



San José-Santa Clara
Regional Wastewater Facility

CIP

CAPITAL IMPROVEMENT PROGRAM

Quarterly Status Report:
April – June 2025

Rebuild and revitalize the
Regional Wastewater Facility
and deliver the CIP on time
and within budget.





CAPITAL IMPROVEMENT PROGRAM

HOW ARE WE DOING?

Key Performance Indicators (KPIs) Year-to-Date:

SAFETY

0 Incidents



EXPENDITURES

On Target



ENVIRONMENTAL

0 Permit Violations



The San José-Santa Clara Regional Wastewater Facility (RWF) is one of the largest advanced wastewater treatment facility in the western United States. The RWF has been treating the South Bay's wastewater and protecting public health and the environment without interruption since 1956. The discharge of clean wastewater into the South San Francisco Bay contributes to diverse and thriving fish and wildlife ecosystems.

Much of the RWF's infrastructure is functioning well beyond its intended use. As a result of a long and thoughtful Master Plan process, a \$2.1 billion, 30-year Capital Improvement Program (CIP) is underway to modernize and refurbish the RWF so its critical work can continue. Homes and businesses in Silicon Valley need a modern, reliable, state-of-the-art treatment plant to ensure a high quality of life and a thriving economy. The CIP is rebuilding RWF infrastructure and updating treatment processes with innovative, efficient new technologies. The first phase of the CIP started in 2014 and is nearing completion. The second phase will soon be underway.

This report summarizes the CIP's progress and highlights accomplishments from April to June 2025.

LEGEND



On Target



Alert



At Risk





Annual RWF Pancake Breakfast a time-honored tradition, with a side of teamwork

By Mariana Chavez-Vazquez, RWF General Manager
Another successful pancake breakfast event is in the books, and with record attendance this year – nearly 300 staff attended – I am reminded of how grateful I am for the incredibly close-knit team here at San José-Santa Clara Regional Wastewater Facility (RWF). I want to thank the amazing crew who made this breakfast event happen, from **Govan Hill** on the organizing team to the superintendents, supervisors and management staff from O&M, CIP and the Laboratory, who cooked and served up delicious flap jacks. The RWF family is alive and thriving, indeed.

The pancake breakfast is a wonderful tradition, a popular event at the Facility for nearly 30 years running. The entire morning celebrates everyone who works each day to keep the RWF in continue its constant operation.



ESD Annual Pancake Breakfast, June 1, 2025

The teamwork modeled at the breakfast event to make it run smoothly mirrors the teamwork I see put forth every day to operate the Wastewater Facility to the highest standards. From the planning and early morning outdoor cooking to the setup and cleanup, everyone demonstrates teamwork and work ethic.

It makes me immensely grateful to see these moments of fellowship and camaraderie amongst staff enjoying the company of their colleagues in such an arena and it also fills me with pride for our success.

Many thanks again to the fabulous crew who started setting up early that morning. All the work we do at the RWF wouldn't be possible without their dedication. This is the commitment that makes the RWF such a great place to work.



Staff enjoying their breakfast.

Storm Drain System Improvement Project - Protecting Critical Infrastructure Against Extreme Weather

During heavy rainfall events, the RWF, located within a Federal Emergency Management Agency (FEMA) flood zone, experiences localized flooding due to stormwater runoff. The Storm Drain System Improvements Project (Project) rehabilitated existing storm drain and sanitary sewer components.

The Project involved replacing 2,800 linear feet of stormwater pipes and approximately 1,000 linear feet of sanitary sewer pipes. The project scope also included the inspection, flushing, and cleaning of the remaining 5,500 linear feet of stormwater and approximately 1,700 linear feet of sanitary sewer pipes. Other elements, such as manholes and catch basins, were also improved.

Along with this extensive pipework, the project also rehabilitated seven pump stations across the RWF, including waterproofing and improvements on three tunnel entrances. Issues with wet wells, lighting, access, catch basins and electrical cabinets were resolved, and maintenance issues were addressed by improving and upgrading inlets. Safety components were also added at pump stations such as railings, bollards around electrical cabinets, and an access road were built and paved at the Legacy Lagoon and Outfall Pump Stations.



Before and after pictures of the rehabilitated Legacy Lagoon Pump Station

“Managing this project was challenging because it wasn’t confined to a single location,” said Project Manager **Moheb Argand**. “It was spread across the entire Facility, requiring extensive coordination with various sections, division managers, and operational staff.”

Achieving substantial completion in July 2024, this Project will protect the RWF’s critical structures and equipment from flood hazards and potential 10-year to 100-year storm events in the future.



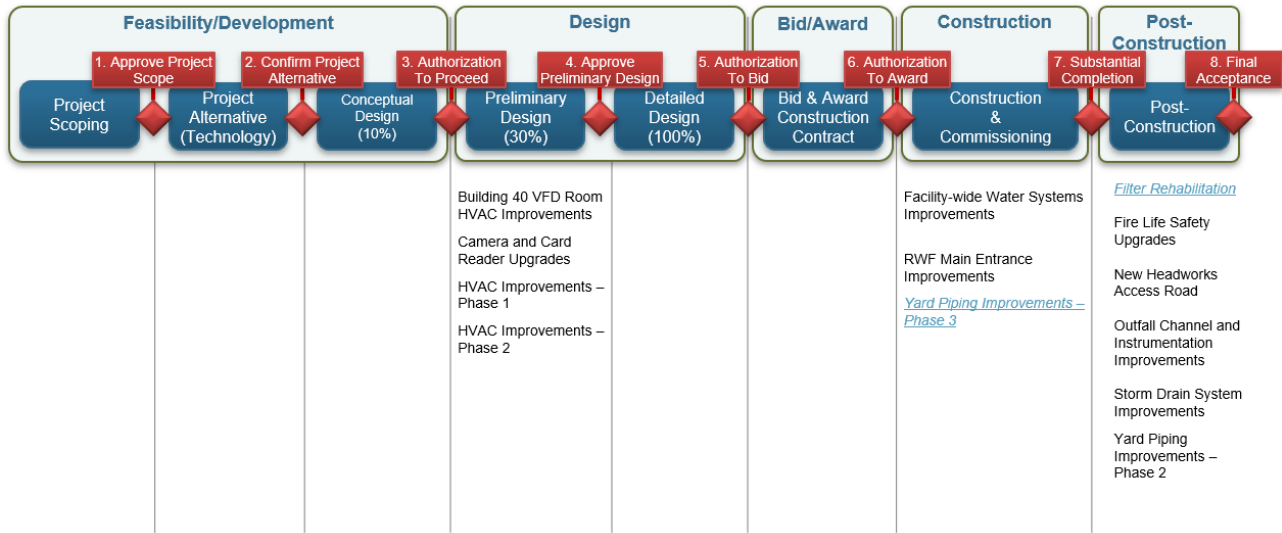
The CIP primarily uses two project delivery methods:

- **Design-Bid-Build** is a commonly used delivery method in which an owner first procures a professional engineering firm to prepare detailed design plans and specifications for a project. The owner then solicits bids for the project and procures a general contractor to construct the project based on the design completed by the engineer.
- **Design-Build** is a two-phase delivery method contracted with a single design-build firm in which the project's design, cost estimating, construction schedule and final guaranteed maximum price (GMP) are developed during the first phase. If the owner and design-builder agree on the schedule and the GMP during the first phase, the final design, construction and commissioning are completed during the second phase.

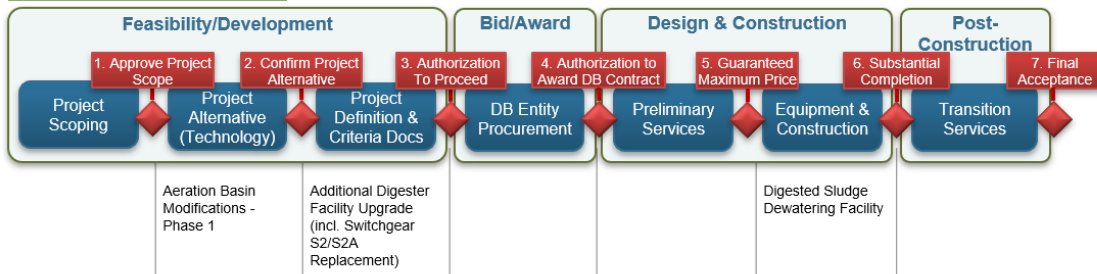
All CIP projects, regardless of project delivery method, follow a consistent process of consecutive delivery stages, each culminating in a stage gate, as presented in the project delivery models below. Stage gates are go/no-go points at which the project team must demonstrate that the project has met predefined evaluation criteria before advancing to the next delivery stage. The benefits of the stage gate process include consistency, quality assurance, ensuring that the scope continues to address existing needs, budget/schedule control, and Operations & Maintenance team engagement.

Active Projects by Delivery Model

Design-Bid-Build Active Projects



Design-Build Active Projects



*Projects shown underlined and in blue and italics have either been initiated or advanced this reporting period.

CIP PROJECTS

The CIP includes projects in both design and construction phases. This update outlines accomplishments for the past quarter in two sections: Projects in Design and Projects in Construction. For projects in construction and post-construction phases, the CIP uses cost and schedule baselines monitored through the City's Capital Project Management System. Access project performance information at the following link:

[Project Performance Information](#)

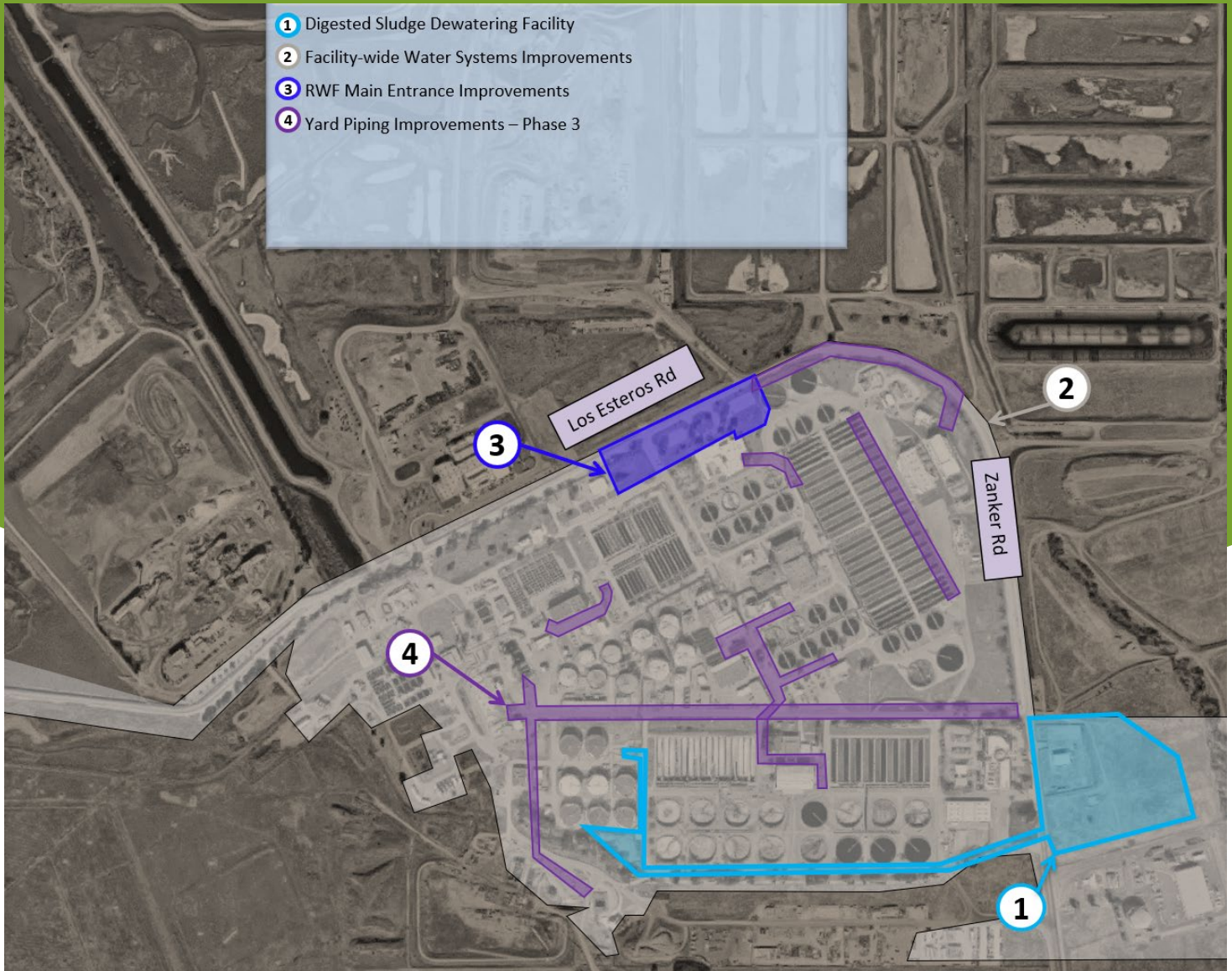
Projects in Design

- **Building 40 VFD Room HVAC Improvements**
In April, project staff received the Final Conceptual Design Report and commenced the Detailed Design phase of the project.
In May, consultant Brown & Caldwell submitted the 50% Design Package and project staff circulated it to O&M, SECI, and SMEs for review.
In June, project staff received the 50% Design Submittal and held a 50% Design Review Workshop.
- **Camera and Card Reader Upgrades**
In April, the project successfully passed Stage Gate 3 and the project team received comments from the City on the 50% Design and final Project Definition Report.
In May, the project passed Stage Gate 3 – Authorization to Proceed, and consultant Jacobs continued to work on the 100% Design Submittal.
- **HVAC Improvements - Phase 1**
In April, consultant CDM Smith conducted a 3-day site visit.
In May and June, CDM Smith completed work on the draft Basis of Design.
- **Yard Piping Improvements - Phase 3**
In May, project staff fully executed the construction contract and the Notice to Proceed was issued.
In June, the project entered the construction phase.



Projects in Construction

This aerial map of the RWF shows the CIP's active construction projects.



1

Digested Sludge Dewatering Facility: Drying biosolids more efficiently and effectively



Centrate pumps at South Side of Dewatering Building

The RWF currently uses an open-air lagoon and drying bed process to stabilize biosolids before landfill disposal. The 2013 Plant Master Plan recommended moving to an enclosed mechanical dewatering process. This project will build a mechanical dewatering facility and support facilities.

Project Budget: \$177.0 million

Expected Beneficial Use: December 2025

Update:

- In April, project staff energized Areas 71, 84, and 85 and began pre-commissioning activities. They also began O&M team training on gas safety equipment and transport and transfer pumps.
- In May, design-builder (Walsh) successfully energized medium-voltage switchgears and transformers, completed pre-operational equipment checks in preparation for functional testing, and conducted several vendor trainings to the City O&M groups on various specialized equipment.
- In June, functional testing in Areas 71, 84 and 85 continued and O&M staff received ongoing training from vendors.

2

Facility-wide Water Systems Improvements: Improving performance and reliability



Maintenance in progress on underground piping.

The RWF has five water systems: potable water, groundwater, process water (3W), fire protection water, and recycled water. These systems were constructed at separate times as part of various expansions. The aim of this project is to rehabilitate, replace, and/or extend the RWF's water systems to improve current and future performance and reliability.

Project Budget: \$90.4 million

Expected Beneficial Use: June 2027

Update:

- In April, contractor Ranger Pipelines poured concrete for the Cogeneration area tank base.
- In May, project staff completed several submittals, Requests for Information (RFIs), Design Clarification Memos (DCMs) and Process Shutdown Requests (PSRs) and coordinated a digester gas compressor shutdown.

3

RWF Main Entrance Improvements: Modernizing the RWF's main entryway



Steel frame nearing completion

Built in 1988, the existing main gate serves as the RWF's primary vehicle security checkpoint and has lasted beyond its service life. The new entrance will be upgraded to meet Americans with

Disabilities Act requirements, the entry and exit lanes will be widened to improve traffic flow for large delivery trucks, and lighting will be improved for clearer nighttime visibility.

Project Budget: \$14.0 million

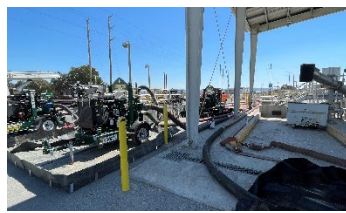
Expected Beneficial Use: April 2026

Update:

- In May, contractor W.E. Lyons Construction Co. continued structural and electrical work for guard station and canopy. Engineering staff and the CM team coordinated with the Engineer of Record and O&M on landscape irrigation and ground cover choice.

4

Yard Piping Improvements – Phase 3: Rehabilitating Aging Pipe Infrastructure



Temporary reroute piping

The RWF has approximately 300,000 linear feet of piping of various age, material, condition, and reliability, some as large as twelve feet across. 70% of these pipes are more than 25

years and well past their lifespan. This project will rehabilitate or replace the pipes that have been identified as being at a high risk of failure.

Project Budget: \$31.6 million

Expected Beneficial Use: January 2027

Update:

- In April, the construction contract was sent to contractor Michels Trenchless.
- In May, the construction contract was fully executed and the Notice to Proceed was issued.
- In June, Michels began construction and installed a temporary reroute for a pipe taken out of service for rehabilitation.





Newly improved outfall bridge with new weir, bridge lights and riprap

What's Ahead?

In July - September 2025:

- File the Notice of Completion and Acceptance for two projects – Blower Improvements and Filter Rehabilitation.
- Final selection of the design-builder for the Additional Digester Facility Upgrade project.

Fiscal Year 2024-2025 Program Performance Summary

KPI	Target	Fiscal Year to Date			Fiscal Year End		
		Actual	Status	Trend	Forecast	Status	Trend
Stage Gates	90%	100% 17/17 ¹			100% 20/20		
Measurement: Percentage of initiated projects and studies that successfully pass each stage gate on their first attempt. Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Schedule	90%	100% 6/6 ²			100% 6/6 ³		
Measurement: Percentage of CIP projects delivered within 2 months of approved baseline Beneficial Use Milestone. ⁴ Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75%							
Budget	90%	80% 4/5 ⁵			78% 7/9 ⁶		
Measurement: Percentage of CIP projects that are accepted by the City within the approved baseline budget. Target: Green: >= 90%; Amber: 75% to 89%; Red: < 75							
Expenditures	\$188M	\$195M			\$218M ⁷		
Measurement: CIP FY24-25 committed costs. Target: Committed costs meet or exceed 70% of planned budget. 70% of \$269M = \$188M. Therefore Fiscal Year End Green: >=\$188M; Red: < \$188M							
Safety	0	0			0		
Measurement: OSHA reportable incidents associated with CIP Delivery for the fiscal year. Criteria: Green: 0 injuries requiring hospitalization, 0 fatality; Amber: 1 to 2 injuries requiring hospitalization, 0 fatality; Red: >2 injuries requiring hospitalization, any fatality							
Environmental	0	0			0		
Measurement: Number of permit violations caused by CIP delivery for the fiscal year. Target: Green: 0 incidents; Amber: 1 to 2; Red: > 2							
Vacancy Rate⁸	10%	17% 12/72			17% 12/72		
Measurement: Ratio of the number of vacant approved positions to approved positions. Target: Green: <= 10%; Amber: 10% to 20%; Red: > 20%							

Program KPI – Fiscal Year 2024-2025 Information

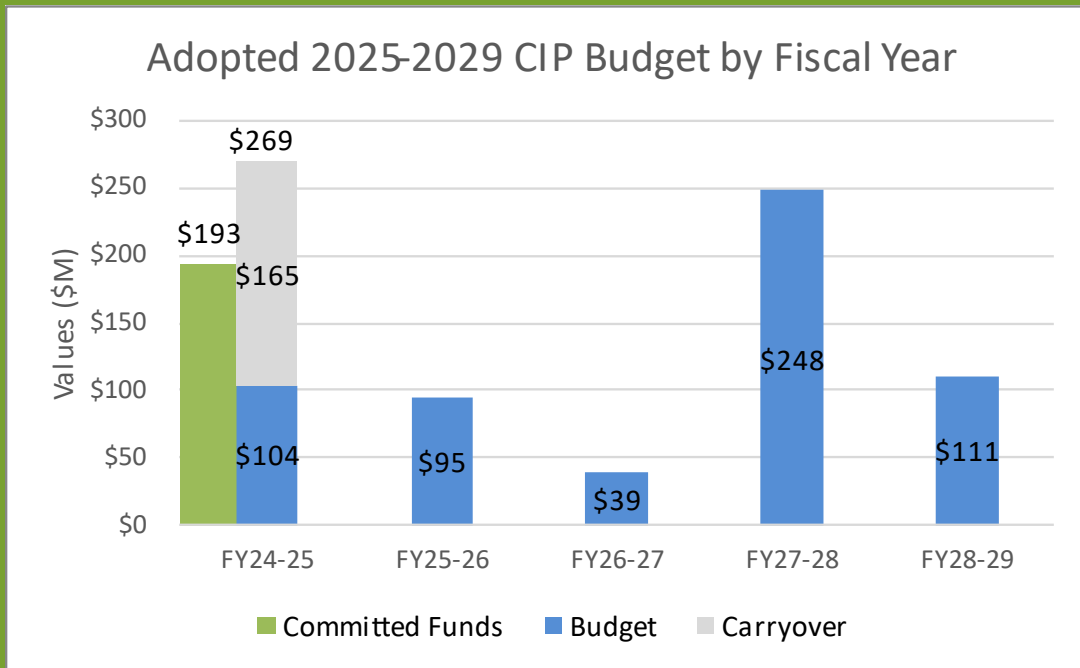




Program Budget Performance

This section summarizes the cumulative monthly budget performance for FY 2024-25 based on the Adopted 2025-2029 CIP Budget.

Adopted 2025-2029 CIP Expenditures and Encumbrances



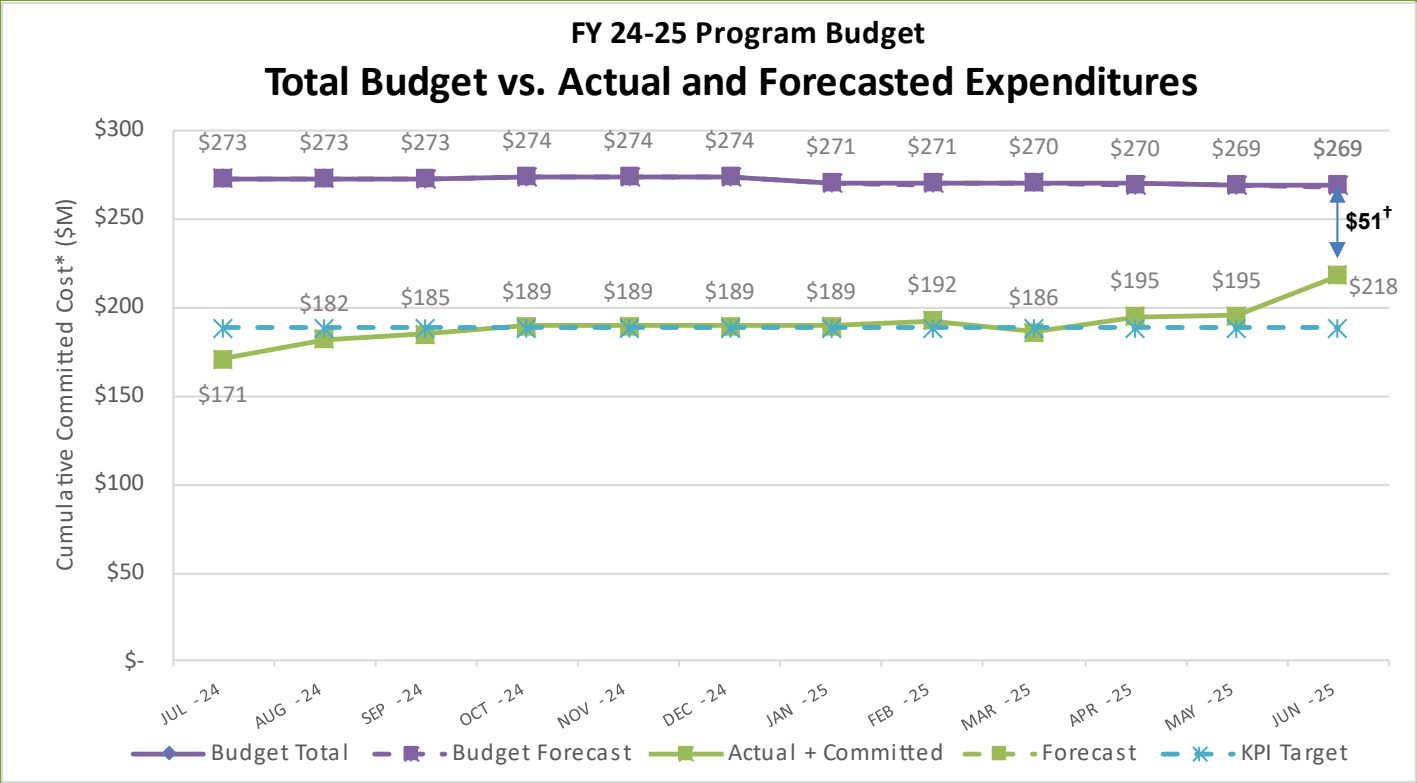
[Budget Performance Information](#)



Fiscal Year 2024-2025 Program Budget Performance

The FY 2024-25 CIP budget is composed of approximately \$104 million in new and re-budgeted funds, plus encumbered carryover of \$167 million, for a total of \$271 million.

FY 2024-25 Program Budget



[CIP Program Budget Information](#)



Capital Improvement Program Progress



Congratulations to Terrence Egan, Environmental Services Department chemist, awarded the California Water Environment Association (CWEA) 2024-2025 Laboratory Person of the Year, featured in this social media post. Terrence's contributions to laboratory technology, including wastewater analysis and advancements, have a major impact on the Wastewater Facility plant operations and help protect public health and the environment. With eight years at ESD Laboratory, he's also led efforts to implement instrument software, participating in outreach and education initiatives with Bay Area Clean Water Agencies (BACWA) and Southern California Coastal Water Research Project (SCCWRP). Kudos to his dedication and innovation in the field!

Want to learn more?



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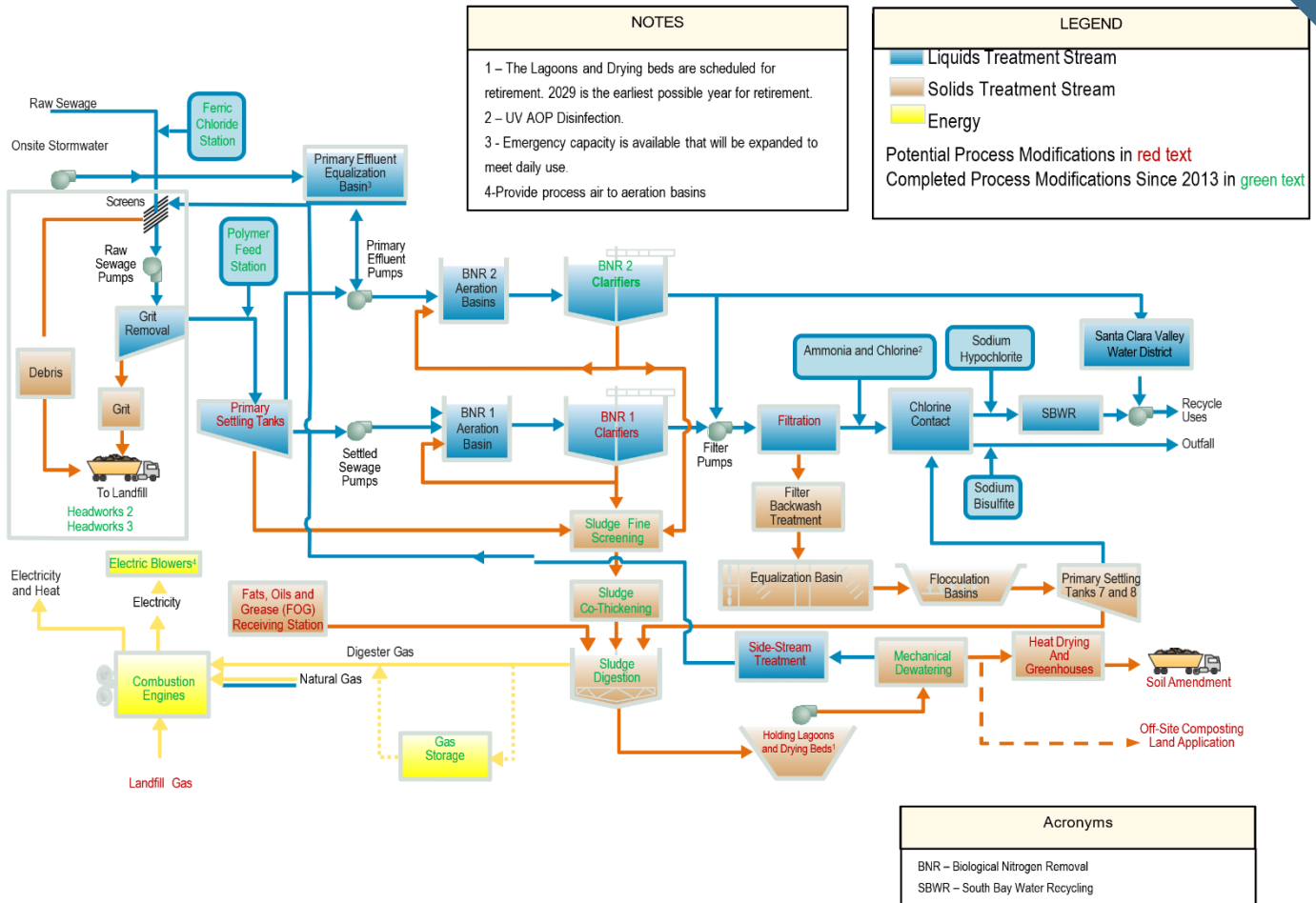


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Regional Wastewater Facility Treatment

Current Treatment Process Flow Diagram



Glossary

Beneficial Use	When a CIP project is complete in accordance with contract documents and can be used or occupied by the City, it has achieved beneficial use.
Biogas	A renewable energy source produced by the breakdown of sewage waste in the absence of oxygen. Biogas is composed of methane, carbon dioxide and small amounts of hydrogen sulfide.
Biosolids	Treated sewage sludge.
Bufferlands	Open acreage used by wastewater treatment plants as a buffer between plant operations and nearby communities. Bufferlands minimize odor and operational impacts on plant neighbors and often serve as wildlife habitat.
Commissioning	The process of assuring that all systems and components of a facility, building or plant are designed, installed, tested, operated and maintained according to the owner's requirements.
DAFT	Dissolved air flotation thickener tanks. Dissolved air flotation, or DAF, is a treatment process that clarifies wastewater by removing suspended matter.
DCS	Distributed control system. A computerized system that allows treatment plant staff to remotely monitor and control treatment processes.
EIR	Environmental Impact Report. A public document required under the California Environmental Quality Act to describe potential environmental impacts associated with a project. An EIR also describes measures to mitigate the impacts.
Effluent	Treated wastewater that is discharged from a treatment plant.
Influent	Raw or untreated wastewater that flows into a treatment plant.
FOG	The Fats, Oils and Grease program administered by the City of San José's Environmental Services Department.
Headworks	Facilities that first receive influent at a wastewater treatment plant. The headworks screen and remove sticks, grit and other solid material from influent to protect downstream equipment in the treatment process.
NPDES permit	Under the federal Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program regulates point sources such as pipes and other conveyances that discharge pollutants into water. In California, NPDES permits for the discharge of treated wastewater are issued by the Regional Water Quality Control Boards.
Polymer	Primarily used to help manage the process of drying and consolidating sludge.
Preliminary treatment	The preparatory wastewater treatment stage, in which influent passes through headworks, which screen and remove sticks, rocks and debris; and grit chambers, which remove sand and gravel.
Primary treatment	The initial treatment for incoming wastewater, in which gravity settles solid material and rotating bars skim floating fats, oil and grease from influent.
Secondary treatment	The second stage of wastewater treatment, in which aeration tanks pump air into wastewater to promote the growth of naturally occurring bacteria that remove organic pollutants.
Stormwater	Water from rain that does not seep into the ground but instead flows into storm drains as runoff.
Tertiary treatment	The final stage in advanced wastewater treatment, in which wastewater flows through filter beds, then through chlorinated tanks to become 99% clean.
Wastewater	Water that enters the sanitary sewer system for treatment at a pollution control plant.
Wastewater Cake	Sludge that is compressed after dewatering.
WAS	Waste-activated sludge, or the excess quantity of bacteria and microbes removed from the secondary wastewater treatment process.

