

## **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.



*Sierra Road Sanitary Sewer Improvements  
(Manhole 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 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.



*Water Pollution Control Plan*

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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**PROGRAM HIGHLIGHTS**

**Sanitary Sewer System Capital Program**

**2023-2027 Adopted CIP: \$231.3 million**

**Sanitary Sewer Rehabilitation Projects:**

- North 1<sup>st</sup> Street Sanitary Sewer Improvement
- Urgent Rehabilitation and Repair Projects
- Sanitary Sewer Interceptor Management Program

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

- Fourth Major Interceptor Phase VII-A
- Fontaine Road Sanitary Sewer Improvement
- McLaughlin Ave-24<sup>th</sup> Street Sanitary Sewer Improvement
- McLaughlin Ave-Idlewood Dr Sanitary Sewer Improvement

**Storm Sewer System Capital Program**

**2023-2027 Adopted CIP: \$112.3 million**

- Storm Pump Station Rehabilitation and Replacement
- Green Stormwater Infrastructures
- Trash Capture Devices in Storm Drain Systems
- Measure T – Storm Drain Improvements at Charcot Avenue
- Measure T – Clean Water Projects

**Water Pollution Control Capital Program**

**2023-2027 Adopted CIP: \$1.03 billion**

**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**

**2023-2027 Adopted CIP: \$55.8 million**

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

**Recent Accomplishments**

- ◇ Various Sanitary Sewer rehabilitation and capacity improvement projects replaced aging pipeline or improved serviceability throughout the system, including Westmont Avenue and Harriet Avenue Sanitary Sewer Improvement, 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 OUTCOME**

(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	2020-2021 Actual <sup>1</sup>	2021-2022 Target	2021-2022 Estimate	2022-2023 Target	5-Year Goal
Environmental and Utility Services CSA delivers quality Capital	1. % of CIP projects delivered within 2 months of approved baseline schedule <sup>2</sup>	92% (22/24)	85%	75% (18/24)	85%	85%
Improvement Program (CIP) projects on-time and on-budget	2. % of CIP projects that are completed within the approved baseline budget <sup>3</sup>	100% (15/15)	90%	100% (26/26)	90%	90%

- <sup>1</sup> The 2020-2021 Actual number of projects may vary from the 2020-2021 Estimate, as documented in the 2021-2022 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 2020-2021 Actual not originally included in the 2020-2021 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 2021-2022, the Environmental and Utility Services CSA estimates to deliver 18 of 24 (75%) 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 2021-2022 include Alviso Storm Sewer and Water Main Improvements, Yard Piping Improvements at the Regional Wastewater Facility, and many sanitary sewer improvements and condition assessments at various locations.

In 2021-2022, 26 of 26 (100%) 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 2021-2022 include the Sierra Road Sanitary Sewer Improvement 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

	<u>2022-2023 Budget</u>	<u>2023-2027 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
<b><u>Sanitary Sewer System</u></b>					
60 inch Brick Interceptor, Phase VIA and VIB	500,000	500,000	82,660,077	3rd Qtr. 2009	2nd Qtr. 2023
Almaden Supplement Sewer Rehabilitation (North)	3,050,000	3,050,000	3,130,045	3rd Qtr. 2020	2nd Qtr. 2023
Blossom Hill Road and Leigh Avenue Sanitary Sewer Improvement	4,697,000	5,197,000	5,400,355	2nd Qtr. 2021	1st Qtr. 2024
Capital Program and Public Works Department Support Service Costs	2,422,000	9,000,000	*	Ongoing	Ongoing
Cast Iron Pipe - Remove and Replace	6,000,000	25,000,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	327,000	1,635,000	*	Ongoing	Ongoing
Coleman Road Sanitary Sewer Improvements - Phase III	300,000	2,400,000	2,400,000	3rd Qtr. 2022	2nd Qtr. 2024
Condition Assessment Sewer Repairs	7,000,000	30,000,000	*	Ongoing	Ongoing
Fee Administration - Sanitary Sewer	85,000	425,000	*	Ongoing	Ongoing
Flow Monitoring Program (Master Planning)	650,000	3,256,000	*	Ongoing	Ongoing
Fontaine Rd Sanitary Sewer Improvement	300,000	1,500,000	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. 2021	2nd Qtr. 2023
Fourth Major Interceptor Phase VII Reserve	15,000,000	15,000,000	15,000,000		
Immediate Replacement and Diversion Projects	6,800,000	31,550,000	*	Ongoing	Ongoing
Inflow and Infiltration Reduction	200,000	1,000,000	*	Ongoing	Ongoing
Infrastructure - Sanitary Sewer Condition Assessment	4,200,000	16,000,000	*	Ongoing	Ongoing
Infrastructure Management System	58,000	310,000	*	Ongoing	Ongoing
Master Planning Updates	1,670,000	8,675,000	*	Ongoing	Ongoing
McLaughlin Ave-24th Street Sanitary Sewer Improvement	300,000	2,400,000	2,400,000	3rd Qtr. 2022	2nd Qtr. 2024
McLaughlin Ave-Idlewood Dr Sanitary Sewer Improvement	400,000	3,700,000	3,700,000	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	1,000,000	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	579,000	918,000	*	Ongoing	Ongoing
Public Works Engineering Services Equipment (Materials Lab)	40,000	200,000	*	Ongoing	Ongoing
Pump Station SCADA Upgrade - Sanitary Sewer	100,000	500,000	500,000	3rd Qtr. 2022	2nd Qtr. 2027

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2022-2023</u> <u>Budget</u>	<u>2023-2027</u> <u>CIP Budget</u>	<u>Total</u> <u>Budget</u> <u>(All Years)</u>	<u>Start Date</u>	<u>End Date</u>
Rehabilitation of Sanitary Sewer Pump Stations	1,650,000	1,650,000	*	Ongoing	Ongoing
Reinforced Concrete Pipe Rehabilitation Program	500,000	2,500,000	*	Ongoing	Ongoing
Sanitary Sewer Interceptor Management Program	3,000,000	12,000,000	*	Ongoing	Ongoing
Urgent Rehabilitation and Repair Projects	7,000,000	26,500,000	*	Ongoing	Ongoing
Westmont Avenue and Harriet Avenue Sanitary Sewer Improvements	50,000	50,000	5,557,358	3rd Qtr. 2017	2nd Qtr. 2023
<b>Total: Construction/Non-Construction</b>	<b>77,063,000</b>	<b>226,241,000</b>			
Ending Fund Balance	8,547,593	5,017,593	**		
<b>Total: Sanitary Sewer System</b>	<b>85,610,593</b>	<b>231,258,593</b>	**		
 <b><u>Storm Sewer System</u></b>					
Capital Program and Public Works Department Support Service Costs	860,000	3,369,000	*	Ongoing	Ongoing
Charcot Storm Pump Rental	300,000	1,500,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	122,000	609,000	*	Ongoing	Ongoing
Citywide Outfall Improvements	4,250,000	17,250,000	*	Ongoing	Ongoing
Condition Assessment Storm Sewer Repairs	500,000	1,100,000	*	Ongoing	Ongoing
Fee Administration - Storm Sewer	25,000	125,000	*	Ongoing	Ongoing
Flow Monitoring Program	350,000	1,758,000	*	Ongoing	Ongoing
General Fund - Interest Income	6,000	30,000	*	Ongoing	Ongoing
Green Infrastructure Improvements	2,400,000	7,900,000	*	Ongoing	Ongoing
Infrastructure Management System	12,000	60,000	*	Ongoing	Ongoing
Large Trash Capture Devices	9,000,000	9,500,000	35,843,078	3rd Qtr. 2014	2nd Qtr. 2024
Measure T - Admin Reserve Storm Sewer	492,000	492,000	492,000	N/A	N/A
Measure T - Admin Storm Sewer	31,000	64,000	*	Ongoing	Ongoing
Measure T - Clean Water Projects	7,007,000	22,502,000	24,363,725	3rd Qtr. 2019	4th Qtr. 2024
Measure T - Public Art Storm Sewer	292,000	461,000	*	Ongoing	Ongoing
Measure T - Storm Drain Improvements at Charcot Avenue	15,216,000	26,596,000	28,266,309	3rd Qtr. 2019	3rd Qtr. 2024
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	573,000	650,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2022-2023</u> <u>Budget</u>	<u>2023-2027</u> <u>CIP Budget</u>	<u>Total</u> <u>Budget</u> <u>(All Years)</u>	<u>Start Date</u>	<u>End Date</u>
Pump Station SCADA Upgrade - Storm Sewer		600,000	600,000	3rd Qtr. 2023	2nd Qtr. 2027
River Oaks Regional Stormwater Capture Project	1,700,000	2,700,000	3,703,691	4th Qtr. 2020	4th Qtr. 2024
San Jose Watershed Invasive Species Removal and Engagement	250,000	250,000	*	Ongoing	Ongoing
Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvement	150,000	750,000	808,650	3rd Qtr. 2019	2nd Qtr. 2027
Storm Pump Station Rehabilitation and Replacement	450,000	1,250,000	*	Ongoing	Ongoing
Storm Sewer Improvements	700,000	1,700,000	*	Ongoing	Ongoing
Storm Sewer Master Plan - City-wide	1,160,000	5,580,000	*	Ongoing	Ongoing
Urgent Storm Drain Repair Projects	450,000	1,450,000	*	Ongoing	Ongoing
<b>Total: Construction/Non-Construction</b>	<b>46,676,000</b>	<b>110,146,000</b>			
Ending Fund Balance	13,178,160	2,177,120			**
<b>Total: Storm Sewer System</b>	<b>59,854,160</b>	<b>112,323,120</b>			**

### Water Pollution Control

Additional Digester Upgrades	1,180,000	63,740,000	64,475,000	3rd Qtr. 2022	3rd Qtr. 2028
Advanced Facility Control and Meter Replacement	1,504,000	1,504,000	34,397,495	3rd Qtr. 2010	2nd Qtr. 2023
Aeration Tanks and Blower Rehabilitation	4,725,000	22,926,000	77,973,498	2nd Qtr. 2015	4th Qtr. 2026
Capital Program and Public Works Department Support Service Costs	1,086,000	6,194,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	140,000	700,000	*	Ongoing	Ongoing
Debt Service Repayment for Plant Capital Improvement Projects	315,338,000	444,698,000	*	Ongoing	Ongoing
Digested Sludge Dewatering Facility	3,242,000	7,736,000	174,933,654	3rd Qtr. 2014	2nd Qtr. 2025
Digester and Thickener Facilities Upgrade	12,838,000	12,838,000	228,132,934	3rd Qtr. 2006	2nd Qtr. 2023
East Primary Rehabilitation, Seismic Retrofit, and Odor Control	1,000,000	107,785,000	112,974,114	3rd Qtr. 2009	4th Qtr. 2031
Energy Generation Improvements	1,941,000	1,941,000	133,667,926	1st Qtr. 2012	2nd Qtr. 2023
Facility Wide Water Systems Improvements	47,963,000	50,989,000	58,415,958	3rd Qtr. 2014	1st Qtr. 2026
Filter Rehabilitation	3,530,000	4,619,000	59,938,532	3rd Qtr. 2014	3rd Qtr. 2024
Final Effluent Pump Station & Stormwater Channel Improvements	3,852,000	16,917,000	17,850,815	3rd Qtr. 2019	2nd Qtr. 2025
Flood Protection	1,172,000	9,420,000	10,358,723	3rd Qtr. 2017	2nd Qtr. 2025
Headworks Improvements	694,000	694,000	22,212,246	1st Qtr. 2013	2nd Qtr. 2023
Hydraulic Capacity Engineering	25,000	125,000	*	Ongoing	Ongoing
Hydraulic Capacity Enhancements Reserve	3,666,000	3,666,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2022-2023</u> <u>Budget</u>	<u>2023-2027</u> <u>CIP Budget</u>	<u>Total</u> <u>Budget</u> <u>(All Years)</u>	<u>Start Date</u>	<u>End Date</u>
New Disinfection Facilities		7,131,000	56,977,000	3rd Qtr. 2025	4th Qtr. 2033
New Headworks	3,190,000	3,190,000	151,860,724	3rd Qtr. 2012	2nd Qtr. 2023
Nitrification Clarifier Rehabilitation	8,664,000	34,721,000	79,706,519	3rd Qtr. 2009	2nd Qtr. 2027
Outfall Channel and Instrumentation Improvements	776,000	776,000	9,977,588	3rd Qtr. 2014	1st Qtr. 2023
Owner Controlled Insurance Program	3,634,000	5,418,000	17,794,346	2nd Qtr. 2017	2nd Qtr. 2025
Plant Electrical Reliability	915,000	915,000	32,402,082	3rd Qtr. 2003	2nd Qtr. 2023
Plant Infrastructure Improvements	5,164,000	9,164,000	*	Ongoing	Ongoing
Plantwide Security Systems Upgrade	6,214,000	13,410,000	13,936,000	3rd Qtr. 2021	1st Qtr. 2026
Preliminary Engineering - Water Pollution Control	4,113,000	8,113,000	*	Ongoing	Ongoing
Program Management - Water Pollution Control	11,800,000	46,398,000	*	Ongoing	Ongoing
Secondary Clarifier Rehabilitation		25,777,000	26,455,000	3rd Qtr. 2024	2nd Qtr. 2031
Storm Drain System Improvements	2,109,000	2,741,000	13,889,747	4th Qtr. 2017	1st Qtr. 2024
Support Building Improvements	22,862,000	26,410,000	56,974,629	2nd Qtr. 2015	2nd Qtr. 2034
Treatment Plant Distributed Control System	385,000	385,000	11,556,955	1st Qtr. 2012	2nd Qtr. 2023
Tunnel Rehabilitation		3,299,000	27,638,292	3rd Qtr. 2024	3rd Qtr. 2032
Urgent and Unscheduled Treatment Plant Rehabilitation	1,500,000	7,500,000	*	Ongoing	Ongoing
Various Infrastructure Decommissioning	456,000	22,207,000	22,220,000	3rd Qtr. 2023	3rd Qtr. 2025
Yard Piping and Road Improvements	<u>18,022,000</u>	<u>44,908,000</u>	66,637,211	3rd Qtr. 2011	4th Qtr. 2026
<b>Total: Construction/Non-Construction</b>	<b>493,700,000</b>	<b>1,018,955,000</b>			
Ending Fund Balance	<u>129,797,901</u>	<u>14,530,901</u>			**
<b>Total: Water Pollution Control</b>	<b>623,497,901</b>	<b>1,033,485,901</b>			**
 <b><u>Water Utility System</u></b>					
Advance System Design	200,000	1,000,000	*	Ongoing	Ongoing
Annual Water Main Replacement	1,800,000	8,800,000	*	Ongoing	Ongoing
Backup Generator Replacement	199,000	199,000	*	Ongoing	Ongoing
Capital Program and Public Works Department Support Service Costs	48,000	157,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	8,000	40,000	*	Ongoing	Ongoing
Evergreen Reliability Well		1,800,000	1,800,000	3rd Qtr. 2024	2nd Qtr. 2027
GIS Support	40,000	200,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	2022-2023 Budget	2023-2027 CIP Budget	Total Budget (All Years)	Start Date	End Date
Infrastructure Improvements	840,000	4,300,000	*	Ongoing	Ongoing
Major Facilities Fee Administration	15,000	75,000	*	Ongoing	Ongoing
Master Plan Engineering	185,000	995,000	*	Ongoing	Ongoing
Meter Installations	50,000	250,000	*	Ongoing	Ongoing
North San José Reliability Well Construction	2,225,000	2,225,000	2,447,662	3rd Qtr. 2019	2nd Qtr. 2023
North San José Well Development and Construction	2,417,000	4,417,000	4,555,201	3rd Qtr. 2019	2nd Qtr. 2024
Preliminary Engineering - Water	160,000	845,000	*	Ongoing	Ongoing
Public Art Funding	161,000	181,000	*	Ongoing	Ongoing
Safety and Security Improvements	386,000	786,000	*	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	780,000	3,960,000	*	Ongoing	Ongoing
System Rehabilitation/Replacement Reserve	4,100,000	4,945,000	4,945,000	N/A	N/A
Water Resources Administration & Operations Facility	<u>3,000,000</u>	<u>3,000,000</u>	8,459,986	3rd Qtr. 2020	2nd Qtr. 2023
<b>Total: Construction/Non-Construction</b>	<b>18,414,000</b>	<b>40,775,000</b>			
Ending Fund Balance	<u>3,606,238</u>	<u>15,033,238</u>	**		
<b>Total: Water Utility System</b>	<b>22,020,238</b>	<b>55,808,238</b>	**		
<b>CSA Total: Construction/Non-Construction</b>	635,853,000	1,396,117,000	**		
Ending Fund Balance	<u>155,129,892</u>	<u>36,758,852</u>	**		
<b>CSA Total:</b>	<u><u>790,982,892</u></u>	<u><u>1,432,875,852</u></u>	**		

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

\*\* The 2022-2023 through 2025-2026 Ending Balance are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.