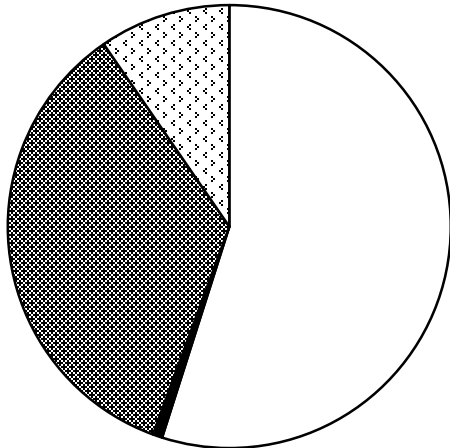


STORM SEWER SYSTEM

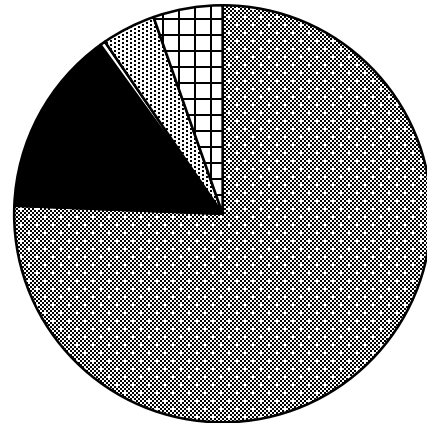
2018-2022 Capital Improvement Program

2017-2018 Adopted Source of Funds



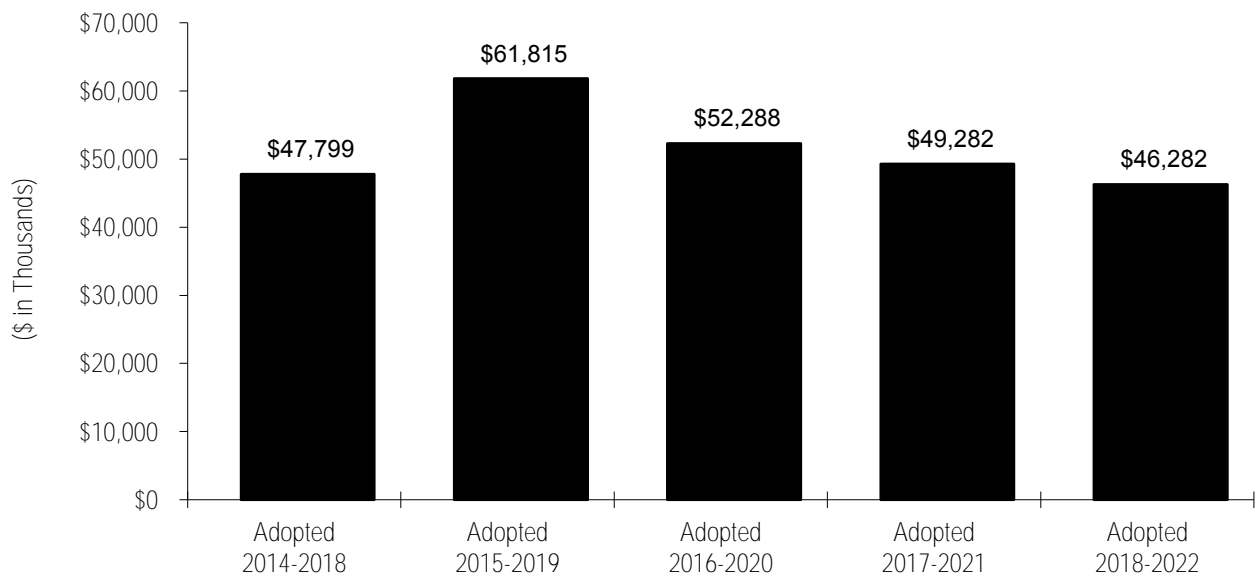
- Beginning Fund Balance
- Taxes, Fees, and Charges
- ▨ Loans and Transfers
- ▩ Interest and Miscellaneous

2017-2018 Adopted Use of Funds



- ▨ Construction
- Non-Construction
- Loans and Transfers
- ▩ Reserves
- ▨ Ending Fund Balance

CIP History



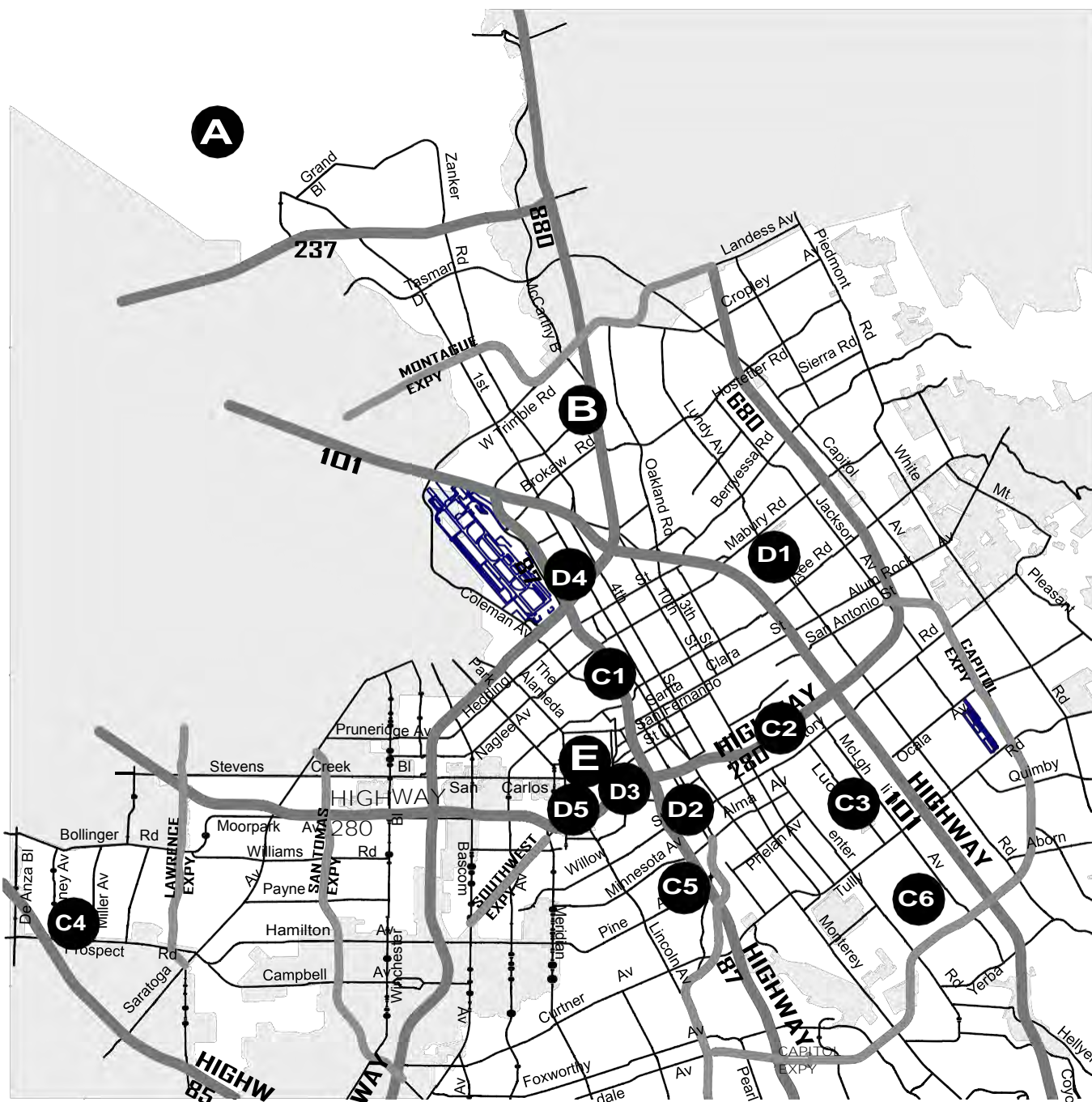
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Storm Sewer System

2018-2022 Adopted Capital Improvement Program

North

- A) Alviso Storm Pump Station
- B) Charcot Storm Pump Rental
- C) Citywide Outfall Rehabilitation (1, 2, 3, 4, 5, 6)
- D) Large Trash Capture Devices (1, 2, 3, 4, 5)
- E) Park Ave. Green Street Pilot



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Storm Sewer System

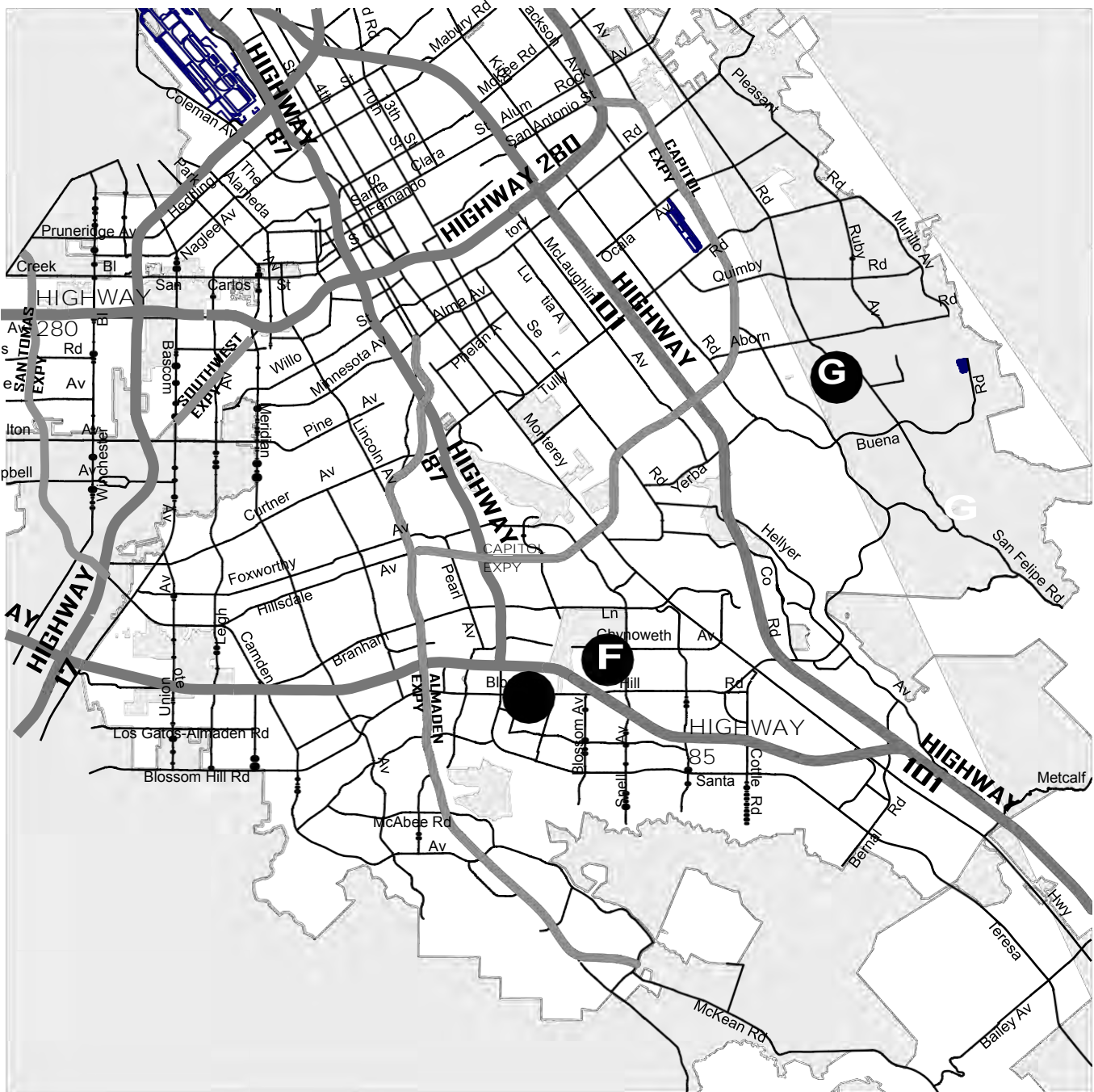
2018-2022 Adopted Capital Improvement Program

South

F) Chynoweth Ave. Green Street

G) Citywide Outfall Rehabilitation

H) Large Trash Capture Device



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Storm Sewer System

2018-2022 Adopted Capital Improvement Program

Overview

INTRODUCTION

The Storm Sewer System of the City of San José consists of approximately 1,130 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 2018-2022 Adopted Capital Improvement Program (CIP) provides funding of \$46.3 million, of which \$28.7 million is allocated in 2017-2018. 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 outcomes 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 Municipal Stormwater Regional Permit.

SOURCES OF FUNDING

The 2018-2022 Adopted CIP provides funding of \$46.3 million, of which \$28.7 million is allocated in 2017-2018. The program funding level decreased by \$3.0 million from \$49.3 million in the 2017-2021 Adopted CIP, mainly due to the completion of several multi-million dollar projects in 2016-2017 through the five-year CIP. Revenues for this CIP are derived primarily from the following sources: transfers from the Storm Sewer Operating Fund, California Proposition 84 Grants, and Storm Sewer Connection Fees. The Adopted CIP assumes no rate increase for the Storm Sewer Operating Fund for 2017-2018.

Storm Sewer System

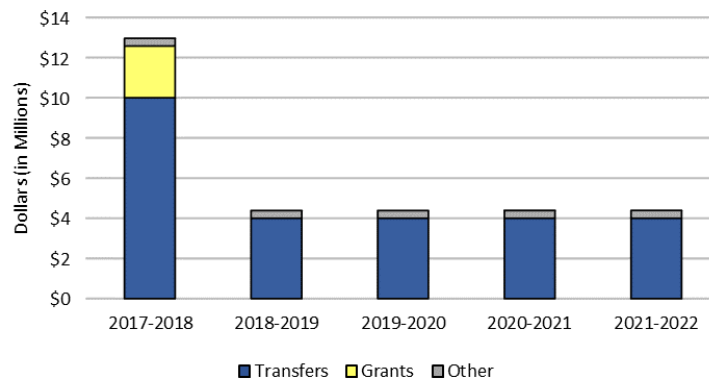
2018-2022 Adopted Capital Improvement Program

Overview

SOURCES OF FUNDING

The California Proposition 84 Stormwater Grant and Integrated Regional Water Management Program Grant will fund the design and construction of the Park Avenue Green Street Pilot and Chynoweth Avenue Green Street projects. 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.

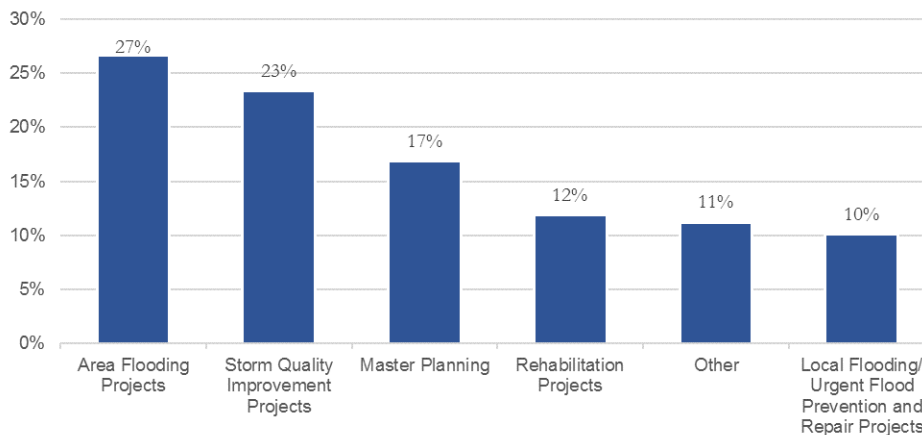
Summary of Revenues



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.

2018-2022 Storm Sewer System
Capital Program Expenditures
\$45.1 million
(excludes Ending Fund Balance)



Storm Sewer System

2018-2022 Adopted Capital Improvement Program

Overview

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.

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. The Storm Sewer Master Plan will also integrate water quality considerations wherever possible to capture pollutants prior to discharge into waterways. This effort will be used as the framework for development of future Storm CIPs. Since the mid-1980s, the City's design standard required that storm drain systems be designed to convey a 10-year storm event. The master plan will recommend storm drain system improvements to handle the 10-year storm event at the General Plan 2040 land use scenario. A majority of the existing storm sewer system can only effectively convey the storm run-off from a one- to three-year storm event. The city-wide storm sewer master plan study using the fully dynamic, integrated urban and river catchments modeling platform began in 2013-2014 and is anticipated to be completed in 2017. The ongoing planning efforts have a total allocation of \$7.6 million in the 2018-2022 Adopted CIP, which includes \$5.9 million for Master Planning and \$1.8 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
Pipe and Riverline Model**

The city-wide storm sewer master plan study using the fully dynamic, integrated urban and river catchments modeling platform began in 2013-2014 and is anticipated to be completed in 2017. The ongoing planning efforts have a total allocation of \$7.6 million in the 2018-2022 Adopted CIP, which includes \$5.9 million for Master Planning and \$1.8 million for Flow Monitoring. Once the master plan study is completed, staff will develop and recommend a financing strategy to construct the desired improvements.

Critical Storm Sewer Improvements

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.

Storm Sewer System

2018-2022 Adopted Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

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 \$5.4 million is programmed for rehabilitation projects, which include: \$2.6 million for Storm Pump Station Rehabilitation and Replacement, \$1.9 million for Outfall Rehabilitation – Capital, and \$850,000 for Condition Assessment Storm Sewer Repairs.

Local Flooding/Urgent Flood Prevention and Repair

Localized ponding and flooding projects can be addressed by the installation of new and/or relocated storm inlets and 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 \$2.5 million is programmed for rehabilitation projects in the Storm Sewer Improvements allocation. Further funding of \$2.1 million for Urgent Flood Prevention and Repair Projects will be used to address issues that may fall into any of the above categories. These projects are developed during the year in response to urgent needs.

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 secured grant funding for the green street retrofit projects, which in 2017-2018 are anticipated to be completed: Chynoweth Avenue Green Street (\$612,000) and Park Avenue Green Street Pilot (\$138,000). Due to rising costs in construction, the Ocala Avenue Green Street project will be delayed until additional funding can be secured to support the construction of the project. Green elements included in these projects consist of bioretention areas, or “rain gardens”, that provide a higher level of infiltration and treatment, which will allow stormwater run-off to be treated and infiltrated into the ground or before draining to the municipal storm sewer system. In the 2018-2022 Adopted CIP, project allocations for the Chynoweth Avenue Green Street and Park Avenue Green Street Pilot total approximately \$750,000 to complete these projects (\$4.2 million altogether), sourced by approximately \$2.9 million in grant funding and approximately \$1.3 million in matching funds.

Storm Sewer System

2018-2022 Adopted Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

Provision C.10 of the Municipal Regional Stormwater Permit (MRP) regulates the implementation of control measures and other actions required to reduce trash loads from the storm sewer system into the City's receiving waters. One of the control measures required by the provision is the installation of trash capture devices near locations identified as high-trash impacted locations. Funding of approximately \$7.5 million over the five-year CIP will be used for the design and installation of Large Trash Capture Devices throughout the City to meet MRP Provision C.10 trash reduction requirements.

MAJOR CHANGES FROM THE 2017-2021 ADOPTED CIP

The overall size of the Storm Sewer System CIP has decreased by \$3.0 million from \$49.3 million in the 2017-2021 Adopted CIP to \$46.3 million in the 2018-2022 Adopted CIP, mainly due to the completion of several multi-million dollar projects in 2016-2017 through the five-year CIP. The following table outlines the most significant changes to project budgets, including new/augmented allocations and reduced/eliminated allocations.

Project	Incr/(Decr)
Green Infrastructure Improvements	\$2,300,000
Ocala Avenue Green Street	(\$2,526,000)
Chynoweth Avenue Green Street	(\$2,075,000)
Condition Assessment Storm Sewer Repairs	(\$1,650,000)

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 in the 2018-2022 Adopted CIP. However, the 2017-2018 Adopted Operating Budget will add resources for the monitoring and maintenance of stormwater bioretention facilities and well cleaning and maintenance of large trash capture devices. While these costs are known, the overall costs to operate and maintain Green Streets are still under development, as this infrastructure is new to City operations. Future operation and maintenance costs will be developed in conjunction with the upcoming Green Infrastructure Plan.

Storm Sewer System

2018-2022 Adopted Capital Improvement Program

Overview

COUNCIL-APPROVED REVISIONS TO THE PROPOSED CAPITAL IMPROVEMENT PROGRAM

During the June budget hearings, City Council approved changes to the Proposed Capital Improvement Program, which consists of the rebudgeting of unexpended funding for projects totaling \$3.4 million due to project delays. For additional information regarding any of these approved actions, please refer to the Manager's Budget Addendum #26, as approved by the City Council on June 13, 2017.



2017-2018 CAPITAL BUDGET

**2018-2022 CAPITAL
IMPROVEMENT PROGRAM**

STORM SEWER SYSTEM

**SOURCE AND USE OF FUNDS
STATEMENTS**

Storm Sewer System
2018-2022 Adopted Capital Improvement Program
Source of Funds (Combined)

229

	Estimated						
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
Storm Sewer Capital Fund							
Beginning Balance	24,019,478	15,107,849	1,014,334	589,334	537,334	587,334	15,107,849
Reserve for Encumbrance	8,326,461						
Transfers							
Transfer from Storm Sewer Operating Fund (446)	11,400,000	10,000,000	4,000,000	4,000,000	4,000,000	4,000,000	26,000,000
TOTAL Transfers	11,400,000	10,000,000	4,000,000	4,000,000	4,000,000	4,000,000	26,000,000
Revenue from Use of Money and Property							
Interest Income	249,000	171,000	173,000	175,000	177,000	179,000	875,000
TOTAL Revenue from Use of Money and Property	249,000	171,000	173,000	175,000	177,000	179,000	875,000
Revenue from State of California							
CA Proposition 84 Integrated Regional Water Management Program Grant		1,816,000					1,816,000
CA Proposition 84 Stormwater Grant		760,485					760,485
TOTAL Revenue from State of California		2,576,485					2,576,485
Total Storm Sewer Capital Fund	43,994,939	27,855,334	5,187,334	4,764,334	4,714,334	4,766,334	44,559,334
Storm Drainage Fee Fund							
Beginning Balance	511,942	672,494	530,494	492,494	504,494	516,494	672,494
Reserve for Encumbrance	196,552						

Storm Sewer System
2018-2022 Adopted Capital Improvement Program
Source of Funds (Combined)

	Estimated						
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
Revenue from Use of Money and Property							
Interest Income	6,000	6,000	6,000	6,000	6,000	6,000	30,000
TOTAL Revenue from Use of Money and Property	6,000	6,000	6,000	6,000	6,000	6,000	30,000
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--	250,000	200,000	200,000	200,000	200,000	200,000	1,000,000
TOTAL Fees, Rates and Charges	250,000	200,000	200,000	200,000	200,000	200,000	1,000,000
Total Storm Drainage Fee Fund	968,494	882,494	740,494	702,494	714,494	726,494	1,722,494
TOTAL SOURCES	44,963,433	28,737,828	5,927,828	5,466,828	5,428,828	5,492,828	46,281,828

Storm Sewer System
2018-2022 Adopted Capital Improvement Program
Use of Funds (Combined)

	Estimated 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
<u>Storm Sewer System</u>							
Alviso Storm Pump Station	668,089	9,271,000	45,000				9,316,000
Chynoweth Avenue Green Street	1,855,000	612,000					612,000
Condition Assessment Storm Sewer Repairs	581,310	250,000	150,000	150,000	150,000	150,000	850,000
Green Infrastructure Improvements		500,000	450,000	450,000	450,000	450,000	2,300,000
Large Trash Capture Devices	15,568,940	7,210,000	273,000				7,483,000
Ocala Avenue Green Street Project	200,000						
Outfall Rehabilitation - Capital	341,618	800,000	300,000	300,000	250,000	250,000	1,900,000
Park Avenue Green Street Pilot	1,121,256	138,000					138,000
Storm Pump Station Rehabilitation and Replacement	902,943	1,500,000	300,000	300,000	250,000	250,000	2,600,000
Storm Sewer Improvements	1,842,345	500,000	500,000	500,000	500,000	500,000	2,500,000
Storm Sewer Improvements - Special Corridors	1,087,108						
Urgent Flood Prevention and Repair Projects	1,504,529	600,000	400,000	350,000	350,000	350,000	2,050,000
Other Storm Sewer - Construction	25,673,138	21,381,000	2,418,000	2,050,000	1,950,000	1,950,000	29,749,000
Storm Sewer - Construction	25,673,138	21,381,000	2,418,000	2,050,000	1,950,000	1,950,000	29,749,000
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	13,342	700,000	300,000	250,000	250,000	250,000	1,750,000
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
Stockton Avenue - Julian Street Storm Sewer Improvements		350,000					350,000
Storm Sewer Master Plan - City-wide	1,768,110	1,450,000	1,100,000	1,100,000	1,100,000	1,100,000	5,850,000

Storm Sewer System
2018-2022 Adopted Capital Improvement Program
Use of Funds (Combined)

	Estimated						
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
General Non-Construction - Storm Sewer	2,486,452	3,205,000	2,105,000	2,055,000	2,055,000	2,055,000	11,475,000
Storm Sewer - Non Construction	2,486,452	3,205,000	2,105,000	2,055,000	2,055,000	2,055,000	11,475,000
Public Art Allocation	83,500	474,000	15,000	12,000	12,000	12,000	525,000
Public Art Projects	83,500	474,000	15,000	12,000	12,000	12,000	525,000
Capital Program and Public Works Department Support Service Costs	792,000	807,000	173,000	173,000	173,000	173,000	1,499,000
Infrastructure Management System	6,000	7,000	7,000	7,000	7,000	7,000	35,000
Allocations	798,000	814,000	180,000	180,000	180,000	180,000	1,534,000
City Hall Debt Service Fund	104,000	113,000	122,000	122,000	122,000	122,000	601,000
Transfers to Special Funds	104,000	113,000	122,000	122,000	122,000	122,000	601,000
General Fund - Human Resources/Payroll/ Budget Systems Upgrade	4,000						
General Fund - Interest Income	34,000	6,000	6,000	6,000	6,000	6,000	30,000
Transfers to the General Fund	38,000	6,000	6,000	6,000	6,000	6,000	30,000
Transfers Expense	142,000	119,000	128,000	128,000	128,000	128,000	631,000
Alviso Storm Pump Station Reserve		1,200,000					1,200,000
Expense Reserves - Non Construction		1,200,000					1,200,000
Total Expenditures	29,183,090	27,193,000	4,846,000	4,425,000	4,325,000	4,325,000	45,114,000
Ending Fund Balance	15,780,343	1,544,828	1,081,828	1,041,828	1,103,828	1,167,828	1,167,828
TOTAL	44,963,433	28,737,828	5,927,828	5,466,828	5,428,828	5,492,828	46,281,828



2017-2018 CAPITAL BUDGET

**2018-2022 CAPITAL
IMPROVEMENT PROGRAM**



STORM SEWER SYSTEM

DETAIL OF PROJECTS

Storm Sewer Capital Program

2018-2022 Adopted Capital Improvement Program

Detail of One-Time Construction Projects

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	2nd 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 into this project.
 2016-2020 CIP - Increase of \$8.8 million. Funding from the Alviso Storm Pump Station Reserve was liquidated 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 specialty consultant needs, regulatory permits, and mitigation fees.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration		213								213
Project Feasibility Development	236	3								238
Design	886	3								888
Construction	4	450	9,271					9,271		9,725
Post Construction				45				45		45
Total	1,125	668	9,271	45				9,316		11,110

Funding Source Schedule (000s)										
Storm Sewer Capital Fund	1,125	668	9,271	45				9,316		11,110
Total	1,125	668	9,271	45				9,316		11,110

Annual Operating Budget Impact (000s)										
Total										

Storm Sewer Capital Program

2018-2022 Adopted Capital Improvement Program

Detail of One-Time Construction Projects

Chynoweth Avenue Green Street

CSA	Environmental and Utility Services	Initial Start Date	3rd Qtr. 2014
CSA Outcome	Reliable Utility Infrastructure	Initial End Date	2nd Qtr. 2017
Department	Public Works	Revised Start Date	
Location	Chynoweth Avenue from Snell Avenue to Canoas Creek	Revised End Date	2nd Qtr. 2018
Council Districts	10	Initial Project Budget	\$195,000
Appropriation	A7761	FY Initiated	2014-2015

Description	This project will create bioretention areas and install permeable pavers along Chynoweth Avenue to meet stormwater treatment requirements set forth by the Municipal Regional Permit using Low Impact Development (LID) techniques.
Justification	This project incorporates stormwater quality treatment using bioretention areas, a LID practice, to capture and treat stormwater. Installation of this type of treatment measure is expected to reduce the pollutants entering our local creeks and waterways from City streets. In addition, this project will allow the Environmental Services Department to monitor the effectiveness of retrofitting an existing urban street with bioretention areas.
Notes	A portion of the Proposition 84 Integrated Regional Water Management (IRWM) Grant of approximately \$2 million and a local match of \$749,000 will fund this project. Prior to the 2016-2020 CIP, this project was titled "San José Green Street Demonstration Project". The costs to operate and maintain Green Streets are still under development, as this infrastructure is new to City operations. Future operation and maintenance costs will be developed in conjunction with the upcoming Green Infrastructure Plan.
Major Cost Changes	2016-2020 CIP - Increase of \$2.0 million due to an increase in project scope related to the Proposition 84 Integrated Regional Water Management grant requirements. 2017-2021 CIP - Increase of \$453,000 due to a refined project scope and cost estimate.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration		168								168
Project Feasibility Development	70									70
Design	211									211
Construction	1	1,687	584					584		2,272
Post Construction			28					28		28
Total	282	1,855	612					612		2,749

Funding Source Schedule (000s)										
Storm Sewer Capital Fund	282	1,855	612					612		2,749
Total	282	1,855	612					612		2,749

Annual Operating Budget Impact (000s)										
Total										

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
Detail of One-Time Construction Projects

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	2nd 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 The costs to operate and maintain the LTC devices are still under development, as the needed cleaning frequency of these devices is new to the City's operations. However, included in the 2017-2018 Adopted Operating Budget is \$150,000 for the rental of a Positive Displacement Combination Cleaner to pilot the efficacy of that vehicle and overtime funding to meet Stormwater Permit maintenance requirements. Future operation and maintenance costs will be developed upon the installation of new devices.

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	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	183	100								283
Design	321	447	83					83		851
Bid & Award	39	20	27					27		86
Construction	1,458	15,002	7,000	236				7,236		23,696
Post Construction			100	37				137		137
Total	2,001	15,569	7,210	273				7,483		25,053

Funding Source Schedule (000s)										
Storm Sewer Capital Fund	2,001	15,569	7,210	273				7,483		25,053
Total	2,001	15,569	7,210	273				7,483		25,053

Annual Operating Budget Impact (000s)										
Total										

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
Detail of One-Time Construction Projects

Park Avenue Green Street Pilot

CSA	Environmental and Utility Services	Initial Start Date	2nd Qtr. 2013
CSA Outcome	Reliable Utility Infrastructure	Initial End Date	2nd Qtr. 2014
Department	Public Works	Revised Start Date	3rd Qtr. 2014
Location	Park Avenue between Meridian Avenue and Sunol Street	Revised End Date	2nd Qtr. 2018
Council Districts	6	Initial Project Budget	\$347,000
Appropriation	A7500	FY Initiated	2012-2013

Description This project will install bioretention areas along Park Avenue between Meridian Avenue and Sunol Street in order to provide stormwater treatment for this segment of Park Avenue.

Justification This project incorporates stormwater quality treatment using bioretention areas, a Low Impact Development practice, to capture and treat stormwater. Installation of this type of treatment measure is expected to reduce the pollutants entering our local creeks and waterways from City streets. In addition, this project will allow the Environmental Services Department to monitor the effectiveness of retrofitting an existing urban street with bioretention areas.

Notes A portion of the California Proposition 84 Stormwater Grant of \$859,000 and a local match of \$592,000 will fund this project. Prior to 2016-2020 CIP, this project was titled "Park Avenue Green Avenue". The costs to operate and maintain Green Streets are still under development, as this infrastructure is new to City operations. Future operation and maintenance costs will be developed in conjunction with the upcoming Green Infrastructure Plan.

Major Cost Changes 2014-2018 CIP - Increase of \$859,000 due to an increase in project scope related to the California Proposition 84 grant requirements.
 2017-2021 CIP - Increase of \$207,000 due to an increase in project scope related to the California Proposition 84 grant requirements.

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration		19								19
Project Feasibility Development	22									22
Design	143	2								146
Bid & Award	26	5								31
Construction		1,095	100					100		1,195
Post Construction			38					38		38
Total	192	1,121	138					138		1,451

Funding Source Schedule (000s)										
Storm Sewer Capital Fund	192	1,121	138					138		1,451
Total	192	1,121	138					138		1,451

Annual Operating Budget Impact (000s)										
Total										

Storm Sewer Capital Program

2018-2022 Adopted Capital Improvement Program

Detail of Ongoing Construction Projects

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 the development and implementation of 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

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	10	5	5	5	5	5	25
Design	50	25	25	25	25	25	125
Bid & Award	10	5	5	5	5	5	25
Construction	511	215	115	115	115	115	675
Total	581	250	150	150	150	150	850

Funding Source Schedule (000s)							
Storm Sewer Capital Fund	581	250	150	150	150	150	850
Total	581	250	150	150	150	150	850

Annual Operating Budget Impact (000s)							
Total							

Storm Sewer Capital Program

2018-2022 Adopted Capital Improvement Program

Detail of Ongoing Construction Projects

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

Major Cost Changes

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development		500	450	450	450	450	2,300
Total		500	450	450	450	450	2,300

Funding Source Schedule (000s)							
Storm Sewer Capital Fund		500	450	450	450	450	2,300
Total		500	450	450	450	450	2,300

Annual Operating Budget Impact (000s)							
Total							

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
Detail of Ongoing Construction Projects

Outfall Rehabilitation - Capital

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 Department of Public Works, and the 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

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	199						
Project Feasibility Development	3						
Design	140						
Construction		800	300	300	250	250	1,900
Total	342	800	300	300	250	250	1,900

Funding Source Schedule (000s)							
Storm Sewer Capital Fund	342	800	300	300	250	250	1,900
Total	342	800	300	300	250	250	1,900

Annual Operating Budget Impact (000s)							
Total							

Storm Sewer Capital Program

2018-2022 Adopted Capital Improvement Program

Detail of Ongoing Construction Projects

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

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	376						
Project Feasibility Development		6	3	3	3	3	18
Design	18	100	50	50	50	50	300
Bid & Award		6	3	3	3	3	18
Construction	509	1,388	244	244	194	194	2,264
Maintenance, Repairs, Other	0						
Total	903	1,500	300	300	250	250	2,600

Funding Source Schedule (000s)							
Storm Sewer Capital Fund	903	1,500	300	300	250	250	2,600
Total	903	1,500	300	300	250	250	2,600

Annual Operating Budget Impact (000s)							
Total							

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
Detail of Ongoing Construction Projects

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

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	111						
Project Feasibility Development	20	10	5	5	5	10	35
Design	30	50	20	20	20	40	150
Bid & Award	3	3	3	3	3	6	18
Construction	1,678	437	472	472	472	444	2,297
Maintenance, Repairs, Other							
Total	1,842	500	500	500	500	500	2,500

Funding Source Schedule (000s)							
Storm Sewer Capital Fund	1,842	500	500	500	500	500	2,500
Total	1,842	500	500	500	500	500	2,500

Annual Operating Budget Impact (000s)							
Total							

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
Detail of Ongoing Construction Projects

Urgent Flood Prevention and 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. Prior to the 2012-2016 CIP, this allocation was titled "Miscellaneous Projects".

Major Cost Changes

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	478						
Project Feasibility Development	7	6	5	5	5	5	26
Design	20	20	10	10	10	10	60
Bid & Award	10	10	5	5	5	5	30
Construction	990	564	380	330	330	330	1,934
Total	1,505	600	400	350	350	350	2,050

Funding Source Schedule (000s)							
Storm Sewer Capital Fund	1,305	300	200	200	200	200	1,100
Storm Drainage Fee Fund	200	300	200	150	150	150	950
Total	1,505	600	400	350	350	350	2,050

Annual Operating Budget Impact (000s)							
Total							

Storm Sewer Capital Program

2018-2022 Adopted Capital Improvement Program

Detail of One-Time 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

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Equipment, Materials and Supplies		300	300	300	300	300	300	1,500		1,800
Maintenance, Repairs, Other	248									248
Total	248	300	300	300	300	300	300	1,500		2,048

Funding Source Schedule (000s)										
Storm Sewer Capital Fund	248	300	300	300	300	300	300	1,500		2,048
Total	248	300	300	300	300	300	300	1,500		2,048

Storm Sewer Capital Program

2018-2022 Adopted Capital Improvement Program

Detail of One-Time Non-Construction Projects

Stockton Avenue - Julian Street Storm Sewer Improvements

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Public Works
Council Districts 3
Appropriation A7802

Description This project installs approximately 4,500 feet of storm drain on Julian Street from Stockton Avenue that will connect to an existing 54-inch storm pipe and outfall system on Julian Street. In addition, it will construct a 30- to 54-inch pipe on Stockton Avenue between Schiele Avenue and The Alameda to convey storm runoff to Julian Street. Funding is allocated in 2017-2018 for the preliminary phase of the project, which will identify feasible storm pipe locations and routes and determine the phasing of specific improvements to occur in this area. It is preliminarily anticipated that this project will be further developed through 2019-2020, once further cost estimates are available as a result of this preliminary phase.

Notes

	PRIOR YEARS	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development			350					350		350
Total			350					350		350

Funding Source Schedule (000s)										
Storm Sewer Capital Fund			350					350		350
Total			350					350		350

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
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.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	25	25	25	25	25	25	125
Design							
Total	25	25	25	25	25	25	125

Funding Source Schedule (000s)							
Storm Drainage Fee Fund	25	25	25	25	25	25	125
Total	25	25	25	25	25	25	125

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
Detail of Ongoing Non-Construction Projects

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.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development		700	300	250	250	250	1,750
Design	13						
Total	13	700	300	250	250	250	1,750

Funding Source Schedule (000s)							
Storm Sewer Capital Fund	13	700	300	250	250	250	1,750
Total	13	700	300	250	250	250	1,750

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program

Detail of Ongoing Non-Construction Projects

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.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	50	50	50	50	50	50	250
Total	50	50	50	50	50	50	250

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Funding Source Schedule (000s)							
Storm Sewer Capital Fund	50	50	50	50	50	50	250
Total	50	50	50	50	50	50	250

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
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.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	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	180	180	180	180	180	180	900
Total	180	180	180	180	180	180	900

Storm Sewer Capital Program
 2018-2022 Adopted Capital Improvement Program
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.

	FY17 EST	FY18	FY19	FY20	FY21	FY22	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)

Sewer Service and Use Charge Capital Improvement Fund

Sanitary Sewer Connection Fee Fund

Storm Sewer Capital Fund	150	150	150	150	150	150	750
Total	150	150	150	150	150	150	750

Storm Sewer Capital Program
2018-2022 Adopted Capital Improvement Program

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 This allocation funds a master planning effort for the storm sewer system, which involves mapping and identification of existing main storm drainage trunk lines, outfalls, laterals, and other storm system facilities. The report is anticipated to be completed in 2017 and will guide the overall system design for capacity needs. Ongoing funding will provide for updates to the master plan as new developments and projects add or change the infrastructure.

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

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	750	1,450	1,100	1,100	1,100		4,750
Design	1,018					1,100	1,100
Total	1,768	1,450	1,100	1,100	1,100	1,100	5,850

	FY17 EST	FY18	FY19	FY20	FY21	FY22	5 YEAR TOTAL
Funding Source Schedule (000s)							
Storm Sewer Capital Fund	1,768	1,450	1,100	1,100	1,100	1,100	5,850
Storm Drainage Fee Fund							
Total	1,768	1,450	1,100	1,100	1,100	1,100	5,850



2017-2018 CAPITAL BUDGET

**2018-2022 CAPITAL
IMPROVEMENT PROGRAM**

STORM SEWER SYSTEM

SUMMARY OF RESERVES

Storm Sewer Capital Program
2018-2022 Adopted Capital Improvement Program

Summary of Reserves

Project Name	Alviso Storm Pump Station Reserve	Initial Start Date	N/A
5-Yr CIP Budget	\$ 1,200,000	Initial End Date	N/A
Total Budget	\$ 1,200,000	Revised Start Date	
Council Districts	4	Revised End Date	
Description	This reserve sets aside additional funding for the construction of the Alviso Storm Pump Station. This pump station is needed to alleviate flooding in Alviso. The estimate for this project's construction is approximately \$9.7 million; however, due to recent increased costs in construction, this reserve will be used to help support any additional funding needs.		
