



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

San Francisco Public Utilities Commission FY 2024-25 to FY 2033-34 10-Year Capital Plan

Adopted February 13, 2024

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1. Executive Summary

The San Francisco Public Utilities Commission (SFPUC) developed a balanced 10-Year Capital Improvement Plan totaling \$11.8 Billion (B). The plan prioritizes projects that ensure the continued reliable and compliant operation of the SFPUC's Water, Wastewater, Hetch Hetchy Water, and Power (including CleanPowerSF) systems, while acknowledging the need for responsible financial stewardship for our ratepayers.

Highlights

- The plan outlines the SFPUC's FY 2024-25 and FY 2025-26 2-Year Capital Budget for the Water, Power, and Wastewater enterprises.
- The plan was developed with an emphasis on addressing quality of life issues like economic vitality, supporting good paying jobs, addressing the impacts of climate change, and benefits for local communities and the larger region impacted by the Capital Improvement Plan.
- The plan \$3 B larger over the 10-year horizon versus the most recent iteration. The increases were accounted for by balancing affordability amongst the growing caseload of projects related to climate change impacts and projects driven by regulatory mandates inducing previously unaccounted for cost pressures.
- The Wastewater Enterprise has the largest share of the plan at 51%, followed by Water at 25%, Hetch Hetchy Water at 13% and Power (including CleanPowerSF) at 10%.
- Key projects funded in this capital plan include the completion of the Biosolids Digester Facilities Project, the Southeast Plant Nutrient Reduction project, the Millbrae Yard Campus Improvements, the new City Distribution Division Headquarters, Moccasin Penstock Rehabilitation, stormwater and flood resistance projects, treatment plant improvements, Public Power expansion, repair projects, carbon reduction projects, and replacement of sewer and water mains throughout the system.

Why does a publicly owned utility need to make capital investments?

Capital investments extend the useful life of SFPUC infrastructure and ensure the continued reliable and compliant operation of enterprise systems. These systems are essential for delivering some of the cleanest drinking water in the United States, protecting public health and the environment with the only combined stormwater and sewer system in coastal California, providing affordable clean energy for municipal needs through a public power system, and providing clean energy to over 350,000 retail customers within the City and County of San Francisco.

Capital Plan Assessment and Funding Strategy

The SFPUC 10-Year Capital Improvement Plan assesses the agency's capital needs, aligned with the Commission's strategic goals, and the required investments to meet those demands. Funding capital priorities is the most significant portion of the SFPUC's operating budget. The capital plan is 78% debt funded and 22% revenue funded. Debt service to support capital expenditures as well as revenue-funded capital expenditures make up over one third of the total operating budget, a share that is projected to continue to grow to half over the 10-year period.

The table below shows the capital plan by enterprise.

Table 1. FY2024-25 to FY 2033-34 SFPUC Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Uses											
Water	456.0	477.2	514.2	368.7	280.0	243.2	232.8	147.7	128.0	107.0	2,954.8
Wastewater	892.5	822.9	908.9	532.3	325.1	339.3	399.0	524.5	670.3	624.9	6,039.7
Hetchy-Water	152.8	180.8	165.8	184.3	112.2	172.6	213.4	191.4	81.5	78.9	1,533.7
Hetchy-Local Power	52.0	85.4	125.0	154.1	127.1	148.5	163.1	165.5	110.0	104.1	1,234.8
CleanPowerSF	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5
Total Uses	1,553.9	1,566.8	1,714.3	1,239.9	845.1	909.8	1,023.8	1,052.6	989.9	915.4	11,811.5
Sources											
Revenue Funded	245.3	288.6	268.8	258.1	230.6	261.2	267.2	280.3	277.1	285.6	2,662.8
Debt Funded	1,308.6	1,278.2	1,445.5	981.8	614.5	645.6	756.6	772.3	712.8	629.8	9,148.7
Total Sources	1,553.9	1,566.8	1,714.3	1,239.9	845.1	909.8	1,023.8	1,052.6	989.9	915.4	11,811.5

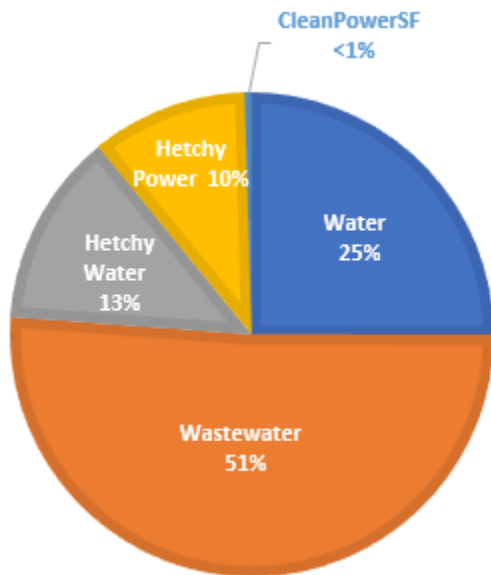


Figure 1. FY 2024-25 to FY 2033-34 Capital Plan

As the SFPUC's largest cost driver, the 10-Year Capital Improvement Plan is the primary determinant of rate growth for our customers. The SFPUC has made a significant effort to develop a capital budget and 10-year plan that is both **deliverable** and **affordable** for our ratepayers given the external cost pressures on the Agency such as federal regulatory requirements, climate change, and the demands of maintaining a sound system. Over the past year, staff from across the agency have worked diligently and collaboratively to develop capital plan proposals that are both realistically achievable and financially sustainable.

Improvements and Financial Considerations Made in Developing this Capital Improvement Plan

To enhance the planning process and deliverability of the capital plan, the SFPUC has implemented the Capital Planning Improvement Initiative, whose goals include unifying planning, budgeting, and development across enterprises, better aligning budgets with delivery capacity and increasing project completion rates.

Over the past 10 years, the combined water and wastewater bill has increased by over 68%, and the financial plans project an increase of 117% over the next 10 years for San Francisco ratepayers. When enterprises across the agency submitted their initial proposed capital plans for internal consideration, the capital plans totaled over \$14.5 B. The \$2.7 B reduction undertaken by SFPUC staff during the budget development process reflects the commitment of the Agency to prioritize projects based on risk metrics and regulatory requirements, rightsizing budgets based on delivery capacity, and ensuring efficient use of existing project funds.

Economic Impact, Labor Commitment, and Addressing the Impacts of Climate Change

By investing in critical upgrades and modernization, the plan creates a fertile ground for businesses to flourish and attract investment – creating jobs in the process of project development and delivery. Improved energy grids, reliable water systems, and robust wastewater treatment ensure smooth operations for existing companies and entice new ones to set up shop, creating economic vibrancy, and bolstering the city's tax base. The multiplier effect of investment translates to more jobs, higher wages, and a strengthened economic base.

The Capital Improvement Plan also champions the wellbeing of our workforce. The construction and maintenance projects generated by the Capital Improvement Plan result in high-paying, fair-wage opportunities with comprehensive benefits. These jobs prioritize union labor, ensuring workers receive fair compensation, safe working conditions, and a secure future. By investing in skilled labor, the plan not only empowers individuals but also strengthens San Francisco and the surrounding Bay Area's middle class, creating a ripple effect that benefits the entire community.

Recognizing the historical inequities in infrastructure investment, the Capital Improvement Plan actively seeks to bridge the gap. It prioritizes projects in historically disadvantaged communities. These investments go beyond mere infrastructure upgrades; they represent a commitment to correcting past injustices and ensuring equal access to vital utilities, boosting the quality of life for all residents.

The 10-Year Capital Improvement Plan does not shy away from the pressing challenge of climate change. It champions a proactive approach, prioritizing projects that reduce carbon emissions, lessen the impacts of sea-level rise, contribute to a healthy San Francisco Bay ecosystem, increase energy efficiency, and foster resilience in the face of extreme weather events. By prioritizing sustainability and climate action, the Capital Improvement Plan safeguards the City's future, protects its environment, and paves the way for a carbon free future.

Conclusion

The SFPUC's 10-Year Capital Improvement Plan is a strategic approach to maintaining and enhancing critical infrastructure that serves ratepayers. By investing in essential projects while constraining costs, the SFPUC will continue to provide clean drinking water, protect public health and the environment, and provide clean energy for municipal needs for generations to come.

2. What is the 10-Year Capital Improvement Plan?

The SFPUC is entrusted with the critical responsibility of providing vital water, wastewater, and power services to San Francisco, as well as providing essential water services to millions of residents across the Bay Area. To fulfill this mission effectively, the SFPUC requires a comprehensive and forward-looking plan for investing in and maintaining its extensive infrastructure. This blueprint for the future takes the form of the 10-Year Capital Improvement Plan, a dynamic document mandated by the City Charter and crucial for ensuring reliable and resilient services for generations to come.

The 10-Year Capital Improvement Plan is not merely a static list of projects; it is a data-driven roadmap that anticipates future infrastructure needs. Built on robust risk analysis of current assets, projected customer growth, evolving regulations, and emerging technologies, the plan provides a long-range forecast of capital investments required across the SFPUC's three enterprises: Water, Wastewater, and Power. The Capital Improvement Plan is updated biennially, not simply as a compliance requirement, but as a proactive approach to adapting to changing circumstances and ensuring financial sustainability.

The development of the Capital Improvement Plan goes beyond broad generalizations. It is structured around high-level project categories and program needs, each addressing critical areas like system resilience, drought resilience, climate change adaptation, renewable energy integration, technology adoption, or wastewater treatment modernization. Each category then delves deeper into individual projects, presenting detailed project data sheets. These sheets outline the project's scope, timeline, estimated cost, and can include potential funding sources. This granularity facilitates targeted action, allowing the SFPUC to prioritize projects based on their urgency, impact, and alignment with Agency strategic goals.

The plan includes the integration of a 2-year capital budget, outlining the specific projects prioritized for funding within the next two fiscal years. This budget was established considering ratepayer revenue, debt issuance, and long-term affordability of generational investments.

Complementing the 2-year budget and 10-Year Capital Improvement Plan is this comprehensive Capital Plan Report. This report serves as a transparent account of the Capital Improvement Plan, demystifying the rationale behind project selections, funding strategies, and anticipated community benefits. It includes detailed financial projections, risk assessments, and performance metrics, allowing for ratepayers and other stakeholders to track progress and hold the SFPUC accountable for delivering projects on time and within budget.

3. Overview of the Current and Proposed Capital Improvement Plan

The following provides a high-level outline as to how the SFPUC's 10-Year Capital Improvement Plan continues to involve.

FY 2024-33 Capital Plan (Last Year)

Last year's Capital Plan had total expenditures (uses) of \$8.8 B and total sources of \$8.8 B leading to a balanced capital plan. The following table summarizes the entire capital plan.

Table 2. FY2023-24 to FY 2032-33 Capital Plan

\$million	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	Total
Uses											
Water	290.0	437.3	443.7	337.4	245.4	118.2	85.3	83.7	80.4	142.6	2,263.9
Wastewater	985.5	894.5	818.4	521.1	353.6	280.5	232.6	214.7	253.2	325.2	4,879.4
Hetchy Water	85.9	155.6	152.6	141.6	94.6	99.6	100.0	57.5	47.4	42.3	976.9
Hetchy Power	21.5	77.7	92.7	89.1	81.5	55.0	48.8	46.1	43.1	40.0	595.5
CleanPowerSF	1.6	2.9	3.0	3.0	3.1	3.3	8.9	18.1	26.3	2.8	73.0
Total Uses	1,384.5	1,568.1	1,510.3	1,092.2	778.2	556.5	475.6	420.2	450.3	552.9	8,788.7
Sources											
Revenue Funded	154.3	217.7	230.5	222.1	216.3	234.6	241.2	237.5	256.4	225.1	2,235.6
Debt Funded	1,230.2	1,350.4	1,279.8	870.1	561.9	322.0	234.4	182.7	193.9	327.7	6,553.1
Total Sources	1,384.5	1,568.1	1,510.3	1,092.2	778.2	556.5	475.6	420.2	450.3	552.9	8,788.7

FY 2025-34 Capital Plan (This Year)

This year's balanced Capital Plan has total expenditures (uses) of \$11.8 B and total sources of \$11.8 B. The following table summarizes the entire capital plan, followed by a table for each enterprise.

Table 3. FY2024-25 to FY 2033-34 Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Uses											
Water	456.0	477.2	514.2	368.7	280.0	243.2	232.8	147.7	128.0	107.0	2,954.8
Wastewater	892.5	822.9	908.9	532.3	325.1	339.3	399.0	524.5	670.3	624.9	6,039.7
Hetchy Water	152.8	180.8	165.8	184.3	112.2	172.6	213.4	191.4	81.5	78.9	1,533.7
Hetchy Power	52.0	85.4	125.0	154.1	127.1	148.5	163.1	165.5	110.0	104.1	1,234.8
CleanPowerSF	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5
Total Uses	1,553.9	1,566.8	1,714.3	1,239.9	845.1	909.8	1,023.8	1,052.6	989.9	915.4	11,811.5
Sources											
Revenue Funded	245.3	288.6	268.8	258.1	230.6	261.2	267.2	280.3	277.1	285.6	2,662.8
Debt Funded	1,308.6	1,278.2	1,445.5	981.8	614.5	648.6	756.6	772.3	712.8	629.8	9,148.7
Total Sources	1,553.9	1,566.8	1,714.3	1,239.9	845.1	909.8	1,023.8	1,052.6	989.9	915.4	11,811.5

Water

Table 4. Water FY2024-25 to FY 2033-34 Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Sources	456.0	477.2	514.2	368.7	280.0	243.2	232.8	147.7	128.0	107.0	2,954.8
Uses											
Water - Regional	218.7	139.8	262.5	277.9	209.0	178.4	163.7	76.6	60.0	39.8	1,626.4
Water - Local	237.3	337.4	251.7	90.8	71.0	64.8	69.1	71.1	68.0	67.2	1,128.4
Water-Totals	456.0	477.2	514.2	368.7	280.0	243.2	232.8	147.7	128.0	107.0	2,954.8

Hetch Hetchy Water

Table 5. Hetch Hetchy Water FY2024-25 to FY 2033-34 Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Sources	152.8	180.8	165.8	184.3	112.2	172.6	213.4	191.4	81.5	79.0	1,533.7
Uses											
Hetchy Water-Water	56.1	57.1	47.4	42.5	6.6	5.2	5.2	5.2	5.6	6.4	237.3
Hetchy Water-Power	25.7	61.1	62.6	59.6	29.0	9.4	4.1	6.9	19.3	13.1	290.8
Hetchy Water-Joint	71.0	62.6	55.8	82.2	76.6	158.0	204.1	179.3	56.6	59.9	1,005.6
Hetchy Water Total	152.8	180.8	165.8	184.3	112.2	172.6	213.4	191.4	81.5	79.0	1,533.7

Wastewater

Table 6. Wastewater FY2024-25 to FY 2033-34 Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Sources	892.5	822.9	908.9	532.3	325.1	339.3	399.0	524.5	670.3	624.9	6,039.7
Uses											
SSIP	638.4	594.4	689.9	350.8	156.7	158.2	212.4	325.0	464.8	411.7	4,002.3
Non-SSIP	254.1	228.5	219.0	181.5	168.4	181.1	186.6	199.5	205.5	213.2	2,037.4
Wastewater Total	892.5	822.9	908.9	532.3	325.1	339.3	399.0	524.5	670.3	624.9	6,039.7

Hetch Hetchy Power

Table 7. Hetchy Power FY2024-25 to FY 2033-34 Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Sources	52.0	85.4	125.0	154.1	127.1	148.5	163.1	165.5	110.0	104.1	1,234.8
Uses											
Hetchy Power	52.0	85.4	125.0	154.1	127.1	148.5	163.1	165.5	110.0	104.1	1,234.8
Hetchy Power Total	52.0	85.4	125.0	154.1	127.1	148.5	163.1	165.5	110.0	104.1	1,234.8

CleanPowerSF

Table 8. CleanPowerSF FY2024-25 to FY 2033-34 Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Sources	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5
Uses											
CleanPowerSF	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5
CleanPowerSF Total	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5

10-Year Capital Plan Comparison

The FY 2025-24 Capital Plan update represents an 34% increase in total size from last year's proposed expenditures, reflecting a \$3 B increase from \$8.8 B last year to \$11.8 B this year. This significant increase is due to the cost pressures the SFPUC is facing, especially related to regulatory requirements, the climate crisis, and repair and replacement of aging infrastructure. Even though the capital plan has grown by 34%, this represents a significant reduction and de-prioritization of other important projects from the initial capital proposal that was discussed internally, which totaled \$14.5 B. The \$2.7 B reduction and de-prioritization of many needed capital projects reflects the challenging data driven decisions that the SFPUC made to deliver an affordable capital plan with a focus on deliverability and long-term affordable rates.

The following table shows the capital plan comparison by enterprise:

Table 9. Capital Plan Comparison

\$million	FY2023-24: Uses	FY2024-25 & FY2025-26: Uses	Difference
Water	2,263.9	2,954.8	690.9
Wastewater	4,879.3	6,039.7	1,160.4
Hetchy-Water	976.9	1,533.7	556.8
Hetchy-Power	595.5	1,234.8	639.3
CleanPowerSF	73.0	48.5	-24.53
Total	8,788.7	11,811.5	3,022.8

Wastewater

The largest driver of increases versus last year is the Wastewater Enterprise. Wastewater has the largest share of the capital plan. The roughly \$1.2 B increase is primarily driven by costs increases in existing projects and the inclusion of the regulatory-driven Southeast Plant Mainstream Nutrient Reduction project (the Nutrient Reduction Project). Over \$1 B of the increase is due to the addition of the Nutrient Reduction Project, which is intended to reduce the amount of nitrogen that would be discharged from the Southeast Wastewater Treatment Plant to San Francisco Bay. SFPUC recognizes that reducing nutrient loading into San Francisco Bay is one of the most pressing water quality issues facing our region and is critical to the health of the Bay. This significant investment is one that SFPUC does not make lightly, and in addition to being driven by anticipated regulations, is in line with our core values in providing reliable wastewater treatment for San Francisco residents and in keeping pollutants out of our bay and ocean. The inclusion of the Southeast Outfall project will also contribute to a substantial increase in Wastewater’s capital plan. Outside of this 10-Year Capital Improvement Plan there are likely to be significant costs associated with this project. Other cost increases in this Capital Improvement Plan are due to increases in existing projects are from the Biosolids Digester Project and the Folsom Area Stormwater Improvements Project. Despite extensive contractor engagement and various bid approaches on the Biosolids Digester Project, there was still reduced competition for the bids due to the limited qualified contractors that were able to obtain bonds for the size and complexity of the work packages. The bid climate, coupled with material costs increases, resulted in higher than anticipated bid costs in the Biosolids Digester project. The cost increases for the Folsom Area Stormwater Improvements Project reflect the higher design costs and anticipated construction durations due to the added complexity of the tunnel and large sewer boxes work in congested city streets. This year’s plan aims to be more transparent than ever noting that there are many unknowns, though the SFPUC is doing what it can to forecast now for major future cost pressures associated with these projects. These figures are liable to change as projects are further refined and moved from planning to action stages.

Water

In the Water Enterprise, the approximately \$691 M increase includes \$187 M in the Millbrae Yard Campus Improvements project. This project is vital to ensuring that adequate testing of water is taking place, ensuring the continued highest quality of water be available for regional and local ratepayers. The updated facilities will also provide improved worker safety and productivity and be more resilient with respect to natural disasters by replacing the seismically unsafe Burlingame facility lessening the likelihood of interrupted water service. Other significant increases in the 10-Year Capital Improvement Plan include over \$150 M of additional funding for water main maintenance and replacement, and new high priority projects responsible for replacing aging infrastructure that are entering the 10-Year Capital

Improvement Plan. Replacing aging and failing water mains prevents leaks and bursts, reducing water loss and minimizing service disruptions. This translates to more consistent and reliable water supply for ratepayers.

Hetch Hetchy Water and Power

Hetch Hetchy Water and Power is making strategic investments to ensure uninterrupted water and power for decades to come. While the combined Hetch Hetchy Water and Power plan involves a \$1.2 B increase, the long-term benefits for SFPUC ratepayers and the Bay Area are significant. One of the largest drivers of the increase is the \$285 M upgrade to the Moccasin Penstocks, safeguarding reliable water flow by extending its life by 75-100 years. This proactive measure avoids costly disruptions and secures stable water access for future generations. Similarly, the \$94 M improvement to the San Francisco International Airport (SFO) Substation ensures continued power supply to meet the growing demands of the airport. Furthermore, Hetch Hetchy Water and Power is paving the way for a carbon-free future with projects like the \$120 M Hetch Hetchy Power Intervening Facilities and the \$217 M Carbon Free Steam, and others like the Port of Oakland Substation and the San Francisco Municipal Transportation Agency (SFMTA) Electrification projects. These investments align with SFPUC's vision and benefit the Bay Area by lessening the impacts of climate change.

CleanPowerSF

CleanPowerSF's capital plan decreased by \$24.5 M. Many of these projects were converted from capital projects to programmatic projects in the operating budget.

Context of Capital Plan Increases

While the \$3 B increase in this year's Capital Improvement Plan is eyebrow raising, it is important to remember that this reflects not just rising costs, but proactive investments related to new regulatory requirements, the climate crisis, and a growing Power customer load.

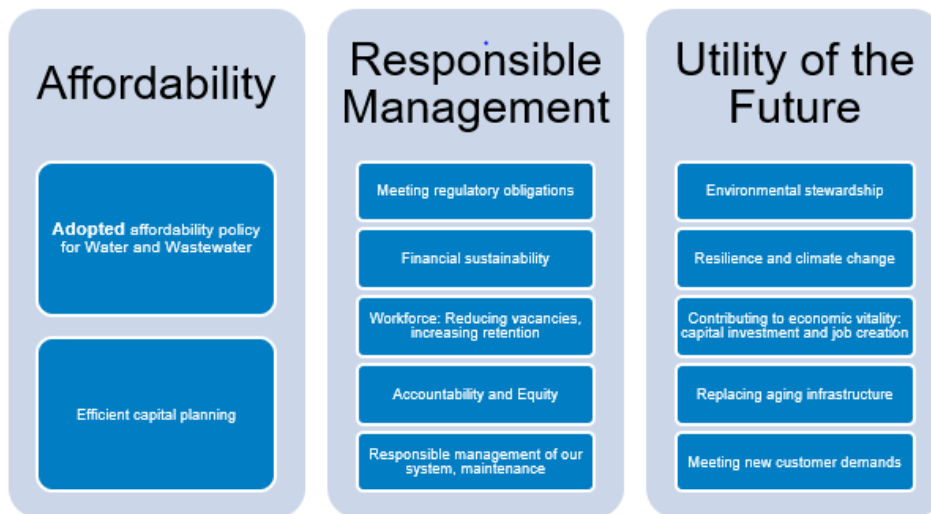
The plan reflects realities like inflation and new regulatory requirements, but that only tells a part of the story. This plan underwent significant scrutiny, shaving over \$2.7 B from initial proposals. Moreover, the Capital Finance and Financial Planning teams have meticulously spread the costs over the next ten years, minimizing immediate rate increases and ensuring affordable, gradual adjustments over the long term.

It is important to consider this plan in the context of its benefits – a healthier Bay, and City powered by clean energy. This plan represents an investment ensuring San Francisco and the Bay Area's livability for generations to come.

4. The FY2025-34 Capital Improvement Planning Process and Key Considerations

The year 2023 marked a pivotal shift in the SFPUC's Capital Planning and Budgeting process. This year ushered in a wave of unavoidable growth, demanding innovative approaches and a renewed focus on responsible stewardship and affordability amidst the unprecedented actions of the Federal Reserve raising interest rates to confront inflationary pressures – causing the SFPUC to plan for higher long-term borrowing costs. The following summarizes how the SFPUC charted a course amidst increasing capital needs and requirements, prioritizing transparency, and cost-containment measures every step of the way. For additional context, the graphic below includes the themes outlined at the beginning of this year's capital planning and budgeting process:

Figure 1. Budget Priorities.



1

Affordability

A defining feature of 2023 and this year's capital planning and budgeting process was the implementation of the Affordability Policy. This policy cemented the SFPUC's commitment to balancing vital infrastructure investments with ratepayer burden – especially the SFPUC's most economically disadvantaged ratepayers. Adopted by the Commission in November 2023, the Affordability Policy establishes agency-wide, retail performance metrics for (1) a typical household & (2) a low-income household and Water & Sewer bill targets to evaluate the impact of the SFPUC's operating and capital budget on future residential rates. Each enterprise is required to measure its average individually metered residential bill as a percentage of the 40th percentile income (Typical Customer Affordability Metric) and as a percentage of the 20th percentile income (Low Income Customer Affordability Metric) within a 20-year planning horizon.

Water and Sewer bills will target less than 3% of the Typical Customer's income, less than 7% of the Low-Income Customer's income using standard rates, and less than 5% of Low-Income Customer's income after accounting for enrollment in applicable bill discount programs. The CleanPowerSF and Hetch Hetchy Power bills will be evaluated under this policy, but the target for power affordability will be developed and included in a future version of this policy.

¹ Figure 1. Budget Priorities.

If targets are unable to be met, each impacted enterprise will include with their budget proposal to the Commission (1) an identification of which targets are exceeded, (2) the rationale for exceeding the targets, and (3) proposed strategies to address affordability. The Affordability Policy reflects the Commission's commitment to consider the burden imposed by SFPUC bills on ratepayers and emphasizes customer rate affordability as a foundational priority in achieving all its Charter and other legal requirements, underlying its credibility with ratepayers and its authority to provide utility services.

The SFPUC is projected to meet its affordability targets and conform with the new policy. For more information on this, and on efforts the SFPUC is taking to make the Capital Improvement Plan affordable for ratepayers, please refer to the FY2025-2034 Financial Plan.

Capital Planning Improvement Initiative

The Agency's new Capital Planning Improvement Initiative made significant strides in unifying approaches across SFPUC enterprises, making the governance and standardization of enterprise Capital Improvement Plan development sounder, improving budget preparation and guidance, and ensuring project deliverability. After a thorough assessment, the program implemented new tools, established clear roles, and developed 10-Year Capital Improvement Plan Development Guidelines.

The 10-Year Capital Improvement Plan Development Guidelines Capital Improvement Plan document represented the first deliverable from the Capital Planning Improvement Initiative. The Guidelines outline the 10-year Capital Improvement Plan Development Process, Expectations, & Timeline. The objective is to describe the processes and best practices that the 10-year Capital Improvement Plan development teams should follow, from defining staffing assignments to reviewing all projects in the last 10-year Capital Improvement Plan and new projects, conducting a deliverability review, and finalization. The traditional budget instructions normally provided by Finance formed part of this overall framework for capital planning. The 10-Year Capital Improvement Plan Development Guidelines document was intended to complement the annual Budget Instructions (further information on the Budget Instructions provided below).

These efforts led to a more efficient budget development process, with enterprises more transparently prioritizing projects based on deliverability and affordability – in addition to the risk, criticality, and required investment due to regulations. While challenges remain, the program's continuous improvement efforts are paving the way for a more unified, efficient, and sustainable capital planning process for the SFPUC.

Budget Instructions

This year's Budget Instructions provided financial parameters for planning, outlining various scenarios that modeled the financial implications of different funding levels and their impact on average monthly residential bills across income brackets. This granular detail empowered informed decision-making throughout the iterative review process. After enterprises developed their initial proposals totaling roughly \$14.5 B capital budgets, the Weekly Budget Steering Committee meetings, held throughout the fall of 2023 and led by key leadership, enabled rigorous discussions and de-prioritization of important SFPUC projects. These sessions delved into capital plans, assessed their operational and rate impacts, and ultimately forged a consensus on a capital budget recommendation for the General Manager's review and approval. Discussions encompassed a broad spectrum of considerations, from overall financial planning and the Affordability Policy to racial equity considerations and the nuanced risks associated with both under-investment and excessive rate increases.

Constraining Costs for Sustainable Growth

Recognizing the potential impact of a larger capital plan, the SFPUC implemented several cost-containment measures. Rigorous project prioritization of critical needs, long-term cost-effectiveness, and phased implementation spread the financial burden over the 10-year horizon, minimizing immediate rate increases.

Nonetheless, the Capital Improvement Plan is SFPUC’s largest cost driver, significantly impacting rate growth for customers. Over the next decade, the share of the operating budget dedicated to debt service and revenue-funded capital is projected to rise across the three Enterprises from 45% to 56%, with Wastewater seeing the largest dollar increases. Along with increases in operating expenses, this translates to a projected 117% increase in the combined Water/Wastewater bill during the 10-year period, a stark reminder of the financial implications of our infrastructure investments.

	% Capital FY 2024-25	% Capital FY 2033-34
Water	57%	61%
Wastewater	50%	72%
HHWP	8%	24%

Table 10. Share of operating budget dedicated to capital uses

Power purchase and transmission and distribution costs, SFPUC’s second largest cost driver, face similar pressures. Rising electricity market prices – nearly tripling since 2020, as well as rising costs from PG&E to deliver power – necessitate a delicate balancing act with capital costs.

As the SFPUC’s capital program expands, the SFPUC spreads the costs over intergenerational users by issuing debt, so that current ratepayers do not fully bear the burden of facilities that will be used for many decades to come. The SFPUC also does this by issuing low-cost, advantaged financing in the form of tax-exempt bonds, State revolving fund loans and various federal borrowing tools. As of September 1, 2023, SFPUC’s outstanding debt was approximately \$7.8 B in Bonds and Notes, \$134 M in subordinate debt, and an additional \$2.8 B in executed Federal and State Loans. The 10-Year Capital Improvement Plan is approximately 78% debt funded, and as such the 10-Year Financial Plan projects an anticipated additional debt issuance by FY 2033-34 of \$11.1 B.

In 2023, the Federal Reserve made an unprecedented 11 interest rate increases to raise interest rates and stem inflationary pressures. While some modest relief is expected in 2024, the Fed’s actions have dramatically increased the cost of borrowing compared to the previous low rates. As a result of these actions, and, guided by external financial advisors, we have revised the long-term interest rate assumption in our models from 5% to 6%. While this rate change has affected projected borrowing costs, making future debt more expensive and increases future project costs to the extent they are debt-funded.

Inflationary pressures, stricter regulations, and climate change are making it more challenging to keep the Capital Improvement Plan affordable. Aging infrastructure across all systems requires urgent upgrades, especially in public power, adding another layer of budgetary complexity. Unforeseen events like the roughly \$80 M damage from the 2022 and 2023 winter storms serve as stark reminders of potential financial uncertainty. Despite these uncertainties, the SFPUC is actively working to reduce the ratepayer burden, while envisioning a future where investments in alternative water systems, promise to mitigate the impact of California’s drought cycles on water delivery and affordability in the future. The

proximity of the Water and Wastewater plans to their affordability targets makes staying on budget and delivering on promises even more critical to ensuring the on-time and within budget delivery of this Capital Improvement Plan.

Aligning Proposed Appropriations with Expenditures: Deliverability

Historically, the SFPUC faced challenges aligning capital appropriations with actual expenditures. However, significant progress has been made. A \$300 M (12%) decrease in unspent appropriated funds since last year exemplifies a renewed focus on responsible resource allocation. Furthermore, during the capital planning process the SFPUC identified \$108 M in inactive projects which staff are currently working to close-out and de-appropriate. Spending down existing appropriations before requesting new funds has been a core factor in our deliverability analysis this year. Existing appropriations were taken into full account when considering requests for new funds

Even within the larger scope of the 10-Year Capital Improvement Plan, projects have been rigorously scrutinized for deliverability. Some projects have seen cost increases, requiring no additional contracts but simply adjusting the value, and some projects will be delivered by other City entities, with the appropriation remaining within the SFPUC's budget.

Navigating the complex logistics of deliverability in this Capital Improvement Plan, each enterprise employs a tailored approach to ensure efficient project delivery. The Wastewater Enterprise strategically phases in new initiatives like the Nutrients Reduction and Southeast Outfall projects, leveraging existing resources for ongoing construction while keeping future phases manageable. Water takes a long-term view, prioritizing critical projects already in progress and diligently executing on existing appropriations. Hetch Hetchy Water dedicates resources to ongoing projects, while the overall Capital Improvement Plan is evenly distributed year-by-year to avoid overloading resources. Hetchy Power, recognizing external support, focuses on projects where other entities play a substantial role, like the Downtown Ferry, Carbon Free Steam Loop, and San Francisco International Airport Substation. This cooperative approach across enterprises leverages diverse strengths and ensures the timely completion of projects crucial to San Francisco's future.

Historical analysis of capital spending

Table 11. Available balance as of July 1, 2023

	Carried forward Balance	FY 2023-24 appropriation	Encumbrances	Total available balance
Water	\$639,148,382	\$289,992,804	\$167,817,639	\$761,323,547
Hetchy Water	\$295,778,483	\$85,888,257	\$144,779,598	\$236,887,142
Wastewater	\$1,399,976,449	\$985,504,159	\$819,971,746	\$1,493,508,862
Hetchy Power	\$221,975,251	\$21,524,894	\$53,711,099	\$189,789,047
CleanPowerSF	\$17,035,758	\$1,607,220	\$660,169	\$17,982,808
Total	\$2,573,914,323	\$1,384,517,334	\$1,258,940,252	\$2,699,491,405

This commitment to budget responsibility continues with this year's request for a realistic appropriation level, utilizable within the fiscal year, thus working to reduce the amount of funds carried forward to future years. These positive steps underscore the ongoing effort to align spending with investment priorities and ensure efficient use of public resources.

The 2023 Capital Planning and Budgeting process stands as a testament to the SFPUC's commitment to navigating growth responsibly. By embracing transparency, stakeholder engagement, and a focus on affordability, the SFPUC has charted a course for sustainable growth, ensuring its long-term financial health and its ability to deliver reliable and essential services to all residents. This journey showcases the SFPUC's unwavering dedication to its mission, paving the way for a future where robust infrastructure supports a thriving and equitable San Francisco, all within the boundaries of responsible rate-setting practices.

5. Economic, Labor, and Climate Change Benefits of this Plan

The SFPUC's ambitious Capital Improvement Plan is not only aimed at maintaining a reliable system; it's about building a stronger, more resilient, and equitable future for San Francisco and the wider region. The benefits of this plan extend far beyond the immediate construction phase, creating a ripple effect of economic growth, skilled labor opportunities, and environmental progress addressing climate change that will benefit generations to come.

Economic Vitality: Sustaining Jobs, Strengthening San Francisco

The scale of the SFPUC's Capital Improvement Plan is a catalyst for a continued local and regional economic stimulation. The \$11.8 B investment will pump an estimated \$9.4 B directly into construction, a sector vital to the Bay Area's economic vibrancy. The Board of Supervisors estimates that at least 80% of a City capital project's cost estimates will be attributed to construction costs based on project samples from the Department of Public Works.² These resources will continue the ripple effect of job creation, business growth, and increased tax revenue, strengthening the city's economic health and radiating benefits across diverse sectors within the region.

The investments made through the 10-Year Capital Improvement Plan reach beyond the borders of the City and County of San Francisco, as the SFPUC delivers water to over 2 million residents in five counties. In addition, many of the capital projects are in our regional Hetch Hetchy system, which extends across California: south on the peninsula and east to the Sierra Nevada. The Hetch Hetchy system, a vital artery for San Francisco Bay Area's water supply, will be responsibly maintained, ensuring reliable delivery for generations to come. Projects proposed in this capital plan, such as upgrades to the power and water system, will benefit Moccasin and nearby communities. This ripple effect extends statewide, with benefits to California's agricultural industry and environmental resources. Our investments strengthen Bay Area Water Supply and Conservation Agency (BAWSCA) member agencies by ensuring reliable water delivery and supporting regional conservation efforts.

Using the City's established multiplier effect, it is estimated that \$9.4 B in construction spending will generate and sustain over 50,000 jobs over the next ten years.³ This isn't just about hard hats and heavy machinery; it's about a diverse list of employment opportunities. Skilled laborers and engineers will continue to be in high demand, shaping the physical infrastructure of the future. Architects, planners, and designers will envision and translate complex plans into reality. Truck drivers, material suppliers, and equipment operators will keep the construction engine humming. And even beyond the construction site, this economic wave will reach restaurants, retailers, and other service providers who meet the needs of a thriving workforce.

Given the multiplier effect, the jobs that this Capital Improvement Plan sustains will support the local economy. For example, restaurants, retailers, and service providers will be supported by the downstream impacts of this Capital Improvement Plan. This increased economic activity ripples through the community, generating valuable sales tax revenue that ultimately returns to the City, fueling further investment in vital services like homelessness, public safety, and street cleanliness.

Ultimately, the SFPUC's Capital Improvement Plan is not just an investment in today; it's a strategic step towards a more prosperous and equitable quality of life for residents of San Francisco, the Bay

² <https://sfbos.org/6-capital-project-design-costs>

³ <https://onesanfrancisco.org/the-plan-2020/appendices-methodology-and-assumptions>

Area region, and communities beyond, where thriving economies support healthy and vibrant communities.

Building a Stronger Bay Area Workforce: A Commitment to Labor

The SFPUC recognizes the critical role that strong unions play in building a thriving community. That is why the plan prioritizes partnerships with unionized construction workers. These partnerships offer numerous benefits. Union jobs offer competitive wages, ensuring a stable income for workers and their families. They also provide valuable benefits like health insurance, retirement plans, and training opportunities, contributing to long-term financial security and career development.

As one of the City's largest employers, the SFPUC is fostering a skilled and diverse local workforce that manages our water, power and sewer operations and is connected to the communities we call home. Our workforce development programs connect local youth and adults with learning, apprenticeship, job training, employment, and business opportunities. These programs support a strong, inclusive, local economy and a skilled, diverse, local workforce for today and tomorrow.⁴

Union construction workers are highly trained and experienced, ensuring high-quality work and efficient project completion. This benefits SFPUC ratepayers by minimizing delays and cost overruns. Much of the SFPUC's capital projects must adhere to the City's Local Hiring Policy, which mandates local residents perform a minimum of 30% of the work hours on capital projects over \$400,000.⁵ Most of the direct jobs funded by this Capital Improvement Plan will benefit unions like IFPTE Local 21, Laborers Local 261, SEIU 1021, and many others not specifically named here.

Examples of local jobs created by recent SFPUC CIPs is most evident with the completion of the Water System Improvement Program (WSIP) and the ongoing Sewer System Improvement Program (SSIP). The multi-billion-dollar Water System Improvement Program generated millions of work hours over the course of its construction, SSIP continues to do the same. The Sewer System Improvement Program is a 20-year, multibillion dollar investment to upgrade the City's 100-year-old sewage system. Most of the Sewer System Improvement Program's projects are being completed within the boundaries of the City and County of San Francisco and are subject to the City's Local Hiring Policy for Construction and First Source Hiring Policy. The potential skilled trades work opportunities for San Franciscans are unparalleled. In 2022, approximately 44% of the construction workers dedicated to SFPUC projects were San Francisco residents.⁶ Roughly 37% of all Sewer System Improvement Program construction work hours have been performed by San Francisco residents and 77% of all the apprentice hours have been performed by San Francisco resident apprentices. The executed Project Labor Agreement for SSIP ensures that these skilled trades jobs are directed to a unionized workforce reflecting pay rates generated by collective bargaining agreements.⁷

In addition to skilled labor, the SFPUC supports roughly 1,400 internships per year that span engineering finance, technology, and water, wastewater, and power resource planning and administration. This Capital Improvement Plan is an investment in the region's future utility workforce.

⁴ <https://sfpub.org/about-us/careers-sfpuc/workforce-development>

⁵ [CAC-ResourceGuide_CurrentVersion.pdf \(sfpub.org\)](#)

⁶ [2023 Local Hiring Policy Annual Report.pdf \(sf.gov\)](#)

⁷ https://sfgov.org/sfentry/sites/default/files/Documents/FINAL_LMA%20REPORT_03FEB2017.pdf

Building More Resilient Communities: Investing in Addressing Historic Injustice

This Capital Improvement Plan goes beyond economic benefits by incorporating projects designed to address historic injustices. Many communities in San Francisco have faced disproportionate environmental burdens and limited access to resources. The Capital Improvement Plan specifically focuses on these communities with projects that improve environmental quality and increase access to essential services. In 2009, the SFPUC passed an Environmental Justice Policy that commits to the goals of environmental justice to prevent, mitigate, and lessen disproportionate environmental impacts on communities in all SFPUC service areas and to ensure that public benefits are shared across all communities. Subsequently in 2011, the SFPUC adopted a Community Benefits Policy to codify its intent to be a good neighbor to residents living in neighborhoods impacted by SFPUC operations. The policy's operational criteria and guidelines have become standard features in SFPUC contracting documents. The Social Impact Partnership program awards bonus points in a competitive bidding process for firms seeking SFPUC contracts who voluntarily commit to giving back to the communities they would be working in. If awarded the contract, those contractors are required to complete the quantifiable and measurable commitments they made to provide financial contributions and/or volunteer hours to local public schools and nonprofits in the communities in which they perform work for the SFPUC.⁸

In the heart of Bayview-Hunter's Point, the SFPUC's Southeast Community Center is representative of healing and empowerment. For decades, this predominantly Black and Latinx community bore the brunt of environmental burdens. Now, the Community Center, designed in collaboration with residents, offers education, recreation, and essential services—a tangible investment in addressing historic injustice and building resilient communities. This vibrant hub fosters a sense of belonging and opportunity, serving as a powerful symbol of the SFPUC's commitment to a more equitable future where all residents can thrive.

The Capital Improvement Plan includes investments in green infrastructure that will benefit historically marginalized neighborhoods. The Capital Improvement Plan prioritizes upgrades to water and wastewater systems in underserved communities, ensuring everyone has access to clean and reliable water. These investments make transformational improvements in the quality of life of the SFPUC's most vulnerable ratepayers.

By investing in infrastructure that results in community benefits, the SFPUC's Capital Improvement Plan is not only developing critical infrastructure; it's building a more equitable and prosperous future for all San Franciscans.

Building a Healthier Bay Area: Responding to Impacts of the Climate Crisis

This plan reflects a deep commitment to building a resilient and sustainable future for San Francisco, encompassing a range of innovative projects that will directly address the challenges of climate change. Some examples of how the SFPUC is aiming to address the climate crisis are included in the following narrative. Note that this does not include an exhaustive list.

System resiliency: This vital initiative focuses on safeguarding San Francisco's water and wastewater systems against extreme weather events, seismic risk, and rising sea levels. By upgrading infrastructure and implementing preventative measures, the plan ensures uninterrupted access to these

⁸ https://sfpub.org/sites/default/files/about-us/policies-reports/CommunityBenefits%20Policy_JAN2011.pdf

crucial resources, even in the face of climate-induced disruptions. This not only protects public health and safety but also safeguards the city's economic and social well-being.

Nature-based solutions: Multi-faceted green infrastructure projects provide the foundation for more climate resilient communities. Green infrastructure isn't just about replacing concrete with plants. It's about a smarter, more sustainable approach to flood defense. It's about building with nature, not against it. By working with natural systems, we create resilient communities that thrive alongside the environment.

Reducing nitrogen loads in the Bay: Reducing nutrient loading into the San Francisco Bay is one of the most pressing water quality issues facing our region. The San Francisco Bay experienced a harmful algal bloom and fish kills in 2022 and a second in 2023. Nutrient loading in the Bay is among several factors that contributed to the blooms. Climate change is increasing the frequency and severity of blooms due to increases in water and air temperature. In addition, increases in droughts and flooding, changes in salinity, increased amounts of CO₂, sea level rise, and coastal upwelling are also contributing to the blooms. The SFPUC is developing a project that is needed to meet expected regulatory requirements.

Carbon Free Steam Generation: The Capital Improvement Plan prioritizes investments in clean energy projects like clean steam generation. This not only reduces San Francisco's reliance on fossil fuels but also generates significant carbon emission reductions. By moving towards cleaner energy sources, the city strengthens its commitment to climate action and sets a positive example for others to follow.

Alternative Water Supplies: Recognizing the increasing pressure on traditional water sources, the Capital Improvement Plan invests in innovative solutions like reservoir expansion, rainwater harvesting, greywater reuse, and recycled water, including purified water. These alternative systems reduce reliance on freshwater sources, ensuring sustainable water management for the future. This not only prepares San Francisco for potential droughts but also safeguards the ecological health of surrounding watersheds.

Sea Level Rise Protection: With rising sea levels posing a significant threat to coastal communities, the Capital Improvement Plan prioritizes projects that protect vital infrastructure and vulnerable areas, like the Ocean Beach Climate Adaptation project. This includes constructing a buried seawall, to protect Wastewater infrastructure, preserves and enhances coastal access, and implements roadway, safety, and parking changes. By proactively addressing sea level rise, this project and this plan protects vital assets and builds a more resilient coastline for the future.

Hetchy Power System: The Capital Improvement Plan reaffirms the SFPUC's commitment to the Hetchy Hetchy System, a vital source of clean hydropower. By investing in the system's modernization and efficiency with the Moccasin Penstocks project, the plan ensures continued access to reliable and renewable energy for generations to come. This not only contributes to energy independence but also strengthens San Francisco's leadership in the fight against climate change.

6. Water Capital Plan

Introduction

The Water Enterprise is responsible for the distribution of high-quality water to customers in San Francisco and three Bay Area counties. The Water Distribution System consists of several Regional Water Systems: Hetch Hetchy System; Regional Water System (East Bay), Regional Water System (Peninsula/West Bay) and the Local Water distribution which includes an In-City Distribution System.

Hetch Hetchy System: Water is diverted from the Tuolumne River into Hetch Hetchy Reservoir. Water then flows into a series of tunnels from the Sierra Nevada to the San Joaquin Pipelines. The pipelines cross the San Joaquin Valley to the Coast Range Tunnel where this unfiltered supply is disinfected. The disinfected water then connects to the Alameda system at the Alameda East Portal.

Regional Water System (East Bay): This includes two reservoirs, San Antonio Reservoir and Calaveras Reservoir, which collect water from the upper Alameda and San Antonio Creek watersheds in Alameda County which is then treated at the Sunol Valley Water Treatment Plant and then transported through conveyance facilities connecting the Hetch Hetchy System and Alameda water sources to the Peninsula System. These conveyance facilities include pipelines known as the Alameda Siphons that connect the Coast Range Tunnel to the Irvington Tunnel.

Regional Water System (Peninsula/West Bay): This includes conveyance facilities connecting the Bay Division Pipelines to the In-City Distribution System and to other SFPUC customers on the Peninsula. Three reservoirs, Crystal Springs, San Andreas, and Pilarcitos collect runoff from the San Mateo Creek and Pilarcitos watersheds. Water from Crystal Springs and San Andreas Reservoirs is treated at the Harry Tracy Water Treatment Plant before delivery to the northern Peninsula and San Francisco customers. Water from Pilarcitos Reservoir is delivered without treatment to the Coastsides County Water District.

In-City Distribution System: The City and County of San Francisco's (City) retail water supply is delivered to the City in several major pipelines that convey water from the Peninsula System. Two pipelines provide water to the eastside of the In-City Distribution System and three pipelines serve the west side of the In-City Distribution System. The "In-City Distribution System" delivers water to homes and businesses in the City.

Capital Plan Summary

In FY 2024-25 and FY 2025-26, the Water Enterprise's capital budget is \$933.2 M, of which \$718.9 M or 77% is funded by debt and \$214.3 M or 23% is revenue funded. Debt funding includes local and regional bonds. Much of the revenue funding is from local and regional water sales revenues.

The adopted capital project costs for the Water Enterprise total approximately \$2.9 B over the next ten years. Identified capital needs will be financed with a combination of water revenue bonds and Water Enterprise revenues. Project timelines may be adjusted to match available funding.

Most of the spending is in the first 5 years of the plan averaging approximately \$420 M per year. The average spending in the last 5 years, FY 2029-2034 drops to an approximately \$170 M per year.

Table 12. Water Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 31-32	FY 32-33	FY 33-34	FY 34-35	Total
Regional											
Water Treatment Program	132.4	13.2	17.6	17.0	19.1	12.9	37.1	7.0	6.5	5.2	268.0
Water Transmission Program	28.4	58.9	138.3	61.1	23.6	24.7	25.2	24.8	29.6	11.8	426.4
Water Supply & Storage Program	19.7	5.5	7.6	7.4	5.4	5.1	48.2	23.9	2.1	1.1	126.0
Buildings And Grounds Program	14.9	34.9	65.9	131.0	97.7	56.13	32.9	2.0	1.3	1.0	437.7
Communication & Monitoring Program	4.4	5.4	4.0	2.8	2.2	0.7	0.7	0.7	0.7	0.7	22.5
Program Level	3.8	4.8	3.5	2.5	2.5	2.5	2.0	2.0	2.0	2.0	27.6
Watersheds and Land Management	4.0	2.1	1.8	3.4	2.6	1.2	1.7	0.4	0.4	0.4	18.1
Long Term Monitoring & Permit Program	4.9	7.6	5.8	3.6	2.5	2.6	2.3	2.4	4.3	4.4	40.4
Water Supply and Storage	5.5	5.4	17.0	46.2	49.5	48.3	13.4	13.4	13.1	13.1	224.9
Water Treatment	0.7	2.0	1.0	3.0	3.8	24.3	0.0	0.0	0.0	0.0	34.9
Total Water-Regional	218.7	139.8	262.5	277.9	209.0	178.4	163.7	76.6	60.0	39.8	1,626.4
Local											
Local Water Conveyance/Distribution System	123.8	136.9	115.1	72.2	56.9	57.8	60.8	61.1	62.5	64.8	811.9
Systems Monitoring and Control	7.7	7.6	2.3	1.0	0.9	0.3	0.3	0.3	0.3	0.0	20.9
Local Tanks/Reservoir Improvements	7.1	8.8	2.3	0.6	0.8	1.7	3.1	4.7	0.1	0.1	29.3
Automated Meter reading System	4.8	4.9	3.1	3.0	2.1	2.0	1.9	2.0	2.0	0.0	25.8
Buildings & Grounds Improvements - Local	78.7	151.0	118.2	7.1	5.9	0.2	0.2	0.2	0.2	0.0	361.7
Pump Station Improvements	2.4	6.6	1.6	0.3	0.3	0.3	0.3	0.3	0.3	0.0	12.5
Program Level	3.0	4.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
Water Supply Projects	9.9	17.5	6.1	4.6	2.1	0.4	0.4	0.4	0.4	0.4	42.4
Groundwater Project	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Water-Local	237.3	337.4	251.7	90.8	71.0	64.8	39.1	71.1	68.0	67.2	1,328.4
Total Uses - Water	456.0	477.2	514.2	368.7	280.0	243.2	232.8	147.7	128.0	107.0	2,954.8
Debt Funded	351.1	367.8	395.1	266.1	175.2	139.0	156.5	76.7	52.4	38.2	2,018.2
Revenue Funded	104.9	109.4	119.1	102.6	104.7	104.2	76.3	71.0	75.6	68.8	936.6
Total Sources	456.0	477.2	514.2	368.7	280.0	243.2	232.8	147.7	128.0	107.0	2,954.8

Key Projects

Regional Water Facilities & Infrastructure (\$1.6 B)

Water Treatment Program: \$268 M

This program provides funding for the renewal and replacement programs at the Sunol Valley (SVWTP) and Harry Tracy Water Treatment Plants along with the East Bay and West Bay Fields Repair and Replacement projects. Major projects include SVWTP Ozone project to install ozone treatment facilities

as a long-term solution to control taste and odor events encountered in the raw water supply from both the San Antonio and Calaveras Reservoir sources and other short-term and long-term improvements at SVWTP to improve regional delivery reliability by addressing various conditions and deficiencies of the SVWTP.

Water Transmission Program: \$426.4 M

This program provides upgrades to the Transmission System including pipeline inspection and repairs, pipeline and valve replacements, metering upgrades, corrosion protection, and pump station and vault upgrades. As part of the pipeline improvement program, funding is included to monitor, strengthen, and replace older pipeline to achieve higher level performance and reliability. Funding included for the Crystal Springs Pipeline 2 & 3 Rehabilitation will relocate and replace approximately 1.5 miles of 60-inch diameter pipe into Crystal Springs Road, reline sections of the pipe with cement mortar lining, and upgrade appurtenances to meet current standards. New projects include the Bay Division Pipeline 3 & 4 Crossing Upgrade at Milpitas and the Alameda Creek Recapture Phase 2.

Water Supply and Storage Program: \$126 M

This program includes upgrades to reservoir dams and structures to meet State Division of Safety of Dams requirements including geotechnical work, installation of monitoring systems, and major improvements to dam spillways and structures as needed. Funding is included for upgrades to Pilarcitos and repairs and improvements to the Upper Alameda Creek Diversion Dam (ACDD).

Regional Buildings and Grounds: \$437.7 M

This program provides funding for major improvements to the Sunol and Millbrae Yards. Sunol Yard improvements have largely been completed. Millbrae Campus Improvements include a new laboratory and office building to update the lab facilities and consolidate staff from the Burlingame facility, plus new maintenance shops, and equipment storage. The upgrades address occupational safety, reliability, and functional regulatory compliance.

Regional Communications and Monitoring Program: \$22.5 M

This project will provide much needed redundant emergency communications capability and increased bandwidth for secure data transfer. The SFPUC has been working to implement the Water Radio Replacement Project (WRRP) to improve the SFPUC's radio communications and thereby improve the water and power system reliability and Water SCADA system improvements providing mission-critical automation, monitoring and control of the SFPUC's Regional Water System.

Program Level: \$27.6 M

The Program Management project provides funding for planning and management support tasks that are programmatic in nature and support the Water Enterprise Capital Improvement Program. The Program Management project includes support funding for SFPUC staff performing strategic capital planning; program budget planning and management; project controls; quarterly report preparation; preparation of loan and grant applications and administration of such loans and grants; public outreach and communications; document control and management; workforce development; and other programmatic support tasks.

Watershed and Right of Way \$58.5 M

Watersheds and Land Management: \$18.1 M

This program supports projects that improve and/or protect the water quality and/or ecological resources impacted by the siting and operation of SFPUC facilities. Projects include the repair, replacement, maintenance, or construction of roads, fences, or trails, the acquisition of easements and/or fee title of properties, and other ecosystem restoration or public access, recreation, and education projects. Funding is included for the new Alameda Creek Watershed Center Phase 2 project for improvements not included in the Phase 1 project.

Long Term Monitoring & Permit Program: \$40.4 M

The purpose of this program is to meet the long-term monitoring and permit requirements associated with capital projects and the operation and maintenance of the SFPUC water supply system and watershed/right-of-way lands within the Bay Area. Projects with long-term monitoring required by environmental permits include Water System Improvement Program (WSIP) related environmental mitigation and permit requirements (i.e., Bioregional Habitat Mitigation Program) and non-WSIP capital projects.

Regional Alternative Water Supplies \$260.0 M⁹

Water Supply and Storage: \$225.0 M

This program includes planning for local water diversification to explore alternative methods for expanding local water sources. Projects include the Daly City recycled Water Expansion Project that will provide an average annual supply of 1.06 million gallons per day (MGD) of recycled water to irrigation customers in Colma and Daly City, and the Los Vaqueros Reservoir Expansion that will enlarge the existing Los Vaqueros reservoir located in Contra Costa County from 160,000 acre-feet to 275,000 acre-feet

Water Treatment: \$35.0 M

This project will improve the performance of the Regional Groundwater Wells and treatment systems in the South Westside Basin for reliable use during dry years. In normal and wet years, the SFPUC will supply treated surface water to Daly City, San Bruno, and Cal Water to be used in place of their typical groundwater supply, thereby increasing the volume of groundwater in storage that can be pumped as supplemental water in dry years.

Local Water Facilities and Infrastructure \$1.3 B

Local Water Conveyance/Distribution System: \$811.9 M

This program includes funding to install, replace and renew distribution system pipelines and service connections for the 1,230 miles of drinking water mains in San Francisco to meet customer level of service goals for uninterrupted service. Improvements include replacement, rehabilitation, re-lining, and

⁹ Due to differences in governance/ownership of these projects, they are not expected to be financed with our conventional bond programs.

cathodic protection of all pipe categories to extend or renew pipeline useful life, as well as funding for joint City departments in-City/transit improvement projects. The program also includes funding for new Potable Emergency Firefighting Water System pipelines which are jointly funded with Earthquake Safety and Emergency Response (ESER) general obligation bonds.

The Renew Services Program provides funding to renew assets between the water main and the customer's service connection. This program includes the Lead Component Services Program to replace any lead components for the customer's water service line and the Water Loss Reduction Program to implement of cost-effective and comprehensive strategies to reduce water loss

Systems Monitoring and Control: \$20.9 M

Projects include an upgrade to the Customer Service Center System that will modernize current existing technology to optimize business processes aligning with current and future Customer Service needs and increased operational effectiveness. Continued improvements to facilities for controlling and monitoring San Francisco's water distribution system include enhancements to the Supervisory Control and Data Acquisition (SCADA) system for remote monitoring of pressure, flow, and valve position status at key locations throughout the distribution system

Local Reservoir and Tanks Improvements: \$29.3 M

This program provides long-term funding for renewal and rehabilitation of water storage reservoirs and tanks within the San Francisco Distribution System. Projects included improvements to the Sunset South Basin, Lombard Reservoir Geotechnical Improvements, and repairs to reservoirs and replacement of coatings for roofs and tanks at multiple locations to extend the useful service life of the facilities and provide for the installation of solar energy panels.

Automated Meter Reading System: \$25.8 M

This program provides funding for the ongoing Automated Water Meter Program (AWMP) including meter renewal, replacement, automation, and replacement planning for the entire AWMP System by the end of its 20-year useful life (ending in 2031).

Buildings and Grounds Improvements: \$361.7 M

This program provides funding for capital improvements at City Distribution Division facilities and structures. The bulk of the funding is included for a new CDD Headquarters at 2000 Marin to address life safety standards for seismic events, building code requirements and facilities that are past useful life. The 2017 Condition Assessment of the existing CDD yard found all buildings aged, water-damaged, and deficient in meeting seismic, ADA, electrical and other building code standards. other projects include small yard improvements to address health and safety issues and security, continuing renewal, and replacement of aging assets at existing buildings and grounds including vehicle and pedestrian gates, fencing at reservoirs, and exterior lighting improvements at reservoirs and pump stations.

Pump Station Improvements: \$12.5 M

The SFPUC's 12 major water pump stations and seven hydropneumatics tanks that boost pressure within the San Francisco distribution system need ongoing renewal and rehabilitation. This program provides long term funding for renewal and rehabilitation of the water pump stations and hydro-

pneumatic tanks that boost water pressure within the distribution system including improvements at the Harding Park Recycled Water Pump Station and the Bay Bridge West Pump Station.

Program Level \$24.0 M

The Program Management project provides funding for planning and management support tasks that are programmatic in nature and support the Water Enterprise Capital Improvement Program. The Program Management project includes support funding for SFPUC staff performing strategic capital planning; program budget planning and management; project controls; quarterly report preparation; preparation of loan and grant applications and administration of such loans and grants; public outreach and communications; document control and management; workforce development; and other programmatic support tasks.

Local Water Resources \$42.4 M

Water Supply Projects

This project provides planning support for a long-term investment in water reuse projects. Includes the SF Local Groundwater Treatment program that funds feasibility and operations studies, outreach, technical advisory committee, support task orders, and other soft costs including staff time and City Attorney's fees and the 525 Golden Gate Building Reuse Project to upgrade the Onsite Non-Potable Water System to comply with the new SF Health Code requirements of Article 12C. Secondary objectives of the project are to optimize operability and promote public outreach and education on potable reuse with a permanent on-site demonstration facility for the PureWaterSF program.

Deprioritized Projects

The Water team worked alongside Infrastructure to develop a proposed capital plan that was internally proposed in September 2023. This process included an initial prioritization as well as a deliverability review to ensure the agency had the capacity to realistically deliver Water's Capital Improvement Plan. Prioritization included balancing between meeting critical needs and maintaining affordability, the Water Enterprise has carefully prioritized projects for its Capital Improvement Plan over the next two fiscal years. This plan reflects a commitment to delivering reliable water services while keeping rate impacts in mind. Notable changes to this year's iteration of the Capital Improvement Plan are highlighted below.

Some projects deferred in the last CIP cycle have regained priority and received renewed funding. The Regional Groundwater Treatment Improvements, essential for maintaining the Water Supply Level of Service, saw their \$31 M cut reversed. This project proves more cost-effective than alternative water supplies currently under development. Similarly, the \$28 M cut to SVWTP Long-Term Improvements was restored, albeit with construction delayed by a year to avoid overloading resources. Notably, Alternative Water Supply projects, with a clearer plan in place, received a significant funding boost to move forward with promising initiatives.

While some projects received renewed focus, others have been temporarily deferred or scaled back. The \$3 M Calaveras Reservoir expansion was put on hold in favor of more promising alternative water sources identified in the Alternative Water Supply portion of the plan. Decommissioning of Bay Division Pipelines 1 & 2, deemed a low priority, was postponed for future consideration when additional funding becomes available. Construction of the Sneath Lane Gate/San Andreas project remains deferred for \$11 M while the South Skyline Blvd. Ridge Trail Extension takes precedence. The Alameda Creek Recapture project, though a high priority, saw its funding reduced to \$5 M to facilitate thorough planning

before construction begins. This approach ensures responsible resource allocation and allows for adjustments based on the finalized plan.

The Local Water Conveyance/Distribution project, significantly reduced in the previous Capital Improvement Plan, received a \$156 M increase in this year's Capital Improvement Plan, a step towards restoring the previously cut amount. This underscores the crucial role of maintaining and upgrading our local water infrastructure. Similarly, the Natural Resources and Lands Management SF Land Management Facility, vital for the City/Peninsula arborist group, received full funding after being deferred in a previous budget development cycle.

While some local projects, like the Lombard Reservoir slope stabilization work, received slightly reduced funding in the proposed Capital Improvement Plan, the cuts were carefully calibrated to prioritize essential elements and allow for future planning. The Reservoir Roofs/Tanks and Coatings project saw a similar reduction, with funding allocated for immediate needs and a master plan development for future coating work to be considered in the next budget cycle.

The Water Enterprise remains committed to achieving its Level of Service goals, ensuring project deliverability, and keeping rates affordable for its customers. This year's Capital Improvement Plan reflects these priorities, prioritizing essential projects while strategically deferring or adjusting others to strike a balance between long-term needs and responsible financial stewardship.

7. Hetch Hetchy Water Capital Plan

Introduction

The Hetch Hetchy Water division of the Water Enterprise is responsible for operating, maintaining, and upgrading the Hetch Hetchy system of assets, which extend from Hetch Hetchy Reservoir in Yosemite National Park to Alameda East Portal (water) and Newark (electrical transmission) in Alameda County. The Hetch Hetchy system provides 85% of the water supply to roughly 2.7 million in-City and regional Bay Area water customers. Additionally, Hetch Hetchy Water generates electricity via several hydro-generation plants to power City facilities and a growing number of areas in the City undergoing redevelopment.

Much of the Hetch Hetchy system is at or approaching 100 years old and on average is approximately 135% of its anticipated useful life. Hetch Hetchy Water operates under a “Water First” policy, which means that operational needs and capital investment decisions are heavily weighted to meet water reliability objectives.

The Hetch Hetchy Water Capital Program includes Water Only (100% Water Costs), up-country Power Only (100% Power Cost) and Joint (45% Water/55% Power costs) for operating, managing, and maintaining the Hetchy system.

Capital Plan Summary

In FY 2024-25 and FY 2025-26, Hetch Hetchy Water’s capital budget is \$333.5 M and is 96% funded by debt. Of the debt funding, \$160.9 M is from water bonds, with the remainder \$160.4 M met by power bonds.

The \$1.5 B Ten-Year Capital Plan represents a consistent and growing investment over ten years with funds allocated to Hetchy-Water totaling \$237.3 M and Hetchy-Power totaling \$290.8 M.

Table 15. Hetch Hetchy Water Capital Plan

Hetchy-Water/ \$million	FY 24- 25	FY 25- 26	FY 26- 27	FY 27-28	FY 28- 29	FY 29- 30	FY 30-31	FY 31- 32	FY 32- 33	FY 33- 34	Total
Water Infrastructure	56.1	57.1	47.4	42.5	6.6	5.2	5.2	5.2	5.6	6.4	237.3
Power Infrastructure	25.7	61.1	62.6	59.6	29.0	9.4	4.1	6.9	19.3	13.1	290.8
Joint Projects	71.0	62.6	55.8	82.2	76.6	158.0	204.1	179.3	56.6	59.4	1,005.6
Total Uses - Hetchy Water	152.8	180.8	165.8	184.3	112.2	172.6	213.4	191.4	81.5	78.9	1,533.7
Revenue Funded	3.5	8.8	4.1	7.1	3.1	1.1	5.7	6.4	2.1	2.3	44.2
Debt Funded	149.3	172.0	161.7	177.2	109.1	171.5	207.7	185.0	79.4	46.6	1,489.5
Total Sources	152.8	180.8	165.8	184.3	112.2	172.6	213.4	191.4	81.5	78.9	1,533.7

Key Projects

Water Infrastructure: \$237.3 M

The Water Infrastructure program provides capital funding for Renewal & Replacement (R&R) and Large Infrastructure projects on HHWP's assets that are classified by the Water Supply Agreement (WSA) as Water. The proposed FY23-24 10-Year Capital Plan includes:

Capital improvement projects to sustain the reliability of the nearly 50-mile-long San Joaquin Pipeline (SJPL) System, which conveys water from HHWP's Oakdale Portal to Tesla Valve House. The SJPL Valve and Safe Entry Improvement Project that will provide safe entry into the SJPL System, in compliance with SFPUC Safe Pipeline Isolation procedure to support future inspection, maintenance and capital improvements of SJPL system. Continued funding for the Mountain Tunnel Improvement Project and the SJPL Valve Remote Control and Monitoring Project providing remote supervisory monitoring and control over SJPL System, including in-line and cross-over valves.

Power Infrastructure: \$290.8 M

The Power Infrastructure program provides capital funding for Renewal & Replacement (R&R) and Large Infrastructure projects on HHWP's assets that are classified by the Water Supply Agreement (WSA) as Power. The proposed 10-Year Capital Improvement Plan includes

Moccasin Powerhouse and GSU Rehabilitation - The powerhouse was completed in 1969 and generates a combined maximum output of 110 megawatts. Both generator units and transformers have exceeded their life expectancy and need repair to continue operating reliably. The project funds generator rehabilitation, generator step up transformer (GSUs) replacement and power plant system upgrades.

Transmission Lines Clearance Mitigation Project - 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.

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, SCADA system, and fiber optics; and 3) improvement of the existing motor control center building

Joint Infrastructure: \$1 B

The Joint Infrastructure program provides capital funding for Renewal & Replacement (R&R) and Large Infrastructure projects on Hetch Hetchy Water a's assets that are classified by the Water Supply Agreement (WSA) as Joint. The proposed 10-Year Capital Improvement Plan includes:

Eleanor Dam Rehabilitation – Funding 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

Moccasin Penstock Rehabilitation – 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.

Moccasin Dam and Reservoir Long Term Improvements – This project will fund construction of 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.

Deprioritized Projects

The initially proposed capital plan for Hetch Hetchy Water stretched beyond available resources, particularly in the final four years where proposed funding requests significantly surpassed typical levels. Faced with this reality, a rigorous review of project status, candidate alternatives, and risk-based prioritization identified nine candidate projects for deferral from the plan. This careful decision ensured project deliverability while preserving existing commitments, as no previously approved projects were affected.

Those deferred projects spanned a range of crucial needs, from Kirkwood Powerhouse rehabilitation (proposed budget: \$54.8 M) and Intake Switchyard control room upgrades (\$20.3 M) to essential infrastructure improvements like Priest Shoreline erosion control (\$7.4 M) and Power Transmission Line rehabilitation (\$771 M). Calaveras Substation enhancements (\$29 M) and transitioning SF6 breakers to alternative technologies (\$5.3 M) also fell under the deferral scope, alongside major undertakings like Cherry Dam spillway and intake tower rehabilitation (\$131.6 M) and Moccasin Facilities Phase II improvements (\$174.2 M). Additionally, the Moccasin to Standiford OPGW installation (\$25.2 M), was shifted to a later date.

In total, the deferred projects amounted to \$1.22 B, a significant adjustment ensuring a balanced and deliverable capital plan for Hetch Hetchy Water. While some crucial projects were temporarily postponed, this strategic prioritization ensures long-term project viability and responsible stewardship of resources.

8. Wastewater Capital Plan

Introduction

The Wastewater Enterprise operates and maintains three wastewater treatment plants, one wet weather facility, 28 pump stations, 1,900 miles of sewer mains and laterals, over 216 green infrastructure assets, and 25,000 catch basins to protect public health and the environment. Wastewater facilities process approximately 60 MGD of dry weather flows and have 565 MGD of wet weather treatment capacity.

North Point Wet Weather Facility: The North Point Wet Weather Facility has been in operation since 1951. The facility provides primary-level treatment and disinfection of combined sewage collected in the northern part of the City during rainstorms. The facility has a treatment capacity of 150 MGD. Treated combined sewage is discharged approximately 800 feet into the San Francisco Bay.

Southeast Treatment Plant: The Southeast Treatment Plant was built in 1952 and has been expanded several times since. The Plant currently treats an average dry-weather flow of approximately 44 MGD and discharges into the San Francisco Bay through an 810-foot-long pipe. The Plant has a peak wet-weather capacity of 250 MGD which is discharged through both the 810-foot-long pipe into the Bay and an auxiliary wet-weather-only outfall into Islais Creek.

Oceanside Treatment Plant: Completed in 1993, the Oceanside Treatment Plant currently treats an average dry-weather flow of approximately 10 MGD and has a total capacity of 65 MGD during wet-weather. It treats wastewater from the west side of the City. Treated wastewater is discharged from the plant to the Pacific Ocean through the Southwest Ocean Outfall 4.5 miles offshore.

Treasure Island Treatment Plant: The SFPUC, under a 1997 Cooperative Agreement with the U.S. Navy, agreed to operate and maintain the utility systems at Treasure Island, including the Treasure Island Plant, while the Navy retains ownership of all the utility systems. The Plant provides secondary treatment of wastewater from facilities on Treasure Island and Yerba Buena Island. It serves a population of approximately 2,400 and has a design capacity of 2 MGD.

Pump Stations and Force Mains: The Wastewater Enterprise operates 28 pump stations with capacities ranging from less than 1 MGD to 175 MGD. The system includes three major force mains: North Shore, Channel, and Westside. In addition to these major force mains, there are several smaller force mains (2" in diameter and larger) downstream of pump stations, totaling 7 miles.

Gravity Sewers: Wastewater Enterprise owns, operates, and maintains approximately 800 miles of sewer mains equal or smaller than 36" in diameter ("small diameter sewers"), and nearly 200 miles of major interceptors and tunnels larger than 36" in diameter ("large diameter sewers"). In addition, WWE replaces sewer service laterals with structural deficiencies located on the pipe portion extending from face of curb to the sewer main ("sewer lateral"). There are approximately 160,000 sewer laterals.

Transport/Storage Boxes and Combined Sewer Discharge Structures: Transport/storage boxes capture combined stormwater and sewage as it overflows the sewer system and before it reaches the shoreline of the Bay or Pacific Ocean. The boxes can hold approximately 200 million gallons of stormwater and sewage for later treatment at wastewater treatment plants. The storage boxes completely fill up during the most prolonged intense rainstorms, and water is discharged into either the Bay or Ocean through one of 36 combined sewer discharge structures.

Capital Plan Summary

The Capital Plan is organized into the following four categories – Sewer System Improvement Program (SSIP), R&R Treatment Facilities and Collection System, Facilities and Infrastructure Projects and Treasure Island.

In FY 2024-25 and FY 2025-26, the Wastewater Enterprise's capital budget is \$1.7 B, of which \$1.4 B or 85% is funded by debt and \$257 M or 15% is revenue funded. Debt funding consists of revenue bonds. Much of the revenue funding is from sewer service charges, with the remainder being from capacity fees.

The Ten-Year Plan for FY 2024-25 through FY2033-34 is \$6 B and includes the Sewer System Improvement Program at \$4 B, the Collection System and Treatment Facilities Renewal and Replacement Programs at \$1.7 B, the Treasure Island Treatment Plant at \$40.9 M and improvements to other Wastewater Facilities and Infrastructure at \$259.0 M.

Table 18. Wastewater capital plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
SSIP	638.4	594.4	689.9	350.8	156.7	158.2	212.4	325.0	464.8	411.7	4,002.2
R&R	152.5	167.1	170.7	174.0	163.0	165.2	171.5	183.7	191.1	198.8	1,737.6
Treasure Island	36.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.9
Wastewater Facilities & Infrastructure	65.0	57.1	48.3	7.5	5.4	15.9	15.1	15.8	14.4	14.4	258.9
Total Uses - Wastewater	892.5	822.9	908.9	532.3	325.1	339.3	399.0	524.5	670.3	624.9	6,039.7
Revenue Funded	117.7	139.4	102.3	84.9	72.0	85.0	101.7	110.2	138.9	147.5	1,099.6
Debt Funded	774.8	683.5	806.6	447.4	253.1	254.3	297.3	414.3	531.4	477.4	4,940.1
Total Sources	892.5	822.9	908.9	532.3	325.1	339.3	399.0	524.5	670.3	624.9	6,039.7

Key projects

SSIP Treatment Facilities: \$2.9 B

Projects include the Southeast Plant Biosolids Digester Facility Project in southeast San Francisco; improvements to the liquid treatment at the Southeast Plant, the North Point Wet Weather Facility, the North Shore Pump Station, and associated outfalls; and improvements to the Oceanside Water Plant, Westside Pump Station, and Westside Force Main

New Operations Engineering and Maintenance Buildings - \$159.6 M - The project will replace SEP 850 and the adjacent parking lot at Jerrold and Phelps, an area just under one acre, with two new buildings. This project will provide workshop space for the Trades and Mechanical Maintenance, engineering workspaces, and shower and locker facilities for the Plant.

Southeast Plant (SEP) Mainstream Nutrients Reduction - \$1.1 B - The purpose of the project is to reduce the amount of nitrogen discharged from the SEP. Nitrogen discharges into San Francisco Bay are among several factors that contributed to harmful algal blooms in 2022 and 2023. This project is necessary to comply with anticipated future nitrogen-related regulations.

SSIP Sewer/Collection System: \$206 M

This program replaces existing sewers to increase hydraulic capacity, and rehabilitates transport/storage facilities, combined sewer discharge structures, pump stations, and force mains.

SSIP Stormwater Management and Flood Resilience: \$802.4 M

This program includes work on flood resilience planning and project implementations, the Floodwater Management Grant Assistance Program, green infrastructure planning and project implementations, and the Green Infrastructure Stormwater Management Grant Program. Flood resilience projects manage combined sewer flooding caused by heavy rain through capital improvements, grant programs, financial incentives, Building Code amendments, options for affordable flood insurance, and enhanced coordinated storm response. Green infrastructure construction of permeable surfaces and engineered subsurface systems sustainably augments the collection system for the management of stormwater flows. The Green Infrastructure Stormwater Management Grant Program incentivizes property owners to construct and maintain green infrastructure on large parcels. These projects support the level of service goals to minimize flooding, provide benefits to impacted communities, and achieve economic and environmental sustainability. Ancillary benefits may include reduced energy use (reduced pumping and treatment), potable water conservation, groundwater recharge, and improved community aesthetics.

Lower Alemany Area Stormwater Improvement Project \$269.4 M

The primary objective of this project is to improve stormwater conveyance in the area to meet the SFPUC-endorsed Levels of Service (LOS) goals. The Lower Alemany area surrounding the US 101 and I-280 interchange has been susceptible to recurring inundation associated with moderate and heavy storms. When the capacity of the existing Alemany sewer is exceeded during storm events, significant volumes of overland flow cause inundation on and around the Lower Alemany area, resulting in property damage and potential health and safety issues.

Folsom Area Stormwater Improvement Project \$318.8 M

Like the Lower Alemany Area Stormwater Improvement Project, this project would provide stormwater conveyance improvements, but to the neighborhood surrounding 17th and Folsom Street. Lower-lying areas in the vicinity can experience up to several feet of stormwater inundation during rain events, resulting in property damage and potential health and safety issues. The primary objective of the project is also to improve the stormwater conveyance in the area to meet the SFPUC-endorsed LOS goals.

Collection System Renewal & Replacement (R&R) \$1.4 B

Small Diameter Sewer Improvements: \$498.6 M

These projects help maintain the existing functionality of the sewage collection system and include planned and emergency repairs, and replacement of structurally inadequate sewers. The improvements enhance the City's ability to handle and dispose of wastewater and stormwater to protect public health, safety, and the environment. Projects are identified utilizing an asset management approach which factors in physical condition, age, location, risk, public safety, paving schedule, and other factors. WWE is shifting focus to utilize more trenchless construction methods for sewer main and lateral R&R, including cured-in-place-lining (CIPP), pipe bursting, slip lining, and alternative pipe materials. Trenchless construction methods are industry best practice and provide the benefits of substantially lower average cost per mile, shorter construction times per mile, and lower overall disruption to the public from the construction activity. As reflected in this latest 10-year capital improvement plan, WWE's goal is to increase the use of trenchless construction methods as much as practicable.

Large Diameter Sewer Improvements: \$450.5 M

This is a collection of sewer improvement projects proposed to clean, perform condition assessment, and rehabilitate and/or replace Large Diameter Sewers (sewers greater than 36-inches in diameter or equivalent diameter) that have the highest risk for failure.

Treatment Facilities R&R: \$339.2 M

The Treatment Plant Improvement program helps maintain the capacity and reliable performance of the treatment facilities owned and operated by the Wastewater Enterprise. This is a continuing annual program to extend the useful life of Wastewater treatment assets including Combined Discharge Structures, Pump Stations, Force Mains, and Treatment Plants. The projects are prioritized based upon worker health and safety, regulatory compliance, condition assessments, operations staff recommendations, and levels of service formally adopted as part of the SSIP. The completion of projects under the Treatment Facilities R&R Program increases the reliability and efficiency of Wastewater Enterprise facilities and ensures that the performance of the treatment facilities meets the established levels of service.

Ocean Beach Climate Adaptation Project: \$156.2 M

This project is intended to develop a comprehensive shoreline management and protection plan in partnership with relevant stakeholders and regulatory agencies and establish a long-term solution to the erosion issues along Ocean Beach. This long-term solution is necessary to protect the integrity of critical wastewater assets that were constructed to protect public health and the environment. These assets include the Lake Merced Transport/Storage facility, the Westside Pump Station, and the Oceanside Treatment Plant, which are threatened by sea level rise and erosion at Ocean Beach.

Southeast Bay Outfall and SEP Booster Station Replacement: \$80.3 M

The existing Southeast Bay Outfall is a critical asset that conveys final effluent from Southeast Treatment Plant to the Bay. While a current capital project is underway (Southeast Outfall Condition Assessment and Rehab) to complete a comprehensive condition assessment of the outfall and perform associated rehabilitation work, a long-term solution is needed to continue providing reliable operations, protecting water quality in San Francisco Bay, and aligning with the City's waterfront adaptation plans for sea level rise.

Deprioritized projects

The Wastewater Enterprise is committed to maintaining and improving San Francisco's critical wastewater infrastructure while keeping rate impacts in mind. In September 2023, Wastewater submitted an initial Capital Improvement Plan reflecting the enterprises comprehensive needs. While this plan assessed project priorities, it also acknowledged potential affordability concerns for the enterprises' valued ratepayers.

Through internal discussions in October and November, Wastewater carefully weighed the impact of proposed projects on both system reliability and financial sustainability. As a result, the strategic decision was made to postpone or defer several projects totaling over \$500 M beyond the 10-year timeframe of the new Capital Improvement Plan. These projects, categorized as low or medium priority and without intricate interdependencies, presented an opportunity to significantly reduce the immediate rate burden without compromising the Wastewater enterprises' ability to deliver essential services.

This decision was not taken lightly. While deferring these projects could carry potential risks to service disruptions and system reliability, the enterprise determined that these risks are manageable within the larger context of our overall investment strategy.

Furthermore, through stringent analysis, the enterprise was also able to reduce the cost of the critical SEP Nutrient Reduction project and smooth its construction over a greater period. This cost reduction and phased approach allowed the enterprise to prioritize this vital environmental undertaking while minimizing its impact on ratepayers. As a result, the cost of the project over the 10-year horizon was reduced by approximately \$500 M compared to the initially proposed Wastewater Capital Improvement Plan.

Several factors informed Wastewater's prioritization decisions within the deferred projects. Firstly, projects that are dependent on other non-SFPUC planned investments were deferred and planning will be performed to gain better insight on project timing. Secondly, urban planning on the city's flood resilience will also be performed to reflect updates to the combined sewer system, surface grading, and land use, as well as consider sea-level rise and climate adaptation strategies to inform future project investments. Lastly, renewal projects that have a lower risk of failure were deferred and can be addressed through Wastewater's R&R program. These deferrals allowed Wastewater Enterprise to prioritize the initiation of a nutrient reduction project to address one of the most pressing water quality issues facing the San Francisco Bay region, and to comply with anticipated future nutrient-related regulations.

9. Hetch Hetchy Power Capital Plan

Introduction

The Power capital program includes renewable generation and energy efficiency projects, solar at SFPUC and other City facilities, the Streetlight Repair and Replacement program and Transmission and Distribution projects consistent with the City’s goal establishing the SFPUC as the exclusive electrical services provider to existing and new City facilities and development/redevelopment projects.

Capital Plan Summary

In FY 2024-25 and FY 2025-26, the Hetch Hetchy Enterprise’s capital budget is \$137.5 M, of which \$88.4 M or 64% is funded by debt and \$49.1 M or 36% is revenue funded. Revenue funding includes Power operating revenue, Distributed Antenna System, Low Carbon Fuel Standards and Power Cap and Trade revenue.

The \$1.2 B Power Ten-Year Capital Plan represents a consistent and growing investment over ten years funded by \$700 M in Power bonds and \$534 M in revenues.

Table 20: Hetch Hetchy Power Capital Plan

Hetchy Power/ \$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
Transmission/Distribution	38.9	73.5	112.0	141.2	114.3	135.7	150.4	152.7	97.2	91.3	1,107.2
Streetlights	3.6	3.6	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	48.0
Renewable/Generation	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0
Energy Efficiency	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0
PG&E Acquisition	7.6	6.3	5.8	5.8	5.7	5.7	5.7	5.7	5.7	5.7	59.7
Total - Hetchy Power	52.0	85.4	124.9	154.1	127.1	148.5	163.2	165.5	110.0	104.1	1,234.8
Revenue Funded	18.6	30.4	42.8	63.0	50.1	64.7	68.0	69.3	60.4	66.5	533.9
Debt Funded	33.4	55.0	82.1	91.1	77.0	83.8	95.1	96.2	49.6	37.6	700.9
Total Sources	52.0	85.4	124.9	154.1	127.1	148.5	163.1	165.5	110.0	104.1	1,234.8

Key Projects

Transmission & Distribution Program: \$1.1 B

These projects are consistent with San Francisco Administrative Code Section 99.3 establishing the SFPUC's role as the exclusive electric service provider for existing and new City facilities, and redevelopment and development projects.

SFO Substation Improvements — This project provides for the SFPUC to serve SFO’s anticipated load increase. The project will plan, design, and construct needed upgrades at the substations to provide reliable and redundant service to the airport.

Distribution Interface Redevelopment Projects - This project provides for the design and construction of new electric distribution systems and facilities for the SFPUC to provide electric services to various new developments within San Francisco. The project will consider the use and implementation of proven and new and emerging technologies. Beneficial technologies will be identified, researched, and analyzed, prior to making a proposal for any implementation on the project, where ratepayer benefit is demonstrated.

Carbon Free Steam - Cordia is the regulated operator of the steam loop serving much of downtown San Francisco. In partnership with Power Enterprise, Cordia is planning to decarbonization the steam

production fuel from natural gas to greenhouse gas free Hetch Hetchy Power electricity. As part of this project, Cordia and the SFPUC will need to install a new electrical interconnection of 115kV transmission line at a PG&E substation and terminating. SFPUC is also investigating whether the scope of the project should be expanded.

Grid Connections - Project to connect customers to SFPUC owned and operated distribution and transmission infrastructure. Hetchy Power has identified several existing and new customers along the Bay Corridor Transmission and Distribution system to be connected to the systems including, The Shipyard, 2000 Marin, 1990 Newcomb, UCSF block 34, Wastewater Facilities, in addition to providing for the interconnections of other customers throughout the City.

Downtown Ferry & South Beach Electrification - The Port of San Francisco is in the process of developing the waterfront. In addition, there are directives from the California Air Resource Board to convert short haul passenger ferries to all electric. As such, additional electric power is needed at the ports and piers. This project funds a transmission level substation at Seawall lot 328 including building a mainline duct bank to Pier 1 and Pier 40.

Bay Corridor Backup Loop - This project funds a new distribution duct bank and 12-kilovolt (kV) cabling run from the Davidson Substation up the surrounding streets and to tie into the Northern Waterfront Project's southernmost trench.

Streetlights: \$48.0 M

Hetchy provides power to all of San Francisco's 44,528 streetlights, maintains the 25,509 streetlights owned by the City, and funds the maintenance of the 19,019 streetlights owned by Pacific Gas & Electric Company (PG&E). Street lighting area improvements, the conversion of high voltage series loop circuits into multiple standard voltage service and Lighting Emitting Diode (LED) lighting, holiday and festivity lighting pole use, assessments to determine the severity of pole deterioration, streetlight pole rehabilitation, and replacement of poles are all funded through this program.

Energy Efficiency: \$10.0 M

Energy efficiency improvements reduce facility operating costs and electric bills for customers, improve system functionality, and reduce the environmental impact of energy use. This program funds energy efficiency investments in City facilities covering the planning, design, and construction of "direct install" projects, as well as technical assistance and project assistance for departments utilizing their own capital funds. Energy retrofits include lighting, heating and ventilation, retro-commissioning, and energy management systems projects. The SFPUC performs three to five energy efficiency projects each year. The budget funds efficiency projects in municipal facilities for departments such as Police, Real Estate, Recreation and Parks, SFMTA, Yerba Buena Center, and Fine Arts. Planned funding for lighting and mechanical system efficiency upgrades are consistent with state policies that place emphasis on energy efficiency and that support greenhouse gas reduction.

Renewable/Generation Power: \$10.0 M

In accordance with City policies and directives to increase renewable energy and reduce greenhouse gases, Hetchy Power is continuously developing and implementing new renewable generation resources. Projects focus on small to mid-sized municipal facilities including solar photovoltaic, energy storage, biogas fuel cells, EV charging, micro-grid, and other renewable energy projects. The power

generated from the Renewable/Generation Power projects will offset on-site power need at each project location.

Public Power Expansion Project - \$59.7 M

The Public Power Expansion Project funds financial, technical, regulatory, and legal analysis and City staff time toward assessment of acquiring PG&E's electrical assets, preparing to execute the possible transaction, and readying the SFPUC for operation of the acquired system. This work is on-going. We have completed several analyses and continue to refine the work and perform further analyses. We are also working through the Valuation proceeding at CPUC and the California Environmental Quality Act Environmental Impact Report process.

Deprioritized Projects

Most of the projects that were deprioritized in the most recently approved 10-Year Capital Improvement Plan are proposed to be funded in this year's iteration of the 10-Year Capital Improvement Plan. The largest project that was presented to the Assistant General Manager for consideration that was fully removed from the capital plan proposal was a new substation for SFO in addition to the substation improvement project that is proposed to be funded in this 10-Year Capital Improvement Plan. Power determined that this project was not needed to serve additional load and was requested by SFO for redundancy and resiliency,

No project that was proposed internally for consideration was fully removed from the capital plan. Any reductions that were proposed after the Finance review phase of the capital budget submission were adjustments to schedules and reductions in projects where actual needs in outyears years were less uncertain.

Other Emerging Priorities

The major emerging project for Power Enterprise is the Public Power Expansion project that would involve the acquisition of all Pacific Gas & Electric's (PG&E) distribution infrastructure within the borders of San Francisco County. The capital plan includes a project to fund the financial, technical, regulatory, and legal analysis and City staff time toward assessment of acquiring PG&E's electrical assets, preparing to execute the possible transaction, and readying the SFPUC for operation of the acquired system.

10. CleanPowerSF Capital Plan

Introduction

CleanPowerSF, a Community Choice Aggregation program formed under State law, is a retail electric service and local solution to the global climate crisis, offering renewable, affordable, and accessible energy to our community members that continue to receive retail distribution services from PG&E. CleanPowerSF empowers residents and businesses to choose a more sustainable future by receiving the generation component of service from CleanPowerSF. CleanPowerSF buys electricity from sources such as wind and solar, and that electricity is delivered to homes via Pacific Gas & Electric's (PG&E) existing poles and wires.

Management of CleanPowerSF's financial business functions include developing and maintaining long-range capital and financial plans. The Capital Plan will evaluate opportunities for local renewable energy development in San Francisco city-owned and regional sites and other opportunities in and near San Francisco.

Capital Plan Summary

CleanPowerSF's capital budget is nearly \$1.1 M for FY 2024-25 and FY 2025-26 and is funded by revenue.

The CleanPowerSF 10-Year Capital Plan for FY 2024-25 through FY 2033-34 is \$48.5 M, all of which is funded by CleanPowerSF revenues. CleanPowerSF does not expect to rely on debt to fund its current Capital Improvement Program between FY 2024-25 and FY 2033-34.

Table 22: CleanPowerSF FY2025-34 Capital Plan

\$million	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	Total
CleanPowerSF SF Capital	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5
DAC Solar Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Uses	0.6	0.5	0.4	0.5	.7	6.2	15.5	23.5	0.07	0.5	48.5
Revenue Funded	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5
Total Sources	0.6	0.5	0.4	0.5	0.7	6.2	15.5	23.5	0.07	0.5	48.5

Key Project

Local Renewable Energy Program: \$48.5 M

This program will fund the development of new renewable energy (solar photovoltaic) and battery storage projects on select SFPUC sites. The project is structured around six major phases, including: Planning, Request for Proposals, Construction and Commissioning, Power Purchase Agreement, Asset Management, and Project Buyout. The initial renewable energy facilities developed under this program would be structured as power purchase agreements (PPA) with third parties that would develop and operate the projects for an initial period. The PPAs would include a buy-out option for the City.