

## **CITY SERVICE AREA**

### **ENVIRONMENTAL AND UTILITY SERVICES**

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



*Sanitary Sewer Repairs Project  
(CIPP Liner Installation)*

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), install and 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 Water Pollution Control Plant (Plant) 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 Plant is one of the largest tertiary wastewater treatment works in the western United States, serving more than 1.4 million



*Water Pollution Control Plan*

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 \$1.4 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
- Water Utility System

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**PROGRAM HIGHLIGHTS**

**Sanitary Sewer System Capital Program**

**2024-2028 Adopted CIP: \$256.6 million**

**Sanitary Sewer Rehabilitation Projects:**

- Tisch Way Sanitary Sewer Improvement
- Urgent Rehabilitation and Repair Projects
- Sanitary Sewer Interceptor Management Program

**Sanitary Sewer Interceptor/Capacity Improvement Projects:**

- Fourth Major Interceptor Phase VII
- Chesbro Avenue Sanitary Sewer Improvement
- McLaughlin Avenue-24<sup>th</sup> Street SS Improvement
- South White Road Sanitary Sewer Improvement
- Southwest Expressway Sanitary Sewer Improvement

**Storm Sewer System Capital Program**

**2024-2028 Adopted CIP: \$91.2 million**

- Citywide Outfall Improvements
- Green Stormwater Infrastructure
- Large Trash Capture Devices in Storm Drain Systems
- Measure T – Storm Drain Improvements at Charcot Avenue
- Measure T – Clean Water Projects at River Oaks and City Land South of Phelan

**Water Pollution Control Capital Program**

**2024-2028 Adopted CIP: \$816.0 million**

**Wastewater Treatment:**

- East Primary Rehabilitation, Seismic Retrofit, and Odor Control
- Nitrification Clarifier Rehabilitation
- Final Effluent Pump Station & Stormwater Channel Improvements

**Biosolids:**

- Digested Sludge Dewatering Facility

**Site Facility Maintenance & Improvements:**

- Facility-wide Water Systems Improvements
- Storm Drain System Improvements

**Water Utility System Capital Program**

**2024-2028 Adopted CIP: \$119.4 million**

- North San José Well Development and Construction
- Water Resources Administration and Operations Facility
- Advanced Metering Infrastructure Implementation

**Recent Accomplishments**

- ◇ Various Sanitary Sewer rehabilitation and capacity improvement projects replaced aging pipeline or improved serviceability throughout the system, including Sierra Road Sanitary Sewer Improvement and Fourth Street 84-inch Interceptor Phase VI-A.
- ◇ Completion of various storm infrastructure improvement projects, including the Large Trash Capture Device – Sonora and Oswego Retrofits; and completion of the Green Stormwater Infrastructure Feasibility Studies and Preliminary Design.
- ◇ The Water Pollution CIP completed construction of the Yard Piping Improvements – Phase 1 project and began construction of the \$174 million Digested Sludge Dewatering Facility project.

**CSA OUTCOMES**

(Supported by the Capital Program)

- ✓ 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	2021-2022 Actual <sup>1</sup>	2022-2023 Target	2022-2023 Estimate	2023-2024 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 <sup>2</sup>	90% (19/21)	85%	81% (17/21)	85%	85%
	2. % of CIP projects that are completed within the approved baseline budget <sup>3</sup>	100% (23/23)	90%	88% (22/25)	90%	90%

- <sup>1</sup> The 2021-2022 Actual number of projects may vary from the 2021-2022 Estimate, as documented in the 2022-2023 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 2021-2022 Actual not originally included in the 2021-2022 Adopted Budget Estimate due to incomplete project information at that time.
- <sup>2</sup> 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.
- <sup>3</sup> 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 2022-2023, the Environmental and Utility Services CSA estimates to deliver 17 of 21 (81%) projects within two months of the approved baseline schedule, which is below the performance target of 85%. Some of the notable capital projects delivered in 2022-2023 include six city-wide outfall rehabilitations, and many sanitary sewer replacements, improvements, and condition assessments at various locations.

In 2022-2023, 22 of 25 (88%) projects are estimated to be completed within their baseline budgets, which is below the one-year performance target of 90%. Some of the notable capital projects completed in 2022-2023 include the M4 Switchgear Replacement and G3 & G3A Removal, Fowler Pump Station Replacement, and multiple sanitary sewer replacements and condition assessments at various locations. 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.

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	2023-2024 Budget	2024-2028 CIP Budget	Total Budget (All Years)	Start Date	End Date
<b><u>Sanitary Sewer System</u></b>					
60 inch Brick Interceptor, Phase VIA and VIB	150,000	150,000		3rd Qtr. 2009	2nd Qtr. 2024
Almaden Supplement Sewer Rehabilitation (North)	3,108,000	3,130,000	3,178,349	3rd Qtr. 2020	3rd Qtr. 2024
Blossom Hill Road and Leigh Avenue Sanitary Sewer Improvement	4,500,000	4,800,000	5,200,127	2nd Qtr. 2021	4th Qtr. 2024
Capital Program and Public Works Department Support Service Costs	2,029,000	6,968,000	*	Ongoing	Ongoing
Cast Iron Pipe - Remove and Replace	4,000,000	24,000,000	*	Ongoing	Ongoing
Chesbro Avenue Sanitary Sewer Improvement	600,000	9,600,000	9,600,000	3rd Qtr. 2023	2nd Qtr. 2026
City Hall Debt Service Fund	262,000	1,334,000	*	Ongoing	Ongoing
Coleman Road Sanitary Sewer Improvement - Phase III	2,235,000	2,235,000	2,400,000	3rd Qtr. 2022	2nd Qtr. 2024
Condition Assessment Sewer Repairs	5,000,000	29,000,000	*	Ongoing	Ongoing
Fee Administration - Sanitary Sewer	85,000	425,000	*	Ongoing	Ongoing
Flow Monitoring Program (Master Planning)	660,000	3,328,000	*	Ongoing	Ongoing
Fontaine Rd Sanitary Sewer Improvement	1,350,000	1,350,000	1,500,000	3rd Qtr. 2022	2nd Qtr. 2024
Fourth Major Interceptor, Phase VIIA	5,500,000	5,500,000	5,500,000	3rd Qtr. 2023	2nd Qtr. 2024
Fourth Major Interceptor Phase VII Reserve	15,000,000	15,000,000	15,000,000	N/A	N/A
Immediate Replacement and Diversion Projects	4,350,000	30,750,000	*	Ongoing	Ongoing
Inflow and Infiltration Reduction	200,000	1,000,000	*	Ongoing	Ongoing
Infrastructure - Sanitary Sewer Condition Assessment	2,200,000	15,000,000	*	Ongoing	Ongoing
Infrastructure Management System	55,000	295,000	*	Ongoing	Ongoing
Master Planning Updates	1,814,000	9,424,488	*	Ongoing	Ongoing
McLaughlin Ave-24th Street Sanitary Sewer Improvement	100,000	2,190,000	2,240,000	3rd Qtr. 2022	3rd Qtr. 2025
McLaughlin Ave-Idlewood Dr Sanitary Sewer Improvement	3,500,000	3,600,000	3,750,000	3rd Qtr. 2022	2nd Qtr. 2025
Montague Sanitary Sewer Pump Station Reserve	2,400,000	2,400,000	2,400,000	N/A	N/A
North 1st Street Sanitary Sewer Improvements	6,000,000	7,000,000	7,000,000	3rd Qtr. 2022	3rd Qtr. 2024
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	418,000	871,000	*	Ongoing	Ongoing
Public Works Engineering Services Equipment (Materials Lab)	40,000	200,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2023-2024</u>	<u>2024-2028</u>	<u>Total</u>	<u>Start Date</u>	<u>End Date</u>
	<u>Budget</u>	<u>CIP Budget</u>	<u>Budget</u>		
			<u>(All Years)</u>		
Pump Station SCADA Upgrade - Sanitary Sewer	100,000	200,000	500,000	3rd Qtr. 2022	2nd Qtr. 2025
Rehabilitation of Sanitary Sewer Pump Stations	1,679,000	1,679,000	*	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
South White Road Sanitary Sewer Improvement	200,000	3,000,000	3,000,000	3rd Qtr. 2023	2nd Qtr. 2025
Southwest Expressway Sanitary Sewer Improvement	500,000	9,000,000	9,000,000	3rd Qtr. 2023	2nd Qtr. 2026
Tisch Way Sanitary Sewer Improvement	1,700,000	1,800,000	1,800,000	3rd Qtr. 2023	2nd Qtr. 2025
Urgent Rehabilitation and Repair Projects	4,500,000	24,500,000	*	Ongoing	Ongoing
<b>Total: Construction/Non-Construction</b>	<b>79,020,000</b>	<b>243,654,488</b>			
Ending Fund Balance	29,003,909	12,939,421			**
<b>Total: Sanitary Sewer System</b>	<b>108,023,909</b>	<b>256,593,909</b>			**

### Storm Sewer System

Capital Program and Public Works Department Support Service Costs	867,000	2,525,000	*	Ongoing	Ongoing
Charcot Storm Pump Rental	300,000	1,500,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	85,000	433,000	*	Ongoing	Ongoing
Citywide Outfall Improvements	3,000,000	12,000,000	*	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	363,000	1,862,000	*	Ongoing	Ongoing
General Fund - Interest Income	15,000	75,000	*	Ongoing	Ongoing
Green Infrastructure Improvements	1,000,000	5,500,000	*	Ongoing	Ongoing
Infrastructure Management System	11,000	55,000	*	Ongoing	Ongoing
Large Trash Capture Devices	1,100,000	1,100,000	37,443,092	3rd Qtr. 2014	2nd Qtr. 2024
Measure T - Admin Reserve Storm Sewer	382,000	382,000	382,000	N/A	N/A
Measure T - Admin Storm Sewer	143,000	143,000	*	Ongoing	Ongoing
Measure T - Clean Water Projects	17,201,739	22,152,739	24,421,537	3rd Qtr. 2019	4th Qtr. 2026
Measure T - Public Art Storm Sewer	189,000	239,000	*	Ongoing	Ongoing
Measure T - Storm Drain Improvements at Charcot Avenue	23,335,000	24,827,000	28,264,341	3rd Qtr. 2019	2nd Qtr. 2025
Permit Review and Inspection for Outside Agencies - Storm Sewer	50,000	250,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2023-2024</u>	<u>2024-2028</u>	<u>Total</u>	<u>Start Date</u>	<u>End Date</u>
	<u>Budget</u>	<u>CIP Budget</u>	<u>Budget</u>		
			<u>(All Years)</u>		
Preliminary Engineering - Storm Sewer	180,000	900,000	*	Ongoing	Ongoing
Program Management - Storm Sewer	150,000	750,000	*	Ongoing	Ongoing
Public Art Allocation	610,000	667,000	*	Ongoing	Ongoing
Pump Station SCADA Upgrade - Storm Sewer	150,000	750,000	750,000	3rd Qtr 2023	2nd Qtr 2027
River Oaks Regional Stormwater Capture Project	3,204,000	3,204,000	3,882,539	4th Qtr. 2020	2nd Qtr. 2024
Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvem	150,000	600,000	758,650	3rd Qtr. 2019	2nd Qtr. 2027
Storm Pump Station Rehabilitation and Replacement	200,000	1,000,000	*	Ongoing	Ongoing
Storm Sewer Improvements	250,000	1,250,000	*	Ongoing	Ongoing
Storm Sewer Master Plan - City-wide	1,155,000	5,959,538	*	Ongoing	Ongoing
Urgent Storm Drain Repair Projects	<u>250,000</u>	<u>1,250,000</u>	*	Ongoing	Ongoing
<b>Total: Construction/Non-Construction</b>	<b>54,515,739</b>	<b>90,249,277</b>			
Ending Fund Balance	<u>-4,838,085</u>	<u>911,927</u>	**		
<b>Total: Storm Sewer System</b>	<b>49,677,654</b>	<b>91,161,204</b>	**		

### Water Pollution Control

Additional Digester Upgrades	2,147,000	108,892,000	113,480,811	2nd Qtr. 2022	3rd Qtr. 2030
Advanced Facility Control and Meter Replacement	150,000	150,000	28,809,710	3rd Qtr. 2010	2nd Qtr. 2024
Aeration Tanks and Blower Rehabilitation	8,805,000	123,981,000	183,345,062	2nd Qtr. 2015	3rd Qtr. 2027
Capital Program and Public Works Department Support Service Costs	1,246,000	6,252,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	39,000	199,000	*	Ongoing	Ongoing
Debt Service Repayment for Plant Capital Improvement Projects		18,960,000	374,115,388	4th Qtr. 2017	2nd Qtr. 2033
Digested Sludge Dewatering Facility	4,929,000	8,039,000	177,970,600	3rd Qtr. 2014	4th Qtr. 2025
East Primary Rehabilitation, Seismic Retrofit, and Odor Control	6,206,000	109,156,000	112,974,114	3rd Qtr. 2009	4th Qtr. 2031
Facility Wide Water Systems Improvements	64,379,000	67,264,000	75,353,298	3rd Qtr. 2014	2nd Qtr. 2026
Filter Rehabilitation	3,207,000	3,207,000	60,115,195	3rd Qtr. 2014	2nd Qtr. 2024
Final Effluent Pump Station & Stormwater Channel Improvements	4,128,000	17,037,000	18,116,632	3rd Qtr. 2019	2nd Qtr. 2026
Flood Protection	5,684,000	13,684,000	15,347,277	3rd Qtr. 2017	4th Qtr. 2025
FOG Receiving		313,000	12,850,000	3rd Qtr. 2027	3rd Qtr. 2033
Headworks Improvements	481,000	481,000	22,228,734	1st Qtr. 2013	4th Qtr. 2023
Hydraulic Capacity Engineering	25,000	125,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	2023-2024 Budget	2024-2028 CIP Budget	Total Budget (All Years)	Start Date	End Date
Hydraulic Capacity Enhancements Reserve	3,666,000	3,666,000	3,666,000	N/A	N/A
New Disinfection Facilities		7,853,000	56,977,000	3rd Qtr. 2025	4th Qtr. 2033
New Headworks	1,880,000	1,880,000	152,137,881	3rd Qtr. 2012	4th Qtr. 2023
Nitrification Clarifier Rehabilitation	2,258,000	27,978,000	80,341,394	3rd Qtr. 2009	2nd Qtr. 2028
Outfall Channel and Instrumentation Improvements	977,000	977,000	10,690,995	3rd Qtr. 2014	4th Qtr. 2023
Owner Controlled Insurance Program	2,613,000	3,377,000	17,793,956	2nd Qtr. 2017	2nd Qtr. 2025
Plant Infrastructure Improvements	6,003,000	11,059,000	*	Ongoing	Ongoing
Plantwide Security Systems Upgrade	14,822,000	21,448,000	23,818,542	3rd Qtr. 2021	4th Qtr. 2025
Preliminary Engineering - Water Pollution Control	2,000,000	6,000,000	*	Ongoing	Ongoing
Program Management - Water Pollution Control	10,845,000	44,499,000	*	Ongoing	Ongoing
RWF Bond Debt Service 2022A	17,577,000	87,977,000	175,977,000	3rd Qtr. 2023	2nd Qtr. 2033
Secondary Clarifier Rehabilitation		25,936,000	26,455,000	3rd Qtr. 2024	2nd Qtr. 2030
Storm Drain System Improvements	2,018,000	2,018,000	14,296,777	4th Qtr. 2017	1st Qtr. 2024
Support Building Improvements	19,269,000	24,367,000	56,373,246	2nd Qtr. 2015	2nd Qtr. 2036
Tunnel Rehabilitation		3,199,000	27,638,292	3rd Qtr. 2025	3rd Qtr. 2037
Urgent and Unscheduled Treatment Plant Rehabilitation	1,500,000	7,500,000	*	Ongoing	Ongoing
Various Infrastructure Decommissioning	435,000	22,186,000	22,219,490	2nd Qtr. 2022	3rd Qtr. 2026
Yard Piping and Road Improvements	4,377,000	30,420,000	72,087,086	3rd Qtr. 2011	2nd Qtr. 2028
<b>Total: Construction/Non-Construction</b>	<b>191,666,000</b>	<b>810,080,000</b>			
Ending Fund Balance	21,100,312	5,909,312			**
<b>Total: Water Pollution Control</b>	<b>212,766,312</b>	<b>815,989,312</b>			**

### Water Utility System

Advance System Design	200,000	1,000,000	*	Ongoing	Ongoing
Advanced Metering Infrastructure Implementation	13,700,000	14,500,000	14,500,000	3rd Qtr. 2023	2nd Qtr. 2026
Annual Water Main Replacement	3,888,000	10,888,000	*	Ongoing	Ongoing
Capital Program and Public Works Department Support Service Costs	74,000	104,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	11,000	55,000	*	Ongoing	Ongoing
Coyote Well Replacement Planning Efforts	465,000	465,000	465,000	3rd Qtr. 2023	2nd Qtr. 2024
Debt Service		16,772,000	16,772,000	2nd. Qtr. 2025	N/A

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	2023-2024 Budget	2024-2028 CIP Budget	Total Budget (All Years)	Start Date	End Date
Evergreen Reliability Well		1,800,000	1,800,000	3rd Qtr. 2024	2nd Qtr. 2027
GIS Support	40,000	40,000	*	Ongoing	Ongoing
Infrastructure Improvements	850,000	4,360,000	*	Ongoing	Ongoing
Major Facilities Fee Administration	15,000	75,000	*	Ongoing	Ongoing
Master Plan Engineering	190,000	1,050,000	*	Ongoing	Ongoing
Meter Installations	50,000	250,000	*	Ongoing	Ongoing
North San José Reliability Well Construction	2,691,000	2,941,000	3,163,238	3rd Qtr. 2019	2nd Qtr. 2025
North San José Well Development and Construction	4,417,000	4,417,000	4,554,951	3rd Qtr. 2019	2nd Qtr. 2024
Preliminary Engineering - Water	165,000	870,000	*	Ongoing	Ongoing
Public Art Funding	156,000	159,000	*	Ongoing	Ongoing
Safety and Security Improvements	100,000	400,000	*	Ongoing	Ongoing
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	900,000	4,580,000	*	Ongoing	Ongoing
System Rehabilitation/Replacement Reserve	4,470,000	5,125,000	5,125,000	N/A	N/A
Water Resources Administration & Operations Facility	<u>41,011,504</u>	<u>45,571,504</u>	48,961,616	3rd Qtr. 2020	2nd Qtr. 2026
<b>Total: Construction/Non-Construction</b>	<b>75,193,504</b>	<b>118,022,504</b>			
Ending Fund Balance	<u>7,508,785</u>	<u>1,410,785</u>	**		
<b>Total: Water Utility System</b>	<b>82,702,289</b>	<b>119,433,289</b>	**		
<b>CSA Total: Construction/Non-Construction</b>	400,395,243	1,262,006,269	**		
Ending Fund Balance	<u>52,774,921</u>	<u>21,171,445</u>	**		
<b>CSA Total:</b>	<u><u>453,170,164</u></u>	<u><u>1,283,177,714</u></u>	**		

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

\*\* The 2023-2024 through 2026-2027 Ending Balance are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.