

# Water & Wastewater 10-Year Capital Plans

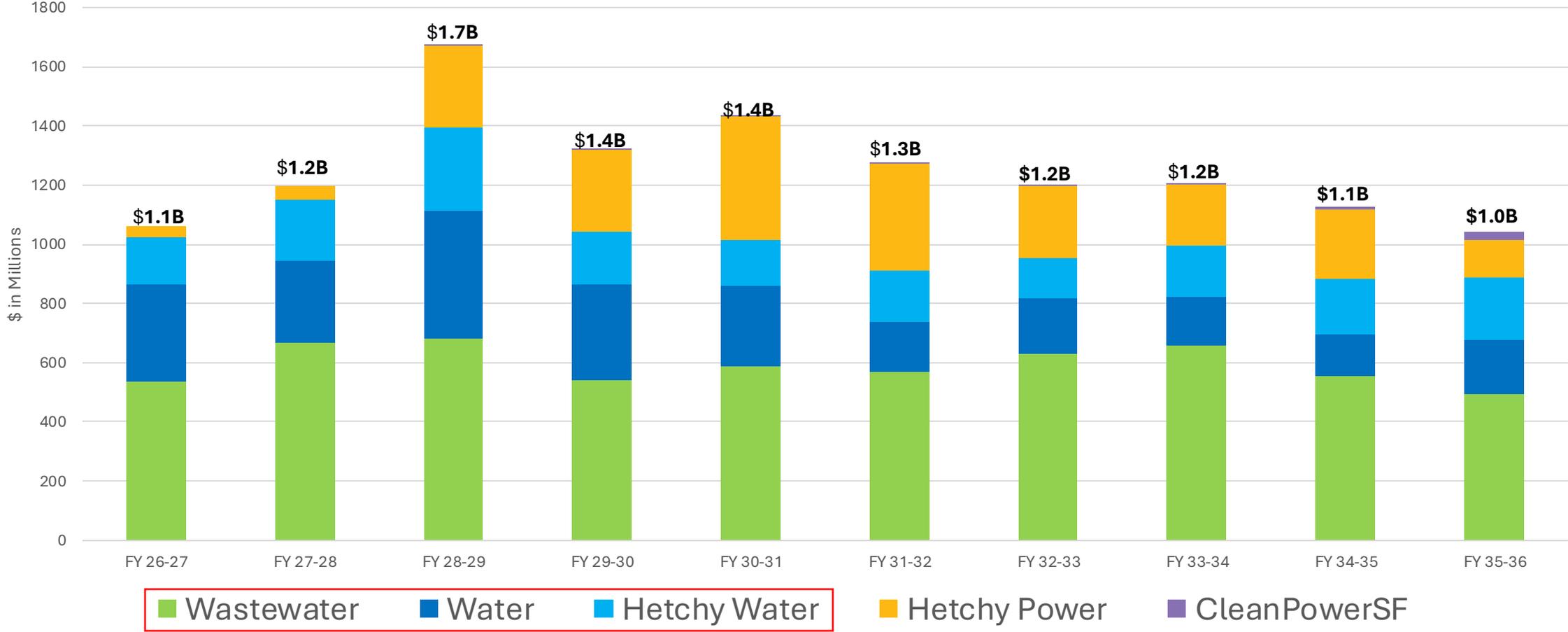
March 23, 2026

Trey Hunter

Capital Budget Manager

# SFPUC 10-Year Capital Plan

Investments driven by critical upgrades to aging infrastructure in Water & Wastewater systems and meeting demands for clean energy in Power.



  
Today's focus

# Major Effort to Balance Water & Wastewater Plans

Aging infrastructure and growing state and federal regulatory requirements are driving the need for capital investments



Existing debt obligations and emerging capital needs have the biggest impact on rates



Initial capital proposals far exceeded internal budgetary targets to mitigate rate increases

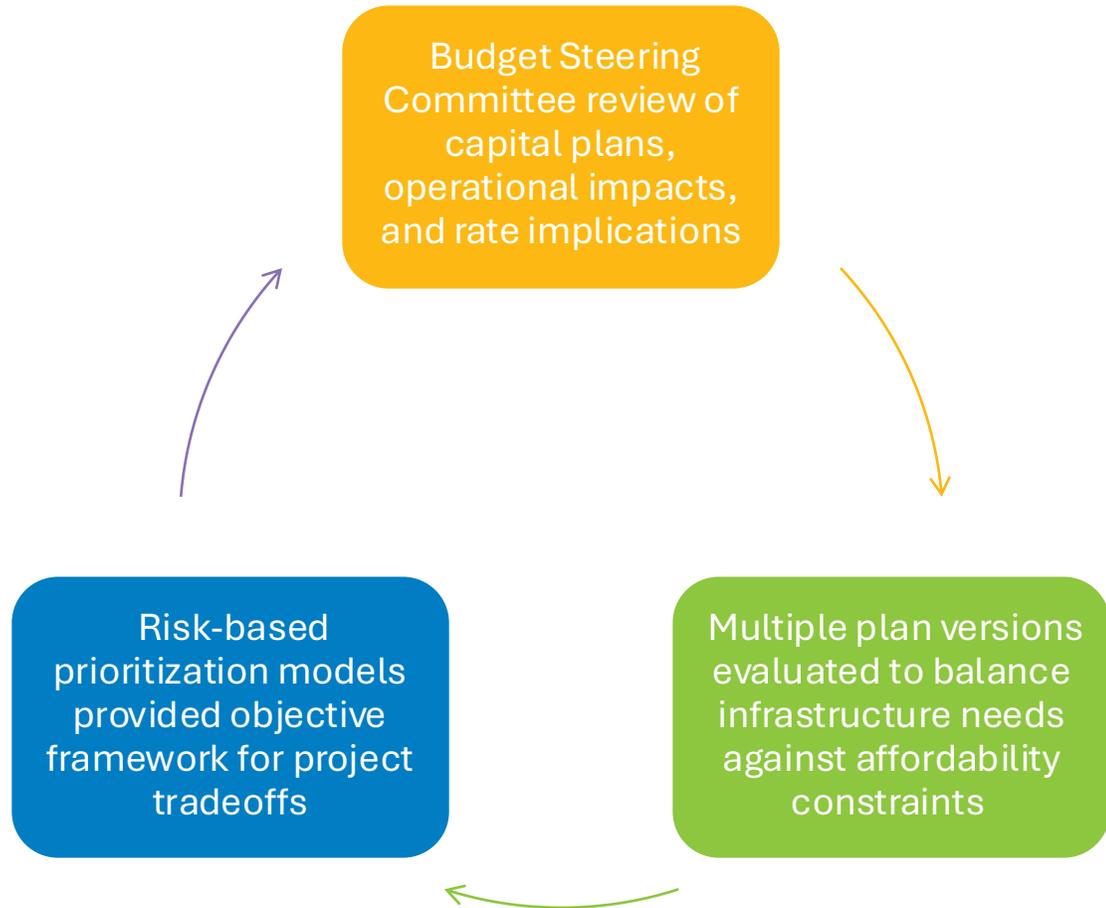


Internal budget instructions required significant plan reductions



Ultimately, \$3.4 billion was reduced from the initial 10-Year plans across Water & Wastewater

# \$3.4B in Deferrals Brought Plan to \$12.5B



## Wastewater Plan Deferrals:

- Judah Street Twin Sewer Construction
- Pump station and force main improvement projects
- Southeast Plan South Campus Facilities
- Several Year 1–2 projects delayed 1–2 years for affordability purposes

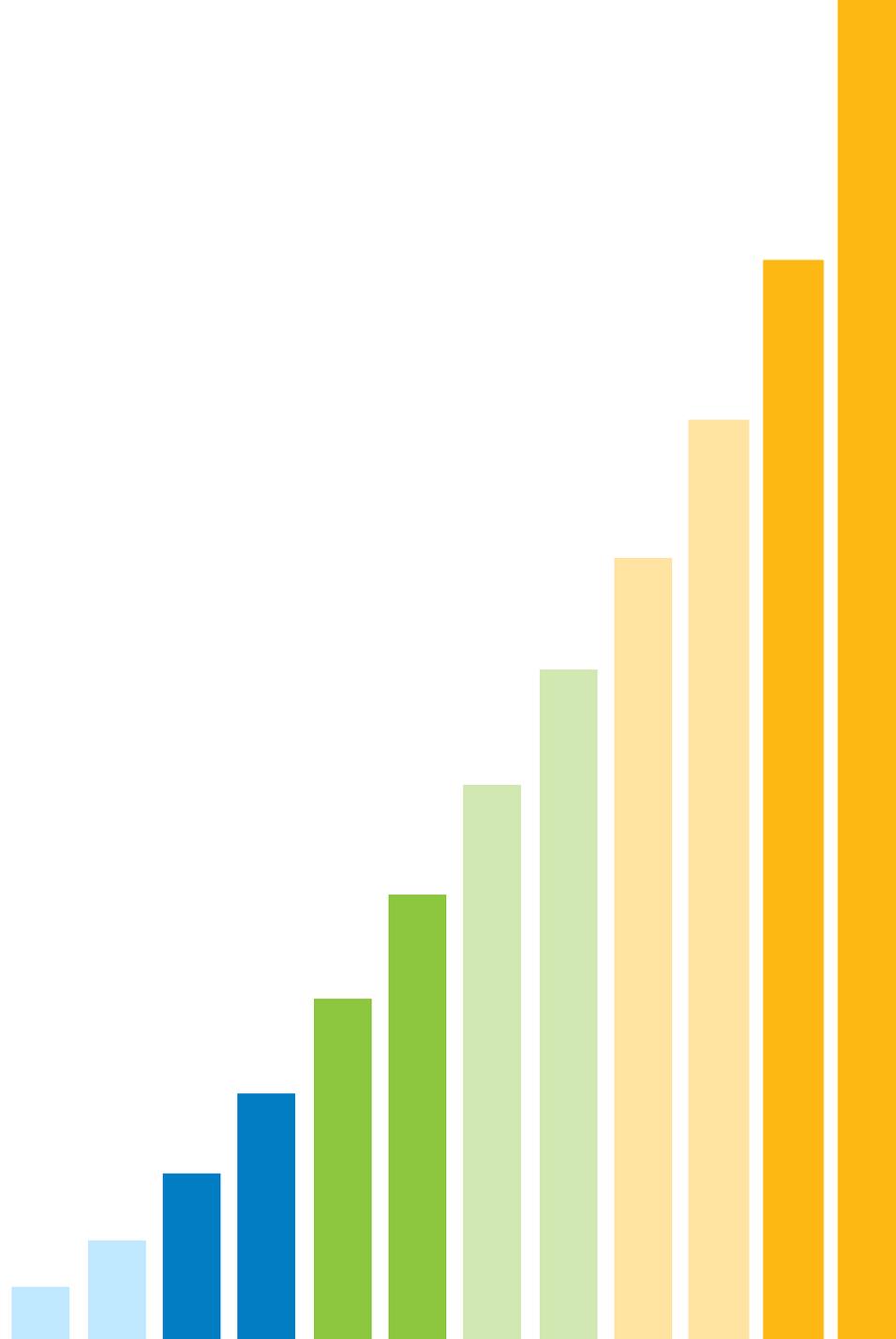
## Water Plan Deferrals:

- Sunol Valley WTP Long Term Improvements and Harry Tracy WTP Phase 3
- Several pump station and pipeline upgrade projects
- Crystal Springs Pipeline No. 2 Reaches 2 & 3 Rehabilitation
- San Andreas, Turner, and Pilarcitos Dam major construction (deferred beyond 10-year CIP)
- All Regional Alternative Water Supply projects except PureWater Peninsula

# Water Capital Plan

Steven R. Ritchie

Assistant General Manager



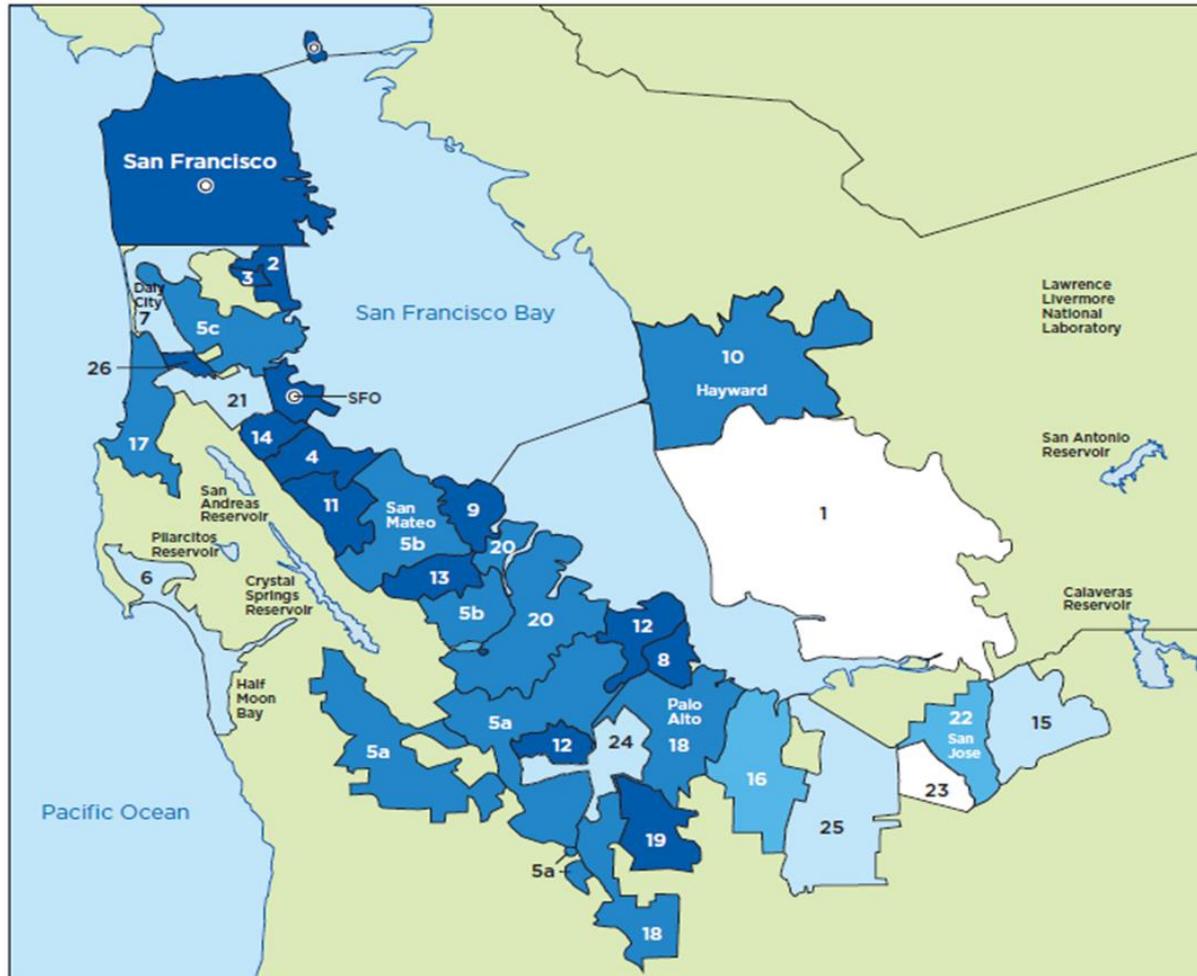
# SFPUC's Water Enterprise



# SFPUC's Water Enterprise

## Bay Area Reliance on Hetch Hetchy Regional Water System

The Hetch Hetchy Regional Water System supplies high-quality drinking water to over 2.7 million residents and businesses throughout the San Francisco Bay Area. Of the 26 wholesale customers, 21 rely on the Regional System for more than 60% of their drinking water supply.



#	Service Population	MGD purchased from SFPUC	% of total supply
1	Alameda County Water District - 344,000	9.71	29.5%
2&3	City of Brisbane / Guadalupe Valley Municipal Improvement District - 4,851	0.53	100%
4	City of Burlingame - 31,109	2.96	100%
5a	Cal Water Service Co. / Bear Gulch	262,704	99.7%
5b	Cal Water Service Co. / Mid-Peninsula		
5c	Cal Water Service Co. / SSF		
6	Coastside County Water District - 18,890	0.71	54.3%
7	City of Daly City - 107,000	3.14	54.8%
8	East Palo Alto - 29,519	1.38	100%
9	Estero Municipal Improvement District - 37,443	3.76	100%
10	City of Hayward - 162,954	12.91	99.8%
11	Town of Hillsborough - 11,592	2.05	100%
12	City of Menlo Park - 20,319	2.19	100%
13	Mid-Peninsula Water District - 30,159	2.16	100%
14	City of Millbrae - 21,579	1.74	100%
15	City of Milpitas - 81,067	4.57	56.1%
16	City of Mountain View - 81,501	6.72	84.5%
17	North Coast County Water District - 37,082	2.10	98.6%
18	City of Palo Alto - 68,624	8.63	90.3%
19	Purissima Hills Water District - 6,245	1.31	100%
20	City of Redwood City - 90,928	7.25	93.7%
21	City of San Bruno - 43,910	1.22	41.4%
22	San Jose Municipal Water System, North - 43,036	3.72	82.9%
23	City of Santa Clara - 132,476	2.88	16.3%
24	Stanford University - 33,827	1.39	55.6%
25	City of Sunnyvale - 156,317	7.92	51.7%
26	Westborough Water District - 13,486	0.70	100%
●	City and County of San Francisco - 843,071	53.1	100%

Source: BAWSCA FY 2022-23 Annual Survey;

# Capital Priorities and Project Drivers



## Operational excellence & reliability

- Prioritize safety of employees and the public
- Meet regulatory obligations
- Minimize risk to water supply and deliveries
- Minimize risk to power generation



## Climate leadership & environmental stewardship

- Meet environmental stewardship objectives to protect and sustain the resources in our care
- Adapt the system to address climate change



## Financial sustainability

- Keep rates affordable & maintain strong credit ratings to keep down borrowing costs, while balancing risk to operational objectives



# Balancing Operational Needs with Affordability through Strategic Prioritization



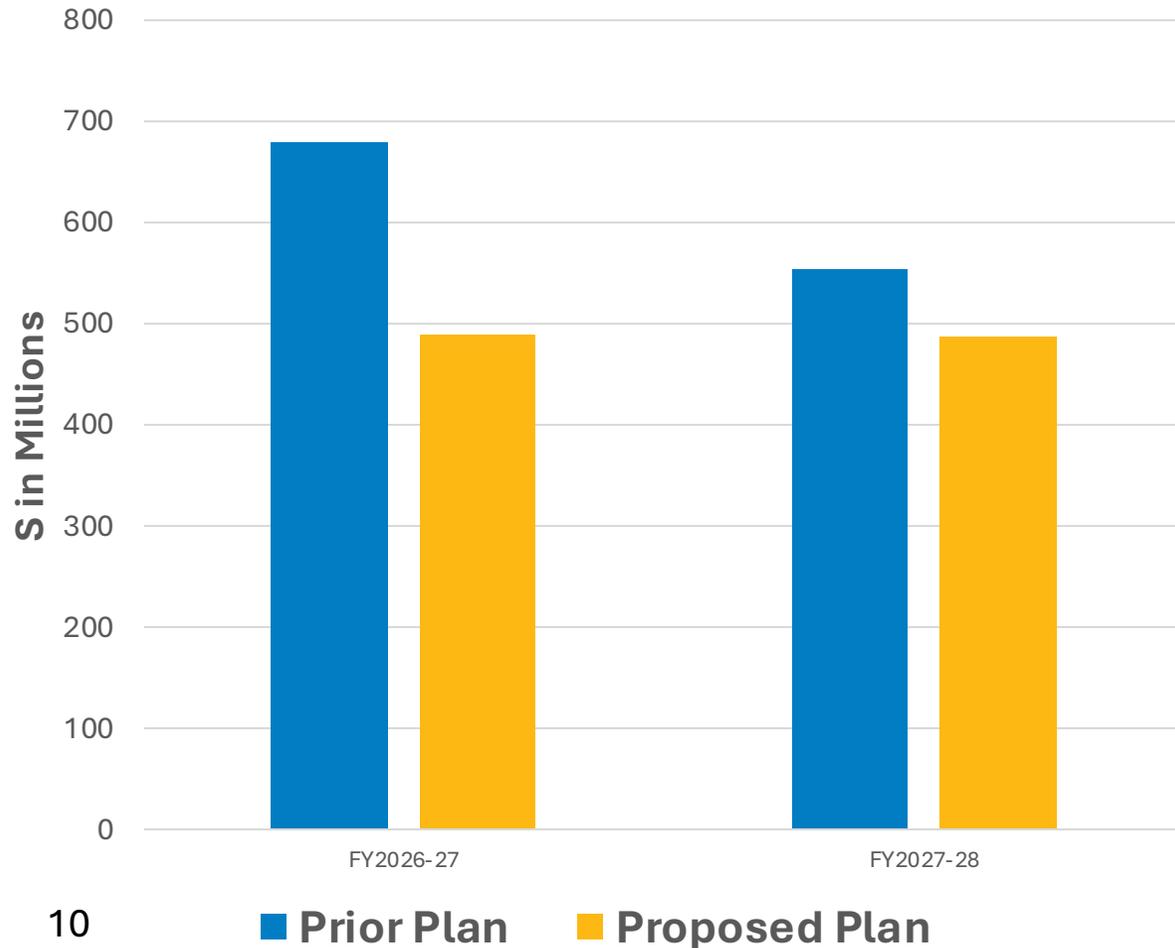
- Safety, regulatory compliance, and system reliability needs prioritized
- Project phase and deliverability assessed
- Reductions through scope optimization and deferrals of lower-priority projects including treatment plant improvements, alternative water supply investments, and dam construction
- Example: 3 full-scope major dam safety projects deferred, with smaller interim safety projects prioritized to address critical issues and meet state regulations



- Utilized a risk-based project prioritization analysis, prioritizing projects that reduce operational risks to system
- Evaluated deliverability for all projects
- Reviewed historical spending and deliverability capacity
- Analyzed and applied carryforward appropriations

# 2-Year Water Capital Budget

2-Year Regional, Local, and Hetchy Water Budget Comparison to Prior Plan



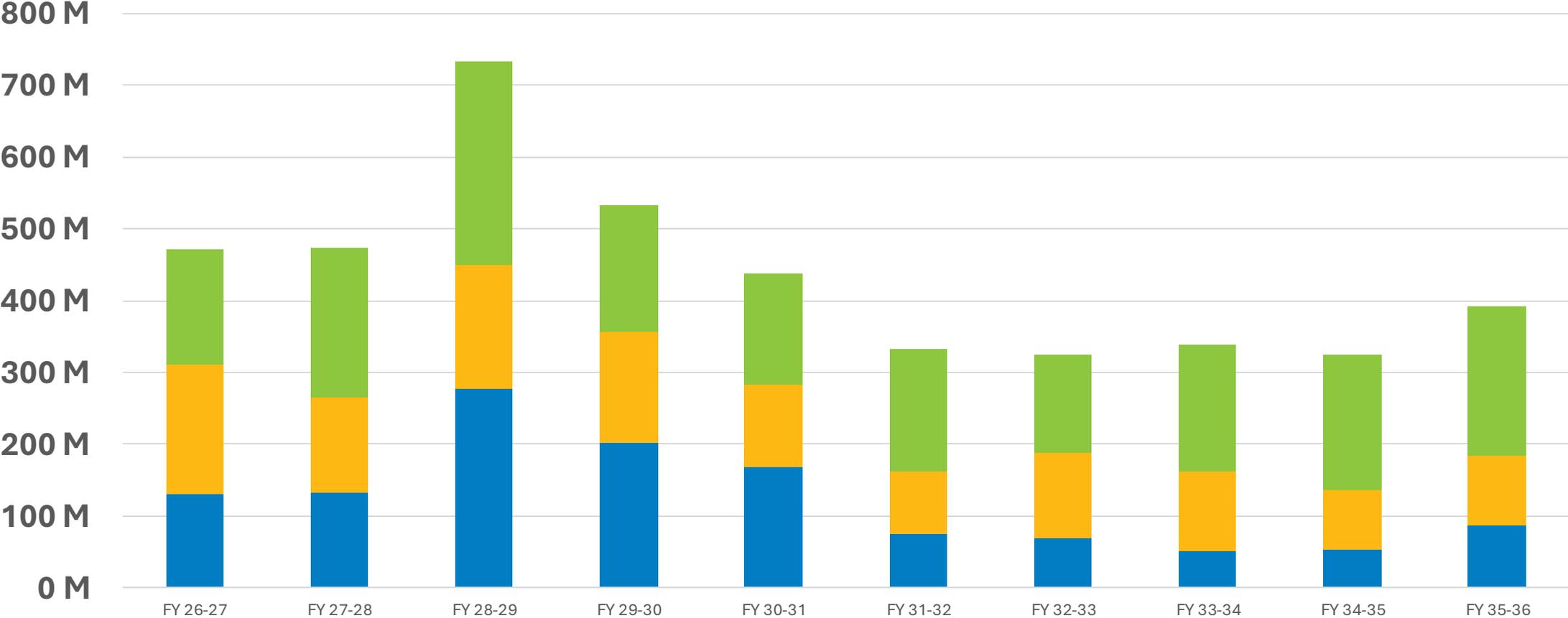
\$Million	Prior Plan FY 26-27	Proposed Plan FY 26-27	Change	Prior Plan FY 27-28	Proposed Plan FY 27-28	Change
Water	514.2	327.7	(186.5)	368.7	279.4	(89.3)
Hetchy Water	165.5	160.7	(4.8)	184.3	207.7	23.4
	679.7	488.4	(191.3)	553.0	487.1	(65.9)

## Water Capital Budget Comparison:

\$250M less than prior plan, driven by internal budget targets and enabled by:

- Prioritization strategy
- Repurposing prior appropriations
- Deliverability capacity

# Water Enterprise 10-Year Capital Plan



■ **Regional**     ■ **Local**     ■ **Hetch Hetchy Water**  
**\$1.25B**     **\$1.25B**     **\$1.86B**

# Major Projects in the 10-year CIP

Project Name	Total 2-Yr Cap. Budget	Total 10-Yr Cap. Plan	Total Cost	Current Phase
Moccasin Penstocks Rehabilitation	\$5.4M	\$510M	\$534M	Planning
O'Shaughnessy Dam Outlet Works Ph. 2	\$6.0M	\$116M	\$184M	Planning
San Joaquin Pipelines Valve and Safe Entry Imp.	\$29M	\$29M	\$158M	In Construction
Sunol Water Treatment Plant Ozone Treatment	\$79M	\$84M	\$326M	In Construction
Millbrae Operations Center Improvements	\$57M	\$366M	\$428M	Design
Regional Dams Interim and Long-Term	\$10.5M	\$56M	\$1.4B	Planning
New SFWD Headquarters	\$114M	\$115M	\$418M	In Construction
San Francisco Water Main Replacement	\$93M	\$477M	\$477M (10 Yrs)	Multiple/Ongoing
Potable Emergency Firefighting Water System	\$0M	\$162M	\$162M (10 Yrs)	Multiple/Ongoing

# Wastewater Capital Plan

Joel Prather, Assistant General Manager

# Wastewater Enterprise Goals

Asset  
Management

Safety

Workforce Planning  
& Employee  
Engagement

Long-Term Planning

- Meet or exceed **all regulatory requirements** across water, biosolids, biogas, and nutrient product parameters.
- Establish, communicate, maintain and **strengthen employee core competencies** and performance expectations.
- Partner with key stakeholders to **deliver capital projects** on schedule and in a fiscally responsible manner.
- **Minimize asset failures** through proper maintenance, repair and replacement.
- **Maximize asset run-time** through effective maintenance Operational Optimization.
- **Optimally manages resources** to maximize wastewater treatment.
- Execute day-to-day operations in a **fiscally responsible manner** through effective oversight of the Capital and Operating budgets.



# What This Plan Delivers

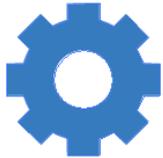
Focused on high-impact projects that strengthen essential infrastructure, protect neighborhoods, and enhance the health of the Bay.



Leads the region to significantly **reduce nutrient loadings** to the Bay to improve long-term water quality.



**Upgrades the Southeast Bay Outfall system** to bolster reliability, protect water quality, and prepare for sea level rise.



Enhances service **reliability of the Channel Force Main**, which carries 80% of wastewater flows on the Bayside.



Enhances conveyance and treatment **reliability for neighborhoods on the City's Westside.**



**Strengthens flood resilience** in the Folsom and Lower Alemany areas.



Enhances **citywide sewer reliability** through extensive inspection and repair/rehab.

# Prioritization Strategy

This capital plan balances **ratepayer affordability**, SFPUC's obligation to **maintain reliable service** and meet **regulatory requirements**.

Our risk-based prioritization framework considers:

- Regulatory compliance
- Health, safety and environmental risk
- Operational reliability and risk of failure
- Stormwater management and climate resilience
- Seismic vulnerabilities

Relative Priority Score	Definition	LOS
<b>Very High</b> Improvements correct failed systems needed for critical process operations, to protect worker safety, and for regulatory compliance.	Improvement is needed for regulatory compliance.	Operational Reliability
	Improvement corrects failure that impacts process operations.	Operational Reliability
	Improvement remediates unsafe work conditions (including security) that have no acceptable workarounds.	Health, Safety & Security
<b>High</b> Improvements correct failed systems that are noncritical for process operations or prevent further deterioration of assets that are critical for compliance.	Improvement corrects failure that does not impact process operations.	Operational Reliability
	Improvement replaces/rehabilitates an asset that is in poor condition which may lead to failure.	Operational Reliability
	Condition assessment informs the state of an asset that is required for regulatory compliance and that appears to be vulnerable.	Operational Reliability
	Condition assessment informs the state of an asset that could threaten worker safety and that appears to be vulnerable.	Operational Reliability
<b>Medium</b> Improvements address operational reliability issues that are not critical or provide flood management during a LOS storm.	Improvement replaces/rehabilitates an asset that is in poor condition which may lead to failure.	Operational Reliability
	Condition assessment informs the state of an asset that appears to be vulnerable, but the failure of which would not impact regulatory compliance.	Operational Reliability
	Improvement remediates unsafe work conditions (including security) that have acceptable workarounds in place.	Health, Safety & Security
	Upgrade improves flood management in a LOS storm.	Stormwater Management
<b>Low</b> Improvements enhance an otherwise functioning system, or condition assessments provide clarity on condition of low priority assets.	Upgrade improves stormwater management.	Stormwater Management
	Upgrade provides seismic resiliency.	Seismic Reliability
	Upgrade enhances efficiency of operation and maintenance activities.	Operational Reliability
	Condition assessment informs the state of an asset that does not appear to be vulnerable.	Operational Reliability

# How Project Deferrals Were Made

Deferrals were informed by the prioritization framework and focused on maintaining planning and information-gathering work so projects can move forward when financially feasible.

## Examples:

### 1. Southeast Plant South Campus Facilities

Environmental planning will continue to preserve flexibility and support informed decisions.

### 2. Judah Street Twin Sewer Construction Project

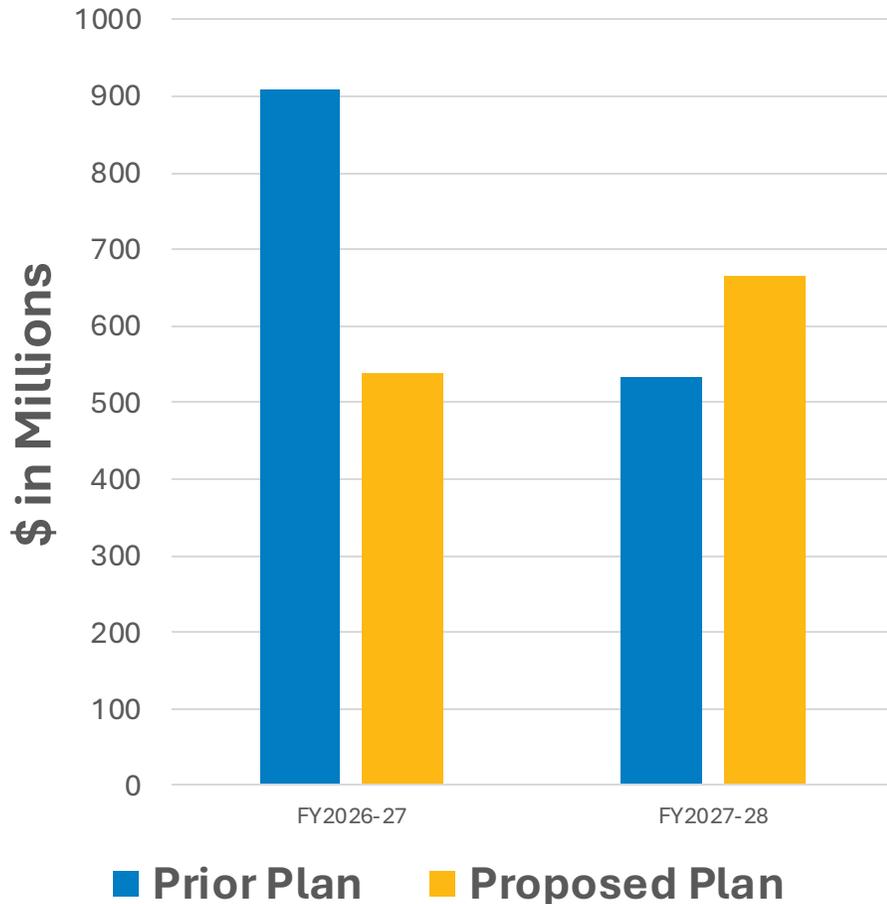
Monitoring and coordination with SFMTA will continue.

### 3. Pump Station and Force Main Rehabilitations

A near-term condition assessment effort will better inform the need, scope and timing and help prioritize future investments.

# 2-Year Wastewater Capital Budget

2-Year Budget Comparison to Prior Plan



	Prior Plan FY 26-27	Proposed Plan FY 26-27	Change	Prior Plan FY 27-28	Proposed Plan FY 27-28	Change
<b>Wastewater</b>	<b>908.9</b>	<b>537.5</b>	<b>(371.4)</b>	<b>532.3</b>	<b>665.9</b>	<b>133.6</b>

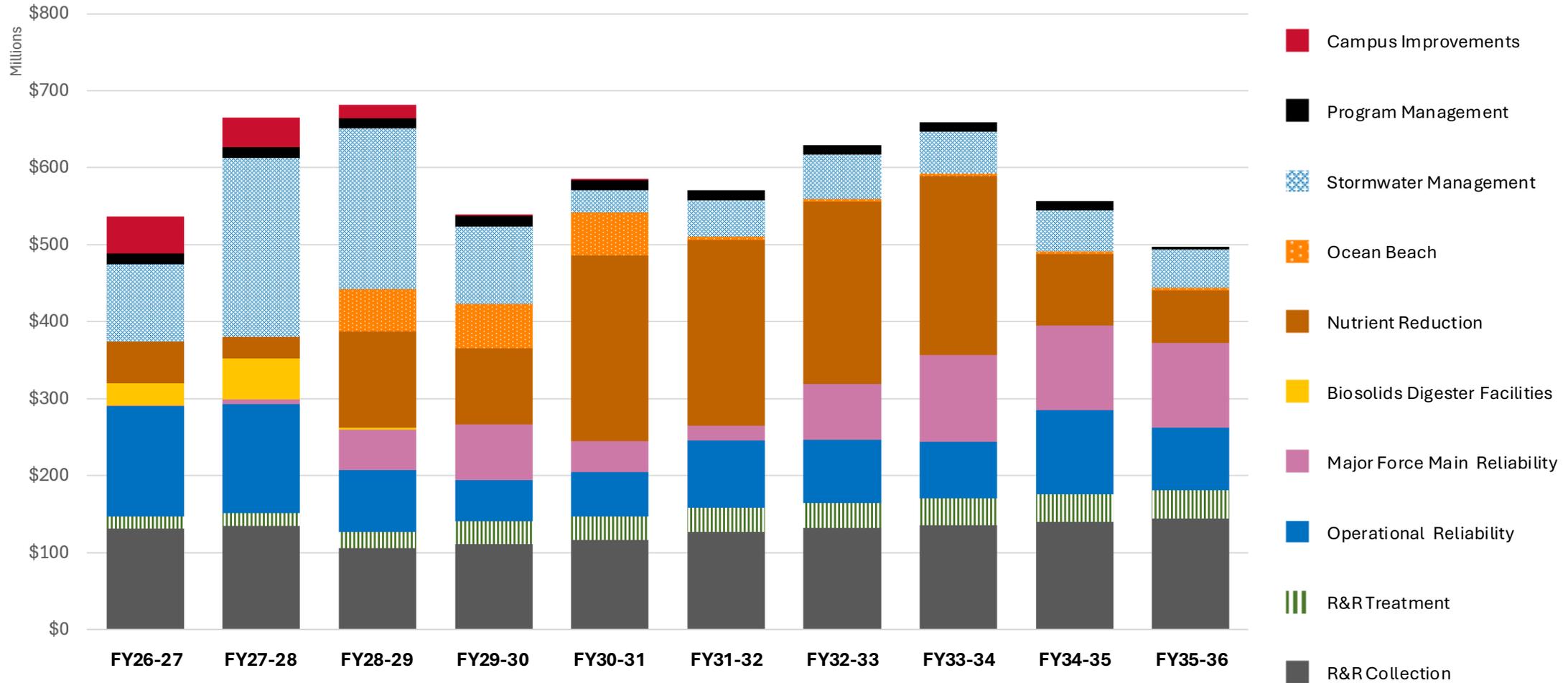
## Wastewater Capital Budget Comparison:

Net two-year budget nearly \$250M less than prior plan, driven by internal budget targets and enabled by:

- Prioritization strategy
- Repurposing prior appropriations
- Deliverability capacity and project deferrals

# Wastewater FY27-36 Capital Plan

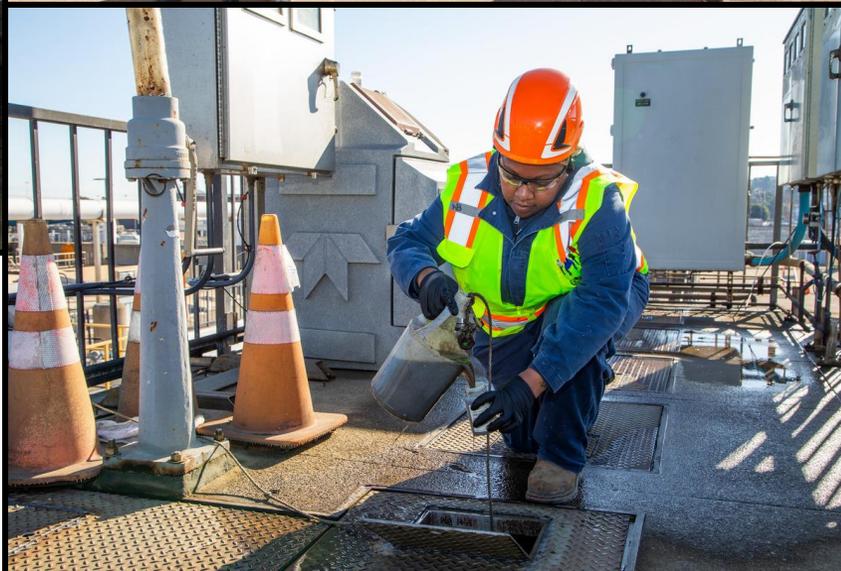
10-Year Total: **\$5.92B** | Two-Year Budget: **\$1.20B**



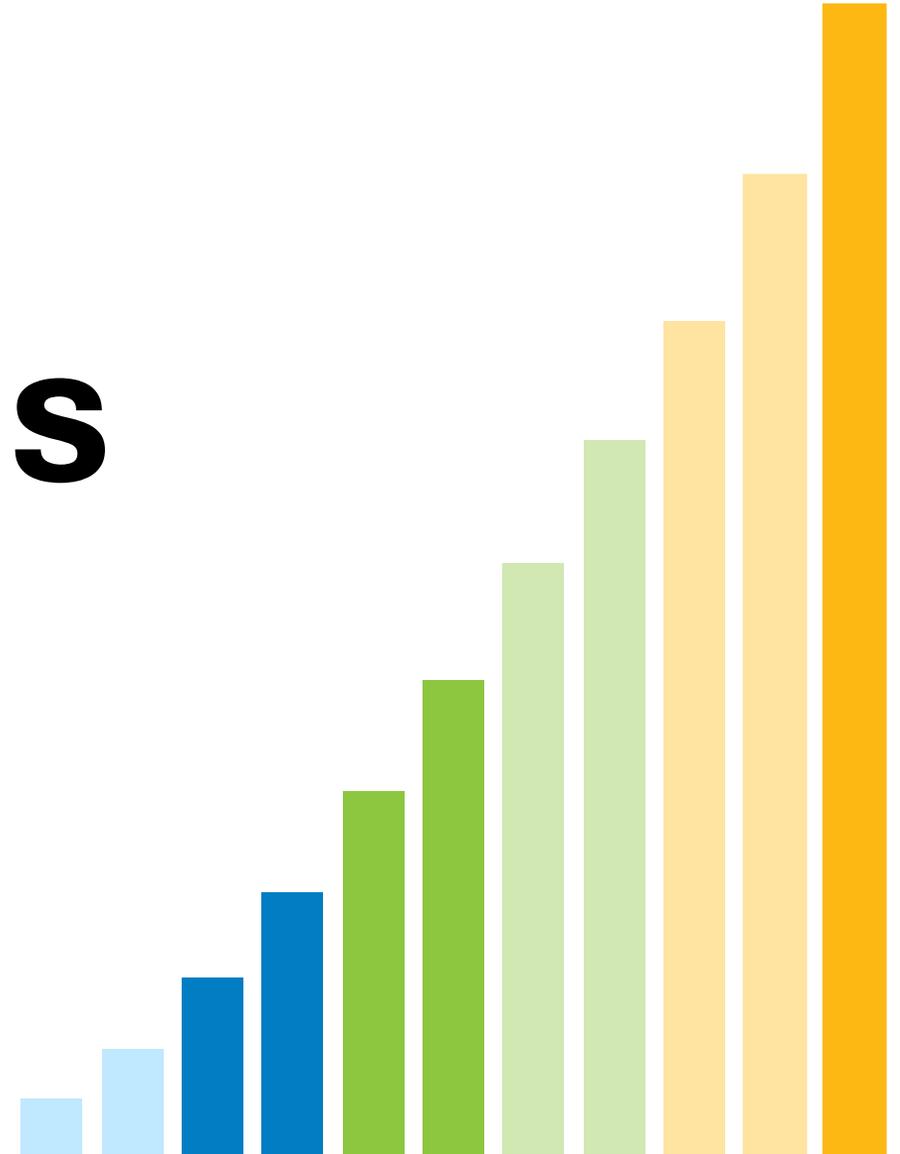
# Major Projects in the 10-Year CIP

Project Name	Total 2-Yr Cap. Budget	Total 10-Yr Cap. Plan	Total Cost	Current Phase
SEP Nutrient Reduction	\$83M	\$1.42B	\$1.47B	Planning
R&R Collection System	\$267M	\$1.29B	Ongoing	Multiple phases
Channel FM Reliability	\$0	\$454M	\$507M	Not started
R&R Treatment Facilities	\$33M	\$286M	Ongoing	Multiple phases
Folsom Area Stormwater Imp. Project Phase 2	\$145M	\$271M	\$442M	Design and Construction (multiple contracts)
Lower Alemany Area Stormwater Improvement Project	\$139M	\$251M	\$364M	Design
Oceanside Plant Facility-Wide Capacity Improvements	\$0	\$230M	\$300M	Not started
Ocean Beach Climate Adaptation	\$0	\$184M	\$253M	Multiple phases
SE Bay Outfall & SEP Booster Station Replacement	\$0	\$154M	\$1.98B	Not started

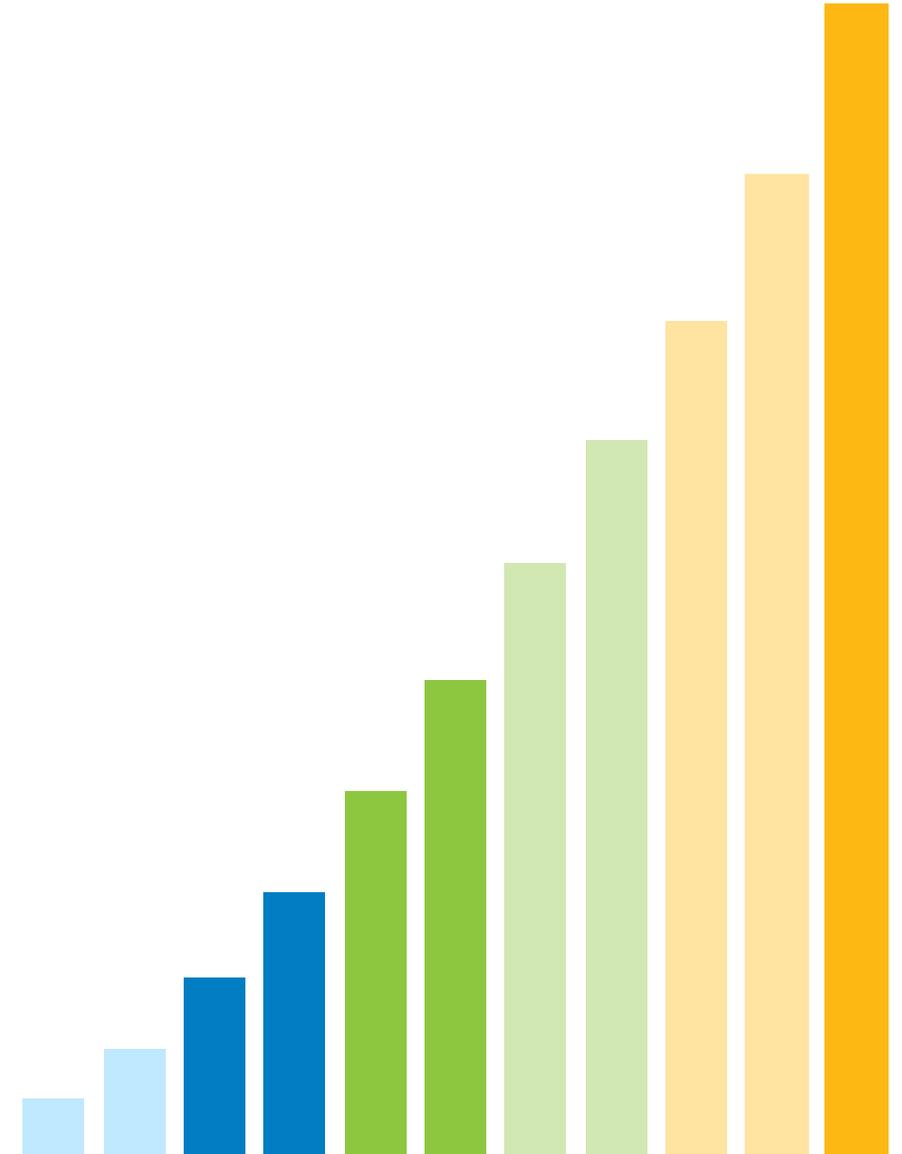
# Questions?



# Reference Slides



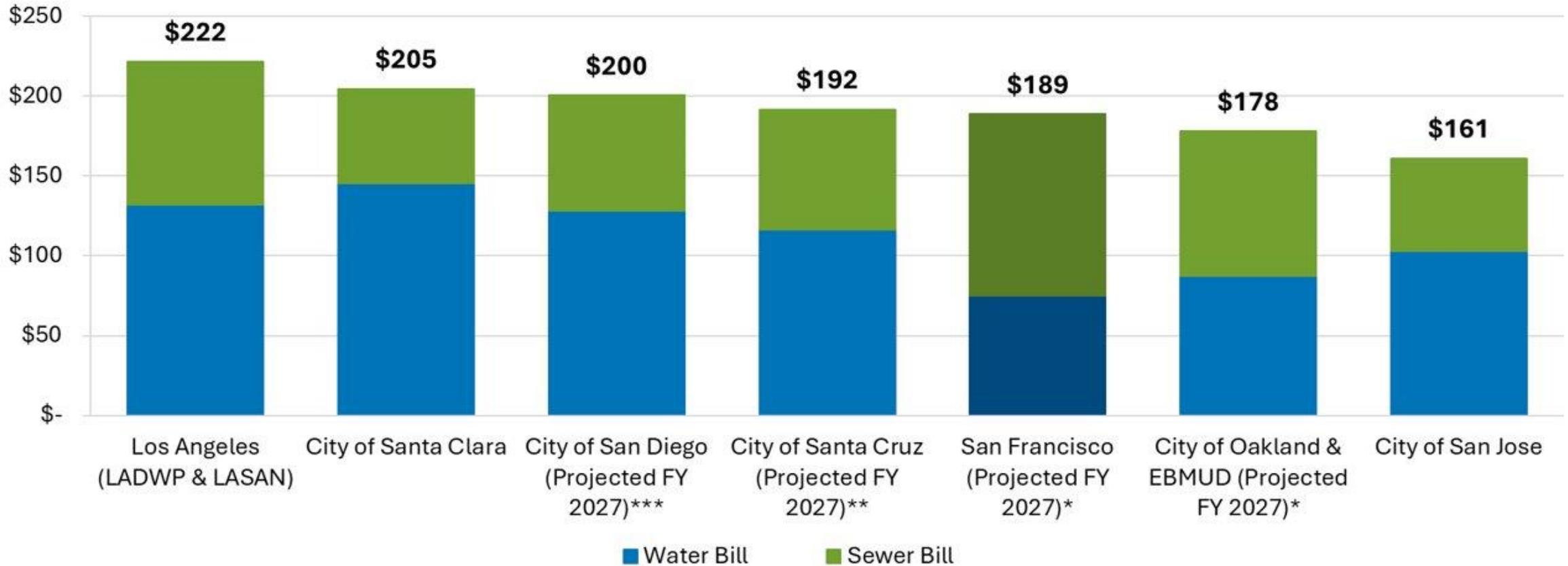
# Rate Forecasts



# How SF's Rates Compare to Peer Utilities

## Average Single Family Residential Monthly Bill

Projected FY27 and current FY26 bill amount based on local average water



\*San Francisco (SFPUC) and City of Oakland (EBMUD) projected FY rates are calculated by multiplying FY 26 rates by projected FY 27 rate increase percentages  
 \*\*City of Santa Cruz FY 27 rates from 2021 Water & Wastewater Cost of Service Rate Study  
 \*\*\* City of San Diego FY 27 rates from 2025 Water & Wastewater Cost of Service Rate Study

# Water Rate Forecast

	FY 26-27*	FY 27-28*	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	FY 34-35	FY 25-36	10-Year Avg
<b>Retail Rate</b>	7.0%	7.0%	7.5%	7.5%	7.5%	7.0%	6.0%	6.0%	4.5%	4.5%	6.4%
<b>Wholesale Rate</b>	7.9%	6.9%	3.7%	2.2%	4.5%	5.3%	5.1%	2.7%	3.8%	0.3%	4.2%

\*Two years of rates for retail customers and one year of rates for wholesale customers will be proposed in Spring 2026  
 FY 28-29 and after are estimates based on 10-Year Financial Plan

# Wastewater Rate Forecast

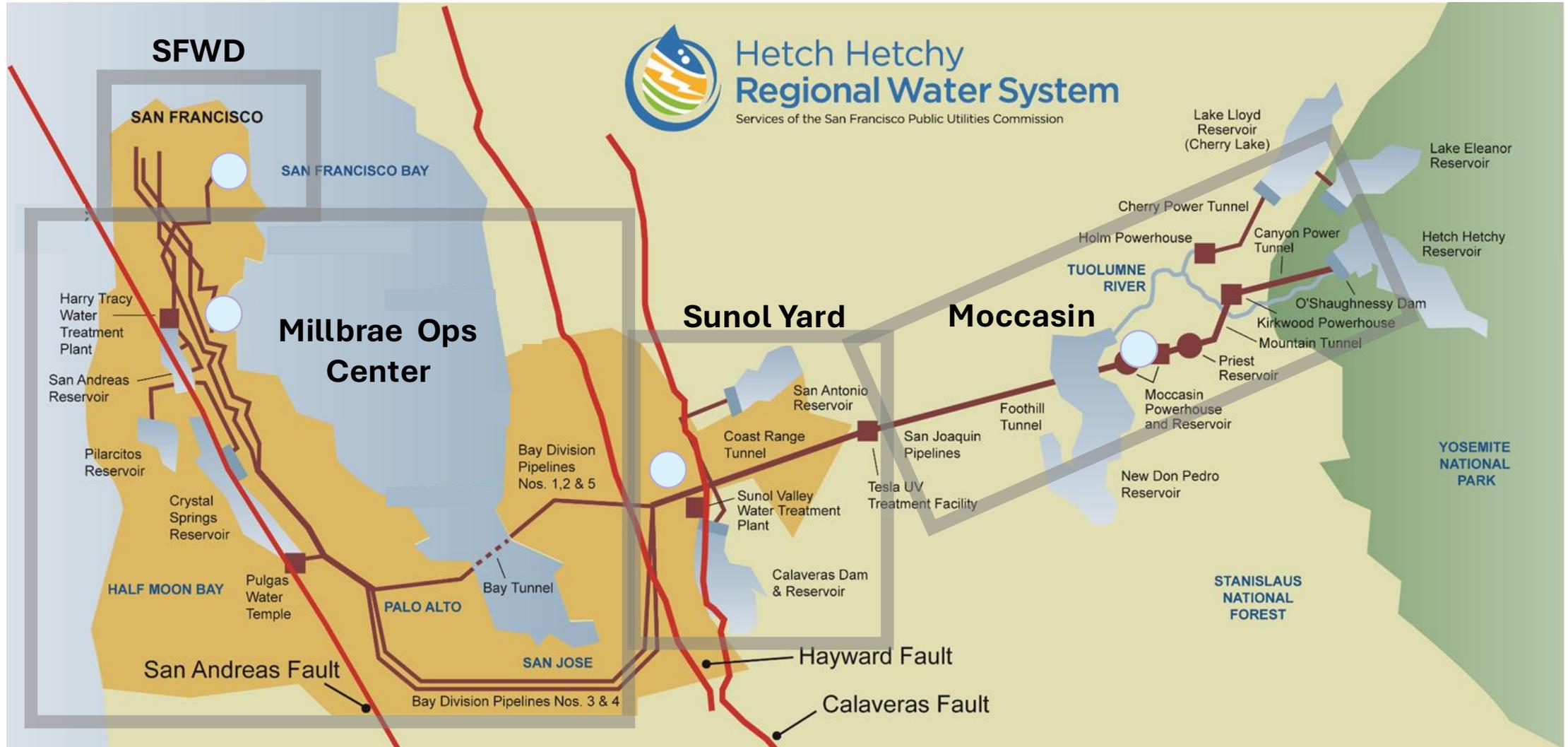
	FY 26-27*	FY 27-28*	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	FY 34-35	FY 25-36	10-Year Avg
Retail Rate Change	15%	14.5%	13%	13%	12%	8%	8%	8%	5%	5%	<b>10%</b>

\*Two years of rates will be proposed in Spring 2026  
 FY 28-29 and after are estimates based on 10-Year Financial Plan

# Major Water Projects



# Water Enterprise Operation Centers



# Local: In-City Headquarters

## New San Francisco Water Division Headquarters (2000 Marin)

Total Budget:	10 Year Plan	Years 1 & 2
\$ 417.8M	\$114.9M	\$114.1M

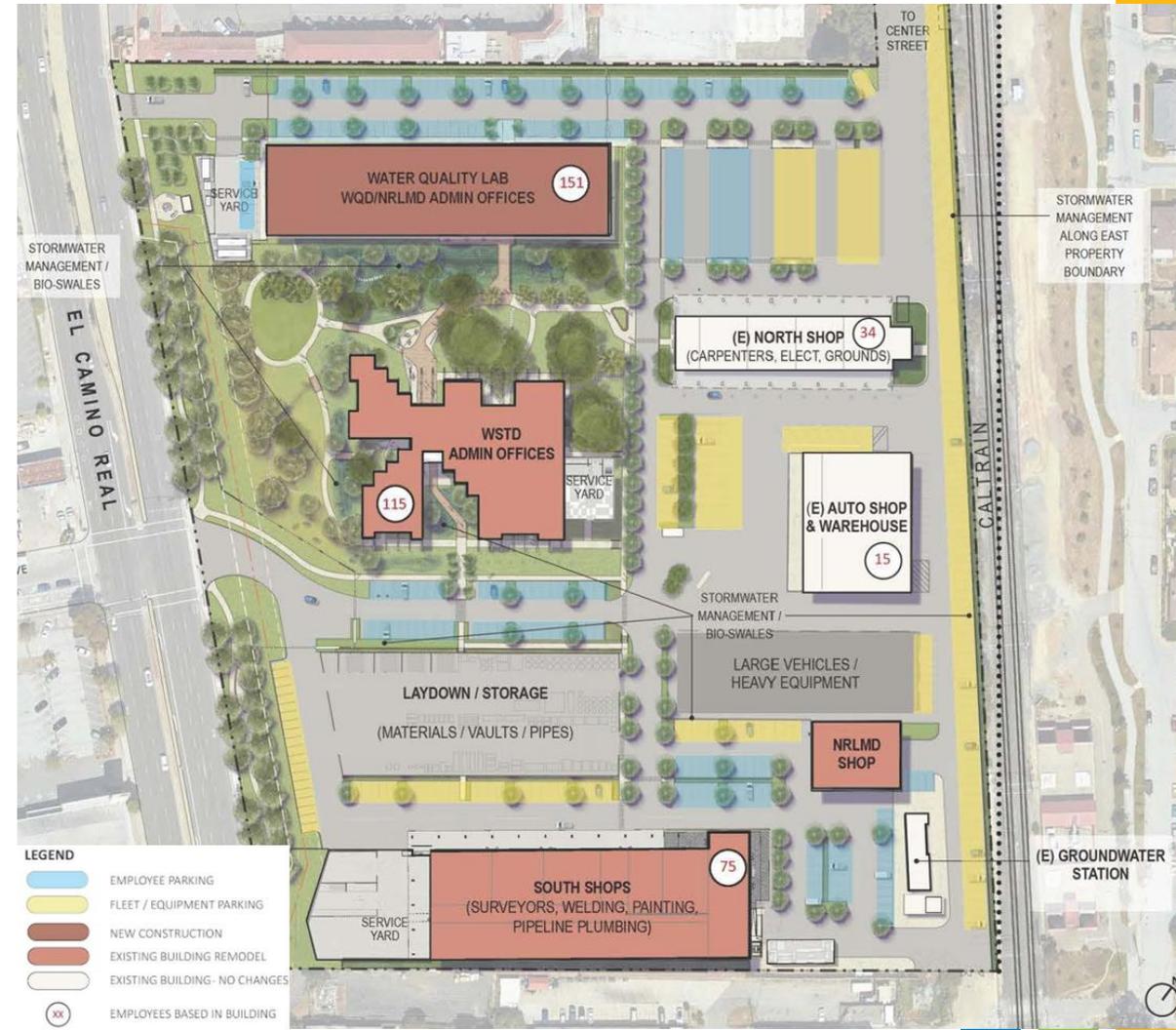
- Construction started in late 2024
- Expected completion in 2029



# Millbrae Operations Center Improvements

Total Budget:	10 Year Plan	Years 1 & 2
\$ 427.7M	\$365.8M	\$57.0M

- Major Upgrades to Regional Operations Center
- Consolidation with seismically unsafe Rollins Road building
- Millbrae Water Quality Laboratory is outdated
- South Shops buildings are unsafe and unusable
- Elimination of aging “temporary” outbuildings and storage containers
- In design; completion 2032



# Regional Water Treatment

## Two Sunol Valley Water Treatment Plant Projects:

Total Budget:	10 Year Plan	Years 1 & 2
\$ 326.4M	\$83.9M	\$79.4M

- Ozone Treatment – to control taste and odor compounds.
  - In construction; completion 2030

Total Budget:	10 Year Plan	Years 1 & 2
\$ 78.6M	\$6.2M	\$2.9M

- Short Term Improvements – to ensure operational reliability
  - In construction; completion 2029.



# Regional Water Treatment

Total Budget:	10 Year Plan	Years 1 & 2
\$ 42.1M	\$41.0M	\$13.8M

- Tesla UV Treatment Facility – Increase reliability, particularly backup power systems
  - In design; completion 2034



Total Budget:	10 Year Plan	Years 1 & 2
\$ 30.7M	\$30.7M	\$0.2M

- Harry Tracy Water Treatment Plant Phase 3 – chemical facilities rehabilitation
  - Not started; completion 2036



# Regional Dams

Total Budget:	10 Year Plan	Years 1 & 2
\$ 1,389.9M	\$55.8M	\$10.5M

- Dam safety projects for Pilarcitos, San Andreas, & Turner Dams
  - Interim projects (\$44M) in the 10-year plan begin to meet Division of Safety of Dams requirements
  - Planning work for projects beyond the 10-year plan



**Turner Dam**  
\$776M  
Completion 2058



**San Andreas Dam**  
\$380M  
Completion 2044

**Pilarcitos Dam**  
\$190M  
Completion 2048

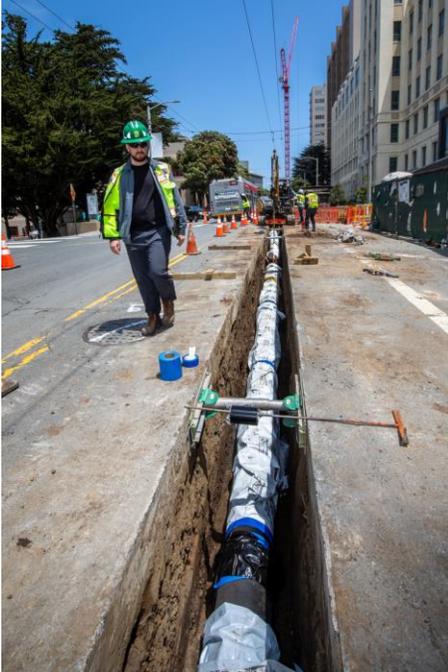
# Local: In-City Main Replacement

## Local Water Conveyance/Distribution

Total Budget:	10 Year Plan	Years 1 & 2
\$ 477.4M (10 years)	\$477.4M	\$92.6M

## Potable Emergency Firefighting Water System

Total Budget:	10 Year Plan	Years 1 & 2
\$ 162.2M (10 years)	\$162.2M	\$0M



# Local: AMI & Meter Replacement

- Small Meter New & Renew
- Large Meter New & Renew
- Manifold Services Renewal
- AMI Refresh & Renew

Total Budget:	10 Year Plan	Years 1 & 2
R&R	\$20M	\$7.5M

Total Budget:	10 Year Plan	Years 1 & 2
R&R	\$9.2M	\$2.6M

Total Budget:	10 Year Plan	Years 1 & 2
\$38M	\$37M	\$0M

Total Budget:	10 Year Plan	Years 1 & 2
\$100.2M	\$45M	\$15.7M



# Moccasin Penstock Rehabilitation

Total Budget:	10 Year Plan	Years 1 & 2
\$533.7M	\$510.2M	\$5.4M

- Rehabilitation of 100+ year-old penstocks
- Condition and needs assessments complete
- Alternatives analysis drafted, but undergoing further review
- Construction FY31-32; completion in 2036



# O'Shaughnessy Dam Outlet Works Phase II

Total Budget:	10 Year Plan	Years 1 & 2
\$184M	\$116M	\$6.0M

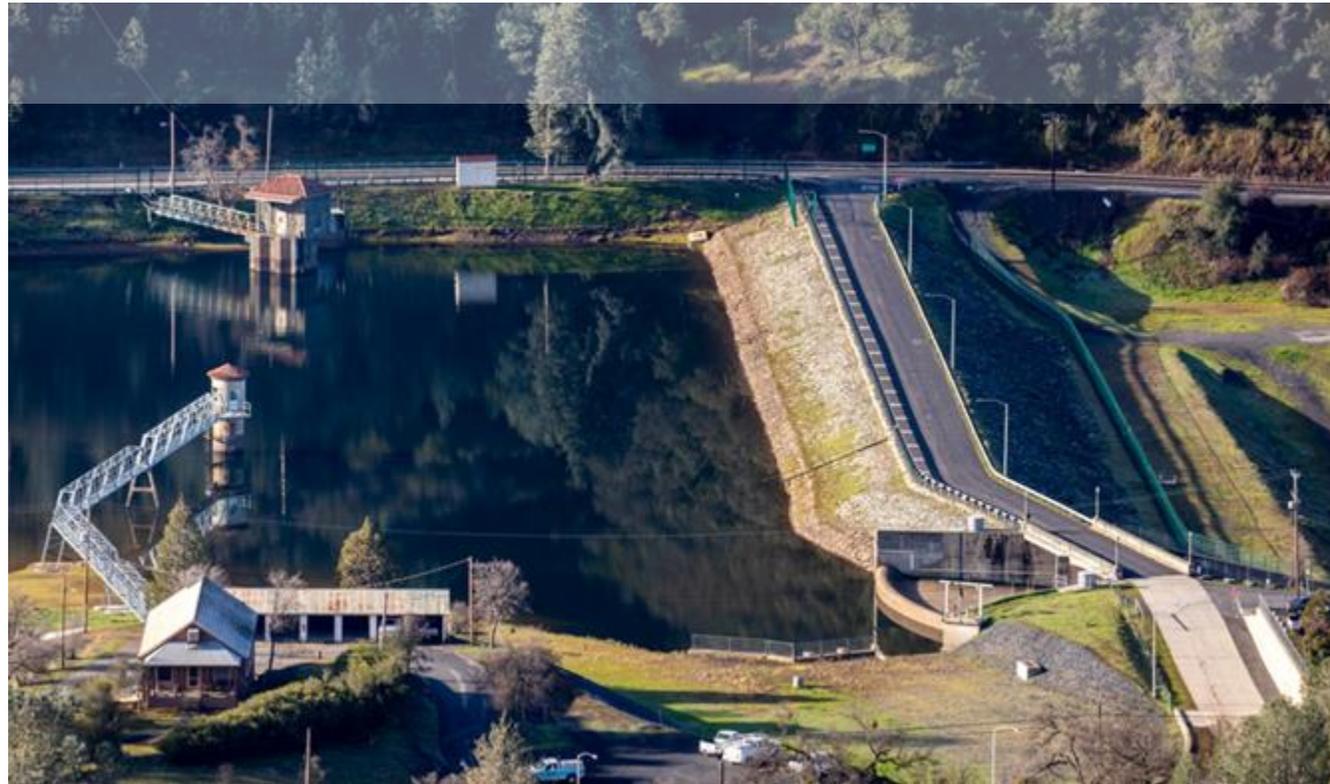
- Replacement of 7 discharge needle valves in dam face
- Refurbishment of one discharge butterfly valve in dam face
- Refurbishment and rehabilitation of 12 slide gates & 3 drum gates
- Improvements to the diversion tunnel and pipeline
- Construction FY29-30; completion in 2041



# Moccasin Dam & Reservoir Long Term Improvements

Total Budget:	10 Year Plan	Years 1 & 2
\$ 162.2M	\$144.3M	\$3.7M

- Construction of new auxiliary spillway with adequate flow capacity
- 35 percent design completed
- Construction FY28-29; completion in 2033



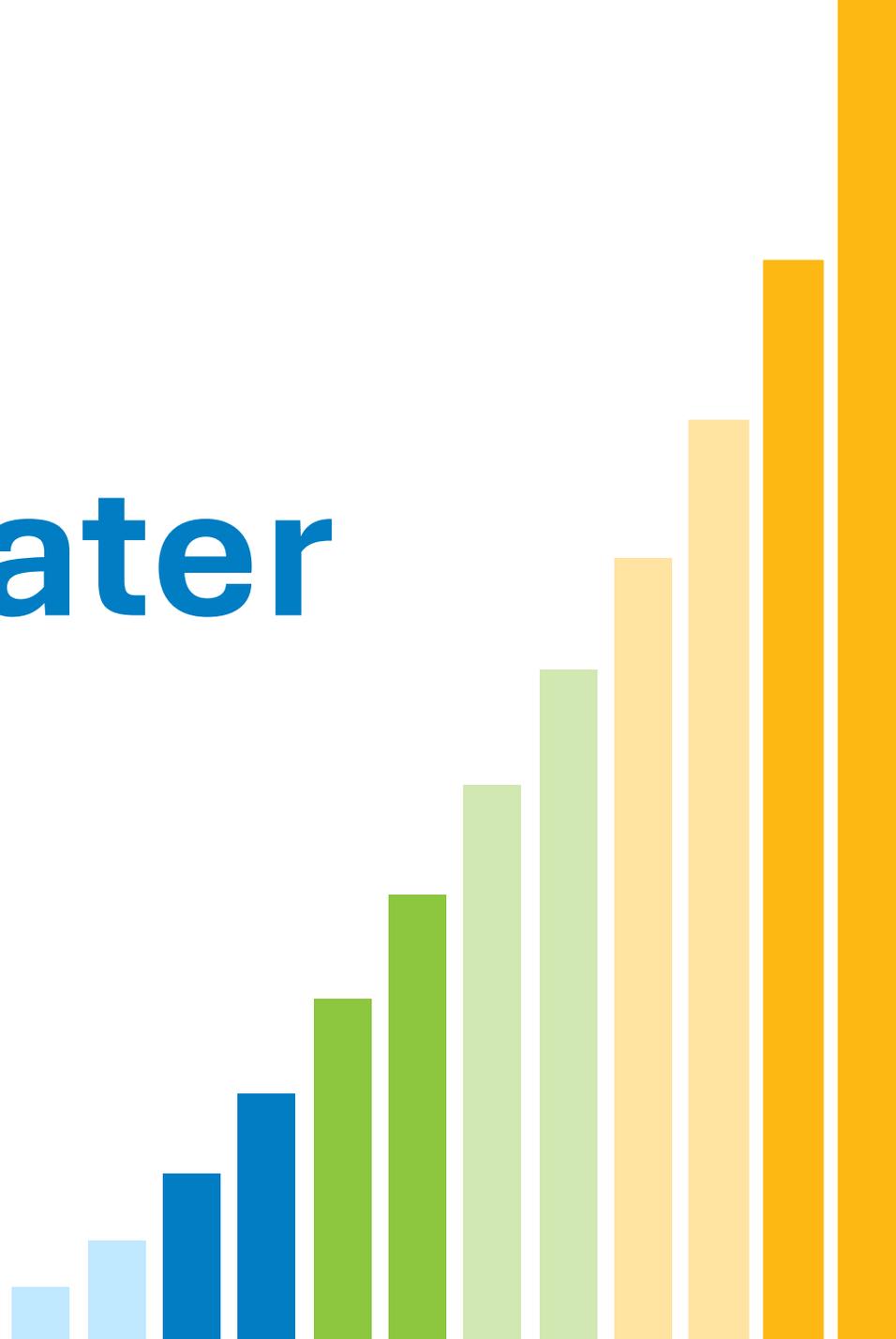
# San Joaquin Pipelines Valve and Safe Entry Improvement

Total Budget:	10 Year Plan	Years 1 & 2
\$ 157.8M	\$29.1M	\$29.1M

- Project includes valve replacements and pipeline crossover installations
- All phases are in construction, with one of five subprojects already complete
- Construction is forecasted to be complete in FY28-29



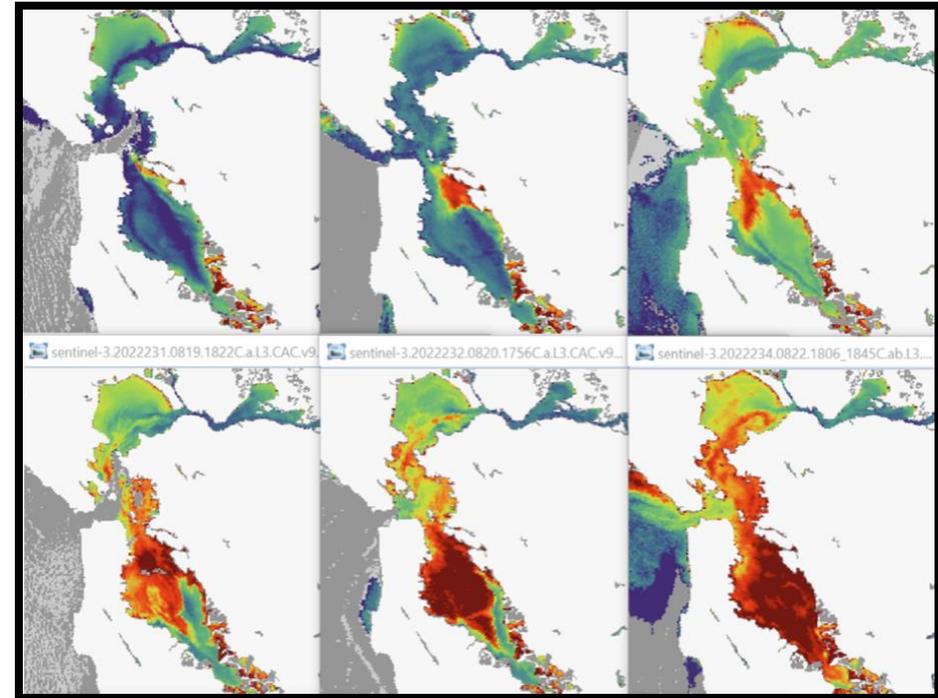
# Major Wastewater Projects



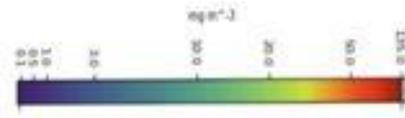
# SEP Nutrient Reduction

Total Project Budget: **\$1.47B** | Appropriations in FY27-36: **\$1.42B**

- San Francisco Bay experienced harmful algal blooms and fish kills in 2022 and 2023.
- To meet permit requirements from the San Francisco Bay Regional Water Quality Control Board, the project adds treatment infrastructure at the Southeast Plant to significantly reduce nutrient discharges from the plant to the San Francisco Bay.
- A Progressive Design-Build contract is on track to be awarded in Spring 2026.



August 2022 Algal Bloom (NOAA/NCCOS)



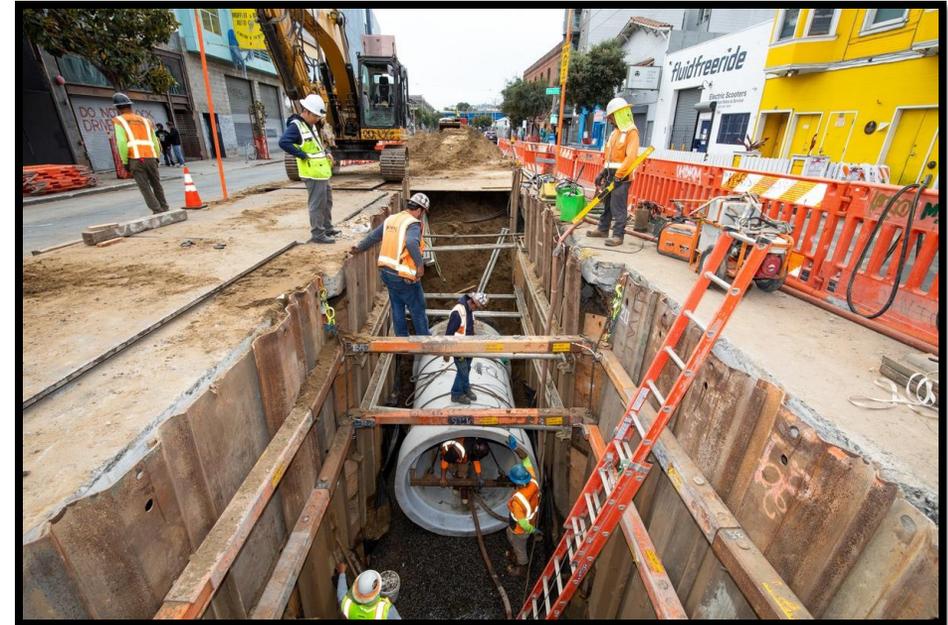
Chlorophyll derived from Sentinel-3,  
processed by NOAA/NCCOS

# Lower Alemany and Folsom Stormwater Improvement Projects

**Lower Alemany: Total Project Budget: \$364M | Appropriations in FY 27-36: \$251M**

**Folsom: Total Project Budget: \$442M | Appropriations in FY27- 36: \$271M**

- Projects help meet the San Francisco Bay Regional Water Quality Control Board Clean-Up and Abatement Order and provide sewer improvements for additional stormwater storage and conveyance.
- The Lower Alemany project includes construction of a new sewer tunnel and other improvements.
- The Folsom project includes construction of a new sewer tunnel, enlargement of a sewer box, and other improvements.



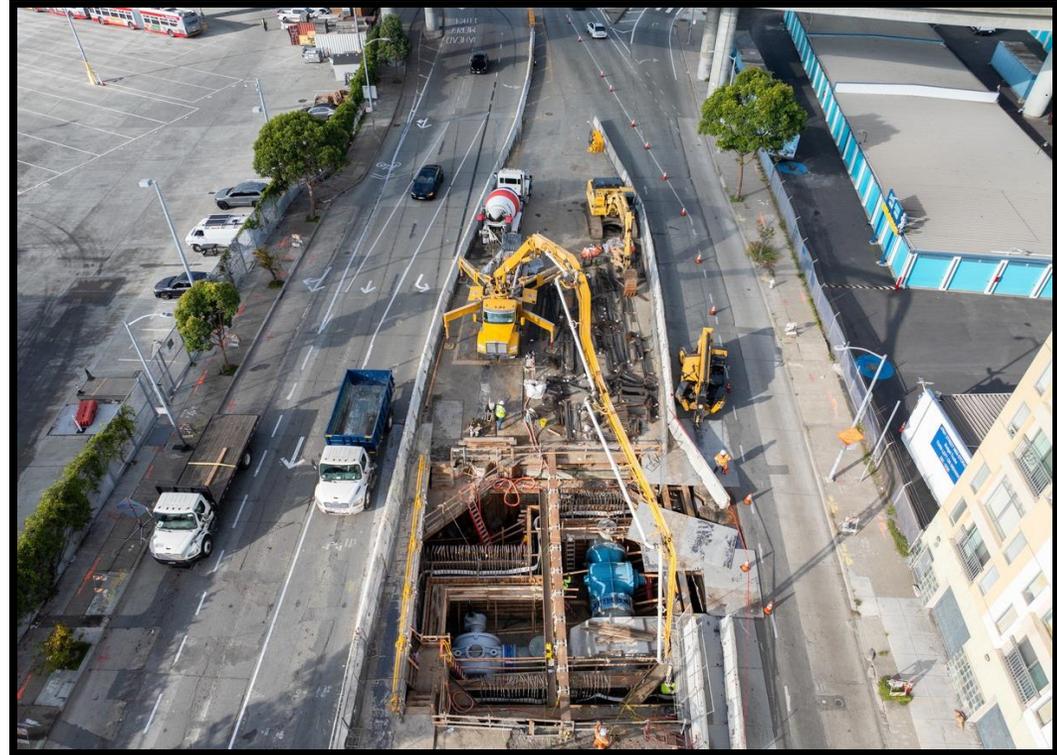
# Major Force Main Reliability Projects

Total Budgets (three projects): **\$655M** | Appropriations in FY27-36: **\$598M**

Major Force Main (FM) projects include:

1. Channel FM Inspection and Rehabilitation – Southern Section
2. Channel FM Reliability
3. Westside FM Reliability – Design and Construction

Channel Force Main and Westside Force Main are critical to conveying flows to the Southeast and Oceanside Plants, respectively.



# Renewal & Replacement (R&R) Projects

Collection System R&R Appropriation for FY27-36: **\$1.29B**

Treatment Facilities R&R Appropriation for FY27-36: **\$286M**

- The R&R projects for the collection system and treatment facilities perform many in-kind repair, rehab or replacement projects each year.
- R&R projects enable WVE to quickly and efficiently address more straightforward needs to keep the system functioning and reliable.
- Proactive, ongoing investments in routine repair and rehabilitation help minimize the need for more costly capital projects.



# SE Bay Outfall & SEP Booster Station Replacement

**Total Project Budget: \$1.98B** | **Appropriations in FY27-36: \$154M**

- Southeast Bay Outfall is a critical asset that conveys final effluent from Southeast Treatment Plant to the Bay.
- This project replaces the outfall to ensure reliable operations, protect water quality in San Francisco Bay, and align with the City's long-term waterfront adaptation plans for sea level rise.



# Ocean Beach Climate Adaptation

Total Project Budget: \$253M | Appropriations in FY27-36: \$184M

- This project develops comprehensive shoreline protection to address erosion threatening critical wastewater assets including the Lake Merced Transport/Storage facility, Westside Pump Station and Force Main, and Oceanside Treatment Plant.
- As part of compliance with requirements set by California Coastal Commission, the project includes constructing 3,000 feet of buried sea wall with coastal multi-use trail and beach access.



# Oceanside Plant Facility-Wide Capacity Improvements

**Total Project Budget: \$300M** | **Appropriations in FY27-36: \$230M**

- This project rehabs and replaces treatment infrastructure throughout the Oceanside Plant.
- The project begins with Facilities Integration Planning to assess the needs, including capacity upgrades, seismic requirements and improvements needed to maintain a state of good repair.
- The project enhances redundancy, enables maintenance without service interruption, improves wet-weather and seismic performance, and sustains regulatory compliance.



# Biosolids Digester Facilities Project

Total Project Budget: \$2.84B | Appropriations in FY27-36: \$93M

- Construction of core Biosolids Digester Facilities is over 70% complete. Process equipment and piping, mechanical, electrical, plumbing and HVAC systems are being installed.
- Construction of the Biogas Utilization Facility has begun.
- Facilities start-up and commissioning is anticipated to begin in 2026.

