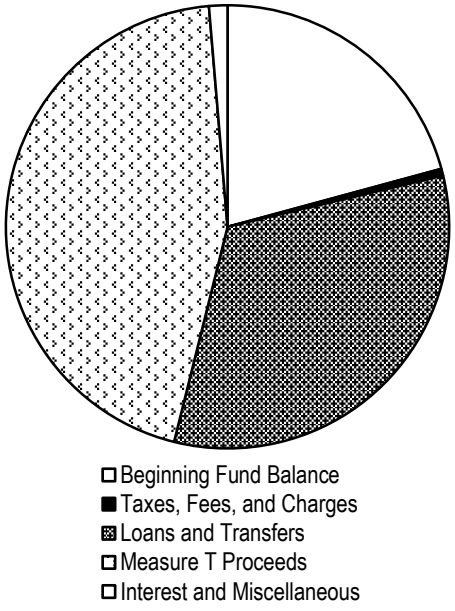
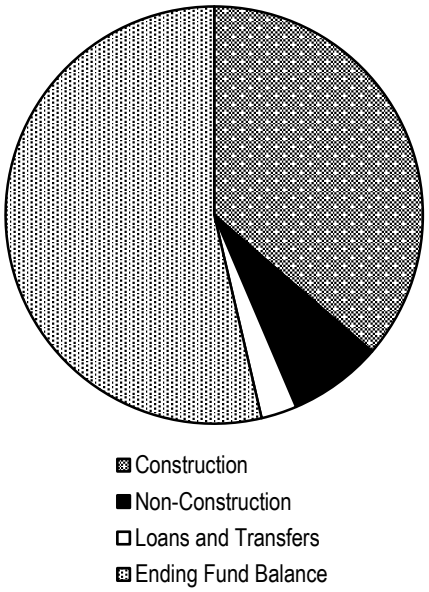
STORM SEWER SYSTEM
2020-2024 Capital Improvement Program

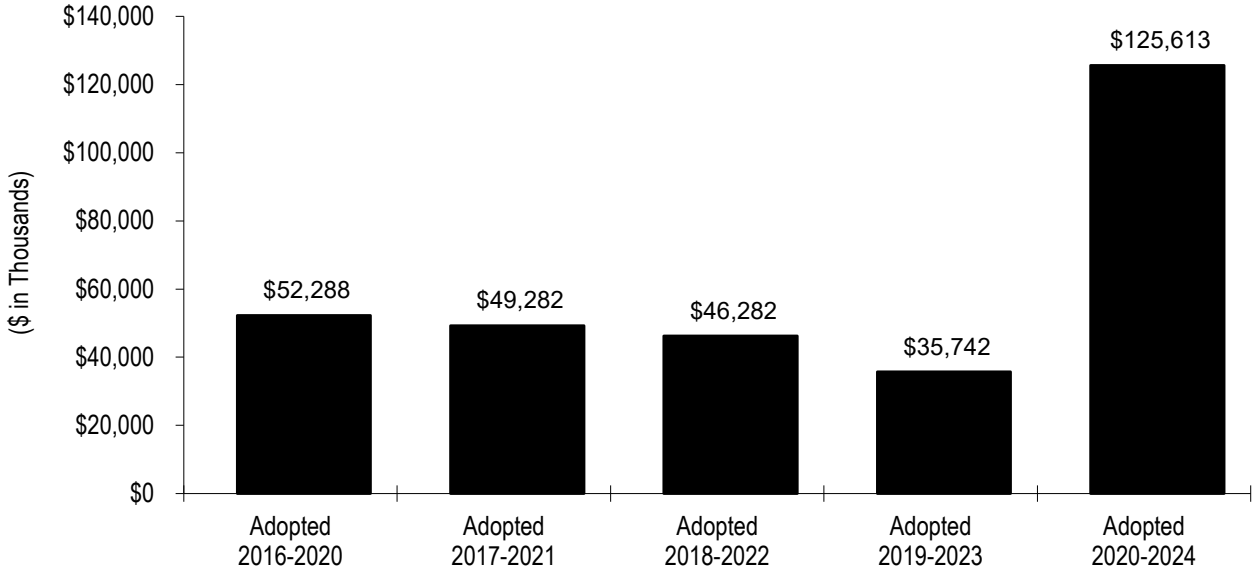
2019-2020 Adopted Source of Funds



2019-2020 Adopted Use of Funds



CIP History

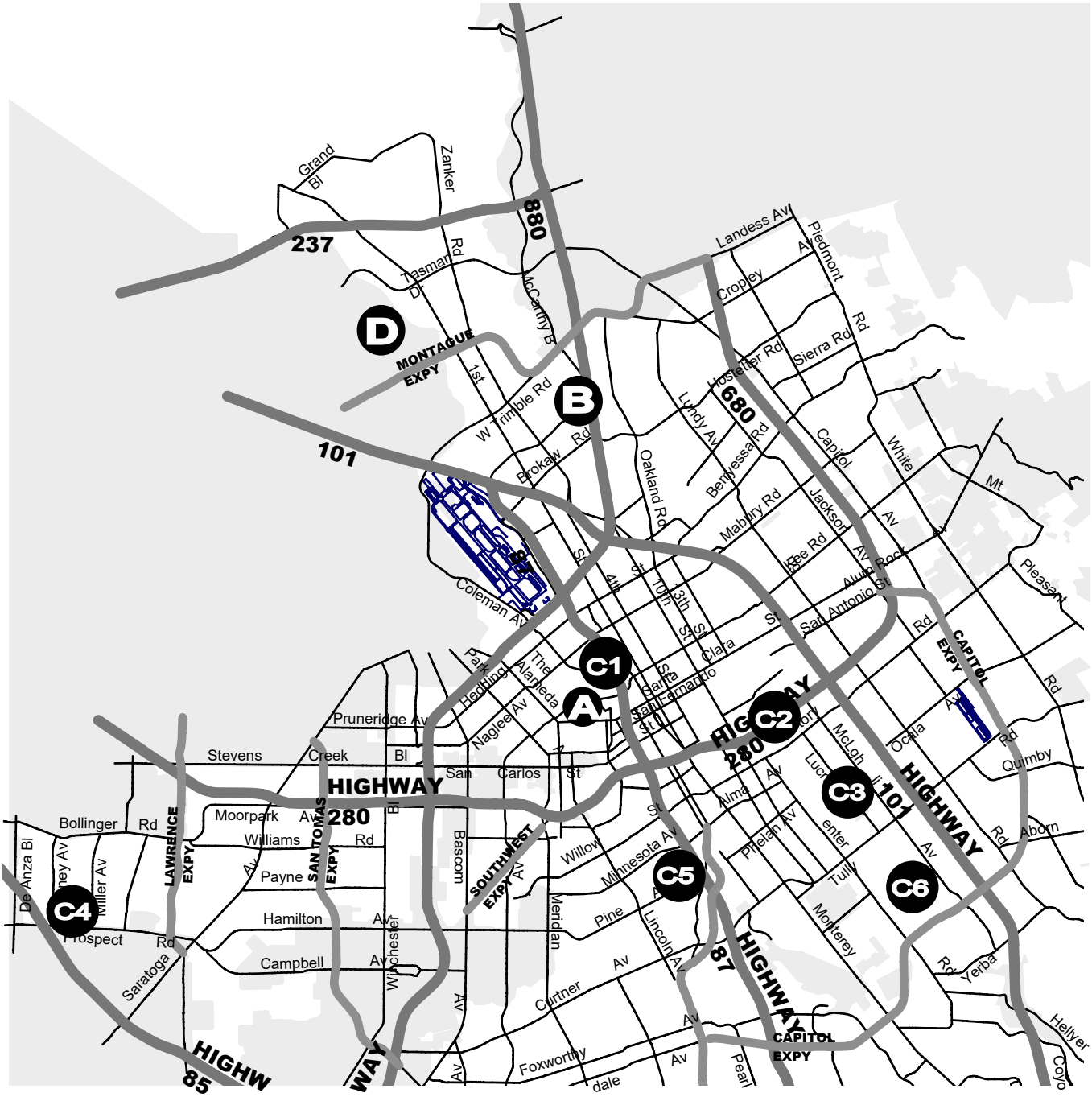


Storm Sewer System

2020-2024 Adopted Capital Improvement Program

North

A) Stockton Avenue/Cinnabar Street Storm Drain Improvements
B) Measure T - Charcot Storm Pump Station
C) Citywide Outfall Rehabilitation (1, 2, 3, 4, 5, 6)
D) Measure T - Clean Water Project

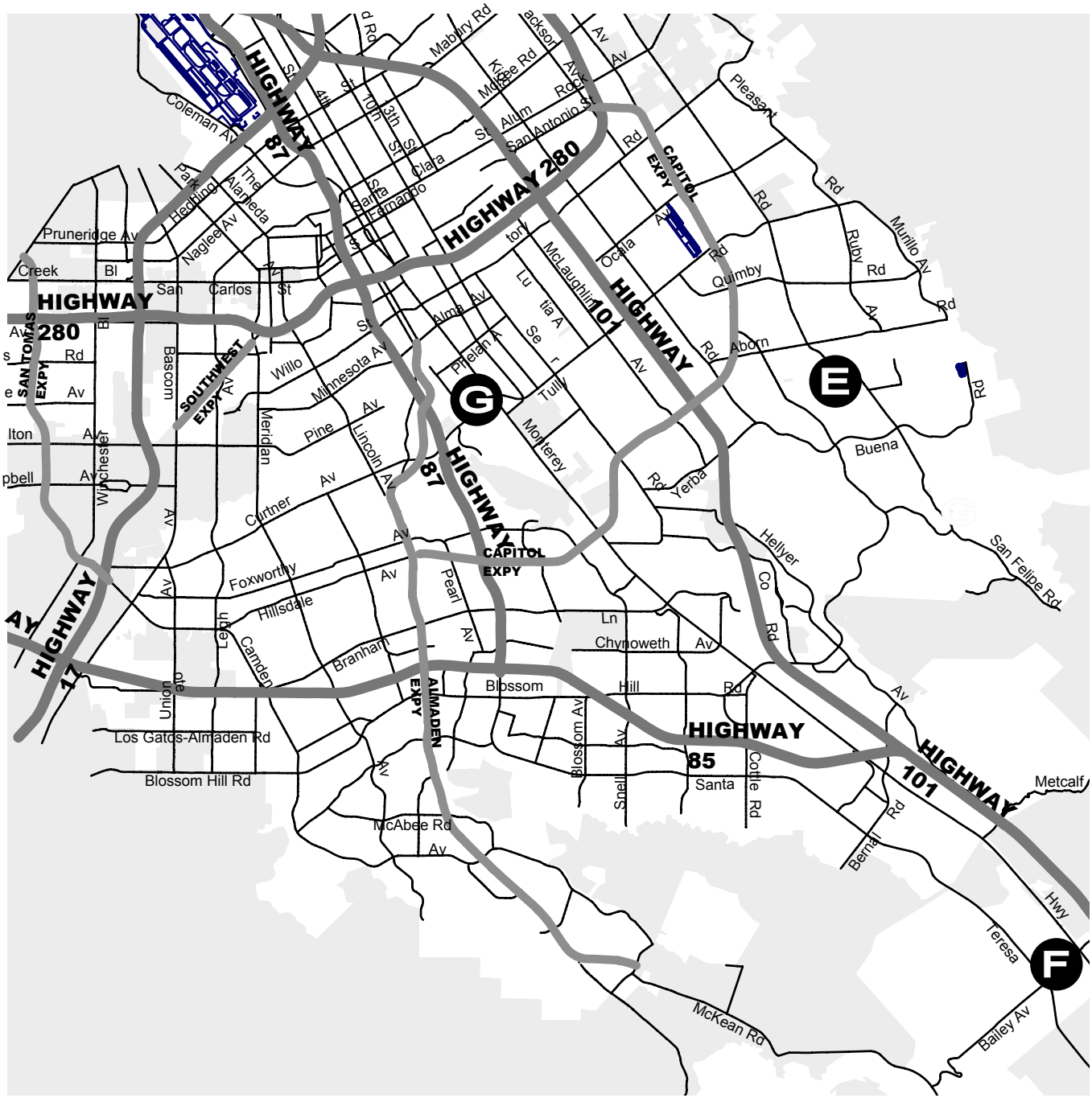


South

E) Citywide Outfall Rehabilitation

F) Bailey Avenue Storm Drain Repair

G) Storm Sewer Improvements (City-wide)



Overview

INTRODUCTION

The Storm Sewer System of the City of San José consists of approximately 1,100 miles of sewer mains and 30 stormwater pump stations. The Storm Sewer System, which is separate from the Sanitary Sewer System, collects storm water and eventually conveys into the Guadalupe River or Coyote Creek. The City is responsible for designing, constructing, and maintaining facilities for conveyance of stormwater runoff within the City's Urban Service Area to adjacent stream channels in accordance with the available budget and City Council priorities. Most of the design and construction of flood control facilities and the modification and maintenance of stream channels is the responsibility of the Santa Clara Valley Water District and the U.S. Army Corps of Engineers.

STORM SEWER SYSTEM PUBLIC INFRASTRUCTURE	
MILES OF STORM MAINS	
Smaller than 12" in diameter	80
12" to 18" in diameter	500
Over 18" in diameter	550
NUMBER OF INLETS	32,200
NUMBER OF MANHOLES	27,530
NUMBER OF OUTFALLS	1,510
NUMBER OF PUMP STATIONS	30

The 2020-2024 Adopted Capital Improvement Program (CIP) provides funding of $125.6 million, of which $39.3 million is allocated in 2019-2020. The program is part of the Environmental and Utility Services City Service Area (CSA) and supports the following outcome: *Reliable Utility Infrastructure.*

PROGRAM PRIORITIES AND OBJECTIVES

The primary objective of the Storm Sewer Capital Program is to plan and construct improvements to the storm sewer collection system that reduce the risk of flooding and prevent property damage while managing the quality of stormwater runoff. Based on the CSA outcome supported by this program, the following list of priorities has been developed:

- Area-wide drainage capacity projects are identified and developed through the Storm Sewer Master Plan, which is based on the Envision San José 2040 General Plan (General Plan);
- Critical Storm Sewer System improvements that address localized ponding and flooding are generally identified through inspection and maintenance activities; and
- Regulatory compliance as required by the Municipal Stormwater Regional Permit.

SOURCES OF FUNDING

The 2020-2024 Adopted CIP provides funding of $125.6 million, of which $39.3 million is allocated in 2019-2020. The program funding level increased by $89.9 million from $35.7 million in the 2019-2023 Adopted CIP, mainly due to the addition of several multi-million dollar projects, including projects funded by the Measure T San José Disaster Preparedness, Public Safety and Infrastructure General Obligation Bond (Measure T Bond), approved by the voters in November 2018. Revenues for this CIP are derived from the following sources: Measure T Bond proceeds, transfers from the Storm Sewer Operating Fund, and Storm Drainage Fees. The Adopted CIP assumes no rate increase for the Storm Sewer Operating Fund for 2019-2020.

Overview

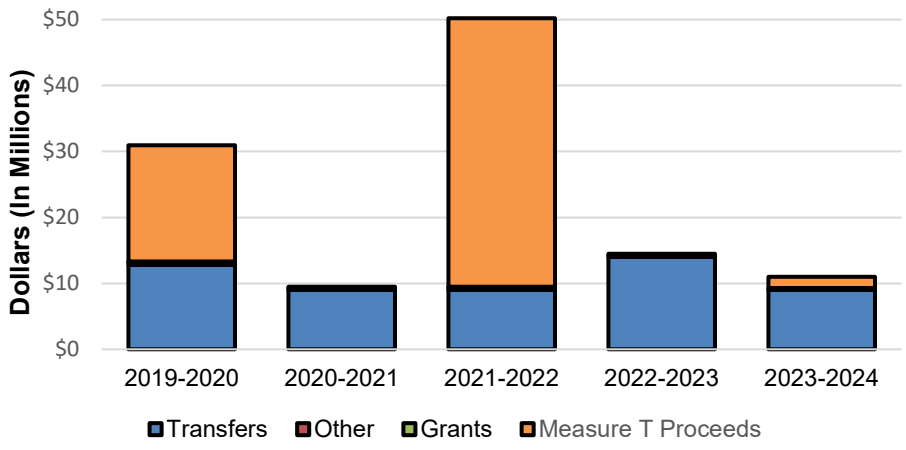
SOURCES OF FUNDING

On November 6, 2018, the Measure T Bond measure was approved for $650 million, of which $60 million was allocated to fund Storm Sewer infrastructure projects. The Measure T Bond Program will provide $35 million for Storm System Conveyance and Flood Prevention Projects and $25 million for Clean Water Projects. An initial issuance of $17.6 million is programmed in 2019-2020, with the remaining funding of $42.4 million scheduled for issuance over the remaining years of the 2020-2024 CIP. Assessments on the property taxes of San José residents are used to support these obligations.

The total funding amounts are for the administration, planning, design, and construction of the Charcot Storm Pump Station, and other Regional Green Stormwater Infrastructure projects at the River Oaks Pump Station and possibly Kelly Park Stables.

The Storm Drainage Fee is charged to developers as a connection fee for any project that will discharge storm water, surface water, or ground water runoff into the City's Storm Sewer System. The fee is based on the use and size of the parcel being developed.

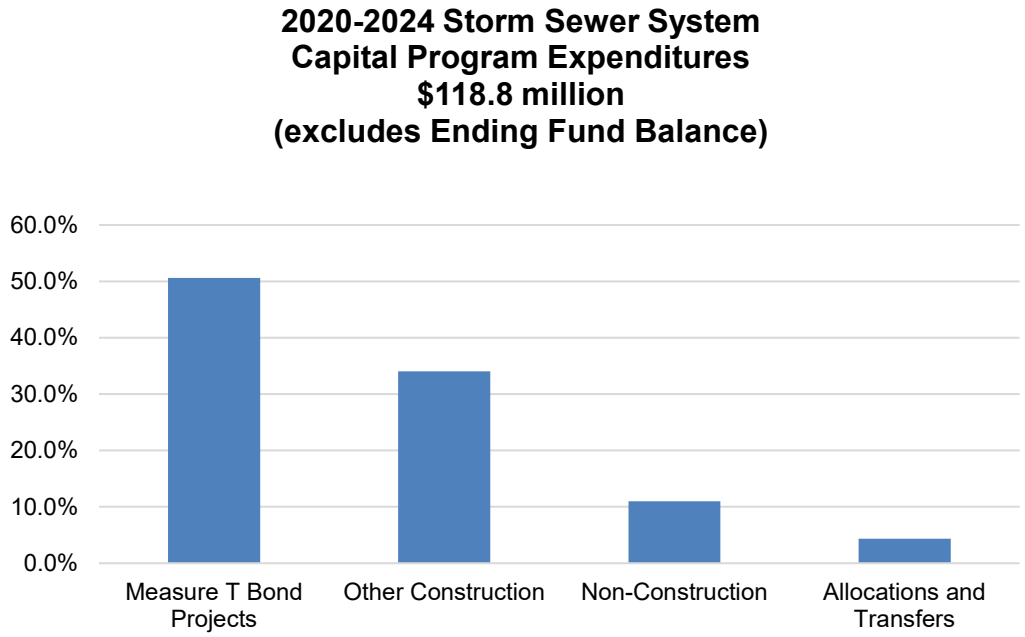
Summary of Revenues



PROGRAM HIGHLIGHTS

The Storm Sewer System Capital Program's expenditures are organized to show the use of funds in several categories. The following highlights the major projects in the program. For further information on the program's individual projects, please refer to the Detail Pages.

PROGRAM HIGHLIGHTS



Projects in this Adopted CIP include the installation of technology and infrastructure to maximize the efficiency of the storm sewer collection system and the reliability of storm pump stations, manage the quality of storm water runoff, and minimize ponding and flooding in residential areas.

Measure T Bond Program

Over 50% of Adopted CIP expenditures are allocated toward Measure T projects. These critical resources provide the City the funding to address flooding issues, improve water quality, and ensure that discharged stormwater quality meets regulatory requirements.

Charcot Pump Station Project – Storm System Conveyance and Flood Prevention Program

The Charcot Pump Station project includes construction of a storm pump station to alleviate flooding and drainage issue for a tributary drainage area of 420 acres east of Zanker Road between Trimble Road and Brokaw Road. The total funding allocation of $35 million from the Measure T Bond Program will be used to administer the funding, right-of-way acquisition, planning, design, and construction of the Charcot Pump Station.

PROGRAM HIGHLIGHTS

Regional Green Stormwater Infrastructure Projects – Clean Water Project Program

The Green Storm Water Infrastructure Projects provide a variety of benefits to the community. While serving primarily as stormwater infrastructure for capturing, filtering, and treatment of stormwater before discharging it into the receiving waterways, the projects also strive to re-establish natural hydrology, reduce flood peaks, augment water supply, enhance or create ecological habitat, and provide community enhancement. The total 2020-2024 funding allocation of $25 million is for administering the funding, and for planning, design, and construction of the River Oaks Pump Station and Kelly Park Stables Regional Stormwater projects.

Storm Sewer Capacity Improvements, Rehabilitation, and Flood Prevention

Storm Sewer Capacity Improvement
Capacity improvement projects are those that prevent flooding over larger areas or drainage basins by constructing large-diameter storm sewers or new pump stations that are identified through past area-specific capacity studies and validated through the ongoing master plan effort. The most significant project in recent years, the new Alviso Storm Pump Station, was awarded in 2017-2018 and is anticipated to be completed in 2019-2020.

This Adopted CIP includes $15.0 million programmed for the Stockton-Cinnabar and Stockton-Taylor Storm Drain System project. This project spans the full five-year CIP, with the main construction phase planned for 2022-2023, and will increase storm sewer capacity for approximately 580 acres in the area west of the Guadalupe River, south of Interstate 880, and north of Park Avenue. This project will include the installation of approximately 13,000 linear feet of storm drain piping, as well as two outfalls into the Guadalupe River.

Rehabilitation of Existing Facilities
The primary focus of rehabilitation projects is to address deteriorated outfall structures and aging mechanical and electrical components at storm sewer pump stations. Over the five-year Adopted CIP, total funding of approximately $14.7 million is programmed for rehabilitation projects. These projects include $1.4 million for Condition Assessment Storm Sewer Repairs, $5.9 million for Citywide Outfall Improvements, and $7.5 million for Storm Pump Station Rehabilitation and Replacement.

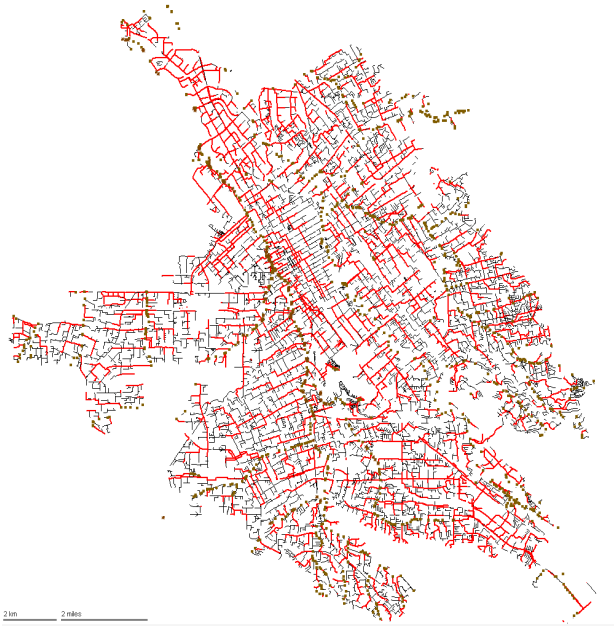
Local Flooding/Urgent Flood Prevention and Repair
Localized ponding and flooding projects can be addressed by installing new or relocated storm inlets, laterals, and the reconstruction of displaced flow lines or minor extensions of local storm sewer systems that are generally identified through reoccurring maintenance activities at specific locations. Funding of approximately $2.8 million is programmed for rehabilitation projects under Storm Sewer Improvements. Funding of $1.3 million for Urgent Storm Drain Repair Projects is also programmed to address issues that may fall into any of the above categories. These projects are developed during the year in response to urgent needs.

PROGRAM HIGHLIGHTS

Storm Sewer Master Plan

The Storm Sewer Master Plan is a comprehensive effort to identify and prioritize needed capacity-related improvements to the Storm Sewer System by analyzing current conditions and the anticipated future land use developments in the General Plan. Since the mid-1980s, the City's design standard required that storm drain systems be designed to convey a 10-year storm event. In December 2017, the City completed the first phase of the city-wide Storm Sewer Master Plan study using the fully dynamic, integrated Storm Sewer System and boundary condition using SCVWD's riverine network. The study has identified storm drain capacity deficiencies and improvement needs.

Over 20 high priority projects totaling $215 million, including a new Charcot Avenue Pump Station, were identified to address known flooding due to capacity concern and predicted flooding at a 3-year storm event. The ongoing Storm Sewer Master Plan will refine the riverine boundary conditions based on District's updated models and evaluate the potential Green Stormwater Infrastructure (GSI) project concepts using the refined hydrologic and hydraulic model. The Master Plan will describe, to the extent feasible, the synergies and benefits that could be realized by implementing GSI projects in conjunction with the capacity improvement program. This effort will be used as the framework for development of future Storm CIPs. The ongoing planning efforts have a total allocation of $8.5 million in the 2020-2024 Adopted CIP, which includes $6.6 million for Master Planning and $1.9 million for Flow Monitoring. Once the master plan study is completed, staff will develop and recommend a financing strategy to construct the desired improvements.



Storm Sewer Master Plan Model

PROGRAM HIGHLIGHTS

Regulatory Compliance for Stormwater Quality Improvement Projects

Example of a Stormwater Bioretention Treatment Facility in South San José

Provision C.3 (New Development and Redevelopment) of the San Francisco Bay Regional Water Quality Control Board Municipal Regional Permit (MRP) requires development projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows to local water bodies through the implementation of Low Impact Development (LID) techniques. The goal of LID is to reduce runoff and mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source.

The City has delivered the Horace Mann and Washington Neighborhood Green Alleyways Improvement Project ($1.6 million) which uses the Low Impact Development (LID) approach to reduce stormwater runoff on the two urban waterways while improving water quality. Green elements included in these projects consist of pervious pavers and infiltration trenches, which will allow stormwater run-off to infiltrate into the ground. The Housing Department funded the Horace Mann and Washington Neighborhood Green Alleyways Improvements in the amount of $1.1 million through Federal Community Development Block Grant (CDBG) funding.

The 2020-2024 Adopted CIP also includes $1.9 million for the completion of the Large Trash Capture (LTC) Devices project. This project installs LTC devices throughout the City to meet the Municipal Regional Permit Provision C.10 trash reduction requirements. These devices reduce the amount of trash that moves through the City's Storm Sewer System, which flow into waterways that discharge into the Bay.

MAJOR CHANGES FROM THE 2019-2023 ADOPTED CIP

The overall size of the Storm Sewer System CIP has increased by $89.9 million from $35.7 million in the 2019-2023 Adopted CIP to $125.6 million in the 2020-2024 Adopted CIP, mainly due to the addition of several multimillion-dollar projects as shown in the table below. Additionally, the Storm Pump Station Rehabilitation and Replacement ongoing construction project has increased in budget by $6.3 million in order to accelerate the rehabilitation of existing stormwater pump infrastructure.

The City has applied for funding through the Federal Highway Administration (FHWA) to repair existing storm infrastructure on Bailey Avenue that was damaged during the February 2017 flood event. Currently, the City is awaiting approval from FHWA for the Bailey Avenue project.

Project	Incr/(Decr)
Measure T – Charcot Avenue Pump Station	$35.0 million
Measure T – Clean Water Projects	$25.0 million
Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvements	$15.0 million
Storm Pump Station Rehabilitation and Replacement	$6.3 million

OPERATING BUDGET IMPACT

The Department of Transportation maintains the City's Storm Sewer System. There are currently no additional operating and maintenance costs associated with the projects coming online within the 2020-2024 Adopted CIP.

COUNCIL-APPROVED REVISIONS TO THE PROPOSED CAPITAL IMPROVEMENT PROGRAM

Changes to the Proposed Capital Improvement Program were brought forward in the Mayor's June Budget Message for Fiscal Year 2019-2020 and approved by City Council on June 11, 2019. This included the rebudgeting of unexpended funding for projects totaling $4.6 million due to project scheduling. For additional information regarding these rebudgets, please refer to the Manager's Budget Addendum #36 that was incorporated into the Mayor's June Budget Message and approved by the City Council.

Storm Sewer System

2020-2024 Adopted Capital Improvement Program

Source of Funds (Combined)

	Estimated 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	5-Year Total
Storm Sewer Capital Fund (469)							
Beginning Balance	14,332,850	7,524,314	5,800,314	8,101,314	8,665,314	4,100,314	7,524,314 *
Reserve for Encumbrance	13,105,867						
Transfers							
Transfer from Storm Sewer Operating Fund (446)	4,000,000	12,810,000	9,000,000	9,000,000	14,000,000	9,000,000	53,810,000
TOTAL Transfers	**4,000,000**	**12,810,000**	**9,000,000**	**9,000,000**	**14,000,000**	**9,000,000**	**53,810,000**
Revenue from Use of Money and Property							
Interest Income	239,000	315,000	315,000	315,000	315,000	315,000	1,575,000
TOTAL Revenue from Use of Money and Property	**239,000**	**315,000**	**315,000**	**315,000**	**315,000**	**315,000**	**1,575,000**
Revenue from Local Agencies							
San José Watershed Invasive Species Removal and Engagement	200,000	200,000	200,000	200,000	200,000	200,000	1,000,000
TOTAL Revenue from Local Agencies	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**
Revenue from State of California							
CA Proposition 84 Integrated Regional Water Management Program Grant	900,000						
CA Proposition 84 Stormwater Grant	280,000						
TOTAL Revenue from State of California	**1,180,000**						
Total Storm Sewer Capital Fund (469)	**33,057,717**	**20,849,314**	**15,315,314**	**17,616,314**	**23,180,314**	**13,615,314**	**63,909,314 ***

Storm Sewer System

2020-2024 Adopted Capital Improvement Program

Source of Funds (Combined)

	Estimated 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	5-Year Total
Storm Drainage Fee Fund (413)							
Beginning Balance	683,534	643,534	596,534	549,534	502,534	455,534	643,534 *
Reserve for Encumbrance	250,451						
Revenue from Use of Money and Property							
Interest Income	6,000	8,000	8,000	8,000	8,000	8,000	40,000
TOTAL Revenue from Use of Money and Property	**6,000**	**8,000**	**8,000**	**8,000**	**8,000**	**8,000**	**40,000**
Revenue from Local Agencies							
Joint Participation with the City of Cupertino	4,000	4,000	4,000	4,000	4,000	4,000	20,000
TOTAL Revenue from Local Agencies	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**20,000**
Fees, Rates and Charges							
Storm Drainage Fees--	200,000	200,000	200,000	200,000	200,000	200,000	1,000,000
TOTAL Fees, Rates and Charges	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**
Total Storm Drainage Fee Fund (413)	**1,143,985**	**855,534**	**808,534**	**761,534**	**714,534**	**667,534**	**1,703,534 ***
Public Safety and Infrastructure Bond Fund - Storm Sewer (498)							
Beginning Balance			14,700,000		25,600,000		

Storm Sewer System

2020-2024 Adopted Capital Improvement Program

Source of Funds (Combined)

	Estimated 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	5-Year Total
Financing Proceeds --		17,600,000		40,700,000		1,700,000	60,000,000
TOTAL Financing Proceeds		**17,600,000**		**40,700,000**		**1,700,000**	**60,000,000**
Total Public Safety and Infrastructure Bond Fund - Storm Sewer (498)		**17,600,000**	**14,700,000**	**40,700,000**	**25,600,000**	**1,700,000**	**60,000,000** *
TOTAL SOURCES	**34,201,702**	**39,304,848**	**30,823,848**	**59,077,848**	**49,494,848**	**15,982,848**	**125,612,848** *

* The 2020-2021 through 2023-2024 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

2020-2024 Adopted Capital Improvement Program

Use of Funds (Combined)

	Estimated 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	5-Year Total
Storm Sewer System							
2017 Flood - Bailey Ave Storm Drain Inlet Repair	23,000	550,000					550,000
Alviso Storm Pump Station	13,078,832	1,400,000					1,400,000
Chynoweth Avenue Green Street	312,615						
Condition Assessment Storm Sewer Repairs	70,000	750,000	150,000	150,000	150,000	150,000	1,350,000
Green Infrastructure Improvements	413,866	900,000	450,000	450,000	450,000	450,000	2,700,000
Large Trash Capture Devices	6,434,775	1,885,000					1,885,000
Citywide Outfall Improvements	164,119	2,850,000	760,000	760,000	760,000	760,000	5,890,000
Park Avenue Green Street Pilot	45,000						
Stockton-Cinnabar and Stockton-Taylor Storm Drain System Improvements		500,000	500,000	2,000,000	11,400,000	600,000	15,000,000
Storm Pump Station Rehabilitation and Replacement	261,080	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
Storm Sewer Improvements	314,145	800,000	500,000	500,000	500,000	500,000	2,800,000
Storm Sewer Improvements - Special Corridors	38,048						
Urgent Storm Drain Repair Projects	686,266	250,000	250,000	250,000	250,000	250,000	1,250,000
Other Storm Sewer - Construction	**21,841,747**	**11,385,000**	**4,110,000**	**5,610,000**	**15,010,000**	**4,210,000**	**40,325,000**
Measure T - Charcot Avenue Pump Station		1,600,000	6,600,000	600,000	24,700,000	1,500,000	35,000,000
Measure T - Clean Water Projects		1,300,000	8,100,000	14,500,000	900,000	200,000	25,000,000
Measure T Bond Projects - Storm		**2,900,000**	**14,700,000**	**15,100,000**	**25,600,000**	**1,700,000**	**60,000,000**
Storm Sewer - Construction	**21,841,747**	**14,285,000**	**18,810,000**	**20,710,000**	**40,610,000**	**5,910,000**	**100,325,000**
Charcot Storm Pump Rental	300,000	300,000	300,000	300,000	300,000	300,000	1,500,000
Fee Administration - Storm Sewer	25,000	25,000	25,000	25,000	25,000	25,000	125,000
Flow Monitoring Program	521,088	370,000	380,000	385,000	395,000	400,000	1,930,000

Storm Sewer System

2020-2024 Adopted Capital Improvement Program

Use of Funds (Combined)

	Estimated 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	5-Year Total
Permit Review and Inspection for Outside Agencies - Storm Sewer	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Preliminary Engineering - Storm Sewer	180,000	180,000	180,000	180,000	180,000	180,000	900,000
Program Management - Storm Sewer	150,000	150,000	150,000	150,000	150,000	150,000	750,000
San Jose Watershed Invasive Species Removal and Engagement	161,019	400,000	200,000	200,000	200,000	200,000	1,200,000
Storm Sewer Master Plan - City-wide	1,400,000	1,370,000	1,300,000	1,350,000	1,270,000	1,300,000	6,590,000
General Non-Construction - Storm Sewer	**2,787,108**	**2,845,000**	**2,585,000**	**2,640,000**	**2,570,000**	**2,605,000**	**13,245,000**
Storm Sewer - Non Construction	**2,787,108**	**2,845,000**	**2,585,000**	**2,640,000**	**2,570,000**	**2,605,000**	**13,245,000**
Public Art Allocation	544,000	34,000	12,000	12,000	12,000	22,000	92,000
Public Art Projects	**544,000**	**34,000**	**12,000**	**12,000**	**12,000**	**22,000**	**92,000**
Capital Program and Public Works Department Support Service Costs	700,000	807,000	525,000	706,000	1,504,000	438,000	3,980,000
Infrastructure Management System	7,000	10,000	11,000	12,000	13,000	14,000	60,000
Allocations	**707,000**	**817,000**	**536,000**	**718,000**	**1,517,000**	**452,000**	**4,040,000**
City Hall Debt Service Fund	148,000	216,000	219,000	219,000	219,000	219,000	1,092,000
Transfers to Special Funds	**148,000**	**216,000**	**219,000**	**219,000**	**219,000**	**219,000**	**1,092,000**
General Fund - Interest Income	6,000	11,000	11,000	11,000	11,000	11,000	55,000
Transfers to the General Fund	**6,000**	**11,000**	**11,000**	**11,000**	**11,000**	**11,000**	**55,000**
Transfers Expense	**154,000**	**227,000**	**230,000**	**230,000**	**230,000**	**230,000**	**1,147,000**
Total Expenditures	**26,033,854**	**18,208,000**	**22,173,000**	**24,310,000**	**44,939,000**	**9,219,000**	**118,849,000**
Ending Fund Balance	8,167,848	21,096,848	8,650,848	34,767,848	4,555,848	6,763,848	6,763,848 *
TOTAL	**34,201,702**	**39,304,848**	**30,823,848**	**59,077,848**	**49,494,848**	**15,982,848**	**125,612,848 ***

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

2017 Flood - Bailey Ave Storm Drain Inlet Repair

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2017
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	4th Qtr. 2018
Department	Public Works	**Revised Start Date**	
Location	Bailey Avenue between Monterey Road and Santa Teresa Blvd	**Revised End Date**	2nd Qtr. 2020
Council Districts	2	**Initial Project Budget**	$227,000
Appropriation	A407U	**FY Initiated**	2017-2018

Description This project funds the removal and replacement of the existing storm and roadway infrastructure that was damaged by the February 2017 flood event. After the February 2017 flood event, excessive storm water runoff and increased groundwater infiltration along Bailey Avenue caused the storm drain inlet to uplift and disconnect from a 24-inch storm sewer pipe. The large volume of storm water flows also scoured and undermined the roadway in this area.

Justification This allocation is necessary to restore the storm sewer drainage system and existing roadway as a result of the February 2017 flood event.

Notes

Major Cost Changes 2020-2024 CIP - Increase of $350,000 due to a refined project scope and cost estimate.

	PRIOR YEARS	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design	4									4
Construction		23	550					550		573
Total	**4**	**23**	**550**					**550**		**577**
Funding Source Schedule (000s)										
Storm Sewer Capital Fund (469)	4	23	550					550		577
Total	**4**	**23**	**550**					**550**		**577**
Annual Operating Budget Impact (000s)										
Total										

Alviso Storm Pump Station

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2013
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2014
Department	Public Works	**Revised Start Date**	
Location	Gold St and Catherine St; Catherine St, Guadalupe River	**Revised End Date**	3rd Qtr. 2019
Council Districts	4	**Initial Project Budget**	$1,500,000
Appropriation	A7623	**FY Initiated**	2013-2014

Description This project will build a new 110 cubic feet per second (CFS) storm pump station with approximately 100 linear feet of 48-inch HDPE (High Density Polyethylene) force main on the north-west corner of Gold Street and Catherine Street. A new force main and outfall will be constructed along Catherine Street and through the levee into Guadalupe River.

Justification This project will provide a storm pump station with a 100-year storm event capacity. The existing Gold Street pump station will remain as additional back up.

Notes

Major Cost Changes
2015-2019 CIP - Increase of $500,000 due to the inclusion of the "Gold Street Storm Pump Station Force Main" project.
2016-2020 CIP - Increase of $8.8 million due to liquidation of the Alviso Storm Pump Station Reserve for the final design and construction of the project.
2017-2021 CIP - Decrease of $566,000 due to a refined project scope and cost estimate.
2018-2022 CIP - Increase of $867,000 due to additional consultant needs, regulatory permits, and mitigation fees.
2019-2023 CIP - Increase of $7.5 million due to rising construction and permitting costs.

	PRIOR YEARS	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	247	1								248
Design	1,413	1								1,414
Bid & Award	279	214								493
Construction	2,377	12,840	1,300					1,300		16,518
Post Construction		22	100					100		122
Total	**4,316**	**13,079**	**1,400**					**1,400**		**18,795**
Funding Source Schedule (000s)										
Storm Sewer Capital Fund (469)	4,316	13,079	1,400					1,400		18,795
Total	**4,316**	**13,079**	**1,400**					**1,400**		**18,795**
Annual Operating Budget Impact (000s)										
Total										

Large Trash Capture Devices

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2014
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2016
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	4th Qtr. 2019
Council Districts	City-wide	**Initial Project Budget**	$11,480,000
Appropriation	A7676	**FY Initiated**	2014-2015

Description This project includes the installation of Large Trash Capture (LTC) devices throughout the City in order to meet the Municipal Regional Permit Provision C.10 trash reduction requirements. The City must install certified LTC units in order for the treated acreage to count toward the City's trash reduction goals.

Justification This project will reduce and/or remove trash from the City's storm sewer system prior to discharging into local water ways.

Notes

Major Cost Changes 2017-2021 CIP - Increase of $1.7 million to support the installation of additional LTC devices.
2018-2022 CIP - Increase of $11.9 million million to support the installation of additional LTC devices.

	PRIOR YEARS	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	532	1								534
Design	1,126	93								1,219
Bid & Award	116									116
Construction	15,773	6,303	1,850					1,850		23,926
Post Construction	192	37	35					35		264
Total	**17,739**	**6,435**	**1,885**					**1,885**		**26,058**
Funding Source Schedule (000s)										
Storm Sewer Capital Fund (469)	17,739	6,435	1,885					1,885		26,058
Total	**17,739**	**6,435**	**1,885**					**1,885**		**26,058**
Annual Operating Budget Impact (000s)										
Total										

Measure T - Charcot Avenue Pump Station

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2019
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2024
Department	Public Works	**Revised Start Date**	
Location	Zanker Road between Trimble Road and Brokaw Road	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	$35,000,000
Appropriation	A414T	**FY Initiated**	2019-2020

Description The project includes construction of a 225 cubic feet per second storm pump station, about 1,850 linear feet of 66-inch reinforced concrete pipe storm main, and a new outfall structure at Coyote Creek. The pump station will service an estimated tributary area of 420 acres east of Zanker Road between Trimble Road and Brokaw Road.

Justification The project is required to reduce flooding for the area east of Zanker Road between Trimble Road and Brokaw Road, approximately 420 acres in size, from a 10-year storm event.

Notes

Major Cost Changes

	PRIOR YEARS	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Construction			1,600	6,600	600	24,700	1,500	35,000		35,000
Total			**1,600**	**6,600**	**600**	**24,700**	**1,500**	**35,000**		**35,000**
Funding Source Schedule (000s)										
Public Safety and Infrastructure Bond Fund - Storm Sewer (498)			1,600	6,600	600	24,700	1,500	35,000		35,000
Total			**1,600**	**6,600**	**600**	**24,700**	**1,500**	**35,000**		**35,000**
Annual Operating Budget Impact (000s)										
Total										

Measure T - Clean Water Projects

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2019
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2024
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	
Council Districts	City-wide	**Initial Project Budget**	$25,000,000
Appropriation	A414V	**FY Initiated**	2019-2020

Description These projects primarily construct green infrastructures to capture, filter, and treat stormwater prior to discharge into local waterways in order to meet regulatory requirements. Where opportunities exist, the green infrastructures will provide additional community benefits such as enhancing public spaces, augmenting water supply, reducing flood peaks, and enhancing or creating ecological habitats.

Justification The projects are to comply with the regulatory requirements and the Baykeeper consent decree, meeting the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit and in alignment with Envision San José 2040 General Plan and Climate Smart San José.

Notes

Major Cost Changes

	PRIOR YEARS	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Construction			1,300	8,100	14,500	900	200	25,000		25,000
Total			**1,300**	**8,100**	**14,500**	**900**	**200**	**25,000**		**25,000**
Funding Source Schedule (000s)										
Public Safety and Infrastructure Bond Fund - Storm Sewer (498)			1,300	8,100	14,500	900	200	25,000		25,000
Total			**1,300**	**8,100**	**14,500**	**900**	**200**	**25,000**		**25,000**
Annual Operating Budget Impact (000s)										
Total										

Stockton-Cinnabar and Stockton-Taylor Storm Drain System

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2019
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2024
Department	Public Works	**Revised Start Date**	
Location	West of the Guadalupe River between Park Ave and Freeway 880	**Revised End Date**	
Council Districts	3, 6	**Initial Project Budget**	$15,000,000
Appropriation	A416I	**FY Initiated**	2019-2020

Description The project will improve the storm drain system for a total tributary area of approximately 580 acres, located west of Guadalupe River between Interstate 880 and Park Avenue, including installation of approximately 13,000 feet of storm drain piping, from 24" to 54" in diameter, and two large outfalls into Guadalupe River.

Justification The area has experienced frequent street flooding and Taylor Street was often closed down. The storm drain system in this area is greatly undersized, and improvements are needed to protect the area from flooding.

Notes

Major Cost Changes

	PRIOR YEARS	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development			500	500				1,000		1,000
Design					2,000			2,000		2,000
Construction						11,400	600	12,000		12,000
Total			**500**	**500**	**2,000**	**11,400**	**600**	**15,000**		**15,000**
Funding Source Schedule (000s)										
Storm Sewer Capital Fund (469)			500	500	2,000	11,400	600	15,000		15,000
Total			**500**	**500**	**2,000**	**11,400**	**600**	**15,000**		**15,000**
Annual Operating Budget Impact (000s)										
Total										

Citywide Outfall Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	
Council Districts	City-wide	**Initial Project Budget**	
Appropriation	A4245		

Description This allocation funds the construction or rehabilitation of storm drain outfalls at various locations throughout the City. The Department of Transportation (DOT) has identified more than 250 outfalls that are missing, deteriorated, or in need of improvement to bring them to current design standards. This ongoing allocation funds the most critical outfall construction based on priorities jointly established by DOT, the Public Works Department, and regulatory agencies.

Justification This allocation will repair aging outfall structures, enhance erosion protection and water quality, and alleviate maintenance operations.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	64						
Construction	100	2,833	760	760	760	760	5,873
Post Construction		17					17
Total	**164**	**2,850**	**760**	**760**	**760**	**760**	**5,890**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	164	2,850	760	760	760	760	5,890
Total	**164**	**2,850**	**760**	**760**	**760**	**760**	**5,890**
Annual Operating Budget Impact (000s)							
Total							

Condition Assessment Storm Sewer Repairs

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	
Council Districts	City-wide	**Initial Project Budget**	
Appropriation	A7801		

Description This allocation funds contracts to identify and repair damaged pipes in the storm sewer system, and includes multiple projects each year as they are identified. Areas with groundwater infiltration and significant structural deficiencies will be the focus of these identify-and-repair contracts.

Justification This allocation is required due to structural deterioration of aging storm sewers.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	5	5	5	5	5	5	25
Design	25	25	25	25	25	25	125
Bid & Award	5	5	5	5	5	5	25
Construction	35	715	115	115	115	115	1,175
Total	**70**	**750**	**150**	**150**	**150**	**150**	**1,350**

Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	70	750	150	150	150	150	1,350
Total	**70**	**750**	**150**	**150**	**150**	**150**	**1,350**

Annual Operating Budget Impact (000s)	
Total	

Green Infrastructure Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	
Council Districts	City-wide	**Initial Project Budget**	
Appropriation	A402P		

Description This allocation funds projects that will implement Green Infrastructure as required by the Municipal Regional Permit. The goal is to reduce impervious surfaces through the use of Low Impact Development that will reduce the flow rate and improve water quality by treating the urban stormwater runoff before it enters into waterways such as creeks and rivers in San José.

Justification This allocation will implement the State's requirement for agencies to overall reduce the amount of runoff into the waterways and allow groundwater infiltration to treat urban stormwater runoff and improve water quality.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	65						
Construction	349	900	450	450	450	450	2,700
Total	**414**	**900**	**450**	**450**	**450**	**450**	**2,700**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	414	900	450	450	450	450	2,700
Total	**414**	**900**	**450**	**450**	**450**	**450**	**2,700**
Annual Operating Budget Impact (000s)							
Total							

Storm Pump Station Rehabilitation and Replacement

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	
Council Districts	City-wide	**Initial Project Budget**	
Appropriation	A5150		

Description This allocation funds the rehabilitation, reconstruction, or replacement of aging pump stations that require high levels of maintenance.

Justification Rehabilitating, redesigning, and/or replacing aging pump stations will achieve cost savings, optimize pump station performance, and enhance the efficiency of the storm system.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	3	3	3	3	3	3	15
Design	50	50	50	50	50	50	250
Bid & Award	3	3	3	3	3	3	15
Construction	205	1,444	1,444	1,444	1,444	1,444	7,220
Maintenance, Repairs, Other	0						
Total	**261**	**1,500**	**1,500**	**1,500**	**1,500**	**1,500**	**7,500**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	261	1,500	1,500	1,500	1,500	1,500	7,500
Total	**261**	**1,500**	**1,500**	**1,500**	**1,500**	**1,500**	**7,500**
Annual Operating Budget Impact (000s)							
Total							

Storm Sewer Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	
Council Districts	City-wide	**Initial Project Budget**	
Appropriation	A4483		

Description This allocation funds minor storm drain projects, such as construction of new inlets and laterals (storm pipe connections from the inlet to the main), and the establishment of flow-lines in various neighborhoods. Resources will be allocated to address these needs as funding permits.

Justification This allocation will provide relief for minor drainage problems on neighborhood streets and improve water quality in the runoff conducted by the system.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	5	5	5	10	10	10	40
Design	20	20	20	40	40	40	160
Bid & Award	3	3	3	6	6	6	24
Construction	286	772	472	444	444	444	2,576
Total	**314**	**800**	**500**	**500**	**500**	**500**	**2,800**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	314	800	500	500	500	500	2,800
Total	**314**	**800**	**500**	**500**	**500**	**500**	**2,800**
Annual Operating Budget Impact (000s)							
Total							

Urgent Storm Drain Repair Projects

CSA	Environmental and Utility Services	**Initial Start Date**	Ongoing
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	Ongoing
Department	Public Works	**Revised Start Date**	
Location	City-wide	**Revised End Date**	
Council Districts	City-wide	**Initial Project Budget**	
Appropriation	A4287		

Description This allocation funds unscheduled engineering and construction projects on an as-needed basis, including participation in cooperative projects with other agencies in support of the City's storm sewer system.

Justification These funds provide for unanticipated projects that are necessary to ensure public health and safety.

Notes Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

Major Cost Changes

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	5	5	5	5	5	5	25
Design	10	10	10	10	10	10	50
Bid & Award	5	5	5	5	5	5	25
Construction	416	230	230	230	230	230	1,150
Maintenance, Repairs, Other	250						
Total	**686**	**250**	**250**	**250**	**250**	**250**	**1,250**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	436	250	250	250	250	250	1,250
Storm Drainage Fee Fund (413)	250						
Total	**686**	**250**	**250**	**250**	**250**	**250**	**1,250**
Annual Operating Budget Impact (000s)							
Total							

Detail of Ongoing Non-Construction Projects

Charcot Storm Pump Rental

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts 4
Appropriation A6580

Description This project allocates funding for the rental of temporary storm pump equipment and permit fees from the Santa Clara Valley Water District (SCVWD), the owner of the property off of Charcot Avenue near Coyote Creek. Currently, the City maintains a two-year permit to use the SCVWD site.

Notes Selected budget information is not provided due to the ongoing nature of this project.

This project will end with the completion of the Measure T - Charcot Avenue Pump Station project.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Equipment, Materials and Supplies	300	300	300	300	300	300	1,500
Total	**300**	**300**	**300**	**300**	**300**	**300**	**1,500**

Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	300	300	300	300	300	300	1,500
Total	**300**	**300**	**300**	**300**	**300**	**300**	**1,500**

Detail of Ongoing Non-Construction Projects

Fee Administration - Storm Sewer

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts N/A
Appropriation A5411

Description This allocation provides funding for the Department of Public Works Development Program to collect Storm Drainage Fees.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	25	25	25	25	25	25	125
Total	**25**	**25**	**25**	**25**	**25**	**25**	**125**
Funding Source Schedule (000s)							
Storm Drainage Fee Fund (413)	25	25	25	25	25	25	125
Total	**25**	**25**	**25**	**25**	**25**	**25**	**125**

Flow Monitoring Program

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts City-wide
Appropriation A5867

Description This allocation funds the installation of flow monitors and rain gauges, which measure the actual amount of flow in storm drains and precipitation at strategic locations. The data and information are used to calibrate and validate the flow/rainfall relationship in the hydrologic and hydraulic model of the storm drain system as part of the master plan study.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	365	370	380	385	395	400	1,930
Design	156						
Total	**521**	**370**	**380**	**385**	**395**	**400**	**1,930**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	521	370	380	385	395	400	1,930
Total	**521**	**370**	**380**	**385**	**395**	**400**	**1,930**

Permit Review and Inspection for Outside Agencies - Storm Sewer

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts City-wide
Appropriation A7075

Description This allocation funds the review and inspection of Santa Clara Valley Water District (SCVWD) projects. The City and the SCVWD do not charge one another for these services.

Notes Selected budget information is not provided due to the ongoing nature of this work.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	50	50	50	50	50	50	250
Total	**50**	**50**	**50**	**50**	**50**	**50**	**250**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	50	50	50	50	50	50	250
Total	**50**	**50**	**50**	**50**	**50**	**50**	**250**

Detail of Ongoing Non-Construction Projects

Preliminary Engineering - Storm Sewer

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts City-wide
Appropriation A400P

Description This allocation supports preliminary engineering, including surveys and evaluations, that evaluates the potential effects of projects not yet funded in this program.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	180	180	180	180	180	180	900
Total	**180**	**180**	**180**	**180**	**180**	**180**	**900**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	180	180	180	180	180	180	900
Total	**180**	**180**	**180**	**180**	**180**	**180**	**900**

Detail of Ongoing Non-Construction Projects

Program Management - Storm Sewer

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts City-wide
Appropriation A400Q

Description This allocation funds the administration and management of this Capital Improvement Program.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	150	150	150	150	150	150	750
Total	**150**	**150**	**150**	**150**	**150**	**150**	**750**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	150	150	150	150	150	150	750
Total	**150**	**150**	**150**	**150**	**150**	**150**	**750**

Detail of Ongoing Non-Construction Projects

San Jose Watershed Invasive Species Removal and Engagement

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts City-wide
Appropriation A406I

Description The allocation will be used to establish an invasive species identification and removal program on City-owned properties located along the Coyote Creek watershed. In addition, this will include outreach opportunities to increase community awareness about the impacts of invasive species to the local ecosystems. Funding for this program is provided through the D2 Partnership fund established by the Santa Clara Valley Water District under their Safe, Clean Water and Natural Flood Protection Program.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	9	400	200	200	200	200	1,200
Maintenance, Repairs, Other	152						
Total	**161**	**400**	**200**	**200**	**200**	**200**	**1,200**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	161	400	200	200	200	200	1,200
Total	**161**	**400**	**200**	**200**	**200**	**200**	**1,200**

Detail of Ongoing Non-Construction Projects

Storm Sewer Master Plan - City-wide

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts City-wide
Appropriation A5252

Description The first phase of the Storm Sewer Master Plan study was completed in 2017, which recommended capital costs totaling $230 million for high priority capacity projects. This allocation funds an ongoing master planning effort for the storm sewer system, which will incorporate the Green Infrastructure Plan into the hydrologic and hydraulic computer model and recommend optimized green (infrastructure) plus grey (conveyance) projects for the future CIPs.

Notes Selected budget information is not provided due to the ongoing nature of this project.

	FY19 EST	FY20	FY21	FY22	FY23	FY24	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	1,400	1,370	1,300	1,350	1,270	1,300	6,590
Total	**1,400**	**1,370**	**1,300**	**1,350**	**1,270**	**1,300**	**6,590**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund (469)	1,200	1,170	1,100	1,150	1,070	1,100	5,590
Storm Drainage Fee Fund (413)	200	200	200	200	200	200	1,000
Total	**1,400**	**1,370**	**1,300**	**1,350**	**1,270**	**1,300**	**6,590**