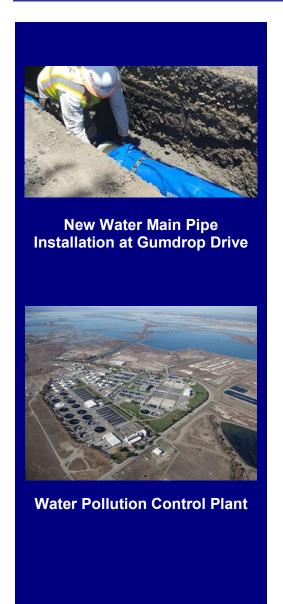
City Service Area

Environmental and Utility Services



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.

CSA CAPITAL PROGRAMS

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

City Service Area

Environmental and Utility Services

Recent Accomplishments

- Gumdrop Drive Main Replacement

 Replaced and relocated
 approximately 2,050 feet of an 8inch steel water main on Gumdrop
 Drive, Almond Drive, and Coconut
 Drive (completed in Dec. 2018)
- Cast Iron Pipe Replacement 2017-2018 Phase III – Removed and replaced aging or corroded cast iron sewer pipes at several City locations (completed in Dec. 2018)
- Sanitary Sewer Repairs 2017-2018
 Package II Rehabilitated
 approximately 14,000 linear feet of
 sanitary sewer mains that have
 severe structural issues at various
 City locations (completed in
 Sept. 2018)
- Horace Mann and Washington Neighborhood Green Alleyways Improvements – Replaced 22,000 square feet of pavement and dirt roadway with new asphalt and installed 1,000 linear feet of infiltration trenches for stormwater treatment at two downtown locations (completed in April 2019)
- Willow Street Sanitary Pump Station Rehabilitation – Installed upgraded mechanical, structural and electrical components, along with other improvements at the sanitary pump station located at Willow Street and Minnesota Avenue (completed in April 2019)

Program Highlights

Sanitary Sewer System Capital Program

2020-2024 Adopted CIP: \$193.5 million

Sanitary Sewer Rehabilitation Projects:

- Cast Iron Pipe Remove and Replace
- Condition Assessment Sewer Repairs

Sanitary Sewer Interceptor/Capacity Improvement Projects:

- Immediate Replacement and Diversion Projects
- Miscellaneous Capacity Improvements

Storm Sewer System Capital Program

2020-2024 Adopted CIP: \$125.6 million

- Measure T Charcot Avenue Pump Station
- Measure T Clean Water Projects
- Stockton-Cinnabar and Stockton-Taylor Storm Drains

Water Pollution Control Capital Program

2020-2024 Adopted CIP: \$1.39 billion

Preliminary Wastewater Treatment:

- Headworks Improvements
- New Headworks

Secondary Wastewater Treatment:

Nitrification Clarifier Rehabilitation

Tertiary Wastewater Treatment

Filter Rehabilitation

Biosolids:

Digested Sludge Dewatering Facility

Advanced Process Control & Automation:

Advanced Facility Control and Meter Replacement

Site Facility Maintenance and Improvements:

Yard Piping and Road Improvements

Water Utility System Capital Program

2020-2024 Adopted CIP: \$39.1 million

- Annual Water Main Replacement
- Infrastructure Improvements
- North San José Reliability Well #6 Construction

CSA OUTCOMES

(Supported by the Capital Programs)

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

City Service Area Environmental and Utility Services

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	2017-2018 Actual ¹	2018-2019 Target	2018-2019 Estimate	2019-2020 Target	5-Year Goal
Environmental and Utility Services CSA delivers quality Capital	% of CIP projects delivered within 2 months of approved baseline schedule ²	83% (25/30)	85%	67% (18/27)	85%	85%
Improvement Program (CIP) projects on-time and on-budget	2. % of CIP projects that are completed within the approved baseline budget ³	100% (33/33)	90%	92% (33/36)	90%	90%

The 2017-2018 Actual number of projects may vary from the 2017-2018 Adopted Budget Estimate as documented in the 2018-2019 Adopted Budget as a result of the date of the estimated beneficial use of the project being revised and the projects expected to be delivered in the following fiscal year. Also, the number of projects may change with the inclusion of projects in the 2017-2018 Actual not originally included in the 2017-2018 Adopted Budget Estimate due to incomplete project information at that time.

In 2018-2019, the Environmental and Utility Services CSA delivered 18 of 27 (67%) projects within two months of the approved baseline schedule, which is below the performance target of 85%. Significant weather-related construction delays contributed to several projects being delivered beyond two months of baseline schedule. Some of the notable capital projects delivered in 2018-2019 include sanitary sewer improvements (Horace Mann and Washington Neighborhood Green Alleyways, Trimble Road and Amberwood Lane), sanitary sewer condition assessments at various locations, and the Willow Street Sanitary Pump Station Rehabilitation.

In 2018-2019, 33 of 36 (92%) projects were completed within their baseline budgets, which is above the one-year performance target of 90%. A few of the notable capital projects completed in 2018-2019 include the Horace Mann and Washington Neighborhood Green Alleyways, the Downer Canoas Injection Station Tank Replacement, the Willow Street Sanitary Pump Station Rehabilitation, and Headworks Critical Improvements at the San José-Santa Clara Regional Wastewater Facility. 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.

Projects are considered to be "delivered" when they are available for their intended use and are considered "on schedule" if delivered within two months of baseline schedule.

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.

			Total		
	2019-2020	2020-2024	Budget		
	Budget	CIP Budget	(All Years)	Start Date	End Date
Sanitary Sewer System	_		·		
60 inch Brick Interceptor, Phase VIA and VIB	1,600,000	2,000,000	44,719,270	3rd Qtr. 2009	2nd Qtr. 2021
Almaden Supplement Sewer Rehabilitation (North)		3,130,000	3,130,000	3rd Qtr. 2020	2nd Qtr. 2022
Bollinger Road - Moorpark Avenue - Williams Road Sanitary Sewer Improv	1,506,000	1,506,000	8,417,000	3rd Qtr. 2012	2nd Qtr. 2020
Capital Program and Public Works Department Support Service Costs	1,899,000	9,308,000	*	Ongoing	Ongoing
Cast Iron Pipe - Remove and Replace	5,000,000	25,000,000	*	Ongoing	Ongoing
City Hall Debt Service Fund	336,000	1,700,000	*	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	4,500,000	*	Ongoing	Ongoing
Fourth Major Interceptor, Phase VIIA		5,500,000	5,500,000	3rd Qtr. 2021	2nd Qtr. 2023
Immediate Replacement and Diversion Projects	7,300,000	29,750,000	*	Ongoing	Ongoing
Inflow and Infiltration Reduction	200,000	1,000,000	*	Ongoing	Ongoing
Infrastructure - Sanitary Sewer Condition Assessment	3,000,000	15,000,000	*	Ongoing	Ongoing
Infrastructure Management System	49,000	271,000	*	Ongoing	Ongoing
Master Planning Updates	2,000,000	8,900,000	*	Ongoing	Ongoing
McKee Avenue Sanitary Sewer Improvement		1,500,000	1,500,000	3rd Qtr. 2022	2nd Qtr. 2023
Miscellaneous Capacity Improvements	1,500,000	1,500,000	1,500,000	3rd Qtr. 2019	2nd Qtr. 2020
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	48,000	522,000	*	Ongoing	Ongoing
Public Works Engineering Services Equipment (Materials Lab)	40,000	200,000	*	Ongoing	Ongoing
Rehabilitation of Sanitary Sewer Pump Stations	1,220,000	1,240,000	2,696,993	Ongoing	Ongoing
Reinforced Concrete Pipe Rehabilitation Program	500,000	2,500,000	*	Ongoing	Ongoing
Rincon Avenue - Virginia Avenue Sanitary Sewer Improvements	300,000	300,000	5,176,000	3rd Qtr. 2017	4th Qtr. 2019
Sierra Road Sanitary Sewer Improvement		1,200,000	1,200,000	3rd Qtr. 2020	2nd Qtr. 2021
Technology Drive Sanitary Sewer Improvement		2,500,000	2,500,000	3rd Qtr. 2021	2nd Qtr. 2022

		2019-2020 Budget	2020-2024 CIP Budget	Total Budget (All Years)	Start Date	End Date
	Trimble Road and Capewood Lane Sanitary Sewer Improvements	50,000	50,000	1,577,855	2nd Qtr. 2014	3rd Qtr. 2019
	Urgent Rehabilitation and Repair Projects	7,000,000	33,000,000	*	Ongoing	Ongoing
	Westmont Avenue and Harriet Avenue Sanitary Sewer Improvements	516,000	516,000	5,461,000	3rd Qtr. 2017	2nd Qtr. 2020
	Total: Construction/Non-Construction	44,734,000	191,843,000			
	Ending Fund Balance	8,667,205	1,694,205 *	*		
	Total: Sanitary Sewer System	53,401,205	193,537,205 *	*		
	Storm Sewer System					
	2017 Flood - Bailey Ave Storm Drain Inlet Repair	550,000	550,000	573,000	3rd Qtr. 2017	2nd Qtr. 2020
	Alviso Storm Pump Station	1,400,000	1,400,000	14,478,832	3rd Qtr. 2013	3rd Qtr. 2019
_	Capital Program and Public Works Department Support Service Costs	807,000	3,980,000	*	Ongoing	Ongoing
	Charcot Storm Pump Rental	300,000	1,500,000	*	Ongoing	Ongoing
3	City Hall Debt Service Fund	216,000	1,092,000	*	Ongoing	Ongoing
	Citywide Outfall Improvements	2,850,000	5,890,000	*	Ongoing	Ongoing
	Condition Assessment Storm Sewer Repairs	750,000	1,350,000	*	Ongoing	Ongoing
	Fee Administration - Storm Sewer	25,000	125,000	*	Ongoing	Ongoing
	Flow Monitoring Program	370,000	1,930,000	*	Ongoing	Ongoing
	General Fund - Interest Income	11,000	55,000	*	Ongoing	Ongoing
	Green Infrastructure Improvements	900,000	2,700,000	*	Ongoing	Ongoing
	Infrastructure Management System	10,000	60,000	*	Ongoing	Ongoing
	Large Trash Capture Devices	1,885,000	1,885,000	8,319,775	3rd Qtr. 2014	4th Qtr. 2019
	Measure T - Charcot Avenue Pump Station	1,600,000	35,000,000	35,000,000	3rd Qtr. 2019	2nd Qtr. 2024
	Measure T - Clean Water Projects	1,300,000	25,000,000	25,000,000	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	34,000	92,000	*	Ongoing	Ongoing
	San Jose Watershed Invasive Species Removal and Engagement	400,000	1,200,000	*	Ongoing	Ongoing
	Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvement	500,000	15,000,000	15,000,000	3rd Qtr. 2019	2nd Qtr. 2024
	Storm Pump Station Rehabilitation and Replacement	1,500,000	7,500,000	*	Ongoing	Ongoing

V - 31

				Total		
		2019-2020	2020-2024	Budget		
		Budget	CIP Budget	(All Years)	Start Date	End Date
	Storm Sewer Improvements	800,000	2,800,000	*	Ongoing	Ongoing
	Storm Sewer Master Plan - City-wide	1,370,000	6,590,000	*	Ongoing	Ongoing
	Urgent Storm Drain Repair Projects	250,000	1,250,000	*	Ongoing	Ongoing
	Total: Construction/Non-Construction	18,208,000	118,849,000			
	Ending Fund Balance	21,096,848	6,763,848 *	*		
	Total: Storm Sewer System	39,304,848	125,612,848 *	*		
	Water Pollution Control					
	Additional Digester Upgrades		10,520,000	64,475,000	3rd Qtr. 2021	2nd Qtr. 2028
	Advanced Facility Control and Meter Replacement	15,297,000	17,017,000	30,794,783	3rd Qtr. 2010	2nd Qtr. 2023
_	Aeration Tanks and Blower Rehabilitation	10,888,000	75,362,000	123,746,341	2nd Qtr. 2015	2nd Qtr. 2028
V -	Capital Program and Public Works Department Support Service Costs	724,000	1,982,000	*	Ongoing	Ongoing
32	City Hall Debt Service Fund	89,000	453,000	*	Ongoing	Ongoing
	Clean Water Financing Authority Debt Service Payment Fund	5,527,000	11,053,000	*	Ongoing	Ongoing
	Debt Service Repayment for Plant Capital Improvement Projects	3,625,000	391,130,000	*	Ongoing	Ongoing
	Digested Sludge Dewatering Facility	12,519,000	121,426,000	124,220,155	3rd Qtr. 2014	2nd Qtr. 2023
	Digester and Thickener Facilities Upgrade	6,931,000	8,806,000	110,957,332	3rd Qtr. 2006	2nd Qtr. 2021
	East Primary Rehabilitation, Seismic Retrofit, and Odor Control	1,000,000	107,785,000	112,888,212	3rd Qtr. 2010	3rd Qtr. 2028
	Energy Generation Improvements	3,627,000	4,364,000	92,032,878	1st Qtr. 2012	2nd 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	3,561,000	14,500,000	15,824,244	3rd Qtr. 2014	2nd Qtr. 2024
	Filter Rehabilitation	36,065,000	39,755,000	43,108,106	3rd Qtr. 2014	2nd Qtr. 2023
	Final Effluent Pump Station & Stormwater Channel Improvements	902,000	47,164,000	47,358,000	3rd Qtr. 2019	3rd Qtr. 2025
	Flood Protection	1,489,000	10,004,000	11,460,732	3rd Qtr. 2017	2nd Qtr. 2023
	Headworks Improvements	15,839,000	16,475,000	18,109,961	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
	Master Plan Updates	1,500,000	1,500,000	3,000,000	3rd Qtr. 2018	2nd Qtr. 2021
	New Headworks	130,985,000	134,437,000	142,222,103	3rd Qtr. 2012	2nd Qtr. 2023

		2019-2020 Budget	2020-2024 CIP Budget	Total Budget (All Years)	Start Date	End Date
	Nitrification Clarifier Rehabilitation	54,316,000	92,440,000	96,936,975	3rd Qtr. 2009	4th Qtr. 2025
	Outfall Bridge and Levee Improvements	6,299,000	7,022,000	8,029,037	3rd Qtr. 2014	2nd Qtr. 2021
	Owner Controlled Insurance Program	6,424,000	16,497,000	17,844,000	2nd Qtr. 2017	2nd Qtr. 2023
	Payment for Clean Water Financing Authority Trustee	5,000	15,000	*	Ongoing	Ongoing
	Plant Electrical Reliability	7,617,000	8,504,000	9,373,304	3rd Qtr. 2003	2nd Qtr. 2022
	Plant Infrastructure Improvements	1,770,000	5,770,000	*	Ongoing	Ongoing
	Preliminary Engineering - Water Pollution Control	1,000,000	5,000,000	*	Ongoing	Ongoing
	Program Management - Water Pollution Control	10,628,000	51,298,000	*	Ongoing	Ongoing
	Public Art Allocation	20,000	20,000	*	Ongoing	Ongoing
	Secondary Clarifier Rehabilitation		2,833,000	26,455,000	3rd Qtr. 2023	4th Qtr. 2028
	Storm Drain System Improvements	1,377,000	13,952,000	14,984,317	4th Qtr. 2017	2nd Qtr. 2023
	Support Building Improvements	14,552,000	17,746,000	55,470,408	2nd Qtr. 2015	1st Qtr. 2028
_	Treatment Plant Distributed Control System	5,459,000	5,459,000	7,653,600	1st Qtr. 2012	2nd Qtr. 2020
33	Urgent and Unscheduled Treatment Plant Rehabilitation	500,000	2,500,000	*	Ongoing	Ongoing
	Various Infrastructure Decommissioning	469,000	22,220,000	22,220,000	3rd Qtr. 2019	1st Qtr. 2025
	Yard Piping and Road Improvements	20,724,000	98,315,000	119,234,369	3rd Qtr. 2011	2nd Qtr 2028
	Total: Construction/Non-Construction	392,082,000	1,380,430,000			
	Ending Fund Balance	7,184,755	11,264,755 **			
	Total: Water Pollution Control	399,266,755	1,391,694,755 **			
	Water Utility System					
	Advance System Design	200,000	1,000,000	*	Ongoing	Ongoing
	Annual Water Main Replacement	3,200,000	10,600,000	*	Ongoing	Ongoing
	Backup Generator Replacement	200,000	200,000	*	Ongoing	Ongoing
	Capital Program and Public Works Department Support Service Costs	22,000	99,000	*	Ongoing	Ongoing
	City Hall Debt Service Fund	6,000	30,000	*	Ongoing	Ongoing
	Facility Sites Improvement	280,000	280,000	*	Ongoing	Ongoing
	Fowler Pump Station Replacement	2,633,000	2,633,000	2,795,000	3rd Qtr. 2017	2nd Qtr. 2020
	GIS Support	65,000	325,000	*	Ongoing	Ongoing
	Infrastructure Improvements	810,000	4,150,000	*	Ongoing	Ongoing

		2019-2020 Budget	2020-2024	Total Budget	Otant Data	Fred Date
		Budget	CIP Budget	(All Years)	Start Date	End Date
	Major Facilities Fee Administration	15,000	75,000	*	Ongoing	Ongoing
	Master Plan Engineering	160,000	850,000	*	Ongoing	Ongoing
	Meter Installations	50,000	250,000	*	Ongoing	Ongoing
	Network System Flow Improvements	6,000	30,000	*	Ongoing	Ongoing
	North Coyote Valley Water System Reserve	168,000	168,000	168,000	N/A	N/A
	North San José Reliability Well #6 Construction	360,000	1,460,000	1,460,000	3rd Qtr. 2019	2nd Qtr. 2022
	North San José Well #5 Development and Construction	1,560,000	1,560,000	1,560,000	3rd Qtr. 2019	2nd Qtr. 2020
	Preliminary Engineering - Water	145,000	775,000	*	Ongoing	Ongoing
	Public Art Funding	16,000	24,000	*	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	740,000	3,820,000	*	Ongoing	Ongoing
. 34	System Rehabilitation/Replacement Reserve	3,100,000	4,338,000	4,338,000	N/A	N/A
	Tuers Road Site Improvements	170,000	170,000	510,000	3rd Qtr. 2018	2nd Qtr. 2020
	Total: Construction/Non-Construction	15,806,000	35,937,000	12,431,000	257,687	269,715
	Ending Fund Balance	2,852,168	3,202,168	**		
	Total: Water Utility System	18,658,168	39,139,168	**		
	CSA Total: Construction/Non-Construction	470,830,000	1,727,059,000	**		
	Ending Fund Balance	39,800,976	22,924,976	**		
	CSA Total:	510,630,976	1,749,983,976	**		

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

^{**} The 2019-2020 through 2022-2023 Ending Balance are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.