10014108 - Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge	FY2025-34		02/03/14		03/17/23		03/30/16		12/13/24		02/16/27		Q3 - FY2024-25	
	$30.1	12/31/30	$0.5	06/30/16	$15.0	12/30/26	$8.0	06/30/18	$30.1	12/31/30	TBD	TBD	$30.1	12/31/30
10014110 - Moccasin Wastewater Treatment Plant[3]	FY2025-34		01/03/22		-		04/29/22		03/23/23		02/27/24		Q3 - FY2024-25	
	$15.4	02/20/28	$8.8	04/07/26	-	-	$8.8	04/07/26	$12.0	04/07/26	$15.4	02/20/28	$15.4	02/20/28

Footnotes:

1. This represents forecast project cost and project completion date at the time of award of construction contract (or award of CM/GC or Design-Build contracts/packages).
2. This represents that Subproject A will be doing Progressive Design Build during Construction. Subproject B is in the process of finalizing the design. Subprojects D & E will not be doing CER.
3. This represents that the project started during the Design Phase.
4. This is a building project which follows a different set of milestones. Dates shown for CER, 35% Design, and 95% Design above are for Conceptual Design, Schematic Design, and Contract Document.
5. Dates shown are for 50% Design and 100% Design.

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 Infrastructure											
Water Conveyance (Water)											
10035575 SJPL Valve and Safe Entry Improvement	MP	$157,752	$157,752	$157,752	$58,324	$0	0%	02/28/29	02/28/29	02/28/29	0
10041725 SJPL Valve Remote Control and Monitoring	PL	$38,743	$38,743	$38,743	$5	$0	0%	12/31/28	12/31/28	12/31/28	0
Power Infrastructure											
Powerhouse											
10036809 HHW - Moccasin Powerhouse Bypass Upgrade	DS	$41,056	$41,056	$41,056	$2,744	$0	0%	12/01/27	12/01/27	12/01/27	0
10014086 Moccasin Powerhouse and GSU Rehabilitation	MP	$100,556	$100,556	$116,185	$52,561	($15,629)	(16%)	12/31/28	12/31/28	12/31/28	0
Transmission Lines											

* 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 Multi-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) (+++)
10014089 Transmission Lines Clearance Mitigation	BA	$83,681	$83,681	$83,681	$17,385	$0	0%	06/30/29	06/30/29	06/30/29	0
Switchyard & Substations (Power)											
10014087 Warnerville Substation Rehabilitation Project	CN	$37,407	$37,407	$39,328	$27,036	($1,921)	(5%)	11/25/26	11/25/26	11/08/27	(348)
10039568 Moccasin Switchyard Rehabilitation	PL	$19,708	$19,708	$19,708	$472	$0	0%	01/31/30	01/31/30	01/31/30	0
Dams & Reservoirs (Power)											
10014079 Cherry-Eleanor Pumps	PL	$38,798	$38,798	$38,798	$346	$0	0%	06/30/31	06/30/31	06/30/31	0
Joint Infrastructure											
Water Conveyance (Joint)											
10014088 Moccasin Penstock Rehabilitation	PL	$331,172	$331,172	$331,172	$8,873	$0	0%	12/08/34	12/08/34	12/08/34	0

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**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multi-Phase

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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) (+++)
Buildings (Joint)											
10039680 Moccasin Engineering and Records Building	DS	$88,734	$88,734	$88,734	$2,348	$0	0%	05/31/29	05/31/29	05/31/29	0
10041727 Moccasin Warehouse Building	PL	$26,290	$26,290	$35,157	$46	($8,867)	(34%)	04/01/31	04/01/31	11/04/30	148
Dams & Reservoirs (Joint)											
10032903 O'Shaughnessy Dam Outlet Works Phase 1	MP	$43,731	$43,731	$43,731	$29,407	$0	0%	12/31/25	12/31/25	06/30/26	(181)
10037351 Moccasin Dam & Reservoir Long Term Improvement	DS	$142,188	$142,188	$164,728	$5,951	($22,540)	(16%)	12/31/34	12/31/34	12/31/34	0
10014115 Cherry Dam Spillway - Short Term Improvements	DS	$14,886	$14,886	$14,886	$3,110	$0	0%	06/30/27	06/30/27	06/30/27	0

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**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multi-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) (+++)
10030759 Eleanor Dam Rehabilitation	MP	$113,874	$113,874	$113,874	$995	$0	0%	12/31/38	12/31/38	12/31/38	0
10039119 Early Intake Dam - Long Term	PL	$100,072	$100,072	$100,072	$838	$0	0%	12/31/35	12/31/35	12/31/35	0
Mountain Tunnel											
10014114 Mountain Tunnel Improvement Project	CN	$268,669	$268,669	$268,669	$162,571	$0	0%	06/03/27	06/03/27	06/03/27	0
Powerhouse (Joint)											
10037077 Moccasin Old Powerhouse Hazard Mitigation	PL	$13,475	$13,475	$13,475	$932	$0	0%	07/01/32	07/01/32	07/01/32	0
Tunnels (Joint)											
10014108 Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge	DS	$30,138	$30,138	$30,138	$2,508	$0	0%	12/31/30	12/31/30	12/31/30	0
Utilities (Joint)											

* 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 Multi-Phase

Footnotes:

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(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY25-34, 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) (+++)
10014110 Moccasin Wastewater Treatment Plant	CN	$15,377	$15,377	$15,377	$4,440	$0	0%	02/20/28	02/20/28	02/20/28	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 Multi-Phase

Footnotes:

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(+++) 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

10035575 - SJPL Valve and Safe Entry Improvement

Project Description: San Joaquin Pipeline (SJPL) Nos. 1, 2, and 3 consist of three parallel transmission pipelines (completed in 1932, 1953, and 1968, respectively) that cross the San Joaquin Valley from the east of Foothill Tunnel at Oakdale Portal to the west of Coast Range Tunnel at Tesla Portal, a distance of approximately 48 miles. A fourth partial pipeline (SJPL 4 completed in 2012) consists of a 6.4-mile segment of pipe downstream of Oakdale and another 11-mile segment upstream of Tesla Portal. SJPLs deliver Tuolumne River water to the San Francisco Bay Area. They have been in service ranging from 11 to 91 years. SFPUC staff members and contractors need to enter the pipelines regularly to perform condition assessment, maintenance, and repair work. A recent hydraulic study shows that several of the existing valves in the SJPLs may be under-rated for the potential surge pressures that could be triggered from an unplanned closure of the valves at the downstream Tesla Ultraviolet Treatment Facility. For safety reasons, the SFPUC initiated this capital project to increase the pressure rating of the valves, provide safe pipeline isolations for personnel entry into the pipelines, and allow shutdown of any section of the SJPLs without a complete system shutdown.

Program: Water Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 157.75 M
Forecast	$ 157.75 M
Actual	$ 58.32 M

Project Schedule:

Approved 07/01/19	02/28/29
Forecast 07/01/19	02/28/29

Project Percent Complete: 40.1%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	01/27/22 A	12/25/21 A	05/16/22 A	07/07/25
	B	01/27/22 A	04/21/22 A	11/07/22 A	09/11/24 A
	C	01/27/22 A	11/28/23 A	05/13/24 A	01/28/26
	D	01/27/22 A	11/21/24 A	06/03/25	08/30/28
	E	08/10/22 A	09/21/23 A	02/26/24 A	07/16/25

Progress and Status:
This project is divided into five (5) sub-projects, (A) Phase 1A – Pipeline 2 Tesla & Oakdale Entry Improvements – HH-1005; (B) Phase 1B – Pipelines 3&4 Tesla & Oakdale Entry Improvements - HH-1006; (C) Phase 2A – Crossover Valve Improvement Pipelines 2&3 – HH-1012; (D) Phase 2B/2C –Removable Spool Piece and Valve Improvements at Crossovers and P4J - HH-1016; and (E) Phase 3 - Tesla Surge Tower – HH-1009. For Phase 1A, all valves passed factory acceptance tests, were successfully installed during the Hetch Hetchy water system outage, and were awaiting final wet testing. The contractor is working on punchlist items. For Phase 1B, the contract closeout process continued. The Phase 2A (HH-1012) valves passed factory tests, were installed by the contractor, and were awaiting final wet testing; punchlist items are being addressed. For Phases 2B&C (HH-1016) SFPUC received a responsive bid that was ten percent lower than the engineers estimate; SFPUC Commission awarded the contract in March, and contract Notice to Proceed is expected in early May. In Phase 3 (HH-1009) the contractor successfully installed the 60-inch diameter surge pipe and surge tower. Both the pipe and tower have been tied into the water system and all valves have been installed. The Commission approved modest increases in cost and duration contingencies in HH-1012 and HH-1009.

Placing the new Tesla Surge Tower

Issues and Challenges:
None at this time.

10041725 - SJPL Valve Remote Control and Monitoring

Project Description: Design, procure, and construct new SJPL remote supervisory controls that would enable remote operation from Moccasin to remotely operate valve actuators. The project includes data telemetry improvements, Remote Terminal Unit (RTU) installation/replacement, trans-valley communication system upgrades, power system upgrades, security improvements, and access improvements.

Program: Water Infrastructure	Project Status: Planning	Environmental Status: Not Initiated (Cat Ex)

Project Cost:

Approved	$ 38.74 M
Forecast	$ 38.74 M
Actual	$ 0.00 M

Project Schedule:

Approved 10/01/24	12/31/28
Forecast 11/14/24	12/31/28

Project Percent Complete: 0.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/30/26	02/01/27	10/01/27	06/30/28

Progress and Status:
The kickoff meeting for the Needs Assessment Report was held in March 2025. Currently, the consultant is reviewing as-built drawings, equipment records, engineering reports, and other relevant background materials. A site visit is scheduled in the next quarter.

Issues and Challenges:
None at this time.

Oakdale Portal along the SJPL

10036809 - HHW - Moccasin Powerhouse Bypass Upgrade

Project Description: Provide a reliable hydraulic bypass and energy dissipation system, conveying water around the turbines to the Moccasin Powerhouse Tailrace. Upgrade/replace high-pressure energy-dissipating valves, control systems, and associated structures to absorb 1,147 feet of pressure head and 430 cubic feet per second flow without damage.

Program: Power Infrastructure	**Project Status:** Design	**Environmental Status:** Active (Cat Ex)

Project Cost:

Approved	$ 41.06 M
Forecast	$ 41.06 M
Actual	$ 2.74 M

Project Schedule:

Approved 09/18/20	12/01/27
Forecast 09/18/20	12/01/27

Project Percent Complete: 7.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	05/05/25	05/30/25	01/30/26	08/31/27

Progress and Status:

The project team completed the review of the 95% design package and is progressing toward finalizing the 100% design. Utility investigations were completed in March 2025 and findings will be incorporated in the final design. To help meet critical construction windows, a phased approach is being used. A task order under a Job Order Contract is in development to take advantage of the last Mountain Tunnel 100-day shutdown to complete the powerhouse tailrace penetration ahead of the main contract.

Issues and Challenges:

None at this time.

Tie in Location of Bypass to Powerhouse Tailrace

10014086 - Moccasin Powerhouse and GSU Rehabilitation

Project Description: The project is broken down into three components: 1) Generator Rehabilitation replace the entire generator and associated equipment, including new stator cores and coils, rotor poles, relays, and rotor rim; 2) GSU Replacement replace two of the three existing generator step-up transformers (GSUs), new foundations and oil containment, and relay upgrades; and 3) Power Plant Systems Upgrades replace the 480 V switchgear, 13.8 kV switchgear, motor control centers, main control boards, protective relays, cooling water piping, and improving oil containment systems.

Program: Power Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 100.56 M
Forecast	$ 116.18 M
Actual	$ 52.56 M

Project Schedule:

Approved 09/18/20	12/31/28
Forecast 09/18/20	12/31/28

Project Percent Complete: 59.0%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	09/28/20 A	11/20/20 A	06/07/21 A	06/26/23 A
	B	09/28/20 A	10/30/20 A	08/15/22 A	06/17/25
	C	09/28/20 A	07/14/25	03/14/26	06/30/28

Progress and Status:

For Subproject A - Moccasin Powerhouse Generator Step-Up (GSU's) Transformers, the project team completed close out tasks for contract HH-1003R. For Subproject B - Moccasin Powerhouse Generators Rewind (DB-121R2), the installation of the new fire suppression system was completed. Unexpected pre-existing alignment issues of the shaft were discovered this quarter. The project team and the Contractor are working on different options to resolve the issues at Unit M1. For Subproject C - Moccasin Powerhouse Systems Upgrade, the 65% submittal review comments from stakeholders have been discussed in various workshops and are being incorporated into the 95% design.

Reading Generator M1 Shaft Runout Measurements

Issues and Challenges:

The variance between the approved budget and forecasted cost is due to increased cost contingency of the DB-121R2 contract as well as forecasted cost increases in Subproject C – Systems Upgrade, where higher costs are anticipated from scope refinement, higher construction and procurement costs, and additional construction management and support resource requirements.

The project team is anticipating additional increase to cost and duration contingencies of DB-121R2 to address ongoing issues with the shaft alignment of Generator Unit M1. MPH System Upgrades design schedule has been delayed due to the need to respond to a large number of 65% design review comments. The project team is reviewing the impact on the overall project schedule including planned project outages and will report when impacts are better understood.

10014089 - Transmission Lines Clearance Mitigation

Project Description: This project will provide funding to implement mitigation measures to resolve clearance discrepancies. Mitigation options include but are not limited to new towers/tubular poles, new intervening poles, tower raises, ground lowering, and other structural improvements to the lattice towers.

Program: Power Infrastructure	**Project Status:** Bid and Award	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 83.68 M
Forecast	$ 83.68 M
Actual	$ 17.39 M

Project Schedule:

Approved 07/01/17	06/30/29
Forecast 07/01/17	06/30/29

Project Percent Complete: 26.5%

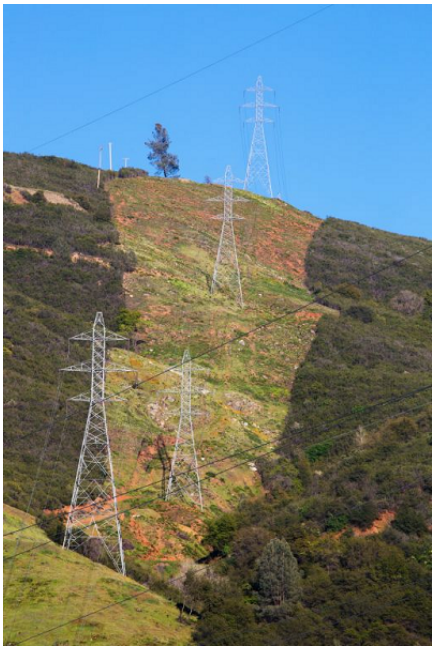
Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/02/26	04/24/25	11/07/26	12/29/28

Progress and Status:

The project team obtained Hetch Hetchy Water and Power (HHWP) signatures on the Design Criteria Report and Conceptual Engineering Report. The draft Project Description was accepted by the Environmental Management Group. Work continues preparing contract documents for advertising the progressive design-build contract next quarter.

Issues and Challenges:

None at this time.



Transmission Lines 5 & 6 in Moccasin

10014087 - Warnerville Substation Rehabilitation Project

Project Description: The additional funding request is to cover the remaining work for Warnerville Substation Rehabilitation Project. Under Design Build Contract #DB-127R, installation of some 230 kV equipment was deleted from the contract but procured, including circuit breakers, switches, insulators, and current voltage transformers. Remaining work includes the replacement of four oil circuit breakers, bushings, surge arrestors, disconnect switches, current voltage transformer, insulators, relay protection, and other ancillary equipment.

Program: Power Infrastructure	**Project Status:** Construction	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 37.41 M
Forecast	$ 39.33 M
Actual	$ 27.04 M

Project Schedule:

Approved 09/01/15	11/25/26
Forecast 09/01/15	11/08/27

Project Percent Complete: 80.8%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	03/31/16 A	01/10/17 A	11/26/18 A	12/20/24 A
	B	10/24/24 A	04/24/25	12/18/25	05/08/27

Progress and Status:

This project is divided into 2 subprojects. For Subproject A Warnerville Substation Rehabilitation Phase 1 – DB-127R, the project team closed out the contract. For Subproject B Warnerville Substation Rehabilitation Phase 2, the advertisement of HH-1017 was delayed due to the new information indicating that PG&E, rather than the SFPUC, will purchase the key electrical components for the South Yard, including the current transformer, potential transformer, and revenue meter. The project team is currently evaluating the schedule and cost impacts; and will revise the bid documents accordingly. The contract is now planned to be advertised next quarter.

Issues and Challenges:

As noted above, the project team is evaluating the impacts of the scope reduction in the South Yard and will provide further updates in the next quarter report. The increased cost and extended schedule duration are primarily driven by longer than expected high voltage equipment lead times and rising labor costs. Additionally, broader market conditions, including post-pandemic supply chain delays and labor shortages, have increased costs across all work scopes.

Existing Warnerville Substation Rehabilitation, 230kV Switch to be Replaced

10014079 - Cherry-Eleanor Pumps

Project Description: Replace and upgrade pumps in Cherry Pump Station with units that work with current operating strategies. The scope of work includes: 1) replacement of pumps, transformer, and pump motor starters; 2) installation of Programmable Logic controller (PLC), SCADA system, and fiber optics; and 3) improvement of the existing motor control center (MCC) building.

Program: Power Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 38.80 M
Forecast	$ 38.80 M
Actual	$ 0.35 M

Project Schedule:

Approved 01/01/25	06/30/31
Forecast 01/01/25	06/30/31

Project Percent Complete: 0.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	03/31/29	10/01/28	04/01/29	12/30/30

Progress and Status:
The kickoff meeting for the Needs Assessment Report was held in March 2025. Currently, the consultant is reviewing as-built drawings, equipment records, engineering reports, and other relevant background information. A site visit is scheduled in the next quarter.

Issues and Challenges:
None at this time.

Cherry-Eleanor Pump Station at Cherry Reservoir

10039568 - Moccasin Switchyard Rehabilitation

Project Description: Replace 115 kV disconnect switches, replace 115 kV bus configuration, replace 230 kV disconnect switches, change 230 kV bus configuration, replace 115 kV circuit breakers, add surge arresters, perform a fault study, perform a grounding study, improve switchyard grading, and replace fencing.

Program: Power Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 19.71 M
Forecast	$ 19.71 M
Actual	$ 0.47 M

Project Schedule:

Approved 11/01/22	01/31/30
Forecast 11/01/22	01/31/30

Project Percent Complete: 7.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/21/27	01/20/28	05/22/28	07/31/29

Progress and Status:

The project team reviewed and provided comments on the draft Needs Assessment Report (NAR). The consultant team is incorporating the comments into the NAR with a target to finalize next quarter.

Issues and Challenges:

None at this time.

Existing Moccasin Switchyard

10014088 - Moccasin Penstock Rehabilitation

Project Description: In order to meet the established level of service, mitigate potential risks, and avoid potential consequences of failure, SFPUC is considering replacing the penstocks so that the life of the asset will be extended for a minimum 75 years. Based on a preliminary study, a combination of a drop shaft, a tunnel and above grade pipes appears to be a favorable alternative. SFPUC will continue the study before determining the most appropriate alternative solution. For capital planning purposes, SFPUC assumes the alternative will include: 1) a drop shaft; 2) a new tunnel penstock; and 3) two above-grade penstocks.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (EIR)

Project Cost:

Approved	$ 331.17 M
Forecast	$ 331.17 M
Actual	$ 8.87 M

Project Schedule:

Approved 02/03/14	12/08/34
Forecast 02/03/14	12/08/34

Project Percent Complete: 3.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/04/29	09/06/30	05/07/31	05/07/34

Progress and Status:

The project team held several internal workshops to discuss the alternatives. The draft Alternatives Analysis Report is being revised to incorporate stakeholder's comments and recent Right of Way developments, including revisiting the potential alternative for a deep shaft and tunnel within the current penstock alignment.

Issues and Challenges:

None at this time.

Moccasin Penstock System along the Steep Section

10039680 - Moccasin Engineering and Records Building

Project Description: HHWP Project operations and administration is located in Moccasin, California, with facilities including buildings, office trailers, warehouses, shops, laboratories, and sheds. Many existing facilities are deteriorating, do not meet current building codes, and are incurring increased maintenance costs. HHWP needs to invest in new facilities to meet all applicable codes and standards; reduce maintenance costs; increase employee interconnectivity and productivity; properly store all staff, materials, records, and equipment; and meet energy-efficiency standards. HHWP prepared a report titled "Moccasin Facilities Upgrade Project Alternatives Analysis and Evaluation Report Update". The report identified long-term needs for creating adequate office space for current staff in Moccasin. In addition, the report evaluated the needs for new, dedicated materials storage space, new records and archives space with offices, new space for servers, and parking space for staff. The Moccasin Engineering and Records Building project will address the need for permanent office space by constructing a new two-story building. Hetch Hetchy and Infrastructure staff are currently located in temporary trailers that have exceeded their useful life. The new building will provide office space for Hetch Hetchy Engineering, Records, Energy Services, Infrastructure, and ITS staff. The scope also includes a secure server room, parking lot, and archive/records storage. The budget and schedule for the project will be modified to provide permanent office space for both Hetch Hetchy and Infrastructure staff and to address escalation since the completion of the 2020 Alternatives Analysis Report estimate.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Not Initiated (Cat Ex)

Project Cost:

Approved	$ 88.73 M
Forecast	$ 88.73 M
Actual	$ 2.35 M

Project Schedule:

Approved 12/14/22	05/31/29
Forecast 12/14/22	05/31/29

Project Percent Complete: 4.1%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/31/26	05/25/26	02/01/27	11/30/28

Progress and Status:

The project team advanced work on the Design Development Package with a target completion by the next quarter. The project team is preparing for the upcoming Civic Design Review phase 2 in the next quarter.

Issues and Challenges:

None at this time.

Engineering and Records Building 50% Design Development (DD) Rendering

10041727 - Moccasin Warehouse Building

Project Description: The Moccasin Old Powerhouse was constructed in 1926 and abandoned in the 1960s. The building has multiple structural and nonstructural issues, including cracks, spalling of structural concrete, water intrusion, broken windows, settlement, hazardous materials, and seismic deficiencies. The building is currently used for storage of large equipment and critical spares for the Hetch Hetchy Water and Power system. As a result of the multiple issues, it was determined to demolish the building. A new warehouse is therefore necessary for the storage of the large equipment and critical spares for the Hetch Hetchy Water and Power system that was previously stored in the Moccasin Old Powerhouse. This project includes a construction of a new 9,000-square-foot warehouse within the Moccasin campus to store large equipment and critical spare components for the Hetch Hetchy Water and Power System. The building will include office space for warehouse staff including records retention for warehouse and materials documentation.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Active (TBD)

Project Cost:

Approved	$ 26.29 M
Forecast	$ 35.16 M
Actual	$ 0.05 M

Project Schedule:

Approved 01/01/25	04/01/31
Forecast 10/15/24	11/04/30

Project Percent Complete: 2.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	09/01/27	11/01/27	08/01/28	05/06/30

Progress and Status:

A work order was issued for a metes and bounds survey, and the design team is preparing the Project Development package, which is expected to be completed next quarter.

Issues and Challenges:

The warehouse building size was requested by Hetch Hetchy Water and Power to be increased from 9,000 square feet to 15-20,000 square feet, resulting in a variance between the forecasted cost and the approved budget. The project team will reassess the project scope, schedule, and budget after receiving a third-party cost estimate, expected by next quarter.

Warehouse Misc. Storage in Old Moccasin Powerhouse

10032903 - O'Shaughnessy Dam Outlet Works Phase 1

Project Description: O'Shaughnessy Dam was completed in 1923 and raised in 1938. A condition assessment of the dam outlet works revealed the need for improvements to the existing outlet works, including gates and valves (1923 construction), to ensure safe and reliable operation. Based on engineering studies and prioritization of asset condition, needs, and risks, improvements to the existing outlet works will be implemented in two phases. Funding for this project will include work under Phase 1. Phase 2 of the O'Shaughnessy Dam Outlet Improvement Project begins in 2025. Work under Phase 1 will include: (1) replacement of two existing instream flow release valves; (2) improvements to access and drainage in the dam gallery and stairs; (3) installation of new bulkheads for the outlet intake; and (4) a planning phase and scoping for the slide gates and drum gates improvements.

Program: Joint Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 43.73 M
Forecast	$ 43.73 M
Actual	$ 29.41 M

Project Schedule:

Approved 02/01/18	12/31/25
Forecast 02/01/18	06/30/26

Project Percent Complete: 69.5%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	12/02/22 A	01/13/23 A	05/24/24 A	07/01/25
	B	12/02/22 A	05/03/24 A	11/12/24 A	11/06/25
	C	12/02/22 A	03/13/23 A	08/28/23 A	05/24/25

Progress and Status:

Subproject A (Bulkheads): The new dam inlet isolation bulkheads were delivered, installed, and tested in all slots. Subproject B (Drainage & Miscellaneous Dam Improvements): Contract No. HH-1015 is underway following the issuance of the Notice-to-Proceed. The contractor has mobilized and begun demolition work. For Subproject C (Instream Flow Release (IFR) Valve Replacement, HH-1011), the contractor continued to address the remaining punchlist items. The project team has reviewed the impact of delays related to the delivery of the gantry crane and the unexpected cavitation issues during the high flow release. An increase of contingency to the contract will be required to address the issues. Subproject D (Slide Gates): The project team continued to address the comments on the Needs Assessment Report. Subproject E (Drum Gates): The project team continued to address comments on the combined Needs Assessment and Alternative Analysis Report.

Issues and Challenges:

The variance between the approved and forecast project finish date is due to longer than expected duration to coordinate the proposed construction water treatment and discharge requirements for the Drainage & Miscellaneous Improvement (Subproject B) contract. The substantial completion date for Subproject C (Instream Flow Release Valve Replacement) is forecasted to be delayed due to the longer than expected procurement and delivery time of the gantry crane. Also, an unexpected cavitation issue was discovered during the high flow release. Additional budget and time will be required for construction contract HH-1011 to resolve the issues. This, however, has no bearing on the overall project budget and completion date.

Subproject B Drainage & Misc Improvements - Site Preparation for Concrete Demolition within Tunnel

10037351 - Moccasin Dam & Reservoir Long Term Improvement

Project Description: A heavy storm event in 2018 caused significant damage to the auxiliary spillway, upstream trash rack and diversion, and downstream area. Subsequent engineering studies concluded that improvements are needed to increase the spillway capacity to safely pass the updated design flood without overtopping the existing embankment dam. This project is needed for dam safety. This project will construct a new concrete spillway with adequate flow capacity along the alignment of the existing auxiliary spillway and additional flood protection to the Moccasin project facilities.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Active (TBD)

Project Cost:

Approved	$ 142.19 M
Forecast	$ 164.73 M
Actual	$ 5.95 M

Project Schedule:

Approved 05/03/21	12/31/34
Forecast 05/03/21	12/31/34

Project Percent Complete: 5.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/29/29	07/02/29	03/30/30	12/31/33

Progress and Status:

The 35% design is currently underway and is expected to be completed next quarter. This work builds on previous progress, including the finalized Conceptual Engineering Report and the draft Basis of Design Report and Hydraulic Analysis developed last quarter. Geotechnical data review and analysis remain ongoing to support the design effort.

Issues and Challenges:

The variance between the forecast cost and the approved budget was primarily due to the recent escalation of concrete and steel costs. The project team continues to monitor cost trends and evaluate mitigation strategies as design progresses.

Existing Auxiliary Spillway and Grizzly Gulch Canal

10014115 - Cherry Dam Spillway - Short Term Improvements

Project Description: Cherry Dam Spillway is a 334 foot-wide ogee-type concrete weir that discharges into an unlined adjacent channel. The spillway capacity is designed for 52,000 cfs. A spill of 1,500 cfs in 2010 resulted in significant erosion damage to the unlined spill channel, large-scale erosion along the western segment of Cherry Dam, and flooding of Cherry Power Tunnel Adit and a campground downstream. Engineering studies showed that remedial measures and erosion protection for the spill channel are needed to ensure that spill flows from Cherry Valley Dam spillway can be contained without erosion damage to the existing embankment dam and downstream area. Studies also found that long-term improvement to the spillway is needed to increase the hydraulic capacity of the spillway to safely pass the design flood. This project is a short-term interim solution until the long-term spillway improvements are implemented. This project will reestablish containment for the breached spill channel section from the 2010 spill and install armoring to protect the upper spill channel section against erosion from spillway releases of up to 2,000 cubic feet per second.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 14.89 M
Forecast	$ 14.89 M
Actual	$ 3.11 M

Project Schedule:

Approved 03/01/21	06/30/27
Forecast 03/01/21	06/30/27

Project Percent Complete: 23.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/31/25	08/01/25	03/02/26	12/31/26

Progress and Status:

The draft 65% design package was delivered this quarter, and comments were returned by the SFPUC. The 95% design package is scheduled for delivery next quarter, and the Job Order Contract (JOC) for tree removal work will begin when the 95% package is received. The construction contract package will be bid together with that of the Eleanor Dam – Interim Bridge Repair, a subproject to the Eleanor Dam Rehabilitation.

Issues and Challenges:

None at this time.

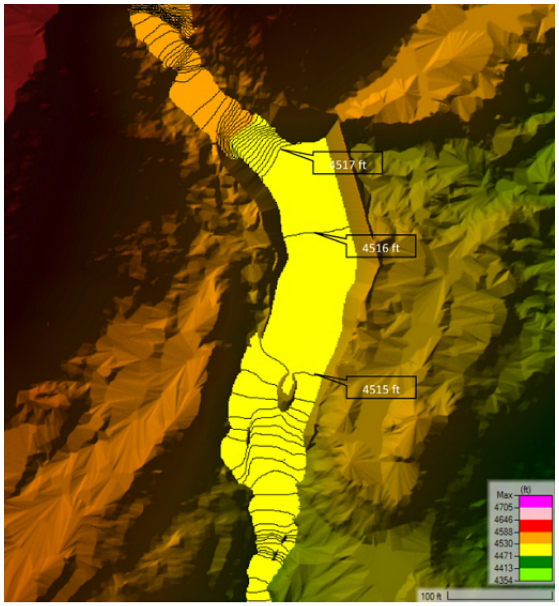


Figure H-3- Water Surface Elevations (ft) with 1-Foot Contours for 2,000 cfs Discharge

Cherry Valley Dam Spillway 2,000 Cubic Feet per Second (CFS) Flow Model

10030759 - Eleanor Dam Rehabilitation

Project Description: Mitigation alternatives will include improvements to increase spill capacity to safely pass the design flood, installation of a liner on the upstream face of the dam, concrete repairs, valve replacement, and installation of concrete lining and riprap for foundation armoring, and replacement of the existing bridge.

Program: Joint Infrastructure	**Project Status:** Multi-Phases	**Environmental Status:** Active (TBD)

Project Cost:

Approved	$ 113.87 M
Forecast	$ 113.87 M
Actual	$ 1.00 M

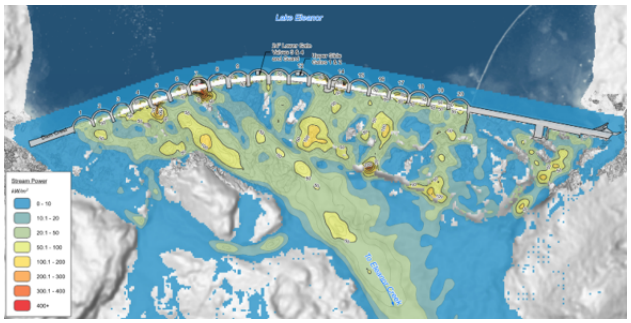
Project Schedule:

Approved 06/01/20	12/31/38
Forecast 06/01/20	12/31/38

Project Percent Complete: 2.5%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	06/30/25	08/02/25	04/01/26	12/31/26
	B	12/31/32	01/01/33	10/01/33	12/31/37

Progress and Status:
This project is divided into 2 subprojects, (A) the Eleanor Dam Bridge Interim Repairs; and (B) the Eleanor Dam and Bridge Long-Term Rehabilitation. For subproject (A): The 35% Design Criteria Memo was delivered this quarter. Comments on the Memo are being incorporated into the 50% package that is scheduled for delivery next quarter. The 'mock-up' test to pilot apply and test the overlay product on a portion of the bridge is scheduled to occur next quarter. For subproject (B): The project team reviewed the draft Needs Assessment Report from last quarter. A meeting will be held next quarter to present the findings, and a final Needs Assessment Report will be delivered after.



Lake Eleanor Stream Power Visual

Issues and Challenges:
None at this time.

10039119 - Early Intake Dam - Long Term

Project Description: Remove the existing deteriorated dam and construct a new concrete diversion structure and conveyance system within the existing Raker Act boundary to divert flows from Cherry Creek and Tuolumne River upstream of Kirkwood Powerhouse into Mountain Tunnel for SFPUC customers during emergencies.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 100.07 M
Forecast	$ 100.07 M
Actual	$ 0.84 M

Project Schedule:

Approved 07/01/23	12/31/35
Forecast 07/01/23	12/31/35

Project Percent Complete: 2.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/28/30	07/01/30	04/01/31	12/31/34

Progress and Status:

Comments from the draft Alternatives Analysis Report (AAR), excluding scoring of the alternatives, were received and incorporated into a revised draft AAR, excluding scoring. The revised draft was delivered for internal review this quarter and the Water Enterprise staff will continue an internal review of the alternatives presented.

Issues and Challenges:

Further progress on this project will be paused to allow time for Water Enterprise review and alignment on next steps before additional work proceeds.

Early Intake Dam Spillway at Right Abutment

10014114 - Mountain Tunnel Improvement Project

Project Description: Constructed between 1917 and 1925, Mountain Tunnel (MT) is a critical, nonredundant link in the Hetch Hetchy Regional Water System, conveying SFPUC water supply from Kirkwood Powerhouse to Priest Reservoir. Due to the tunnel's 90 years of operation, deferred maintenance, and construction deficiencies from the early 1900s, sections of the tunnel have deteriorated, some more extensively than others. The Mountain Tunnel Inspection and Repairs Project provided a tunnel inspection in 2017 to update the Condition Assessment conducted in 2008. Short-term repairs were also made in 2017 and 2018 to reduce the risk of failures in the concrete lining prior to implementation of the long-term project. The Mountain Tunnel Improvements (Rehabilitation)Project was selected for the design and construction of the preferred engineering alternative that will keep this vital component of the Hetch Hetchy Regional Water System in reliable service for years to come. The budget and schedule are based on the Mountain Tunnel Improvements Project construction phase, which is anticipated to take place between 2021 and 2027. This is the water funded portion of the Mountain Tunnel projects. For the Mountain Tunnel Improvements Project, the water portion will rehabilitate the inside of the tunnel and extend the siphon at South Fork, along with related safety improvements to the roadways that access the Mountain Tunnel.

Program: Joint Infrastructure	**Project Status:** Construction	**Environmental Status:** Completed

Project Cost:

Approved	$ 268.67 M
Forecast	$ 268.67 M
Actual	$ 162.57 M

Project Schedule:

Approved 10/03/11	06/03/27
Forecast 10/03/11	06/03/27

Project Percent Complete: 65.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	01/14/20 A	11/13/19 A	01/29/21 A	12/03/26
	B	N/A	12/11/23 A	09/23/24 A	06/30/26

Progress and Status:

Subproject A (HH-1000R) Mountain Tunnel Improvement Contract: Work during this quarter consisted of construction work inside the tunnel and work at bottom of the Flow Control Facility Shaft as part of the fourth Mountain Tunnel Shutdown. All of the remaining tunnel lining repair work was completed in this shutdown. Eleven miles of tunnel concrete lining repair has now been successfully repaired and completed. About 50 percent of the contact grouting work has been completed as of the end of Outage No. 4. Two of the four 72-inch Double Disc Knife Gate Valves were successfully installed in the water pipes at the bottom of the Flow Control Facility Shaft. Commission approval was obtained, and the construction contract was modified with the removal of the South Fork Siphon Extension, South Fork Roadway Improvements and Adit 5/6 and 8/9 Roadway Improvements scope. Staff is evaluating completing this removed work using future contract(s). Subproject B (HH-1013) Moccasin Water System Filtration Plant: Due to a differing site condition construction was stopped while the redesign of the building support foundation took place. Construction restarted near the end of the reporting quarter.

Newly Installed 72 inch Double Disc Knife Gate Valves at Bottom of FCF Shaft

Issues and Challenges:

None at this time.

10037077 - Moccasin Old Powerhouse Hazard Mitigation

Project Description: Design and install mitigation measures to prevent the building from collapsing and to prevent hazardous materials (such as lead-based paint and asbestos) from contaminating Moccasin Reservoir.

Program: Joint Infrastructure	**Project Status:** Planning	**Environmental Status:** Active (EIR)

Project Cost:

Approved	$ 13.47 M
Forecast	$ 13.47 M
Actual	$ 0.93 M

Project Schedule:

Approved 01/01/21	07/01/32
Forecast 01/01/21	07/01/32

Project Percent Complete: 12.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/31/28	01/01/30	08/01/30	08/01/31

Progress and Status:

Conceptual Engineering Report was finalized. The project team continues to work on the environmental review to develop the California Environmental Quality Act Environmental Impact Report

Issues and Challenges:

None at this time.

Existing Moccasin Old Powerhouse

10014108 - Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge

Project Description: The project is to install a new reinforced concrete plug downstream of the existing plug in Hetchy Adit and rehabilitate O'Shaughnessy Adit Access Bridge including sub-structure retrofit and super structure replacement.

Program: Joint Infrastructure	**Project Status:** Design	**Environmental Status:** Active (MND)

Project Cost:

Approved	$ 30.14 M
Forecast	$ 30.14 M
Actual	$ 2.51 M

Project Schedule:

Approved 02/03/14	12/31/30
Forecast 02/03/14	12/31/30

Project Percent Complete: 19.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/31/26	09/01/26	05/01/27	05/01/30

Progress and Status:

Independent cost estimate and technical review proposals were received and reviewed. The project team will hold 95% design workshops and Technical Steering Committee meeting in the next quarter.

Issues and Challenges:

None at this time.

Canyon Tunnel - Hetchy Adit Bulkhead

10014110 - Moccasin Wastewater Treatment Plant

Project Description: This project will replace the existing plant with a package two-train sequencing batch reactor (SBR) plant with grit removal and screening facilities, upgraded electrical and flow monitoring systems, flow equalization, SCADA instrumentation and automation features, and related site improvements.

Program: Joint Infrastructure	**Project Status:** Construction	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 15.38 M
Forecast	$ 15.38 M
Actual	$ 4.44 M

Project Schedule:

Approved 01/03/22	02/20/28
Forecast 01/03/22	02/20/28

Project Percent Complete: 30.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/22/23 A	10/12/23 A	06/03/24 A	12/29/26

Progress and Status:

Concrete for the slab and influent tank was placed. Rebar for future walls of the SBR was erected.

Issues and Challenges:

None at this time.

Installation of reinforcement steel for MWWTP walls

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 Infrastructure								
10035575 - SJPL Valve & Safe Entry Improvement - (Contract A, HH-1005)	05/16/22	02/01/25	07/07/25	$15,462,515	$15,462,515	(156)	$0	95.4%
10035575 - SJPL Valve & Safe Entry Improvement - (Contract B, HH-1006)	11/07/22	09/11/24	09/11/24	$11,465,716	$11,465,716	0	$0	99.7%
10035575 - SJPL Valve & Safe Entry Improvement - (Contract C, HH-1012)	05/13/24	01/28/26	01/28/26	$7,791,640	$7,791,640	0	$0	44.8%
10035575 - SJPL Valve & Safe Entry Improvement - (Contract E, HH-1009)	02/26/24	07/16/25	07/16/25	$11,349,168	$11,349,168	0	$0	66.0%
Power Infrastructure								
10014086 - Moccasin Powerhouse Generator Rehab - (Contract B, DB-121R2)	08/15/22	06/17/25	06/17/25	$29,501,417	$29,616,893	0	($115,476)	91.9%
Joint Infrastructure								
10032903 - O'Shaughnessy Dam Outlet Works Phase 1 - Instream Flow Release (Contract C, HH-1011)	08/28/23	05/24/25	05/24/25	$6,135,393	$6,556,000	0	($420,607)	85.8%
10032903 - O'Shaughnessy Dam Outlet Works Phase 1 - Bulkheads (Contract A, DB-135)	05/24/24	07/01/25	07/01/25	$6,780,000	$6,780,000	0	$0	91.6%
10032903 - O'Shaughnessy Dam Outlet Works Phase 1 - Drainage & Misc. Dam Improvements (Contract B, HH-1015)	11/12/24	11/06/25	11/06/25	$5,285,955	$5,285,955	0	$0	7.0%
10014114 - Mountain Tunnel Improvement - (HH-1000R)	01/29/21	12/03/26	12/03/26	$132,876,212	$139,035,145	0	($6,158,933)	73.5%

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 Forecast 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	
10014114 - Mountain Tunnel Improvement - (HH-1013)	09/23/24	06/30/26	06/30/26	$4,595,729	$4,595,729	0	$0	8.3%
10014110 - Moccasin Wastewater Treatment Plant - (HH-1010)	06/03/24	12/29/26	12/29/26	$7,526,337	$7,526,337	0	$0	20.6%

	Approved Contract Cost	Current Forecast Cost	Variance	
			Cost	Percent
Program Total for On-Going Construction	**$238,770,081**	**$245,465,098**	**($6,695,017)**	**(2.8%)**

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 Forecast 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
Power Infrastructure				
Transmission Lines				
10035721 - Transmission Lines 7/8 Upgrades	06/05/24	06/05/24	$27,146,308	$24,197,640
TOTAL			**$27,146,308**	**$24,197,640**

10. COMPLETED PROJECTS

There are no completed projects.

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APPENDICES

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APPENDIX A. PROJECT DESCRIPTIONS

WATER INFRASTRUCTURE

Water Conveyance (Water)

10035575 SJPL Valve and Safe Entry Improvement

San Joaquin Pipeline (SJPL) Nos. 1, 2, and 3 consist of three parallel transmission pipelines (completed in 1932, 1953, and 1968, respectively) that cross the San Joaquin Valley from the east of Foothill Tunnel at Oakdale Portal to the west of Coast Range Tunnel at Tesla Portal, a distance of approximately 48 miles. A fourth partial pipeline (SJPL 4 completed in 2012) consists of a 6.4-mile segment of pipe downstream of Oakdale and another 11-mile segment upstream of Tesla Portal. SJPLs deliver Tuolumne River water to the San Francisco Bay Area. They have been in service ranging from 11 to 91 years. SFPUC staff members and contractors need to enter the pipelines regularly to perform condition assessment, maintenance, and repair work. A recent hydraulic study shows that several of the existing valves in the SJPLs may be under-rated for the potential surge pressures that could be triggered from an unplanned closure of the valves at the downstream Tesla Ultraviolet Treatment Facility. For safety reasons, the SFPUC initiated this capital project to increase the pressure rating of the valves, provide safe pipeline isolations for personnel entry into the pipelines, and allow shutdown of any section of the SJPLs without a complete system shutdown.

SJPL Valve Remote Control and Monitoring

Design, procure, and construct new SJPL remote supervisory controls that would enable remote operation from Moccasin to remotely operate valve actuators. The project includes data telemetry improvements, Remote Terminal Unit (RTU) installation/replacement, trans-valley communication system upgrades, power system upgrades, security improvements, and access improvements.

Water Infrastructure Project Development

10014072 WATER ONLY/PROJ DEV

The Project Development (PD) Account captures Program-level expenditures. The project provides programmatic support for Water funded capital projects. The following charges are allocated to the PD Account: 1) task orders for overall program management and project prioritization tasks, where the costs should be distributed over all CIP Projects; 2) infrastructure and Hetch Hetchy staff performing program-level tasks, including capital plan development, budget management (including fund management and cost reallocations), and unifier and quarterly report generation tasks, where the costs should be distributed over all CIP Projects; 3) portal support for the existing SharePoint Portal (including document management and project dashboard reporting); 4) work outreach program; and 5) City Attorney charges for contract development.

APPENDIX A. PROJECT DESCRIPTIONS

POWER INFRASTRUCTURE

Powerhouse

10036809 Moccasin Powerhouse Bypass Upgrades

Provide a reliable hydraulic bypass and energy dissipation system, conveying water around the turbines to the Moccasin Powerhouse Tailrace. Upgrade/replace high-pressure energy-dissipating valves, control systems, and associated structures to absorb 1,147 feet of pressure head and 430 cubic feet per second flow without damage.

10014086 Moccasin Powerhouse and GSU Rehabilitation

The project is broken down into three components: 1) Generator Rehabilitation – replace the entire generator and associated equipment, including new stator cores and coils, rotor poles, relays, and rotor rim; 2) GSU Replacement – replace two of the three existing generator step-up transformers (GSUs), new foundations and oil containment, and relay upgrades; and 3) Power Plant Systems Upgrades – replace the 480 V switchgear, 13.8 kV switchgear, motor control centers, main control boards, protective relays, cooling water piping, and improving oil containment systems.

Transmission Lines

10014089 Transmission Lines Clearance Mitigation

This project will provide funding to implement mitigation measures to resolve clearance discrepancies. Mitigation options include but are not limited to new towers/tubular poles, new intervening poles, tower raises, ground lowering, and other structural improvements to the lattice towers.

10035721 Transmission Lines 7/8 Upgrades

This project develops the scope of work, design, and contract documents necessary to bid, award, and manage the reconductoring contract. Reconductoring will include replacement of the existing 115 kV conductors on Lines 7/8 from Warnerville to Standiford substations, resulting in increased capacity and resolving clearance detections.

Switchyard & Substations (Power)

10014087 Warnerville Substation Rehabilitation

The additional funding request is to cover the remaining work for Warnerville Substation Rehabilitation Project. Under Design Build Contract #DB-127R, installation of some 230 kV equipment was deleted from the contract but procured, including circuit breakers, switches, insulators, and current voltage transformers. Remaining work includes the replacement of four oil circuit breakers, bushings, surge arrestors, disconnect switches, current voltage transformer, insulators, relay protection, and other ancillary equipment.

10039568 Moccasin Switchyard Rehabilitation

Replace 115 kV disconnect switches, replace 115 kV bus configuration, replace 230 kV disconnect switches, change 230 kV bus configuration, replace 115 kV circuit breakers, add surge arresters, perform a fault study, perform a grounding study, improve switchyard grading, and replace fencing.

Dams & Reservoirs (Power)

10014079 Cherry-Eleanor Pumps

Replace and upgrade pumps in Cherry Pump Station with units that work with current operating strategies. The scope of work includes: 1) replacement of pumps, transformer, and pump motor starters; 2) installation of Programmable Logic controller (PLC), SCADA system, and fiber optics; and 3) improvement of the existing motor control center (MCC) building.

Power Infrastructure Project Development

10014092 POWER ONLY/PROJ DEVELP

The Project Development (PD) Account captures program-level expenditures. The project provides programmatic support for Power funded capital projects. The following charges are allocated to the PD Account: 1) task orders for overall program management and project prioritization tasks, where the costs should be distributed over all CIP Projects; 2) infrastructure and Hetch Hetchy staff performing program-level tasks, including capital plan development, budget management (including fund management and cost reallocations), and unifier and quarterly report generation tasks, where the costs should be distributed over all CIP Projects; 3) portal support for the existing SharePoint Portal (including document management and project dashboard reporting); 4) work outreach program; and 5) City Attorney charges for contract development.

APPENDIX A. PROJECT DESCRIPTIONS

JOINT INFRASTRUCTURE

Water Conveyance (Joint)

10014088 Moccasin Penstock Rehabilitation

In order to meet the established level of service, mitigate potential risks, and avoid potential consequences of failure, SFPUC is considering replacing the penstocks so that the life of the asset will be extended for another 75 to 100 years. Based on a preliminary study, a combination of a drop shaft, a tunnel and above grade pipes appears to be a favorable alternative. SFPUC will continue the study before determining the most appropriate alternative solution. For capital planning purposes, SFPUC assumes the alternative will include the following major elements: • A drop shaft of about 850 feet deep, • A new tunnel penstock of about 3,100 feet, and • A two 72 in. above-grade penstocks with a total length of 3,000 feet

Buildings (Joint)

10039680 Moccasin Engineering and Records Building

HHWP Project operations and administration is located in Moccasin, California, with facilities including buildings, office trailers, warehouses, shops, laboratories, and sheds. Many existing facilities are deteriorating, do not meet current building codes, and are incurring increased maintenance costs. HHWP needs to invest in new facilities to meet all applicable codes and standards; reduce maintenance costs; increase employee interconnectivity and productivity; properly store all staff, materials, records, and equipment; and meet energy-efficiency standards. HHWP prepared a report titled "Moccasin Facilities Upgrade Project – Alternatives Analysis and Evaluation Report Update". The report identified long-term needs for creating adequate office space for current staff in Moccasin. In addition, the report evaluated the needs for new, dedicated materials storage space, new records and archives space with offices, new space for servers, and parking space for staff. The Moccasin Engineering and Records Building project will address the need for permanent office space by constructing a new two-story building. Hetch Hetchy and Infrastructure staff are currently located in temporary trailers that have exceeded their useful life. The new building will provide office space for Hetch Hetchy Engineering, Records, Energy Services, Infrastructure, and ITS staff. The scope also includes a secure server room, parking lot, and archive/records storage. The budget and schedule for the project will be modified to provide permanent office space for both Hetch Hetchy and Infrastructure staff and to address escalation since the completion of the 2020 Alternatives Analysis Report estimate.

10041727 Moccasin Warehouse Building

The Moccasin Old Powerhouse was constructed in 1926 and abandoned in the 1960s. The building has multiple structural and nonstructural issues, including cracks, spalling of structural concrete, water intrusion, broken windows, settlement, hazardous materials, and seismic deficiencies. The building is currently used for storage of large equipment and critical spares for the Hetch Hetchy Water and Power system. As a result of the multiple issues, it was determined to demolish the building. A new warehouse is therefore necessary for the storage of the large equipment and critical spares for the Hetch Hetchy Water and Power system that was previously stored in the Moccasin Old Powerhouse. This project includes a construction of a new 9,000-square-foot warehouse within the Moccasin campus to store large equipment and critical spare components for the Hetch Hetchy Water and Power System. The building will include office space for warehouse staff including records retention for warehouse and materials documentation.

Dams & Reservoirs (Joint)

10032903

O'Shaughnessy Dam Outlet Works Phase 1

O'Shaughnessy Dam was completed in 1923 and raised in 1938. A condition assessment of the dam outlet works revealed the need for improvements to the existing outlet works, including gates and valves (1923 construction), to ensure safe and reliable operation. Based on engineering studies and prioritization of asset condition, needs, and risks, improvements to the existing outlet works will be implemented in two phases. Funding for this project will include work under Phase 1. Phase 2 of the O'Shaughnessy Dam Outlet Improvement Project begins in 2025. Work under Phase 1 will include: (1) replacement of two existing instream flow release valves; (2) improvements to access and drainage in the dam gallery and stairs; (3) installation of new bulkheads for the outlet intake; and (4) a planning phase and scoping for the slide gates and drum gates improvements.

10037351 Moccasin Dam & Reservoir Long Term Improvements

A heavy storm event in 2018 caused significant damage to the auxiliary spillway, upstream trash rack and diversion, and downstream area. Subsequent engineering studies concluded that improvements are needed to increase the spillway capacity to safely pass the updated design flood without overtopping the existing embankment dam. This project is needed for dam safety. This project will construct a new concrete spillway with adequate flow capacity along the alignment of the existing auxiliary spillway and additional flood protection to the Moccasin project facilities.

10014115 Cherry Dam Spillway - Short Term Improvements

Cherry Dam Spillway is a 334 foot-wide ogee-type concrete weir that discharges into an unlined adjacent channel. The spillway capacity is designed for 52,000 cfs. A spill of 1,500 cfs in 2010 resulted in significant erosion damage to the unlined spill channel, large-scale erosion along the western segment of Cherry Dam, and flooding of Cherry Power Tunnel Adit and a campground downstream. Engineering studies showed that remedial measures and erosion protection for the spill channel are needed to ensure that spill flows from Cherry Valley Dam spillway can be contained without erosion damage to the existing embankment dam and downstream area. Studies also found that long-term improvement to the spillway is needed to increase the hydraulic capacity of the spillway to safely pass the design flood. This project is a short-term interim solution until the long-term spillway improvements are implemented. This project will reestablish containment for the breached spill channel section from the 2010 spill and install armoring to protect the upper spill channel section against erosion from spillway releases of up to 2,000 cubic feet per second.

10030759 Eleanor Dam Rehabilitation

Mitigation alternatives will include improvements to increase spill capacity to safely pass the design flood, installation of a liner on the upstream face of the dam, concrete repairs, valve replacement, and installation of concrete lining and riprap for foundation armoring, and replacement of the existing bridge.

10039119 Early Intake Dam - Long Term

Remove the existing deteriorated dam and construct a new concrete diversion structure and conveyance system within the existing Raker Act boundary to divert flows from Cherry Creek and Tuolumne River upstream of Kirkwood Powerhouse into Mountain Tunnel for SFPUC customers during emergencies.

O'Shaughnessy Dam Outlet Works Phase 2

O'Shaughnessy Dam was completed in 1923 and raised in 1938. A condition assessment of the dam outlet works revealed the need for improvements to the existing outlet works, including gates and valves (1923 construction), to ensure safe and reliable operation. Based on engineering studies and prioritization of asset condition, needs, and risks, improvements to the existing outlet works will be implemented in two

phases. The O'Shaughnessy Dam Outlet Works Phase 1 Project is described under Project Number 10032903 and is currently in the design and construction phases. Phase 2 of the O'Shaughnessy Dam Outlet Improvement Project will begin in 2025 and will include replacement and/or refurbishment of eight discharge valves, rehabilitation of three drum gates, refurbishment of twelve slide gates, installation of a new diversion pipe isolation valve, and improvements for the diversion tunnel. The project will include: (1) replacement of six 60-inch and one 72-inch discharge needle valves; (2) refurbishment of one 72-inch discharge butterfly valve; (3) rehabilitation of three drum gates; (4) refurbishment of twelve slide gates; (5) installation of a new diversion pipe isolation valve; and (6) improvements for the diversion tunnel.

Mountain Tunnel

10014114 Mountain Tunnel Improvement Project

Constructed between 1917 and 1925, Mountain Tunnel (MT) is a critical, nonredundant link in the Hetch Hetchy Regional Water System, conveying SFPUC water supply from Kirkwood Powerhouse to Priest Reservoir. Due to the tunnel's 90 years of operation, deferred maintenance, and construction deficiencies from the early 1900s, sections of the tunnel have deteriorated, some more extensively than others. The Mountain Tunnel Inspection and Repairs Project provided a tunnel inspection in 2017 to update the Condition Assessment conducted in 2008. Short-term repairs were also made in 2017 and 2018 to reduce the risk of failures in the concrete lining prior to implementation of the long-term project. The Mountain Tunnel Improvements (Rehabilitation)Project was selected for the design and construction of the preferred engineering alternative that will keep this vital component of the Hetch Hetchy Regional Water System in reliable service for years to come. The budget and schedule are based on the Mountain Tunnel Improvements Project construction phase, which is anticipated to take place between 2021 and 2027. This is the water funded portion of the Mountain Tunnel projects. For the Mountain Tunnel Improvements Project, the water portion will rehabilitate the inside of the tunnel and extend the siphon at South Fork, along with related safety improvements to the roadways that access the Mountain Tunnel.

Powerhouse (Joint)

10037077 Moccasin Old Powerhouse Hazard Mitigation

Design and install mitigation measures to prevent the building from collapsing and to prevent hazardous materials (such as lead-based paint and asbestos) from contaminating Moccasin Reservoir.

Tunnels (Joint)

10014108 Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge

The project is to install a new reinforced concrete plug downstream of the existing plug in Hetchy Adit and rehabilitate O'Shaughnessy Adit Access Bridge including sub-structure retrofit and super structure replacement.

Utilities (Joint)

10014110 Moccasin Wastewater Treatment Plant

This project will replace the existing plant with a package two-train sequencing batch reactor (SBR) plant with grit removal and screening facilities, upgraded electrical and flow monitoring systems, flow equalization, SCADA instrumentation and automation features, and related site improvements.

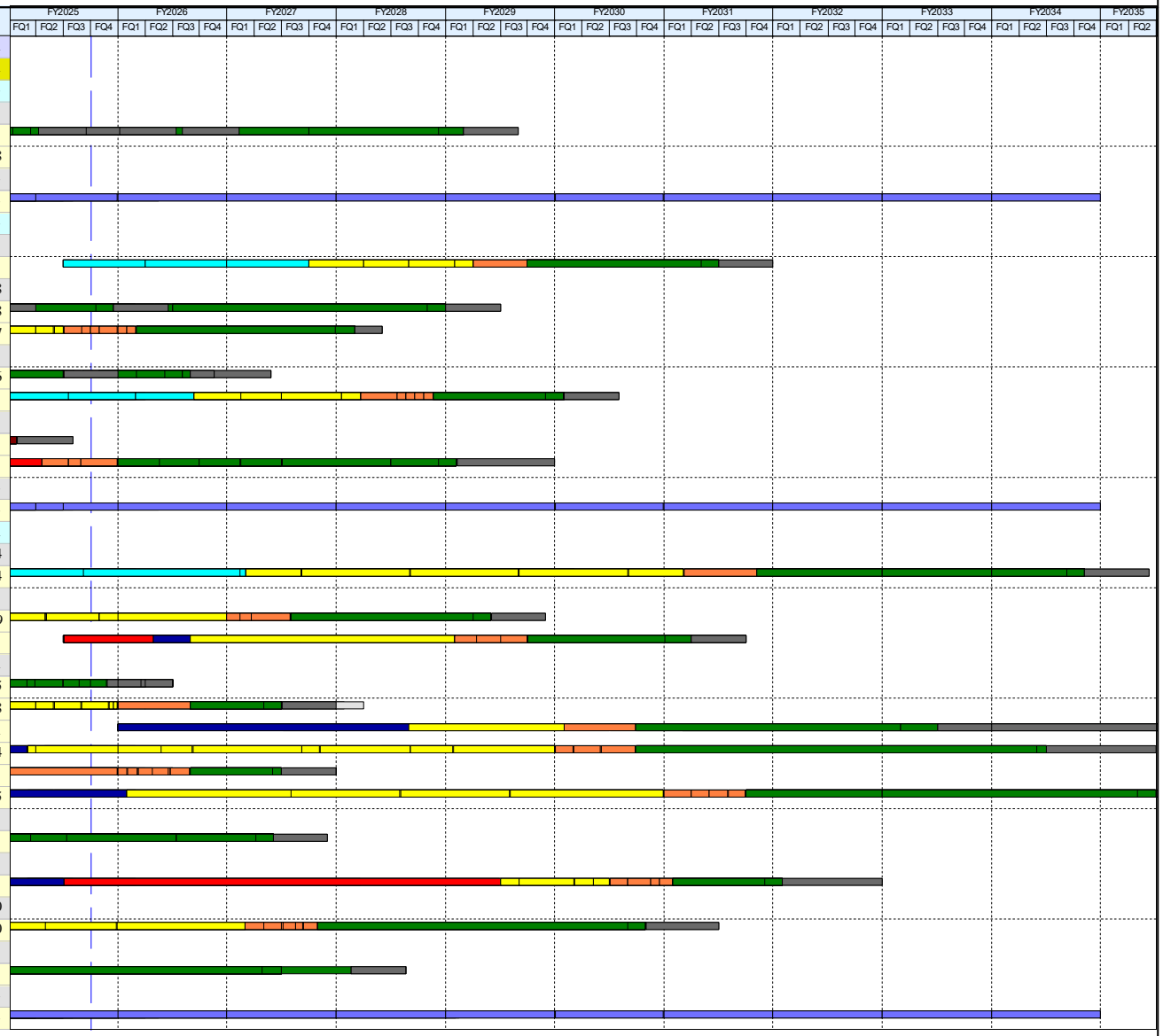
Joint Infrastructure Project Development

10014116 JOINT - PROJECT DEVELOPMENT

The Project Development (PD) Account captures program-level expenditures. The following charges are allocated to the joint funded PD Account: 1) task orders for overall program management and project prioritization tasks, where the costs should be distributed over all CIP Projects; 2) infrastructure and HHWP staff performing program-level tasks, including capital plan development, budget management (including fund management, and cost reallocations), and unifier and quarterly report generation tasks, where the costs should be distributed over all CIP projects; 3) portal support for the existing SharePoint portal (including document management and project dashboard reporting); 4) work outreach program; and 5) City Attorney contract development charges.

APPENDIX B. Hetch Hetchy Capital Improvement Program Approved Project Level Budgets/Schedules

Project Name	Approved Budget	Start	Finish
Hetchy Capital Improvement Program	$2,016,814,835.02	03-Oct-11	31-Dec-41
Hetch Hetchy Water Enterpise	$2,016,814,835.02	03-Oct-11	31-Dec-41
Water Infrastructure	$209,409,421.01	26-Mar-12	30-Jun-34
Water Conveyance (Water)	$196,494,822.00	01-Jul-19	28-Feb-29
10035575 SJPL Valve and Safe Entry Improvement	$157,752,191.00	01-Jul-19	28-Feb-29
10041725 SJPL Valve Remote Control and Monitoring	$38,742,631.00	01-Oct-24	31-Dec-28
Water Infrastructure Project Development	$12,914,599.00	26-Mar-12	30-Jun-34
CUH100PD HHW- Water Project Development	$12,914,599.00	26-Mar-12	30-Jun-34
Power Infrastructure	$376,407,179.00	29-May-12	30-Jun-34
Dams & Reservoirs (Power)	$38,798,254.00	01-Jan-25	30-Jun-31
CUH10106 Cherry-Eleanor Pumps	$38,798,254.00	01-Jan-25	30-Jun-31
Powerhouse	$141,611,932.99	18-Sep-20	31-Dec-28
CUH10114 Moccasin Powerhouse and GSU Rehabilitation	$100,556,003.00	18-Sep-20	31-Dec-28
10036809 HHW - Moccasin Powerhouse Bypass Upgrade	$41,055,930.00	18-Sep-20	01-Dec-27
Switchyard & Substations (Power)	$57,115,334.99	01-Sep-15	31-Jan-30
CUH10115 Warnerville Substation Rehabilitation Project	$37,407,004.00	01-Sep-15	25-Nov-26
10039568 Moccasin Switchyard Rehabilitation	$19,708,331.00	01-Nov-22	31-Jan-30
Transmission Lines	$121,007,957.01	01-Jul-17	30-Jun-29
10035721 Transmission Lines 7/8 Upgrades	$37,327,197.00	02-Dec-19	31-Jan-25
10014089 Transmission Lines Clearance Mitigation	$83,680,760.00	01-Jul-17	30-Jun-29
Power Infrastructure Project Development	$17,873,700.00	29-May-12	30-Jun-34
CUH101PD HHW- Power Project Development	$17,873,700.00	29-May-12	30-Jun-34
Joint Infrastructure	$1,430,998,235.01	03-Oct-11	31-Dec-41
Water Conveyance (Joint)	$331,171,945.00	03-Feb-14	08-Dec-34
CUH10116 Moccasin Penstock Rehabilitation	$331,171,945.00	03-Feb-14	08-Dec-34
Buildings (Join)	$115,023,904.00	14-Dec-22	01-Apr-31
10039680 Moccasin Engineering and Records Building	$88,733,548.00	14-Dec-22	31-May-29
10041727 Moccasin Warehouse Building	$26,290,356.00	01-Jan-25	01-Apr-31
Dams & Reservoirs (Joint)	$598,857,830.01	01-Feb-18	31-Dec-41
10032903 O'Shaughnessy Dam Outlet Works Phase 1	$43,731,371.01	01-Feb-18	31-Dec-25
10030759 Eleanor Dam Rehabilitation	$113,873,604.00	01-Jun-20	31-Dec-38
CUH102-N03 O'Shaughnessy Dam Outlet Works Phase 2	$184,106,942.00	01-Jul-25	31-Dec-41
10037351 Moccasin Dam & Reservoir Long Term Improve	$142,187,984.00	03-May-21	31-Dec-34
10014115 Cherry Dam Spillway - Short Term Improvemen	$14,885,874.00	01-Mar-21	30-Jun-27
10039119 Early Intake Dam - Long Term	$100,072,055.00	01-Jul-23	31-Dec-35
Mountain Tunnel	$268,668,950.00	03-Oct-11	03-Jun-27
CUH10221 Mountain Tunnel Improvement Project	$268,668,950.00	03-Oct-11	03-Jun-27
Powerhouse (Joint)	$13,474,515.00	01-Jan-21	01-Jul-32
10037077 Moccasin Old Powerhouse Hazard Mitigation	$13,474,515.00	01-Jan-21	01-Jul-32
Tunnels (Joint)	$30,138,401.00	03-Feb-14	31-Dec-30
CUH10215 Canyon Tunnel - Hetchy Adit Rehab & OSH Br	$30,138,401.00	03-Feb-14	31-Dec-30
Utilities (Joint)	$15,376,737.00	03-Jan-22	20-Feb-28
10014110 Moccasin Wastewater Treatment Plant	$15,376,737.00	03-Jan-22	20-Feb-28
Joint Infrastructure Project Development	$58,285,953.00	25-Jun-12	30-Jun-34
CUH102-PD HHW- Joint Project Development	$58,285,953.00	25-Jun-12	30-Jun-34



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

APPENDIX C. LIST OF ACRONYMS

Cat Ex	Categorical Exemption
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CER	Conceptual Engineering Report
CIP	Capital Improvement Program
CM/GC	Construction Manager/General Contractor
CFS	Cubic Feet Per Second
DB	Design-Build
EIR	Environmental Impact Report
FY	Fiscal Year
GSU	Generator Step-Up
GWH	Gigawatt Hours
HCIP	Hetch Hetchy Capital Improvement Program
HH	Hetch Hetchy
HHWP	Hetch Hetchy Water and Power
IFR	Instream Flow Release
kV	Kilovolts
MCC	Motor Control Center
MND	Mitigated Negative Declaration
MT	Mountain Tunnel
NCN	Non-Conformance Notice
NTP	Notice to Proceed
OSH	O'Shaughnessy Dam
PD	Project Development
PG&E	Pacific Gas and Electric
PLC	Programmable Logic Controller
RFI	Requests for Information
R&R	Renewal and Replacement
SBR	Sequence Batch Reactor
SCADA	Supervisory Control and Data Acquisition
SFPUC	San Francisco Public Utilities Commission
SJPL	San Joaquin Pipeline
TBD	To Be Determined
TSC	Technical Steering Committee

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