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Services of the San Francisco Public Utilities Commission

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DATE: February 24, 2026

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

FROM: Dennis J. Herrera, General Manager DJH

RE: Hetch Hetchy Capital Improvement Program Quarterly Report
Quarterly Report (2nd Quarter / FY 2025-2026)

Enclosed please find the Hetch Hetchy Capital Improvement Program (HCIP) Quarterly Report for the 2nd Quarter (Q2) of Fiscal Year (FY) 2025-2026. 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 October 1, 2025 to December 31, 2025.

Quarterly Report Format Changes

In response to the U. S. Department of Justice's requirement that all public documents be digitally accessible to individuals with disabilities by April 24, 2026, staff implemented the following format revisions to the HCIP Quarterly Reports, beginning with the Q2 FY2025-2026 report:

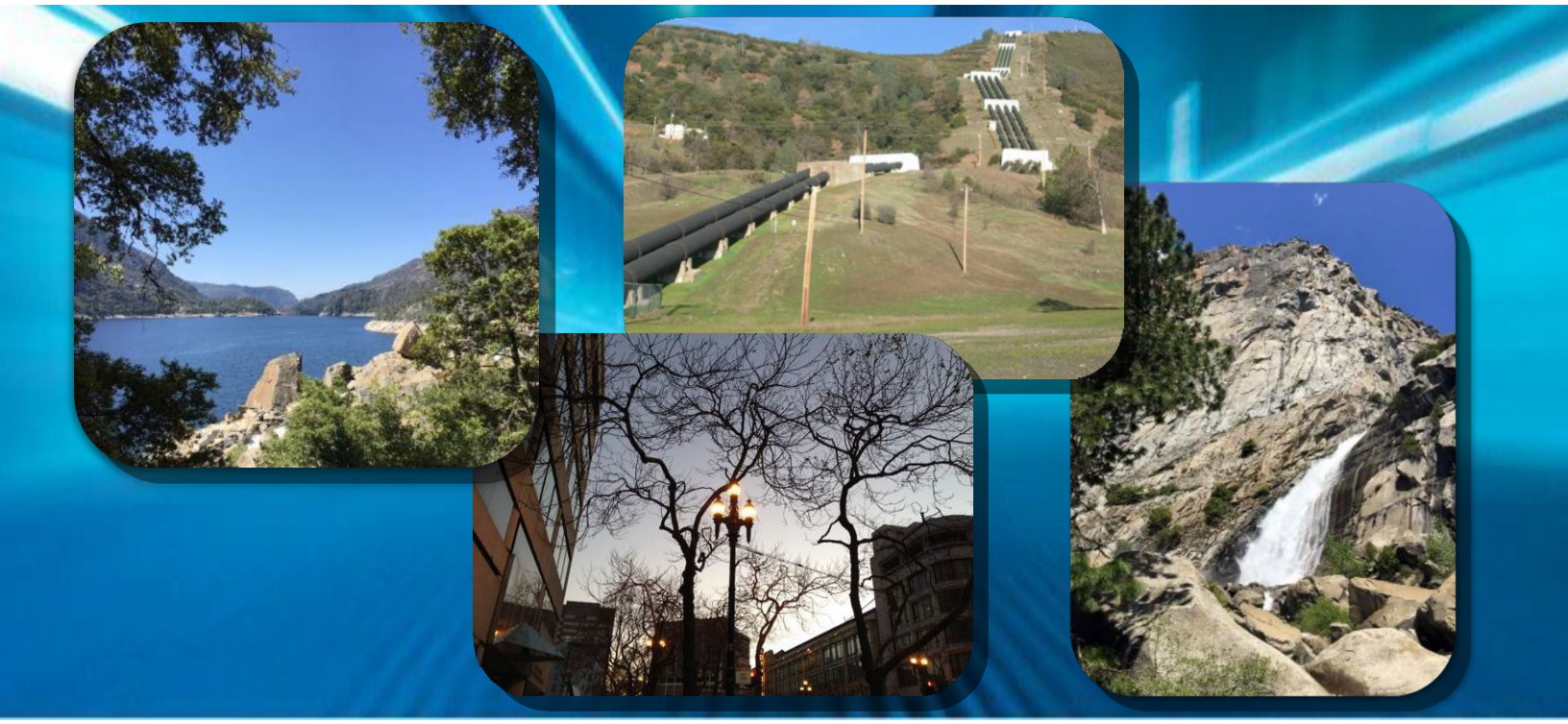
- Removed pie charts and bar charts for schedule and cost.
- Removed photographs from the "Project Status Report" section; photographs are now included only for select projects highlighted in the "Executive Summary" section of the report.
- Removed the following sections:
  - Section 5, "Budget and Schedule Trend Summary"
  - Section 6, "Project Performance Summary"; data that was in that table is now in the new Section 5 Project Status Report (except shading that highlighted when a project was > 10% over budget or schedule).
- Combined Section 9, "Projects in Closeout" and Section 10, "Completed Projects" into one Section 7.

- Added the following two tables:
    - Table 2.2, “Project Milestones Achieved During Quarter”
    - Appendix B, “Approved Project and Schedule” (replacing bar charts).

These changes ensure the report complies with emerging Americans with Disabilities Act (ADA) accessibility requirements for published documents.

Attachment

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



QUARTERLY REPORT

Hetch Hetchy Capital Improvement Program

October 2025 – December 2025

Published: February 24, 2026

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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 October 1, 2025 to December 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 22 projects in the 2024 HCIP together with three 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 three PD accounts) is shown in the table below:

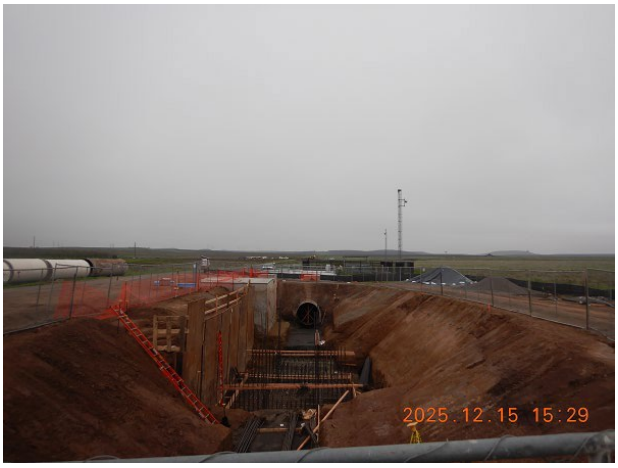
Total Current Approved Budget for Projects in Each Phase

Project Phase	Number of Projects	Percent by Number of Projects	Total Project Value	Percent by Project Value
Not Initiated	1	5%	$184M	10%
Planning	6	27%	$468M	24%
Design	4	18%	$302M	16%
Bid and Award	2	9%	$99M	5%
Construction	2	9%	$284M	15%
Multi-Phases	5	23%	$453M	24%
Close-Out	0	0%	$0	0%
Completed	2	9%	$137M	7%
Total	**22**	**100%**	**$1,928M**	**100%**

Program Key Updates:

The key updates for the HCIP include:

- For the SJPL Valve and Safe Entry Improvements project, under Phase 1A (HH-1005) The valves installed under this contract that were subsequently rejected for not meeting performance criteria were removed under a separate contract; the team is negotiating a credit. Phase 2A (HH-1012): The contractor is restoring the equipment that was flooded at the Roselle Valve House during the previous quarter in preparation for upcoming Hetch Hetchy system shutdown. Phases 2B/2C (HH-1016): The contractor has started the outage work and has completed the excavation for the new removable spool piece vaults. Phase 3 (HH-1009): The contractor is preparing to repair an underground leak that was discovered on a water sample line; the permanent repair will be performed during the upcoming Hetch Hetchy system shutdown.



Newly Excavated Removable Spool Piece Vault at P4J Crossover Vault

- For the Moccasin Powerhouse Bypass Upgrades project, a revised option to address the previously identified hydraulic concerns was selected by stakeholders. The preferred solution includes a new pipeline from the penstocks to a new pressure dissipation chamber that would be aligned with the existing Moccasin Powerhouse Tailrace at the Moccasin Reservoir shoreline. The redesign includes a new discharge structure that can discharge to the tailrace and also directly to Moccasin Reservoir.
- For Subproject B Moccasin Powerhouse Generator Rewind (DB-121R2) contract, Substantial Completion has been achieved, and the unit has been successfully placed into operation. Commissioning activities, punch list completion, preparation of operation and maintenance documentation, and other closeout tasks are ongoing. Hetch Hetchy Water and Power has requested the installation of a new vibration monitoring system for both generators to track the performance of the shafts after realignment. For Subproject C, the 95 percent design review has been extended to allow additional time to address design criteria comments and coordinate construction sequencing and outage.
- For Transmission Line Clearance Mitigation project, the Progressive Design-Build contract DB-139R will be re-bid in early 2026. The project team is currently finalizing the CEQA Common Sense Exemption (CSE), which will be included in the contract re-bid.

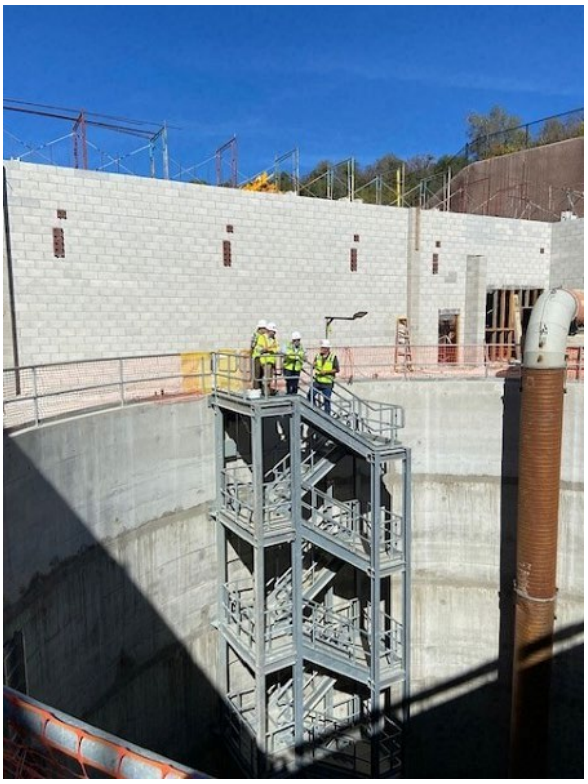
- For the Warnerville Substation Rehabilitation project, the Subproject B construction contract (Phase 2 – HH-1017) has received Notice-to-Proceed with construction underway.

Warnerville Substation – New Switches

- For the Moccasin Penstock Rehabilitation, revised alternatives will be re-evaluated due to changes to Right of Way assumptions and additional information regarding Operability, Constructability, Cost, and Schedule for each alternative.
- For the Moccasin Engineering & Records Building 65% Construction Drawings are complete; design team is progressing toward 95% while addressing comments. Scope, schedule, and budget for water pressure reduction equipment are being developed; potential schedule and budget impacts are under review.
- For the Moccasin Warehouse Building project, the design team is advancing the Schematic Design package with review comments. HHWP's warehouse size increase has caused a cost variance. The project is now forecasted to finish one year earlier than baseline due to early scope refinement and funding reallocation supporting an accelerated timeline.
- For the O'Shaughnessy Dam Outlet Works Phase 1 Subproject A (contract DB-135 for bulkheads rehabilitation), is in closeout and received the 2025 San Francisco Collaborative Partnering Award. For Subproject B (contract HH-1015 Drainage & Miscellaneous Dam Improvements), construction is progressing, with drain cleaning complete and ladder wells operational; remaining installations are scheduled next quarter.
- For the Moccasin Dam & Reservoir Long-Term Improvements project, the SF Board of Supervisors approved the amendment to the design contract. Procurement is underway for a Construction Manager/General Contractor (CM/GC) collaborative delivery construction contract. The project schedule may be reduced by approximately 18 months due to a shorter environmental review process.
- For the Cherry Dam Spillway - Short Term Improvements project, the construction contract was combined with work for the Eleanor Dam Interim Bridge Repair and was advertised in December 2025; three bids were received. The project team is in the process of evaluating the bids received and moving towards a recommendation.
- For the Eleanor Dam Rehabilitation and the Interim Bridge Repair subproject, the work for Interim Bridge Repair is combined in the same construction contract with Cherry Dam Spillway - Short Term Improvement. The contract was advertised in December 2025, and three bids were received; the project team is in the process of evaluating the bids to provide a recommendation for

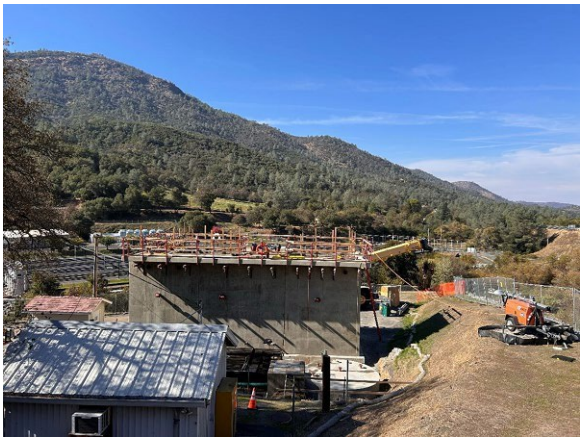
construction. For Eleanor Dam and Bridge Long-Term Rehabilitation subproject, the objectives and scope have been approved by HHWP, and the design team has begun the Alternative Analysis Report evaluation.

- For the Moccasin Switchyard project, Needs Assessment Report (NAR) has been submitted and is under review. HHWP has elected to include Greenfield as an additional alternative that would propose constructing a new switchyard in an alternative site location.
- For the Mountain Tunnel Improvements Project Subproject A (HH-1000R) contract, the construction of the Priest Flow Control Facility building walls was completed along with installing the two backup generators and related electrical work. Fabrication work continued offsite for the remaining knife gate and sleeve valves. Work continued at the Priest Adit constructing the concrete final lining, which is about 80% complete. At the Early Intake Adit, the bulkhead door and concrete plug has been completed. Design work and coordination continued for the interim operation contract to provide communication between the Second Garrote and Big Creek Shafts. Subproject B (HH-1013) Moccasin Water System Filtration Plant: The building frame was partially constructed along with the roof trusses.



Priest Flow Control Facility with Shaft, Building, and Stairs

- For the Moccasin Wastewater Treatment Plant Replacement (contract HH-1010) project, construction has progressed during this quarter and a solution was agreed on to overcome the Influent Pump Station (IPS) elevation difference.



Construction Progress for the New Moccasin Wastewater Treatment Plant

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HETCH HETCHY WATER SYSTEM

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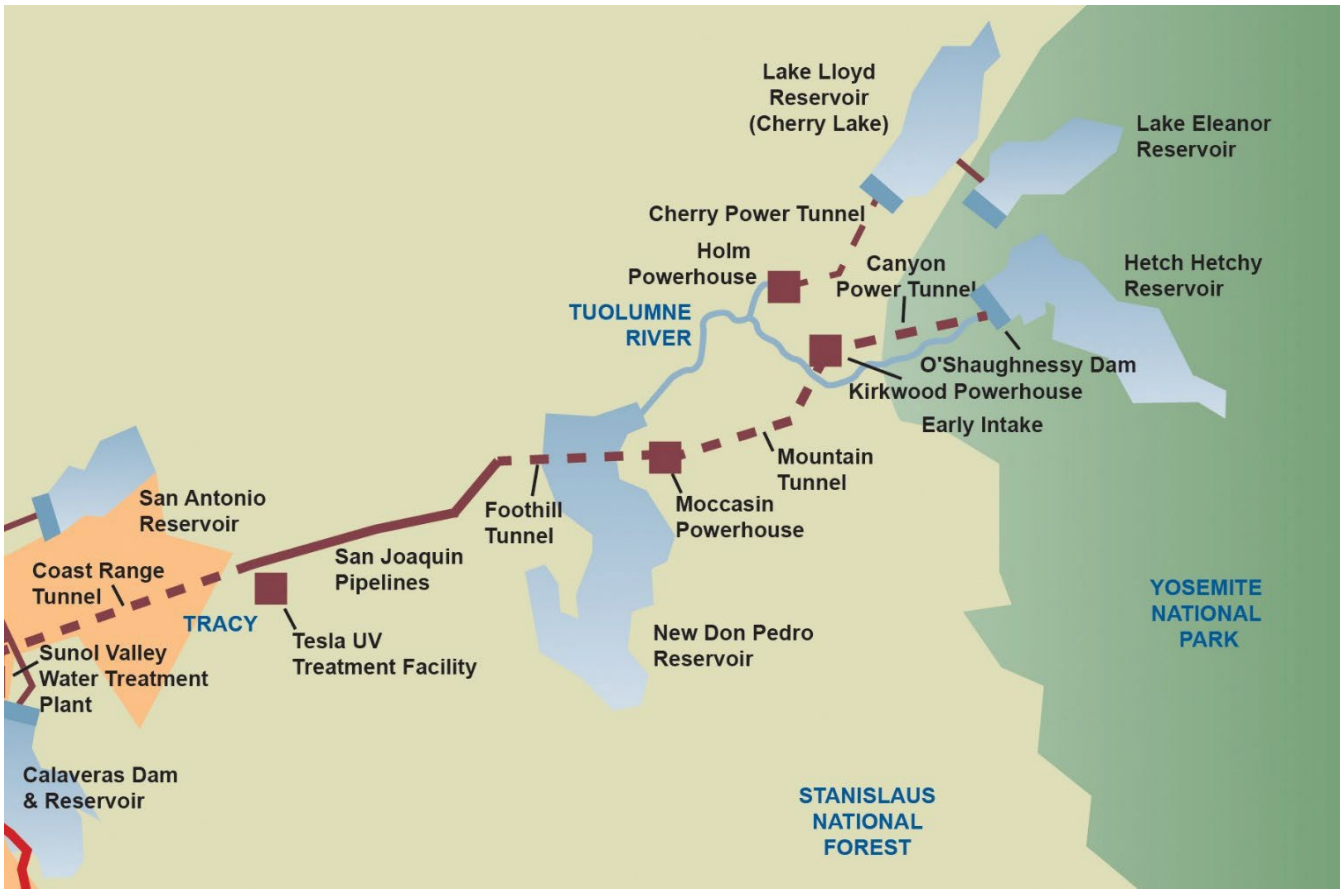
INTRODUCTION

The Hetch Hetchy Water and Power Division under the Water Enterprise (HHWP) is responsible for managing, operating, and maintaining 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 Reservoir along the Tuolumne River to the city of Newark. HHWP facilities include 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 power transmission lines, watershed lands, and right-of-way properties. HHWP 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 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.

This report provides a quarterly status update on the Hetch Hetchy Capital Improvement Program (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 and other programmatic projects not included in the HCIP 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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SECTION 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 that benefit 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:

<u>Water Infrastructure</u>

- Water Conveyance – projects to enhance the reliability of water delivery through pipelines and tunnels, allowing for delivery of water to SFPUC customers.
- Water-Only Facilities – projects that benefit water delivery (but not power production) such as water quality protection and improvement projects.

<u>Power Infrastructure</u>

- 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.
- Power-Only Facilities – other projects that benefit power production and transmission (but not water) such as Cherry-Eleanor Pump Station.

<u>Joint (Water and Power) Infrastructure</u>

- 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 roads and bridges that are utilized to access HHWP assets.
- 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.

SECTION 2. PROGRAM STATUS

This Quarterly Report presents the progress made on HCIP between October 1, 2025 and December 31, 2025. This document serves as the second Quarterly Report in Fiscal Year 2025-2026 (FY26) 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 mid-cycle update to the 10-Year Capital Plan for FY2025-26 to FY2034-35 that was adopted by the Commission on February 11, 2025, none of the 22 HCIP project budgets or schedules were changed from the 2024 HCIP.

There are 22 projects in the 2024 HCIP together with three 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.

Table 2.1 below shows the number of projects and total project value in each phase of the program based on the Current Approved Budget for all 22 projects as of December 31, 2025 (PD accounts do not have phases and are not included in Table 2.1).

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

Project Phase	Number of Projects	Percent by Number of Projects	Total Project Value	Percent by Project Value
Not Initiated	1	5%	$184M	10%
Planning	6	27%	$468M	24%
Design	4	18%	$302M	16%
Bid and Award	2	9%	$99M	5%
Construction	2	9%	$284M	15%
Multi-Phases	5	23%	$453M	24%
Close-Out	0	0%	$0	0%
Completed	2	9%	$137M	7%
Total	**22**	**100%**	**$1,928M**	**100%**

PROJECT MILESTONES ACHIEVED:

A list of project milestones achieved during the reporting period is shown in Table 2.2 below.

Table 2.2 Project Milestones Achieved During Quarter

Project ID & Name	Milestone Achieved
10014086 - Moccasin Powerhouse and GSU Rehabilitation – Subproject B – Moccasin Powerhouse Generator Rewind	Contract Substantial Completion
10014087 - Warnerville Substation Rehabilitation – Subproject B – Warnerville Substation Rehabilitation Phase 2	Construction Notice-To-Proceed
10030759 - Eleanor Dam Rehabilitation – Subproject A – Eleanor Dam Bridge Interim Repairs	Contract Advertisement

SECTION 3. PROGRAM COST SUMMARY

Table 3 provides an overall cost summary of the 22 HCIP projects and three HCIP PD accounts at the end of the quarter, including Expenditures to Date, Expenditures Over Reporting Period, Current Approved Budget, Current Forecast Cost, Cost Variance between the Approved and Forecast Costs, and Cost Variance Over the Reporting Period (difference between cost forecasts reported in Q1/FY2025-26 and in Q2/FY2025-26). The Current Approved Budget and Forecast Cost for the HCIP are $2,016.8 million and $2,286.0 million, respectively.

The overall 2024 HCIP negative Cost Variance of $269.2 million in Table 3 can be attributed to the following projects; project cost variances are provided below. The reasons for the project variances are reported in Section 5. Note that during the past quarter project cost estimates and schedules were reevaluated for any changes that should be included in the FY27-36 10-Year CIP budget that will be presented for adoption by the SFPUC Commission in early 2026. This quarterly report includes updated cost and schedule forecasts that reflect all requested project budget and schedule changes:

- The Water Project Development forecast cost increased by $2.26M during the quarter.
- The Moccasin Powerhouse and GSU Rehabilitation $25.94M cost increase variance is a continuation of $13.48M, $2.15M, and $10.31M from Q4 of FY23/24, Q2 of FY24/25, and Q4 of FY24/25, respectively.
- The Moccasin Powerhouse Bypass Upgrade forecast cost increased by $43.56M during the quarter.
- The Warnerville Substation Rehabilitation Project $1.37 cost increase variance is a continuation of $0.92M and $1.00M from Q2 and Q3 of FY24/25, respectively, and a forecast decrease of $0.55M during the quarter.
- The Moccasin Switchyard Rehabilitation forecast cost increased by $13.04M during the quarter.

- The Transmission Lines 7/8 Upgrades $1.90M cost decrease variance is a continuation from Q4 of FY23/24.
- The Transmission Lines Clearance Mitigation $25.82M cost increase variance is a continuation of $23.05M from Q4 of FY24/25, and a forecast cost increase of $2.77M during the quarter.
- The Power Project Development forecast cost increased by $9.39M during the quarter.
- The Moccasin Penstock Rehabilitation forecast cost increased by $202.53M during the quarter.
- The Moccasin Warehouse Building $8.87M cost increase variance is a continuation from Q3 of FY24/25.
- The O'Shaughnessy Dam Outlet Works Phase 1 forecast cost decreased by $2.80M during the quarter.
- The Moccasin Dam & Reservoir Long Term Improvements $20.02M cost increase variance is a continuation of $22.54M from Q1 of FY24/25, and a forecast decrease of $2.52M during the quarter.
- The Cherry Dam Spillway – Short Term Improvements $4.43M cost increase variance is a continuation from Q1 of FY25/26.
- The Early Intake Dam – Long Term $98.31M cost decrease variance is a continuation of $98.87M from Q4 of FY24/25, and a forecast increase of $0.56M during the quarter.
- The Joint Project Development forecast cost increased by $14.97M during the quarter.

Table 3 Program Cost Summary

Subprograms	Expenditures To Date	Expenditures Over Reporting Period	Current Approved Budget	Q2/FY2025-26 Forecast Costs	Cost Variance	Variance Over Reporting Period
Water Infrastructure	**$85.4M**	**$9.3M**	**$209.4M**	**$211.7M**	**($2.3M)**	**($2.3M)**
Water Conveyance (Water)	$78.4M	$8.9M	$196.5M	$196.5M	$0	$0
Water Infrastructure Project Development	$7.0M	$0.3M	$12.9M	$15.2M	($2.3M)	($2.3M)
Power Infrastructure	**$148.4M**	**$2.5M**	**$376.4M**	**$493.6M**	**($117.2M)**	**($68.2M)**
Dams & Reservoir (Power)	$0.6M	$0.1M	$38.8M	$38.8M	$0	$0
Powerhouse	$61.8M	$1.5M	$141.6M	$211.1M	($69.5M)	($43.6M)
Switchyard & Substations (Power)	$27.8M	$0.1M	$57.1M	$71.5M	($14.4M)	($12.5M)
Transmission Lines	$52.3M	$0.4M	$121.0M	$144.9M	($23.9M)	($2.8M)
Power Infrastructure Project Development	$5.9M	$0.3M	$17.9M	$27.3M	($9.4M)	($9.4M)
Joint Infrastructure	**$272.3M**	**$13.3M**	**$1,431.0M**	**$1,580.7M**	**($149.7M)**	**($212.7M)**
Water Conveyance (Joint)	$9.8M	$0.3M	$331.2M	$533.7M	($202.5M)	($202.5M)
Buildings (Joint)	$4.8M	$1.1M	$115.0M	$123.9M	($8.9M)	$0
Dams & Reservoirs (Joint)	$49.4M	$3.6M	$598.9M	$522.2M	$76.7M	$4.8M
Mountain Tunnel	$184.8M	$7.2M	$268.7M	$268.7M	$0	$0
Powerhouse (Joint)	$1.1M	$0.1M	$13.5M	$13.5M	$0	$0
Tunnels (Joint)	$2.9M	$0	$30.1M	$30.1M	$0	$0
Utilities (Joint)	$7.0M	$0.6M	$15.4M	$15.4M	$0	$0
Joint Infrastructure Project Development	$12.5M	$0.4M	$58.3M	$73.3M	($15.0M)	($15.0M)
Overall Program Total	**$506.1M**	**$25.0M**	**$2,016.8M**	**$2,286.0M**	**($269.2M)**	**($283.2M)**

SECTION 4. PROGRAM SCHEDULE SUMMARY

Table 4 compares 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.

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

Programs	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
Water Infrastructure	03/26/12	03/26/12 Actualized	06/30/34	06/30/36	24
Power Infrastructure	05/29/12	05/29/12 Actualized	06/30/34	06/30/36	24
Joint Infrastructure	10/03/11	10/03/11 Actualized	12/31/41	12/31/41	0
Overall HCIP Projects	**10/03/11**	**10/03/11 Actualized**	**12/31/41**	**12/31/41**	**0**

SECTION 5. PROJECT STATUS REPORT

10035575 - SJPL Valve and Safe Entry Improvement

Approved Budget:	$157.75M	**Approved Completion Date:**	02/28/29
Forecast Cost:	$157.75M	**Forecast Completion Date:**	02/28/29
Cost Variance:	None	**Schedule Variance:**	None
Expenditures to Date:	$78.20M	**Expenditures Over the Reporting Period:**	$8.86M
Current Phase:	Multi-Phases	**Environmental Status:**	Completed (Cat Ex)

Progress and Status:

This project is divided into five (5) subprojects: (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. Phase 1A (HH-1005): The valves installed on this project that were subsequently rejected for not meeting performance criteria were removed under a separate contract and the team is negotiating a credit. Phase 1B (HH-1006): Completed. Phase 2A (HH-1012): The contractor started the restoration work to repair or replace the equipment damaged during the flooding event at Roselle Valve House. The power supply to the Roselle Valve House has been resumed. Phases 2B/2C (HH-1016): The contractor has started the outage work and has completed the excavation for the new removable spool piece vaults. Phase 3 (HH-1009): An underground leak was discovered on a PVC sample line. The Contractor has stopped the leakage temporarily and the permanent repair will be performed during the upcoming winter system outage.

Issues and Challenges:

None at this time.

10041725 - SJPL Valve Remote Control and Monitoring

Approved Budget:	$38.74M	**Approved Completion Date:**	12/31/28
Forecast Cost:	$38.74M	**Forecast Completion Date:**	06/30/31
Cost Variance:	None	**Schedule Variance:**	-911 days
Expenditures to Date:	$0.22M	**Expenditures Over the Reporting Period:**	$0.08M
Current Phase:	Planning	**Environmental Status:**	Not Initiated (Cat Ex)

Progress and Status:

A review workshop was held in October and the final Needs Assessment Report was submitted in November.

Issues and Challenges:

As reported last quarter, the schedule variance is due to delay in starting of the initial planning phase. Validation of the scope has also necessitated an extension of the schedule; the longer schedule duration is estimated to be needed to complete the project. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10014079 - Cherry-Eleanor Pumps

Approved Budget:	$38.80M	**Approved Completion Date:**	06/30/31
Forecast Cost:	$38.80M	**Forecast Completion Date:**	06/03/33
Cost Variance:	None	**Schedule Variance:**	-704 days
Expenditures to Date:	$0.59M	**Expenditures Over the Reporting Period:**	$0.14M
Current Phase:	Planning	**Environmental Status:**	Not Initiated (TBD)

Progress and Status:

A review workshop was held in October and the final Needs Assessment Report was submitted in November.

Issues and Challenges:

As reported last quarter, the schedule variance is due to delay in starting of the initial planning phase. Validation of the scope has also necessitated an extension of the schedule; the longer schedule duration is estimated to be needed to complete the project. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10036809 - HHW - Moccasin Powerhouse Bypass Upgrade

Approved Budget:	$41.06M	**Approved Completion Date:**	12/01/27
Forecast Cost:	$84.62M	**Forecast Completion Date:**	05/31/30
Cost Variance:	($43.56M)	**Schedule Variance:**	-912 days
Expenditures to Date:	$4.01M	**Expenditures Over the Reporting Period:**	$0.19M
Current Phase:	Design	**Environmental Status:**	Active (Cat Ex)

Progress and Status:

The consultant design team presented to stakeholders three possible solutions to address the previously identified hydraulic concerns, each with associated cost and schedule impacts. Stakeholders selected a preferred solution which removes all open channel flow through box culverts and instead conveys water through a pipeline from the penstocks to a new pressure dissipation valve house that aligns with the existing Moccasin Powerhouse at the Moccasin Reservoir. The redesign includes a new dissipation chamber and discharge structure downstream of the valve house in the reservoir.

Issues and Challenges:

The redesign required that the design team start again at the conceptual engineering design phase before developing bid documents for review. This has added 10 months to the design phase of the project. The scope of the redesign is estimated to increase the project construction duration by 6 months, extending the construction period to 24 months. The scope of the redesign includes two new facility structures, more high-pressure pipe materials and additional construction scope including the dissipation chamber and the discharge structure at the reservoir, two 48-inch diameter high pressure steel pipelines from the penstocks to the Moccasin Powerhouse, deep excavation between the existing powerhouses, and mitigation for construction occurring below the reservoir surface level. Each of these components added significant cost to the project budget increasing the cost by close to two times. The project cost and schedule impacts associated with this redesign have been reflected in the forecast and included in the upcoming Capital Improvement Plan.

10014086 - Moccasin Powerhouse and GSU Rehabilitation

Approved Budget:	$100.56M	**Approved Completion Date:**	12/31/28
Forecast Cost:	$126.50M	**Forecast Completion Date:**	03/31/31
Cost Variance:	($25.94M)	**Schedule Variance:**	-820 days
Expenditures to Date:	$57.80M	**Expenditures Over the Reporting Period:**	$1.34M
Current Phase:	Multi-Phases	**Environmental Status:**	Completed (Cat Ex)

Progress and Status:

Subproject A – Moccasin Powerhouse Generator Step-Up (GSU) Transformers: Project closeout activities for Contract HH-1003R have been completed. Subproject B – Moccasin Powerhouse Generator Rewind (DB-121R2): Substantial Completion has been achieved, and the unit has been successfully placed into operation. Commissioning activities, punch list completion, preparation of operation and maintenance documentation, and other closeout tasks are ongoing. Hetch Hetchy Water and Power has requested the installation of a new vibration monitoring system for both generators to track the performance of the shafts after realignment. An existing vibration monitoring system previously installed by GE will be rented for interim use until a permanent system is procured. Final Completion for Subproject B may be extended until delivery of the new vibration monitoring equipment. Subproject C – Moccasin Powerhouse Systems Upgrade: The 95 percent design review has been extended to allow additional time to address design criteria comments and coordinate construction sequencing and outage.

Issues and Challenges:

The variance between the approved budget and forecasted cost is due to increased cost contingency of the DB-121R2 contract for the new fire suppression system and solutions to address Unit M1 alignment, 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 schedule change is a result of the delay in the design schedule due to project complexity as well as delay to the Moccasin Bypass Upgrades project. Construction for that project must be completed before physical work inside the powerhouse and outages for Subproject C can begin. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10014089 - Transmission Lines Clearance Mitigation

Approved Budget:	$83.68M	**Approved Completion Date:**	06/30/29
Forecast Cost:	$109.50M	**Forecast Completion Date:**	06/30/30
Cost Variance:	($25.82M)	**Schedule Variance:**	-365 days
Expenditures to Date:	$20.01M	**Expenditures Over the Reporting Period:**	$0.60M
Current Phase:	Bid and Award	**Environmental Status:**	Active (Cat Ex)

Progress and Status:

The draft California Environmental Quality Act (CEQA) Common Sense Exemption (CSE) is in progress and is undergoing internal reviews. The contract will be re-bid in early 2026. Contract number has been updated to DB-139R.

Issues and Challenges:

Staff is working on finalizing the revised safety prequalification before contract can be readvertised. The project's forecasted cost and schedule have been updated to reflect the delay associated with the bid protest and rejection of all bids; the updated schedule and budget have been included in the upcoming Capital Improvement Plan.

10014087 - Warnerville Substation Rehabilitation

Approved Budget:	$37.41M	**Approved Completion Date:**	11/25/26
Forecast Cost:	$38.78M	**Forecast Completion Date:**	11/08/27
Cost Variance:	($1.37M)	**Schedule Variance:**	-348 days
Expenditures to Date:	$26.95M	**Expenditures Over the Reporting Period:**	$0.16M
Current Phase:	Multi-Phases	**Environmental Status:**	Completed (Cat Ex)

Progress and Status:

This project is divided into two subprojects. Subproject A – Warnerville Substation Rehabilitation Phase 1 (DB-127R): The subproject is in close-out phase. Subproject B – Warnerville Substation Rehabilitation Phase 2 (HH-1017): The Notice-to-Proceed has been issued, and construction has started.

Issues and Challenges:

As previously reported, 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. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10039568 - Moccasin Switchyard Rehabilitation

Approved Budget:	$19.71M	**Approved Completion Date:**	01/31/30
Forecast Cost:	$32.75M	**Forecast Completion Date:**	08/12/31
Cost Variance:	($13.04M)	**Schedule Variance:**	-558 days
Expenditures to Date:	$0.82M	**Expenditures Over the Reporting Period:**	($0.02M)
Current Phase:	Planning	**Environmental Status:**	Not Initiated (TBD)

Progress and Status:

Needs Assessment Report (NAR) with proposed scope changes has been submitted and is under review. The Alternative Analysis Report (AAR) will commence upon approval of NAR. Following finalization of the NAR, the project team elected to include “Greenfield” as an additional alternative. The Greenfield alternative would propose constructing a new switchyard in an alternative site location. This decision necessitates supplemental field investigations, including surveying, potholing, hazardous material, and geotechnical borings.

Issues and Challenges:

The variance in schedule is due to the need to have project work commence after completion of the Moccasin Powerhouse Bypass project, which is forecasted to reach completion in May 2030. Moccasin Powerhouse Upgrade project is also scheduled to start construction phase concurrent with Switchyard project. If “Greenfield” option is not selected, construction activities of 2 projects in vicinity of Powerhouse may be overcrowding the area. The variance in pre-construction schedule is due to the addition of Greenfield as an alternative requiring additional field investigation, survey, potholing, hazardous material, and geotechnical boring. The variance in budget is due to estimate of construction costs at NAR phase and escalation costs for electrical equipment and labor. The project’s forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10014088 - Moccasin Penstock Rehabilitation

Approved Budget:	$331.17M	**Approved Completion Date:**	12/08/34
Forecast Cost:	$533.70M	**Forecast Completion Date:**	12/31/36
Cost Variance:	($202.53M)	**Schedule Variance:**	-754 days
Expenditures to Date:	$9.75M	**Expenditures Over the Reporting Period:**	$0.27M
Current Phase:	Planning	**Environmental Status:**	Not Initiated (EIR)

Progress and Status:

SFPUC purchased property adjacent to the Moccasin Penstocks, changing the assumptions for buried and above ground alternatives in the current penstock alignment. The project team has incorporated the changed assumptions and additional information into the pre-draft Alternative Analysis Report (AAR). The project team will re-evaluate the alternatives considering the additional information. Evaluation workshops will be held next quarter to review and rank the revised alternatives.

Issues and Challenges:

The budget and schedule variances are based on the cost and schedule estimates to construct a tunnel alternative. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10039680 - Moccasin Engineering and Records Building

Approved Budget:	$88.73M	**Approved Completion Date:**	05/31/29
Forecast Cost:	$88.73M	**Forecast Completion Date:**	05/31/29
Cost Variance:	None	**Schedule Variance:**	None
Expenditures to Date:	$4.25M	**Expenditures Over the Reporting Period:**	$0.90M
Current Phase:	Design	**Environmental Status:**	Active (Cat Ex)

Progress and Status:

The design team has completed the 65% Construction Documents (CD) and is currently addressing review comments as part of the continued design development toward the 95% CD package. In addition, the design consultant is developing scope, schedule, and budget proposal for the design of water pressure reduction equipment required to meet fire protection water system requirements. The incorporation of this additional design effort is anticipated to impact the project schedule and budget; however, the exact impacts are currently under evaluation and will be forecasted at a later date when the impacts are better understood.

Issues and Challenges:

None at this time

10041727 - Moccasin Warehouse Building

Approved Budget:	$26.29M	**Approved Completion Date:**	04/01/31
Forecast Cost:	$35.16M	**Forecast Completion Date:**	01/21/30
Cost Variance:	($8.87M)	**Schedule Variance:**	435 days
Expenditures to Date:	$0.53M	**Expenditures Over the Reporting Period:**	$0.19M
Current Phase:	Planning	**Environmental Status:**	Active (Cat Ex)

Progress and Status:

The design team is incorporating the review comments from the Conceptual Design package into the Schematic Design package.

Issues and Challenges:

As reported last quarter, the project is currently experiencing a cost variance due to a requested increase in warehouse building size from approximately 9,000 square feet to 15,000–20,000 square feet, as directed by HHWP to consolidate storage from multiple campus locations. This scope increase has resulted in forecasted costs exceeding the approved budget. The project is also showing a schedule variance, with the forecasted completion date approximately one year earlier than the approved baseline. This acceleration is attributable to early scope refinement and the recommended reallocation of funding to support an expedited delivery approach. The forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10032903 - O'Shaughnessy Dam Outlet Works Phase 1

Approved Budget:	$43.73M	**Approved Completion Date:**	12/31/25
Forecast Cost:	$40.93M	**Forecast Completion Date:**	05/28/27
Cost Variance:	$2.80M	**Schedule Variance:**	-513 days
Expenditures to Date:	$34.49M	**Expenditures Over the Reporting Period:**	$2.49M
Current Phase:	Multi-Phases	**Environmental Status:**	Completed (Cat Ex)

Progress and Status:

This project is divided into five subprojects. Subproject A (Bulkheads, DB-135): The project team continues to work on contract closeout. Subproject B (Drainage & Miscellaneous Dam Improvements, HH-1015): During the quarter, this subproject's construction team received the 2025 San Francisco Collaborative Partnering Award. During this reporting period, the Ladder Well #3 and #4 platforms were installed and are operational; The remaining platforms of Ladder Well #1 and #2 are scheduled for installation in the next quarter due to delays in fabrication and galvanizing. Watertight door testing has passed and is scheduled for installation in the next quarter. Subproject C (Instream Flow Release Valve Replacement, HH-1011): The project team continues to work on contract closeout. Subproject D (Slide Gates): The Needs Assessment Report has been completed and distributed for final approval and signatures. Subproject E (Drum Gates): The project team continues to finalize the combined Needs Assessment and Alternatives Analysis Report.

Issues and Challenges:

The variance between the approved and forecasted project completion date is due to the increase in construction duration in Subproject B to resolve the platform issues and complete the additional crack remediation work. The total project cost has been reduced due to savings from the construction phase in Subproject A. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10037351 - Moccasin Dam & Reservoir Long Term Improvement

Approved Budget:	$142.19M	**Approved Completion Date:**	12/31/34
Forecast Cost:	$162.21M	**Forecast Completion Date:**	06/30/33
Cost Variance:	($20.02M)	**Schedule Variance:**	549 days
Expenditures to Date:	$7.84M	**Expenditures Over the Reporting Period:**	$0.59M
Current Phase:	Design	**Environmental Status:**	Active (TBD)

Progress and Status:

The Board of Supervisors approved the amendment to the professional services contract to allow the new lead design consultant to complete the design and provide engineering support during construction phase. In parallel, the project team continues to prepare a combined Request for Qualifications and Proposals (RFQ&P) for the Spillway Construction using Construction Manager/General Contractor (CM/GC) delivery method.

Issues and Challenges:

As previously reported, the cost and schedule variance are due to updates to the project cost estimate and refinements to the environmental review approach, primarily resulting from recent escalation in concrete and steel prices. In addition, based on preliminary discussions with the Planning Department, the anticipated California Environmental Quality Act (CEQA) requirement may be reduced from an Environmental Impact Report (EIR) to a Mitigated Negative Declaration (MND), which is expected to reduce the overall project duration by approximately 18 months. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

10014115 - Cherry Dam Spillway - Short Term Improvements

Approved Budget:	$14.89M	**Approved Completion Date:**	06/30/27
Forecast Cost:	$19.31M	**Forecast Completion Date:**	01/29/28
Cost Variance:	($4.43M)	**Schedule Variance:**	-213 days
Expenditures to Date:	$4.19M	**Expenditures Over the Reporting Period:**	$0.26M
Current Phase:	Bid and Award	**Environmental Status:**	Active (MND)

Progress and Status:

The construction contract for the project (combined with Eleanor Dam Interim Bridge Repairs subproject) was advertised in December 2025 and three bids were received. The project team is in the process of evaluating the bids. The project team addressed the comments on the preliminary Mitigated Negative Declaration (MND) and issued the final MND in December 2025. The HHWP Vegetation Crew will perform tree cutting at the spillway between January and February 2026, ahead of bird nesting season.

Issues and Challenges:

As previously reported, the cost and schedule variance are due to scope refinement identified during the 65% design review, which concluded that additional excavation and armoring of the upper spillway are required to meet project objectives and regulatory performance criteria. These scope additions resulted in increased construction costs and associated soft cost impacts, increasing the total project cost forecast. The revised scope also extended the construction duration, with substantial completion now forecasted for July 2027. Project cost and schedule forecasts have been updated to reflect these changes and are incorporated into the upcoming Capital Improvement Plan.

10030759 - Eleanor Dam Rehabilitation

Approved Budget:	$113.87M	**Approved Completion Date:**	12/31/38
Forecast Cost:	$113.87M	**Forecast Completion Date:**	12/31/38
Cost Variance:	None	**Schedule Variance:**	None
Expenditures to Date:	$1.86M	**Expenditures Over the Reporting Period:**	$0.22M
Current Phase:	Multi-Phases	**Environmental Status:**	Active (Various)

Progress and Status:

This project is divided into two subprojects: (A) the Eleanor Dam Bridge Interim Repairs and (B) the Eleanor Dam and Bridge Long-Term Rehabilitation. For Subproject (A), the construction contract for the subproject (combined with Cherry Dam Spillway – Short Term Improvements) was advertised in December 2025 and three bids were received. The project team is in the process of evaluating the bids. For Subproject (B), the Project Objectives Technical Memorandum was approved during this reporting period, and the design team has initiated the Alternative Analysis Report.

Issues and Challenges:

None at this time.

10014114 - Mountain Tunnel Improvement Project

Approved Budget:	$268.67M	**Approved Completion Date:**	06/03/27
Forecast Cost:	$268.67M	**Forecast Completion Date:**	06/03/27
Cost Variance:	None	**Schedule Variance:**	None
Expenditures to Date:	$184.82M	**Expenditures Over the Reporting Period:**	$7.22M
Current Phase:	Construction	**Environmental Status:**	Completed

Progress and Status:

This project includes two subprojects. Subproject A (HH-1000R) Mountain Tunnel Improvements: Work during this quarter consisted of on-going construction of the Flow Control Facility (FCF) including completing 100% of the building walls, installing two backup generators, and installing some of the electrical panels. A horizontal direction drilled hole was completed between the FCF facility and the Priest Adit, which will allow electrical power to be installed in the Priest Adit. Work continued off site fabricating the two remaining Double Disc Knife Gate Valves and the two Flow Control Sleeve valves. Multiple City inspections took place at both valve fabrication facilities. Commission outage planning and outage preparatory construction work took place this quarter with the final Hetch Hetchy System outage beginning in mid-December. The large-scale water treatment plant for the outage was brought back online to support treating the construction water. Work continued at the Priest Adit with 80% or about 800 feet of the final concrete lining installed. The bulkhead door and concrete plug was successfully constructed at the Early Intake Adit. Design work and coordination continued for the interim operation of the sleeve valves. An additional construction contract will be required to install the communication system between the 2nd Garrote and Big Creek shafts back to the FCF. Subproject B (HH-1013) Moccasin Water System Filtration Plant: The building frame was partially constructed this quarter with all support beams, columns, concrete base slab, wall construction, and roof trusses completed.

Issues and Challenges:

None at this time.

10037077 - Moccasin Old Powerhouse Hazard Mitigation

Approved Budget:	$13.47M	**Approved Completion Date:**	07/01/32
Forecast Cost:	$13.47M	**Forecast Completion Date:**	07/01/32
Cost Variance:	None	**Schedule Variance:**	None
Expenditures to Date:	$1.07M	**Expenditures Over the Reporting Period:**	$0.07M
Current Phase:	Planning	**Environmental Status:**	Active (EIR)

Progress and Status:

The project team continues to make progress on the environmental review process required to develop the Environmental Impact Report (EIR). Progress during this quarter included: (1) final edits/review of the Project Description from the project team prior to being sent over to the SF Planning Department, and (2) first round of visual simulations has been developed.

Issues and Challenges:

None at this time.

10014108 - Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge

Approved Budget:	$30.14M	**Approved Completion Date:**	12/31/30
Forecast Cost:	$30.14M	**Forecast Completion Date:**	12/31/30
Cost Variance:	None	**Schedule Variance:**	None
Expenditures to Date:	$2.91M	**Expenditures Over the Reporting Period:**	$0.04M
Current Phase:	Design	**Environmental Status:**	Active (MND)

Progress and Status:

A new design consultant has come onboard to support the modeling, design, and cost estimate of the project. The consultant will review the constructability comments and optimize substructure design. Once a concept is finalized for the substructure, draft Mitigated Negative Declaration (MND) can be updated and circulated with the stakeholders.

Issues and Challenges:

None at this time.

10014110 - Moccasin Wastewater Treatment Plant

Approved Budget:	$15.38M	**Approved Completion Date:**	02/20/28
Forecast Cost:	$15.38M	**Forecast Completion Date:**	06/30/27
Cost Variance:	None	**Schedule Variance:**	235 days
Expenditures to Date:	$7.05M	**Expenditures Over the Reporting Period:**	$0.55M
Current Phase:	Construction	**Environmental Status:**	Completed (Cat Ex)

Progress and Status:

The construction is in progress. The team evaluated the Influent Pump Station elevation issue and finalized an approach to add risers to overcome an elevation difference for a gravity flow line. The contractor's effort to fix concrete defects on the interior and exterior of the Sequential Batch Reactor (SBR) walls after chipping away the unconsolidated concrete was not successful. The hydrostatic leak test did not pass due to inadequate repair and possible voids in the concrete wall. Once the repairs are made, another round of hydrostatic tests will be conducted

Issues and Challenges:

The variance between the approved schedule and the forecast schedule is based on a revised early expected construction completion. The project's forecasted cost and schedule have been included in the upcoming Capital Improvement Plan.

Section 6. On-Going Construction

	Schedule			Budget		Variance (Approved - Forecast)		
Construction Contract	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion	Approved Contract Cost	Current Forecasted Cost	Schedule (Cal Days)	Cost	Percent Complete
Water Infrastructure								
10035575 - SJPL Valve & Safe Entry Improvement - (Contract A, HH-1005)	05/16/22	02/01/25	02/28/26	$15,558,172	$15,558,172	(392)	$0	98.3%
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	72.0%
10035575 - SJPL Valve & Safe Entry Improvement - (Contract D, HH-1016)	05/01/25	08/16/28	08/16/28	$51,681,717	$51,681,717	0	$0	18.7%
Power Infrastructure								
10014086 - Moccasin Powerhouse Generator Rehab - (Contract B, DB-121R2)	08/15/22	01/07/26	01/07/26	$31,286,964	$31,286,964	0	$0	97.6%
10014087 - Warnerville Substation Rehabilitation Project	11/17/25	05/21/27	05/21/27	$6,695,000	$6,695,000	0	$0	0.0%
Joint Infrastructure								
10014114 - Mountain Tunnel Improvement - (HH-1000R)	01/29/21	12/03/26	12/03/26	$144,117,436	$144,117,436	0	$0	75.7%
10014114 - Mountain Tunnel Improvement - (HH-1013)	09/23/24	06/30/26	06/30/26	$4,293,483	$4,293,483	0	$0	40.5%
10032903 - O'Shaughnessy Dam Outlet Works Phase 1 - Drainage & Misc. Dam Improvements (Contract B, HH-1015)	11/12/24	11/06/25	10/30/26	$5,291,950	$6,507,019	(358)	($1,215,069)	71.2%
10014110 - Moccasin Wastewater Treatment Plant - (HH-1010)	06/03/24	12/29/26	12/29/26	$7,602,261	$7,602,261	0	$0	38.4%

			Variance	
	Approved Contract Cost	Current Forecast Cost	Cost	Percent
Program Total for On-Going Construction	**$274,318,622**	**$275,533,691**	**($1,215,069)**	**(0.4%)**

SECTION 7. PROJECTS IN CLOSE-OUT AND COMPLETED PROJECTS

Project Name & ID	Approved Start Date	Approved Completion Date	Forecasted/Actual Completion Date	Status
10035721 Transmission Lines 7/8 Upgrades	07/01/19	02/28/29	03/07/25	Completed
10039119 Early Intake Dam - Long Term	10/01/24	12/31/28	12/31/25	Completed

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APPENDICES

A. PROJECT DESCRIPTION

B. APPROVED PROJECT-LEVEL BUDGET AND SCHEDULE

C. LIST OF ACRONYMS

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APPENDIX A. PROJECT DESCRIPTION

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.

Water Infrastructure Project Development

10014072 HHW- Water Project Development

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.

10041725 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.

Power Infrastructure

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.

Powerhouse

10036809 HHW - Moccasin Powerhouse Bypass Upgrade

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.

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.

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.

Power Infrastructure Project Development

10014092 HHW- Power Project Development

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.

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 Improvement

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.

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.

CUH102-N03 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.

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 HHW- 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. APPROVED PROJECT BUDGET AND SCHEDULE

Project Name & ID	Approved Start Date	Approved Completion Date	Approved Budget
10035575 SJPL Valve and Safe Entry Improvement	07/01/19	02/28/29	$157,752,191
10041725 SJPL Valve Remote Control and Monitoring	10/01/24	12/31/28	$38,742,631
10014072 HHW- Water Project Development	03/26/12	06/30/34	$12,914,599
10014079 Cherry-Eleanor Pumps	01/01/25	06/30/31	$38,798,254
10014086 Moccasin Powerhouse and GSU Rehabilitation	09/18/20	12/31/28	$100,556,003
10036809 HHW - Moccasin Powerhouse Bypass Upgrade	09/18/20	12/01/27	$41,055,930
10039568 Moccasin Switchyard Rehabilitation	11/01/22	01/31/30	$19,708,331
10014087 Warnerville Substation Rehabilitation	09/01/15	11/25/26	$37,407,004
10035721 Transmission Lines 7/8 Upgrades	12/02/19	01/31/25	$37,327,197
10014089 Transmission Lines Clearance Mitigation	07/01/17	06/30/29	$83,680,760
10014092 HHW- Power Project Development	05/29/12	06/30/34	$17,873,700
10014088 Moccasin Penstock Rehabilitation	02/03/14	12/08/34	$331,171,945
10039680 Moccasin Engineering and Records Building	12/14/22	05/31/29	$88,733,548
10041727 Moccasin Warehouse Building	01/01/25	04/01/31	$26,290,356
10039119 Early Intake Dam - Long Term	07/01/23	12/31/35	$100,072,055
10037351 Moccasin Dam & Reservoir Long Term Improvement	05/03/21	12/31/34	$142,187,984
10014115 Cherry Dam Spillway - Short Term Improvements	03/01/21	06/30/27	$14,885,874
10032903 O'Shaughnessy Dam Outlet Works Phase 1	02/01/18	12/31/25	$43,731,371
CUH102-N03 O'Shaughnessy Dam Outlet Works Phase 2	07/01/25	12/31/41	$184,106,942
10030759 Eleanor Dam Rehabilitation	06/01/20	12/31/38	$113,873,604
10014114 Mountain Tunnel Improvement Project	10/03/11	06/03/27	$268,668,950
10037077 Moccasin Old Powerhouse Hazard Mitigation	01/01/21	07/01/32	$13,474,515
10014108 Canyon Tunnel - Hetchy Adit Rehab & OSH Bridge	02/03/14	12/31/30	$30,138,401
10014110 Moccasin Wastewater Treatment Plant	01/03/22	02/20/28	$15,376,737
10014116 PD HHW-Joint Project Development	06/25/12	06/30/34	$58,285,953

APPENDIX C. LIST OF ACRONYMS

AAR	Alternative Analysis Report
CEQA	California Environmental Quality Act
CER	Conceptual Engineering Report
CIP	Capital Improvement Program
CSE	Common Sense Exemption
EIR	Environmental Impact Report
FCF	Flow Control Facility
GSU	Generator Step-Up
GWH	Gigawatt Hours
HCIP	Hetch Hetchy Capital Improvement Program
HHWP	Hetch Hetchy Water and Power
IFR	Instream Flow Release
IPS	Influent Pump Station
MND	Mitigated Negative Declaration
NAR	Needs Assessment Report
NTP	Notice to Proceed
PD	Project Description
PL	Planning
RFQ&P	Request for Qualifications and Proposals
R&R	Renewal and Replacement
SBR	Sequential Batch Reactor
SF	San Francisco
SFPUC	San Francisco Public Utilities Commission
TBD	To Be Determined