

City Service Area

Environmental and Utility Services



**Fourth Street 84-in Interceptor
Phase VI-A Project
(tunneling operation)**



**San José-Santa Clara Regional
Wastewater Facility**

Mission: Delivering world class utility services and programs to improve our health, environment, and economy.

The Sanitary Sewer System Capital Improvement Program (CIP) constructs sewer improvement projects that enhance sewer capacity to meet economic development goals and rehabilitates existing sewers to minimize sanitary sewer overflows.

The Storm Sewer System CIP continues to replace and rehabilitate storm drain infrastructures (piping, pump stations, outfalls), integrate green stormwater infrastructures and install trash capture devices to reduce the risk of local flooding during storm events and improve storm water quality for regulatory compliance. The program addresses the drainage needs in residential neighborhoods, business districts, and walking routes to schools and public facilities.

The San José-Santa Clara Regional Wastewater Facility (RWF) is a regional advanced wastewater treatment facility that serves the cities of San José, Santa Clara, and Milpitas, as well as the Cupertino Sanitary District, West Valley Sanitation District, County Sanitation Districts 2-3, and Burbank Sanitary District. The RWF is one of the largest tertiary wastewater treatment works in the western United States, serving more than 1.4 million residents and approximately 17,000 businesses. A major master planning effort was completed in late 2013, resulting in Environmental Impact Report certification and formal adoption of a 30-year master plan. The master plan provides the framework for over \$1.0 billion in new construction at the Plant over the next 10 to 15 years, and responds to aging infrastructure, future regulations, population growth, and treatment technology improvements.

The Water Utility System CIP ensures reliable utility infrastructure for the San José Municipal Water System and includes the construction of new facilities, maintenance of existing infrastructure, and improvements to existing facilities.

CSA CAPITAL PROGRAMS

- Sanitary Sewer System
- Storm Sewer System
- Water Pollution Control Plant
- Water Utility System

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Recent Accomplishments

- Completion of various Sanitary Sewer rehabilitation and repair projects replaced aging pipeline or improved serviceability throughout the system, including Willow Street Sanitary Pump Station Rehabilitation; and a variety of sub-projects within the Cast Iron Pipe – Remove and Replace and Condition Assessment Sewer Repairs allocations.
- Completion of various Storm Sewer infrastructure improvement projects, including the Bailey Avenue Storm Drain System and the Large Trash Capture Devices Installation Phase VI; and completion of the Planning Study and CEQA for the River Oaks Regional Stormwater Capture Project.
- The Water Pollution CIP completed construction of the \$114 million Cogeneration Facility project, which replaced aging engines with new internal combustion engines that will provide electricity and heat to the Plant, using a combination of digester gas and natural gas.

Program Highlights

Sanitary Sewer System Capital Program

2022-2026 Proposed CIP: \$213.0 million

Sanitary Sewer Rehabilitation Projects:

- Almaden Supplement Sewer Rehabilitation (North)
- Urgent Rehabilitation and Repair Projects
- Cast Iron Pipe – Remove and Replace
- Condition Assessment Sewer Repairs
- Sanitary Sewer Interceptor Management Program

Sanitary Sewer Interceptor/Capacity Improvement Projects:

- Fourth Major Interceptor Phase VII-A
- Blossom Hill Road and Leigh Avenue Sanitary Sewer Improvement
- Immediate Replacement and Diversion Projects

Storm Sewer System Capital Program

2022-2026 Proposed CIP: \$97.5 million

- Citywide Outfall Improvement
- Storm Pump Station Rehabilitation and Replacement
- Green Stormwater Infrastructures
- Trash Capture Devices in Storm Drain Systems
- Measure T - Storm Drain Improvements at Charcot Avenue
- Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvement

Water Pollution Control Capital Program

2022-2026 Proposed CIP: \$1.2 billion

Wastewater Treatment:

- East Primary Rehabilitation, Seismic Retrofit, and Odor Control
- Aeration Tanks and Blower Rehabilitation
- Final Effluent Pump Station & Stormwater Channel Improvements

Biosolids:

- Additional Digester Upgrades
- Digested Sludge Dewatering Facility

Site Facility Maintenance & Improvements:

- Facility-wide Water Systems Improvements
- Support Building Improvements
- Yard Piping and Road Improvements

Water Utility System Capital Program

2022-2026 Adopted CIP: \$40.5 million

- North San José Reliability Well Construction
- North San José Well Development and Construction
- Water Resources Administration and Operations Facility

CSA OUTCOMES

(Supported by the Capital Programs)

- ✓ Reliable Utility Infrastructure
- ✓ Healthy Streams, Rivers, Marsh and Bay
- ✓ Safe, Reliable and Sufficient Water Supply

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Performance Measures

A set of consistent and comprehensive performance measurements along with targets and goals has been established for the entire capital program and adopted for each individual CSA. Measures focus on schedule (cycle time) and project delivery cost. Please see the Budget Guide section narrative for additional information on capital performance measurements.

Outcome: Quality CIP Projects Delivered On-Time and On-Budget

Strategic Goals	CSA Performance Measures	2019-2020 Actual ¹	2020-2021 Target	2020-2021 Estimate	2021-2022 Target	5-Year Goal
Environmental and Utility Services CSA delivers quality Capital Improvement Program (CIP) projects on-time and on-budget	1. % of CIP projects delivered within 2 months of approved baseline schedule ²	94% (15/16)	85%	100% (20/20)	85%	85%
	2. % of CIP projects that are completed within the approved baseline budget ³	100% (23/23)	90%	95% (20/21)	90%	90%

¹ The 2019-2020 Actual number of projects may vary from the 2019-2020 Estimate, as documented in the 2020-2021 Adopted Budget, because of revision to the date of estimated beneficial use of the project being revised and the project expected to be delivered in the following fiscal year. Also, the number of projects may change with the inclusion of projects in the 2019-2020 Actual not originally included in the 2019-2020 Adopted Budget Estimate due to incomplete project information at that time.

² Projects are considered “delivered” when they are available for their intended use and are considered “on schedule” if delivered within two months of baseline schedule.

³ Projects are considered “completed” when final cost accounting has occurred, and the project has been accepted. Projects are considered “on budget” when the total expenditures do not exceed 101% of the baseline budget.

In 2020-2021, the Environmental and Utility Services CSA estimates to deliver 20 of 20 (100%) projects within two months of the approved baseline schedule, which is above the performance target of 85%. Some of the notable capital projects delivered in 2020-2021 include Westmont Avenue and Harriet Ave Sanitary Sewer Improvement, Bailey Avenue Storm Drain Inlet Repair, and many sanitary sewer improvements and condition assessments at various locations.

In 2020-2021, 20 of 21 (95%) projects are estimated to be completed within their baseline budgets, which is above the one-year performance target of 90%. Some of the notable capital projects completed in 2020-2021 include the Bollinger Road-Blanney Avenue Sanitary Sewer Improvement, the Legacy Lagoons Cleanup Project, and multiple cast iron sewer replacements. The CSA continues to work to strengthen the alignment of project scopes, schedules, and budgets, while also accounting for external market conditions that may affect the delivery of capital projects. Staff relies heavily on the cost estimating and tracking tools that are available through the City’s Capital Project Management System (CPMS). These tools allow project management staff to effectively track project costs on an ongoing basis and assist in ensuring that expenditures remain within budgeted levels.

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	<u>2021-2022 Budget</u>	<u>2022-2026 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
<u>Sanitary Sewer System</u>					
Almaden Supplement Sewer Rehabilitation (North)	2,930,000	2,930,000	3,130,000	3rd Qtr. 2020	2nd Qtr. 2022
Blossom Hill Road and Leigh Avenue Sanitary Sewer Improvement	5,200,000	5,200,000	5,400,000	2nd Qtr. 2021	2nd Qtr. 2022
Capital Program and Public Works Department Support Service Costs	2,445,000	10,148,000	*	Ongoing	Ongoing
Cast Iron Pipe - Remove and Replace	5,000,000	25,000,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	277,000	1,437,000	*	Ongoing	Ongoing
Condition Assessment Sewer Repairs	6,000,000	30,000,000	*	Ongoing	Ongoing
Fee Administration - Sanitary Sewer	85,000	425,000	*	Ongoing	Ongoing
Flow Monitoring Program (Master Planning)	650,000	3,250,000	*	Ongoing	Ongoing
Fourth Major Interceptor, Phase VIIA	500,000	5,500,000	5,500,000	3rd Qtr. 2021	2nd Qtr. 2023
Immediate Replacement and Diversion Projects	5,900,000	30,650,000	*	Ongoing	Ongoing
Inflow and Infiltration Reduction	200,000	1,000,000	*	Ongoing	Ongoing
Infrastructure - Sanitary Sewer Condition Assessment	3,200,000	16,000,000	*	Ongoing	Ongoing
Infrastructure Management System	57,000	305,000	*	Ongoing	Ongoing
Master Planning Updates	1,850,000	9,250,000	*	Ongoing	Ongoing
McKee Road Sanitary Sewer Improvement		1,500,000	1,500,000	3rd Qtr. 2022	2nd Qtr. 2023
Montague Sanitary Sewer Pump Station Reserve	2,400,000	2,400,000	2,400,000	N/A	N/A
Payments to West Valley Sanitation District	10,000	50,000	*	Ongoing	Ongoing
Permit Review and Inspection for Outside Agencies - Sanitary Sewer	25,000	125,000	*	Ongoing	Ongoing
Preliminary Engineering - Sanitary Sewer	950,000	4,750,000	*	Ongoing	Ongoing
Program Management - Sanitary Sewer	300,000	1,500,000	*	Ongoing	Ongoing
Public Art Allocation	112,000	434,000	*	Ongoing	Ongoing
Public Works Engineering Services Equipment (Materials Lab)	40,000	200,000	*	Ongoing	Ongoing
Reinforced Concrete Pipe Rehabilitation Program	500,000	2,500,000	*	Ongoing	Ongoing
Sanitary Sewer Interceptor Management Program	3,000,000	15,000,000	*	Ongoing	Ongoing
Sierra Road Sanitary Sewer Improvement	200,000	200,000	2,500,000	3rd Qtr. 2020	3rd Qtr. 2021
Technology Drive Sanitary Sewer Improvement		2,500,000	2,500,000	3rd Qtr. 2024	2nd Qtr. 2025
Urgent Rehabilitation and Repair Projects	<u>7,000,000</u>	<u>29,000,000</u>	*	Ongoing	Ongoing
Total: Construction/Non-Construction	48,831,000	201,254,000			
Ending Fund Balance	11,888,584	11,735,584	**		
Total: Sanitary Sewer System	60,719,584	212,989,584	**		

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	<u>2021-2022 Budget</u>	<u>2022-2026 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
<u>Storm Sewer System</u>					
Capital Program and Public Works Department Support Service Costs	852,000	1,587,000	*	Ongoing	Ongoing
Charcot Storm Pump Rental	300,000	1,500,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	98,000	506,000	*	Ongoing	Ongoing
Citywide Outfall Improvements	5,000,000	12,500,000	*	Ongoing	Ongoing
Condition Assessment Storm Sewer Repairs	150,000	750,000	*	Ongoing	Ongoing
Fee Administration - Storm Sewer	25,000	125,000	*	Ongoing	Ongoing
Flow Monitoring Program	350,000	1,750,000	*	Ongoing	Ongoing
General Fund - Interest Income	10,000	50,000	*	Ongoing	Ongoing
Green Infrastructure Improvements	900,000	3,150,000	*	Ongoing	Ongoing
Infrastructure Management System	12,000	60,000	*	Ongoing	Ongoing
Large Trash Capture Devices	7,300,000	7,700,000	33,473,063	3rd Qtr. 2014	2nd Qtr. 2024
Measure T - Admin Reserve Storm Sewer	122,000	513,000	513,000	N/A	N/A
Measure T - Admin Storm Sewer	107,000	250,000	*	Ongoing	Ongoing
Measure T - Clean Water Projects	6,556,000	23,457,000	24,362,456	3rd Qtr. 2019	2nd Qtr. 2024
Measure T - Public Art Storm Sewer	313,000	504,000	*	Ongoing	Ongoing
Measure T - Storm Drain Improvements at Charcot Avenue	24,634,000	26,726,000	28,262,144	3rd Qtr. 2019	2nd Qtr. 2023
Permit Review and Inspection for Outside Agencies - Storm Sewer	50,000	250,000	*	Ongoing	Ongoing
Preliminary Engineering - Storm Sewer	180,000	900,000	*	Ongoing	Ongoing
Program Management - Storm Sewer	150,000	750,000	*	Ongoing	Ongoing
Public Art Allocation	89,000	126,000	*	Ongoing	Ongoing
River Oaks Regional Stormwater Capture Project	1,685,550	1,685,550	3,203,550	4th Qtr. 2020	2nd Qtr. 2022
San Jose Watershed Invasive Species Removal and Engagement	200,000	400,000	*	Ongoing	Ongoing
Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvement	50,000	650,000	687,943	3rd Qtr. 2019	2nd Qtr. 2026
Storm Pump Station Rehabilitation and Replacement	500,000	1,300,000	*	Ongoing	Ongoing
Storm Sewer Improvements	500,000	1,500,000	*	Ongoing	Ongoing
Storm Sewer Master Plan - City-wide	1,300,000	5,800,000	*	Ongoing	Ongoing
Urgent Storm Drain Repair Projects	250,000	1,250,000	*	Ongoing	Ongoing
Total: Construction/Non-Construction	51,683,550	95,739,550			
Ending Fund Balance	<u>12,756,825</u>	<u>1,744,825</u>	**		
Total: Storm Sewer System	64,440,375	97,484,375	**		

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	<u>2021-2022 Budget</u>	<u>2022-2026 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
<u>Water Pollution Control</u>					
Additional Digester Upgrades	1,191,000	63,751,000	64,475,000	3rd Qtr. 2021	4th Qtr. 2027
Advanced Facility Control and Meter Replacement	476,000	804,000	34,815,376	3rd Qtr. 2010	1st Qtr. 2023
Aeration Basin Future Modifications		4,680,000	50,277,000	3rd Qtr. 2024	4th Qtr. 2030
Aeration Tanks and Blower Rehabilitation	3,838,000	72,382,000	130,712,778	2nd Qtr. 2015	2nd Qtr. 2029
Capital Program and Public Works Department Support Service Costs	1,217,000	4,183,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	138,000	714,000	*	Ongoing	Ongoing
Debt Service Repayment for Plant Capital Improvement Projects	3,422,000	383,432,000	*	Ongoing	Ongoing
Digested Sludge Dewatering Facility	131,146,000	134,690,000	168,597,976	3rd Qtr. 2014	2nd Qtr. 2024
Digester and Thickener Facilities Upgrade	14,033,000	14,033,000	214,171,861	3rd Qtr. 2006	2nd Qtr. 2022
East Primary Rehabilitation, Seismic Retrofit, and Odor Control		106,785,000	112,974,114	3rd Qtr. 2010	2nd Qtr. 2031
Facility Wide Water Systems Improvements	2,859,000	48,542,000	55,631,258	3rd Qtr. 2014	4th Qtr. 2025
Filter Rehabilitation	1,506,000	4,861,000	61,031,713	3rd Qtr. 2014	3rd Qtr. 2024
Final Effluent Pump Station & Stormwater Channel Improvements		43,003,000	47,358,316	3rd Qtr. 2019	2nd Qtr. 2027
Flood Protection		4,095,000	5,867,013	3rd Qtr. 2017	2nd Qtr. 2025
Headworks Improvements	186,000	382,000	22,416,097	1st Qtr. 2013	2nd Qtr. 2023
Hydraulic Capacity Engineering	125,000	225,000	*	Ongoing	Ongoing
Hydraulic Capacity Enhancements Reserve	3,666,000	3,666,000	*	Ongoing	Ongoing
New Disinfection Facilities		7,131,000	56,977,000	3rd Qtr. 2024	2nd Qtr. 2029
New Headworks	1,399,000	2,923,000	153,451,416	3rd Qtr. 2012	2nd Qtr. 2023
Nitrification Clarifier Rehabilitation	2,738,000	28,863,000	89,399,455	3rd Qtr. 2009	2nd Qtr. 2026
Outfall Channel and Instrumentation Improvements	6,114,000	6,706,000	10,050,279	3rd Qtr. 2014	1st Qtr. 2023
Owner Controlled Insurance Program	3,705,000	6,368,000	18,673,432	2nd Qtr. 2017	2nd Qtr. 2024
Plant Electrical Reliability	1,413,000	2,498,000	33,487,696	3rd Qtr. 2003	1st Qtr. 2023
Plant Infrastructure Improvements	5,500,000	9,500,000	*	Ongoing	Ongoing
Plantwide Security Systems Upgrade	6,740,000	6,740,000	6,740,000	3rd Qtr. 2021	2nd Qtr. 2022

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	<u>2021-2022 Budget</u>	<u>2022-2026 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
Preliminary Engineering - Water Pollution Control	2,000,000	6,000,000	*	Ongoing	Ongoing
Program Management - Water Pollution Control	11,386,000	44,728,000	*	Ongoing	Ongoing
Secondary Clarifier Rehabilitation		25,777,000	26,455,000	3rd Qtr. 2023	4th Qtr. 2031
Storm Drain System Improvements	9,183,000	10,907,000	13,433,372	4th Qtr. 2017	1st Qtr. 2024
Support Building Improvements	15,244,000	17,128,000	57,223,060	2nd Qtr. 2015	2nd Qtr. 2034
Tunnel Rehabilitation		2,769,000	27,638,292	3rd Qtr. 2024	2nd Qtr. 2028
Urgent and Unscheduled Treatment Plant Rehabilitation	1,500,000	7,500,000	*	Ongoing	Ongoing
Various Infrastructure Decommissioning		21,751,000	22,220,000	3rd Qtr. 2020	2nd Qtr. 2025
Yard Piping and Road Improvements	<u>8,294,000</u>	<u>83,196,000</u>	109,519,960	3rd Qtr. 2011	2nd Qtr. 2025
Total: Construction/Non-Construction	239,019,000	1,180,713,000			
Ending Fund Balance	<u>11,888,250</u>	<u>15,307,250</u>	**		
Total: Water Pollution Control	250,907,250	1,196,020,250	**		
<u>Water Utility System</u>					
Advance System Design	200,000	1,000,000	*	Ongoing	Ongoing
Annual Water Main Replacement	1,900,000	9,100,000	*	Ongoing	Ongoing
Capital Program and Public Works Department Support Service Costs	111,000	446,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	24,000	124,000	*	Ongoing	Ongoing
Evergreen Reliability Well		1,000,000	1,000,000	3rd Qtr. 2024	2nd Qtr. 2027
Facility Sites Improvement	269,000	269,000	315,964	3rd Qtr. 2018	2nd Qtr. 2022
GIS Support	40,000	200,000	*	Ongoing	Ongoing
Infrastructure Improvements	830,000	4,250,000	*	Ongoing	Ongoing
Major Facilities Fee Administration	15,000	75,000	*	Ongoing	Ongoing
Master Plan Engineering	180,000	965,000	*	Ongoing	Ongoing
Meter Installations	50,000	250,000	*	Ongoing	Ongoing
North San José Reliability Well Construction	2,100,000	2,250,000	2,448,250	3rd Qtr. 2019	2nd Qtr. 2023
North San José Well Development and Construction	1,920,000	4,420,000	4,555,201	3rd Qtr. 2019	2nd Qtr. 2024
Preliminary Engineering - Water	155,000	825,000	*	Ongoing	Ongoing
Public Art Funding	10,000	20,000	*	Ongoing	Ongoing
Safety and Security Improvements	100,000	500,000	*	Ongoing	Ongoing

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	<u>2021-2022</u> <u>Budget</u>	<u>2022-2026</u> <u>CIP Budget</u>	<u>Total</u> <u>Budget</u> <u>(All Years)</u>	<u>Start Date</u>	<u>End Date</u>
Service Installations	200,000	1,000,000	*	Ongoing	Ongoing
System Growth Related Projects Reserve	1,600,000	1,600,000	1,600,000	N/A	N/A
System Maintenance/Repairs	760,000	3,920,000	*	Ongoing	Ongoing
System Rehabilitation/Replacement Reserve	3,900,000	4,785,000	4,785,000	N/A	N/A
Water Resources Administration & Operations Facility	<u>3,000,000</u>	<u>3,000,000</u>	5,500,000	3rd Qtr. 2020	2nd Qtr. 2025
Total: Construction/Non-Construction	17,364,000	39,999,000			
Ending Fund Balance	<u>3,045,871</u>	<u>510,871</u>	**		
Total: Water Utility System	20,409,871	40,509,871	**		
CSA Total: Construction/Non-Construction	356,897,550	1,517,705,550	**		
Ending Fund Balance	<u>39,579,530</u>	<u>29,298,530</u>	**		
CSA Total:	<u><u>396,477,080</u></u>	<u><u>1,547,004,080</u></u>	**		

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* Total Budget information is not provided due to the ongoing nature of this project.

** The 2021-2022 through 2024-2025 Ending Balance are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.