

City of Santa Clara
Sanitary Sewer Outlet Charge
Conveyance Fee
Report

June 2022

Background

In 2007, a Conveyance Fee component of the Sanitary Sewer Outlet Charge was approved by City Council (Resolution 07-7415). The Conveyance Fee funds capacity improvements to the sanitary sewer system required as a result of intensification and densification of land uses permitted by the General Plan and associated development land use amendments. The fee was subsequently updated in 2009 and 2010 with the following actions:

- Resolution 09-7643 approved on June 16, 2009 to update the fee to include costs of bond issuance to fund and implement projects
- Resolution 10-7741 approved on June 8, 2010 to update the fee with consideration of the following: a) resolution of other funding opportunities (i.e. redevelopment and stimulus funds); b) incorporation of latest land use information from the General Plan update finalized in 2010; and c) adjustments to the capacity project improvements listing resulting from a) and b).

Technical Basis for Projects and Fee

The initial establishment of the fee in 2007 was based upon projects identified in the 2007 Sanitary Sewer Capacity Assessment conducted by the City consultant RMC Water and Environment. This assessment accomplished the following objectives: a) develop wastewater flow projections for the City's collection area using up-to-date water use and land use information; b) develop a hydraulic model of the trunk sewer system; c) use the model to identify existing capacity deficiencies and future capacity requirements; and d) develop phased capital projects, including budget cost estimates, for implementing the required capacity improvements to the wastewater collection system. It is also important to note that the assessment fulfilled the requirement for a capacity evaluation and capacity assurance plan as required for all sewer system agencies by the Regional Water Quality Control Board.

Another sewer capacity assessment was conducted in 2009 by RMC Water and Environment. This assessment (an update to the 2007 assessment) accounted for land use changes resulting from the in-progress General Plan Update which was finalized in 2010. Recommended changes to the capacity project improvement listing and project budget cost estimates were approved with City Council Resolution 10-7741 in June of 2010.

Sanitary Sewer System Capacity Improvements

After approval of the initial project improvement listing in 2007 (Resolution 07-7415), two projects were initiated and completed as listed below. The specific projects are listed below with their completion dates and the specific deficiency project numbers from the project list.

- Calabazas Creek Sewer Improvement (El Camino Real Diversion) – 2008 (Project ID/No. 'ECR Diverson')
- El Camino Real Sanitary Sewer Improvement (Flora Vista to Calabazas Creek) – 2009 (Project No. 8)

After approval of the project improvement listing in June of 2010 (Resolution 10-7741), four projects were initiated and completed. The specific projects are listed below with their

completion dates and the specific deficiency project numbers from the project list. Two of the projects addressed multiple deficiencies.

- Walsh Avenue Sewer Improvement Project – 2011 (Project ID/No. 'West to East Alternative')
- Sanitary Sewer Improvements Phase II – 2015 (Project Nos. 4A, 4B, 5 and 6)
- Scott Boulevard and Park Avenue Sanitary Sewer Improvements – 2016 (Project Nos. 9 and 10)
- Calabazas Creek Sewer Improvement – 2020 (Project No. 11)

2016 Sanitary Sewer Master Plan Update

In 2015, the City initiated work on a comprehensive update to the prior capacity assessment work completed in 2007 and 2009. The analysis considered the latest information on water use and land use changes since 2009. The final report was completed by the City's consultant RMC Water and Environment and issued April 2016 (Sanitary Sewer Master Plan Update Final Report dated April 2016). As with prior reports, the assessment resulted in a recommended phased capital project improvement listing including budget cost estimates. Also, the hydraulic model update served as an important tool in the continuous evaluation of individual development proposals with respect to sanitary sewer capacity impacts and resulting development conditions of approval.

2022 Addendum to 2016 Sanitary Sewer Master Plan Update

In 2021, the City initiated work on an addendum to the 2016 Sanitary Sewer Master Plan (SSMP) Update to accomplish the following objectives: 1) analyze a Calabazas Creek trunk line capacity issue; 2) update the Tracy Drive Sewer Improvement project identified in the 2016 SSMP Update; and 3) identify a solution to a deficiency on the Great America Parkway West trunk line. The Calabazas Creek trunk analysis was needed due to the discovery in 2021 of existing sewer network conditions that were different than the hydraulic model. The most notable difference was the discovery of a 19-inch diameter pipe segment that was assumed to be 24-inch diameter (the same as the immediate upstream and downstream segments and consistent with the original as-built drawings). This smaller diameter pipe size results in reduced sewer capacity at this location. The Tracy Drive sewer project was being revised to better balance downstream flow between the Homestead Road and Pomeroy Avenue intermediate trunk lines. The Great America Parkway West trunk deficiency was identified for analysis due to new development plans in the tributary sewer basins.

The extent of the Calabazas Creek trunk line deficiency was evaluated, and four alternatives were studied resulting in three recommended alternatives carried forward to the deficiency project listing. Also, a solution was identified for the Great America Parkway West trunk line resulting in a recommended project to address the deficiency.

The 2022 Addendum provides an update to the 2016 project improvement listing resulting in a combined listing of the 2106 deficiency projects with the additional projects identified in the 2022 analysis. The project improvement listing is included here as Table 1.

**TABLE 1
SANITARY SEWER SYSTEM
CAPACITY IMPROVEMENT PROJECT LISTING**

Project ID	Project Name	Description	Estimated Capital Improvement Cost ¹
P1	Westside Lift Station Adjustment	Adjust the set points for the pumps to a lower elevation to eliminate unnecessary backups in the influent line.	Project Complete
P2	Tasman Lift Station Adjustment	Adjust the set points for the pumps to a lower elevation to eliminate unnecessary backups in the influent line.	Project Complete
P3	Cabrillo Avenue Sewer Improvement	Upsize 1,600 feet of 8-inch line in Cabrillo Ave. between Lawrence Expressway and Nobili Ave. to a 12-inch line.	\$2,390,000
P4	Tasman Drive Sewer Improvement	Upsize 600 feet of 12-inch line in Tasman Dr. between Old Ironsides Dr. and Great America Pkwy. to a 15-inch line.	\$832,000
P5	Sewer Diversion at Los Padres Boulevard and Saratoga Avenue	Install a weir in manhole S25-85 located in the intersection of Padres Blvd. and Saratoga Ave. to divert flow northwest to the existing 12-in line in Los Padres Blvd.	\$94,000
P6	Sewer Diversion at Calabazas Boulevard and Machado Avenue	Install a new manhole upstream of S52-93 in the intersection of Calabazas Blvd. and Machado Ave., and install a new 15-inch high-level diversion line (approximately 200 feet) to divert excess flow from the existing 24-inch line in Calabazas Blvd. to the 21-inch line in Machado Ave. The diversion line should be about 6 inches higher than the invert of the 24-inch line.	Project Replaced by P7-Alt 1
P6-Alt.	Calabazas Creek Sewer Improvement	Upsize 1,800 feet of 24-inch line next to Calabazas Creek between Kifer Rd. and Scott Blvd. to a 27-inch line.	Project Complete
P7	Calabazas Creek Trunk Upsize and Installation of Parallel 18-Inch Sewer Under the Existing 27-Inch Storm Drain	Upsize 2,400 feet of CIPP lined 22.8-inch sewer, 24, 27, and 30-inch sewer next to Calabazas Creek between Kifer Road and downstream of Scott Boulevard to a 27, and 36-inch sewer. Install approximately 20 feet of 18-inch sewer between existing manholes S62-37 and S62-38 under the existing 27-inch storm drain line.	\$4,170,000
P7-Alt 1	Calabazas Creek Trunk Diversion to Machado Avenue and Chromite Drive	Install a new manhole upstream of existing manhole S52-93 at the intersection of Calabazas Boulevard and Machado Avenue. Install a weir or high-level diversion sewer (approximately 120 feet) to divert excess flow from the existing 24-inch Calabazas Creek trunk to the 21-inch Machado Avenue trunk. The diversion line should be approximately 9 inches higher than the invert of the 24-inch trunk.	\$315,000

Project ID	Project Name	Description	Estimated Capital Improvement Cost ¹
P7-Alt 2	Diversion to El Camino Real (ECR) and Bowers Avenue	Upsize 1,800 feet of 10-inch line along ECR between Calabazas Boulevard and Bowers Avenue to a 15-inch. Upsize 2,600 feet of 27-inch along Bowers Avenue between Chromite Drive and Kifer Road to a 30-inch. Install approximately 20 feet of 18-inch sewer on the Calabazas Creek Trunk between existing manholes S62-37 and S62-38 under the existing 27-inch storm drain line.	\$7,008,000
P8 ²	Great America Parkway West Trunk Improvements	Upsize 5,700 feet of 30-inch line along Great America Parkway between Old Glory Lane and Lafayette Street to a 39-inch. Improvements exclude the existing siphons.	\$12,993,000
Estimated Total Cost for Projects P3, P4, P5, P7 and P8: Estimated Total Cost for Projects P3, P4, P5, P7-Alt 1 and P8: Estimated Total Cost for Projects P3, P4, P5, P7-Alt 2 and P8:			\$20,479,000 \$16,624,000 \$23,317,000
E1 ³	Tracy Drive Sewer Improvement	Upsize approximately 6,600 feet of 10- to 12-inch line in Tracy Dr. and Pomeroy Ave. to a 15-inch line; install a new 15-inch line between manholes S22-55 and S22-46 in Pomeroy Ave. and Homestead Rd. (approximately 50 feet) to divert flow into Homestead Rd. and upsize approximately 1,400 feet of 18-inch line downstream to a 21-inch.	\$10,693,000
Estimated Total Cost for All Projects (assuming P7): Estimated Total Cost for All Projects (assuming P7-Alt 1): Estimated Total Cost for All Projects (assuming P7-Alt 2):			\$31,172,000 \$27,317,000 \$34,010,000

1. All costs are presented in 2022 dollars and include 30 percent allowance for contingencies for unknown conditions and 25 percent for engineering, administration, and legal costs.
2. Project P8 costs do not include improvements associated with the PHD Alternative 3/Gravity Scenario E project.
3. Project E1 addresses the potential capacity deficiency when parcel APN 316-17-018 begins to discharge its entitled flow of 0.95 mgd into the City's system.

Upcoming Work

The SSMP should be updated every five years to reflect any significant updates or program changes. Work will commence in 2022 on a Request for Proposals to select a consultant to perform a SSMP Update. Staff estimates returning to Council in late 2022 with a recommendation for approval of an agreement. Work would commence shortly thereafter with the planned final report be early 2024. Like prior SSMPs, this work will update the hydraulic model with the latest water use and land use changes. Analysis work will result in identification of any existing deficiencies and future anticipated deficiencies with a resulting project improvement listing with budget cost estimates. After identification of the total project costs, a rate analysis will be performed to determine if the existing conveyance fee rate is appropriate to the needed improvements.

Recommended Actions

It is recommended that this report and the updated capacity project improvement listing be approved. This will allow for continued capacity improvement projects to move forward in parallel with the planned Master Plan Update work. Because the comprehensive update to the SSMP will be initiated in 2022, and the update will include a conveyance fee rate analysis, it is recommended that the current conveyance fee rate be held constant pending completion of the future rate analysis.