

# City Service Area Environmental and Utility Services



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



**Water Pollution Control Plant**

**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 or rehabilitate pump stations to reduce the risk of local flooding during storm events and storm water quality improvements 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.

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.

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## CSA CAPITAL PROGRAMS

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

# City Service Area Environmental and Utility Services

## Recent Accomplishments

- Various Sanitary Sewer rehabilitation and repair projects replaced aging pipeline or improved serviceability throughout the system, including Trimble Road and Capewood Lane Sanitary Sewer Improvements; Rincon Avenue – Virginia Avenue Sanitary Sewer Improvements; and a variety of sub-projects within the Cast Iron Pipe – Remove and Replace and Condition Assessment Sewer Repairs allocations (throughout 2019-2020)
- The Aviso Storm Pump Station project built a new 110 CFS storm pump station and force main system to work in series with the existing pump station to alleviate the community of Alviso from a 100-year flood event (completed in August 2019)
- The Water Pollution CIP awarded four major construction contracts, totaling approximately \$163 million: 96-inch and 87-inch Settled Sewage Rehabilitation, New Headworks, Nitrification Clarifiers Rehabilitation – Phase 1, and Switchgear M4 Replacement & G3/G3A Removal (throughout 2019-2020)

## Program Highlights

### Sanitary Sewer System Capital Program

2021-2025 Proposed CIP: \$192.4 million

#### Sanitary Sewer Rehabilitation Projects:

- Almaden Supplement Sewer Rehabilitation (North)
- Urgent Rehabilitation and Repair Projects

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

- Fourth Street 84-inch Interceptor Phase VII-A Project
- Sierra Road Sanitary Sewer Improvement
- Blossom Hill Road and Leigh Avenue Sanitary Sewer Improvement

### Storm Sewer System Capital Program

2021-2025 Proposed CIP: \$111.2 million

- Citywide Outfall Improvement
- Storm Pump Station Rehabilitation and Replacement
- Measure T - Storm Drain Improvements at Charcot Avenue
- Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvement

### Water Pollution Control Capital Program

2021-2025 Proposed CIP: \$1.1 billion

#### Wastewater Treatment:

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

#### Biosolids:

- Digested Sludge Dewatering Facility
- Digester and Thickener Facilities Upgrade

#### Electrical Systems and Power Generation:

- Energy Generation Improvements

#### Advanced Process Control & Automation:

- Advanced Facility Control and Meter Replacement

### Water Utility System Capital Program

2021-2025 Proposed CIP: \$47.5 million

- Annual Water Main Replacement Program
- North San Jose Reliability Well 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

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2020-2021 Budget</u>	<u>2021-2025 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	400,000	400,000	37,798,475	3rd Qtr. 2009	2nd Qtr. 2021
Almaden Supplement Sewer Rehabilitation (North)	200,000	3,130,000	3,130,000	3rd Qtr. 2020	2nd Qtr. 2022
Blossom Hill Road and Leigh Avenue Sanitary Sewer Improvement	200,000	5,400,000	5,400,000	3rd Qtr. 2021	2nd Qtr. 2024
Bollinger Road - Moorpark Avenue - Williams Road Sanitary Sewer Improv	205,000	205,000	9,576,910	3rd Qtr. 2012	4th Qtr. 2020
Capital Program and Public Works Department Support Service Costs	2,202,000	10,966,000	*	Ongoing	Ongoing
Cast Iron Pipe - Remove and Replace	5,000,000	25,000,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	328,000	1,681,000	*	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)	900,000	3,500,000	*	Ongoing	Ongoing
Fourth Major Interceptor, Phase VIIA		5,500,000	5,500,000	3rd Qtr. 2021	2nd Qtr. 2023
Immediate Replacement and Diversion Projects	5,400,000	28,950,000	*	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	49,000	261,000	*	Ongoing	Ongoing
Master Planning Updates	1,600,000	8,225,000	*	Ongoing	Ongoing
McKee Avenue Sanitary Sewer Improvement		1,500,000	1,500,000	3rd Qtr. 2022	2nd Qtr. 2023
Montague Sanitary Sewer Pump Station Reserve	2,000,000	2,000,000	2,000,000	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	94,000	605,000	*	Ongoing	Ongoing
Public Works Engineering Services Equipment (Materials Lab)	40,000	200,000	*	Ongoing	Ongoing
Rehabilitation of Sanitary Sewer Pump Stations	540,000	540,000	1,925,178	Ongoing	Ongoing
Reinforced Concrete Pipe Rehabilitation Program	500,000	2,500,000	*	Ongoing	Ongoing
Sierra Road Sanitary Sewer Improvement	2,300,000	2,500,000	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	7,000,000	31,000,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2020-2021 Budget</u>	<u>2021-2025 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
<b>Total: Construction/Non-Construction</b>	<b>39,728,000</b>	<b>190,413,000</b>			
Ending Fund Balance	11,192,531	2,007,531	**		
<b>Total: Sanitary Sewer System</b>	<b>50,920,531</b>	<b>192,420,531</b>	**		
<b><u>Storm Sewer System</u></b>					
Caltrans - LTC Reserve	4,500,000	4,500,000	4,500,000	N/A	N/A
Capital Program and Public Works Department Support Service Costs	613,000	2,517,000	*	Ongoing	Ongoing
Charcot Storm Pump Rental	300,000	1,500,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	141,000	725,000	*	Ongoing	Ongoing
Citywide Outfall Improvements	1,900,000	14,260,000	*	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	330,000	1,695,000	*	Ongoing	Ongoing
General Fund - Interest Income	12,000	60,000	*	Ongoing	Ongoing
Green Infrastructure Improvements	450,000	2,250,000	*	Ongoing	Ongoing
Infrastructure Management System	10,000	50,000	*	Ongoing	Ongoing
Large Trash Capture Devices	1,300,000	1,750,000	5,069,404	3rd Qtr. 2014	2nd Qtr. 2024
Measure T - Admin Reserve Storm Sewer		513,000	513,000	N/A	N/A
Measure T - Admin Storm Sewer	29,000	279,000	*	Ongoing	Ongoing
Measure T - Clean Water Projects	518,000	23,706,000	24,443,000	3rd Qtr. 2019	2nd Qtr. 2024
Measure T - Public Art Storm Sewer	5,000	422,000	*	Ongoing	Ongoing
Measure T - Storm Drain Improvements at Charcot Avenue	1,364,000	27,596,000	28,268,000	3rd Qtr. 2019	2nd 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	30,000	109,000	*	Ongoing	Ongoing
San Jose Watershed Invasive Species Removal and Engagement	200,000	600,000	*	Ongoing	Ongoing
Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvement	500,000	2,000,000	2,500,000	3rd Qtr. 2019	2nd Qtr. 2024
Storm Pump Station Rehabilitation and Replacement	1,500,000	8,000,000	*	Ongoing	Ongoing
Storm Sewer Improvements	500,000	2,500,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	2020-2021 Budget	2021-2025 CIP Budget	Total Budget (All Years)	Start Date	End Date
Storm Sewer Master Plan - City-wide	1,100,000	5,425,000	*	Ongoing	Ongoing
Urgent Storm Drain Repair Projects	250,000	1,250,000	*	Ongoing	Ongoing
<b>Total: Construction/Non-Construction</b>	<b>16,107,000</b>	<b>104,482,000</b>			
Ending Fund Balance	679,820	6,692,820	**		
<b>Total: Storm Sewer System</b>	<b>16,786,820</b>	<b>111,174,820</b>	**		

### Water Pollution Control

Additional Digester Upgrades		62,096,000	64,475,000	3rd Qtr. 2021	4th Qtr. 2027
Advanced Facility Control and Meter Replacement	990,000	1,720,000	26,938,870	3rd Qtr. 2010	2nd Qtr. 2023
Aeration Tanks and Blower Rehabilitation		68,057,000	119,676,047	2nd Qtr. 2015	1st Qtr. 2029
Capital Program and Public Works Department Support Service Costs	677,000	2,768,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	94,000	482,000	*	Ongoing	Ongoing
Clean Water Financing Authority Debt Service Payment Fund	5,526,000	5,526,000	*	Ongoing	Ongoing
Debt Service Repayment for Plant Capital Improvement Projects	2,926,000	362,829,000	*	Ongoing	Ongoing
Digested Sludge Dewatering Facility	128,189,000	135,550,000	149,134,279	3rd Qtr. 2014	3rd Qtr. 2023
Digester and Thickener Facilities Upgrade	1,222,000	1,222,000	59,922,401	3rd Qtr. 2006	1st Qtr. 2021
East Primary Rehabilitation, Seismic Retrofit, and Odor Control		106,785,000	112,888,000	3rd Qtr. 2010	1st Qtr. 2030
Energy Generation Improvements	587,000	587,000	52,702,228	1st Qtr. 2012	1st Qtr. 2021
Equipment Replacement	1,663,000	8,315,000	*	Ongoing	Ongoing
Equipment Replacement Reserve	5,000,000	5,000,000	5,000,000	N/A	N/A
Facility Wide Water Systems Improvements	753,000	10,582,000	15,130,715	3rd Qtr. 2014	1st Qtr. 2025
Filter Rehabilitation	13,968,000	16,415,000	53,230,304	3rd Qtr. 2014	3rd Qtr. 2023
Final Effluent Pump Station & Stormwater Channel Improvements	2,009,000	45,012,000	47,358,000	3rd Qtr. 2019	2nd Qtr. 2025
Headworks Improvements	822,000	1,056,000	17,330,657	1st Qtr. 2013	3rd Qtr. 2023
Hydraulic Capacity Engineering	25,000	125,000	*	Ongoing	Ongoing
Hydraulic Capacity Enhancements Reserve	3,666,000	3,666,000	*	Ongoing	Ongoing
New Headworks	7,896,000	9,890,000	143,367,891	3rd Qtr. 2012	3rd Qtr. 2023
Nitrification Clarifier Rehabilitation	1,602,000	39,075,000	93,778,182	3rd Qtr. 2009	4th Qtr. 2025
Outfall Bridge and Levee Improvements	533,000	1,102,000	7,798,633	3rd Qtr. 2014	1st Qtr. 2022
Owner Controlled Insurance Program	3,705,000	10,073,000	16,497,000	2nd Qtr. 2017	2nd Qtr. 2024

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2020-2021 Budget</u>	<u>2021-2025 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
Payment for Clean Water Financing Authority Trustee	5,000	10,000	*	Ongoing	Ongoing
Plant Electrical Reliability	194,000	887,000	8,616,455	3rd Qtr. 2003	2nd Qtr. 2022
Plant Infrastructure Improvements	1,000,000	5,000,000	*	Ongoing	Ongoing
Preliminary Engineering - Water Pollution Control	1,000,000	5,000,000	*	Ongoing	Ongoing
Program Management - Water Pollution Control	11,738,000	42,246,000	*	Ongoing	Ongoing
Secondary Clarifier Rehabilitation		3,398,000	26,455,000	3rd Qtr. 2023	4th Qtr. 2031
Storm Drain System Improvements		12,575,000	14,243,931	4th Qtr. 2017	2nd Qtr. 2024
Support Building Improvements	113,000	15,139,000	61,051,124	2nd Qtr. 2015	4th Qtr. 2033
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. 2019	2nd Qtr. 2024
Yard Piping and Road Improvements		92,108,000	117,442,860	3rd Qtr. 2011	1st Qtr. 2028
<b>Total: Construction/Non-Construction</b>	<b>197,403,000</b>	<b>1,103,547,000</b>			
Ending Fund Balance	<u>2,038,267</u>	<u>3,535,267</u>	**		
<b>Total: Water Pollution Control</b>	<b>199,441,267</b>	<b>1,107,082,267</b>	**		

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### Water Utility System

Advance System Design	200,000	1,000,000	*	Ongoing	Ongoing
Annual Water Main Replacement	1,300,000	9,100,000	*	Ongoing	Ongoing
Capital Program and Public Works Department Support Service Costs	9,000	42,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	6,000	30,000	*	Ongoing	Ongoing
Evergreen Reliability Well		200,000	200,000	3rd Qtr 2024	2nd Qtr 2027
Fowler Pump Station Replacement	250,000	250,000	3,665,411	3rd Qtr. 2017	2nd Qtr. 2021
GIS Support	65,000	325,000	*	Ongoing	Ongoing
Infrastructure Improvements	820,000	4,200,000	*	Ongoing	Ongoing
Major Facilities Fee Administration	15,000	75,000	*	Ongoing	Ongoing
Master Plan Engineering	175,000	930,000	*	Ongoing	Ongoing
Meter Installations	50,000	250,000	*	Ongoing	Ongoing
North San José Reliability Well Construction	950,000	1,100,000	1,460,000	3rd Qtr. 2019	2nd Qtr. 2022
North San José Well Development and Construction	500,000	2,500,000	4,060,000	3rd Qtr. 2019	2nd Qtr. 2022
Preliminary Engineering - Water	150,000	800,000	*	Ongoing	Ongoing

# Capital Program Summary by City Service Area

## Environmental and Utility Services

	<u>2020-2021 Budget</u>	<u>2021-2025 CIP Budget</u>	<u>Total Budget (All Years)</u>	<u>Start Date</u>	<u>End Date</u>
Public Art Funding	2,000	10,000	*	Ongoing	Ongoing
Safety and Security Improvements	100,000	500,000	*	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	760,000	3,880,000	*	Ongoing	Ongoing
System Rehabilitation/Replacement Reserve	3,400,000	4,650,000	4,650,000	N/A	N/A
Water Resources Administration & Operations Facility	<u>2,500,000</u>	<u>14,500,000</u>	14,500,000	3rd Qtr. 2020	2nd Qtr. 2025
<b>Total: Construction/Non-Construction</b>	<b>13,052,000</b>	<b>46,942,000</b>	30,135,411	294,160	353,159
Ending Fund Balance	<u>2,591,475</u>	<u>586,475</u>	**		
<b>Total: Water Utility System</b>	<b>15,643,475</b>	<b>47,528,475</b>	**		
<b>CSA Total: Construction/Non-Construction</b>	266,290,000	1,445,384,000	**		
Ending Fund Balance	<u>16,502,093</u>	<u>12,822,093</u>	**		
<b>CSA Total:</b>	<u><u>282,792,093</u></u>	<u><u>1,458,206,093</u></u>	**		

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

\*\* The 2020-2021 through 2023-2024 Ending Balance are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.