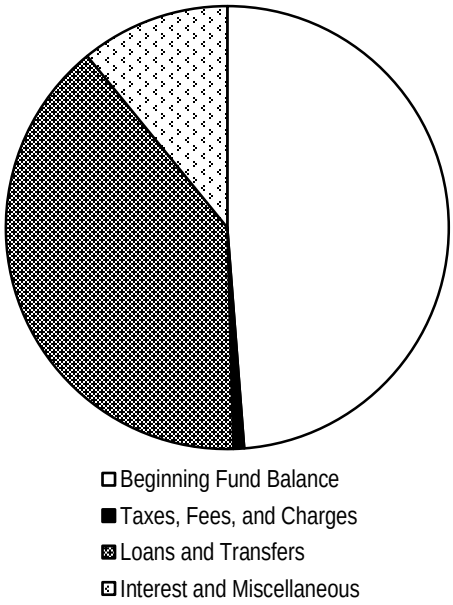
2017-2018 Capital Budget

2018-2022 Capital Improvement Program

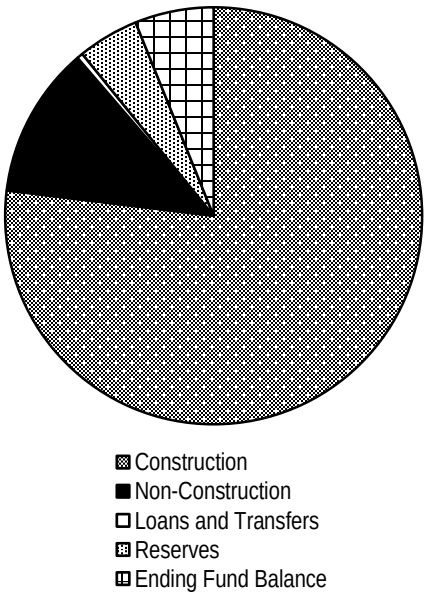
Storm
Sewer System

STORM SEWER SYSTEM
2018-2022 Capital Improvement Program

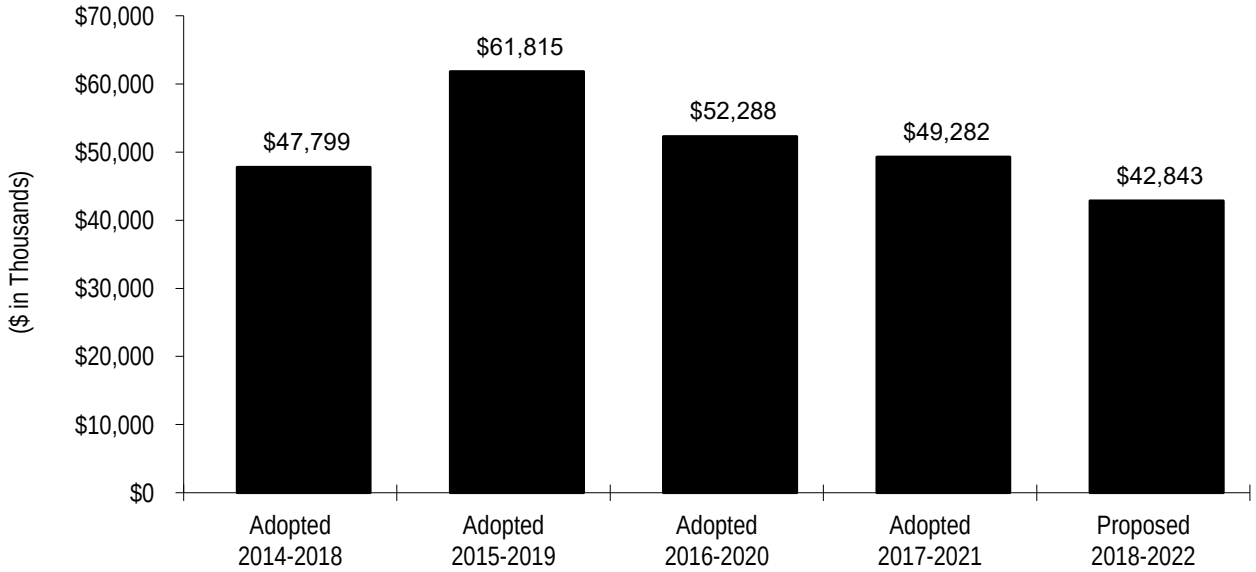
2017-2018 Proposed Source of Funds



2017-2018 Proposed Use of Funds



CIP History



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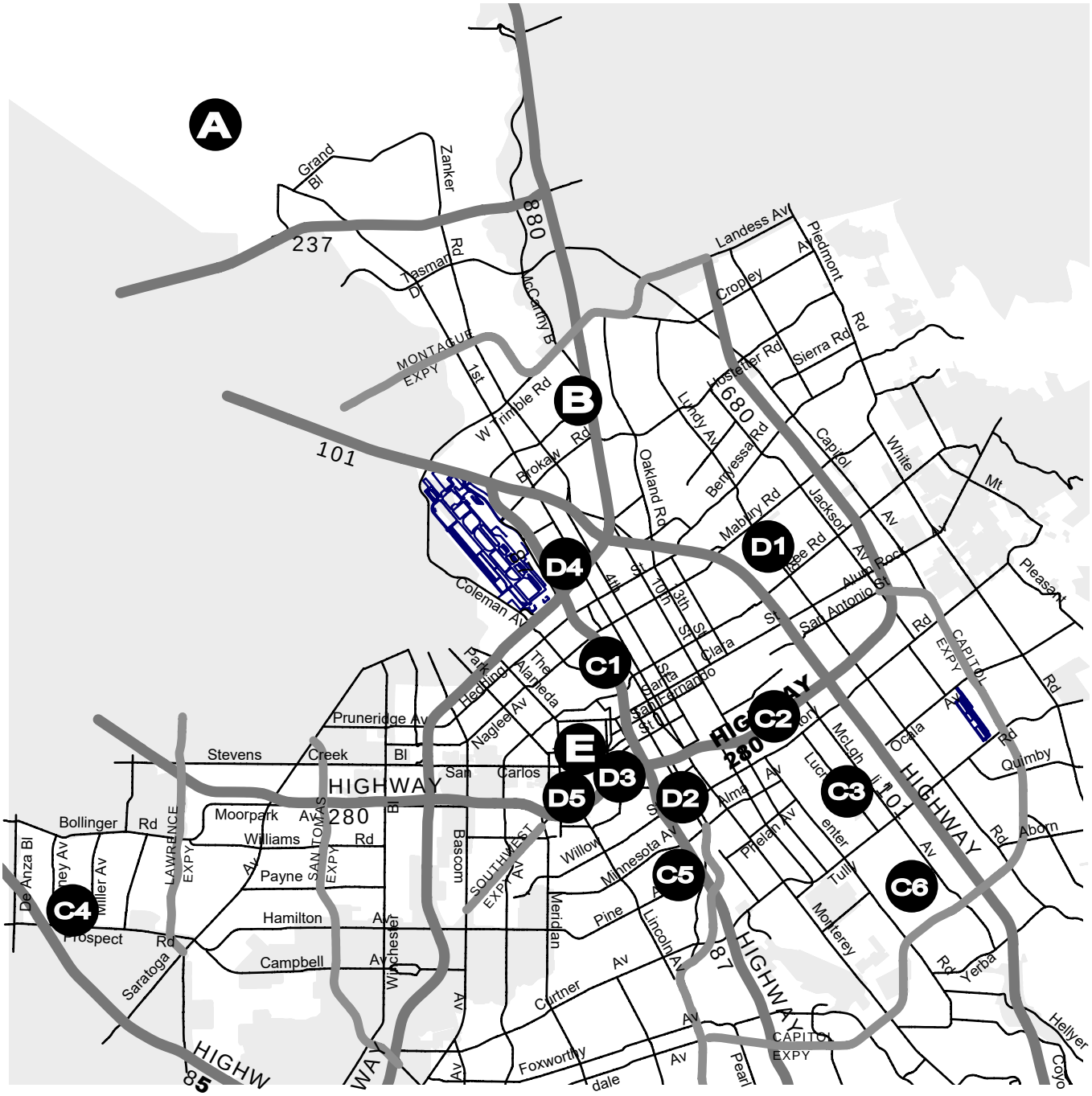
Storm Sewer System

2018-2022 Proposed Capital Improvement Program

North

A) Alviso Storm Pump Station
B) Charcot Storm Pump Station at Coyote Creek
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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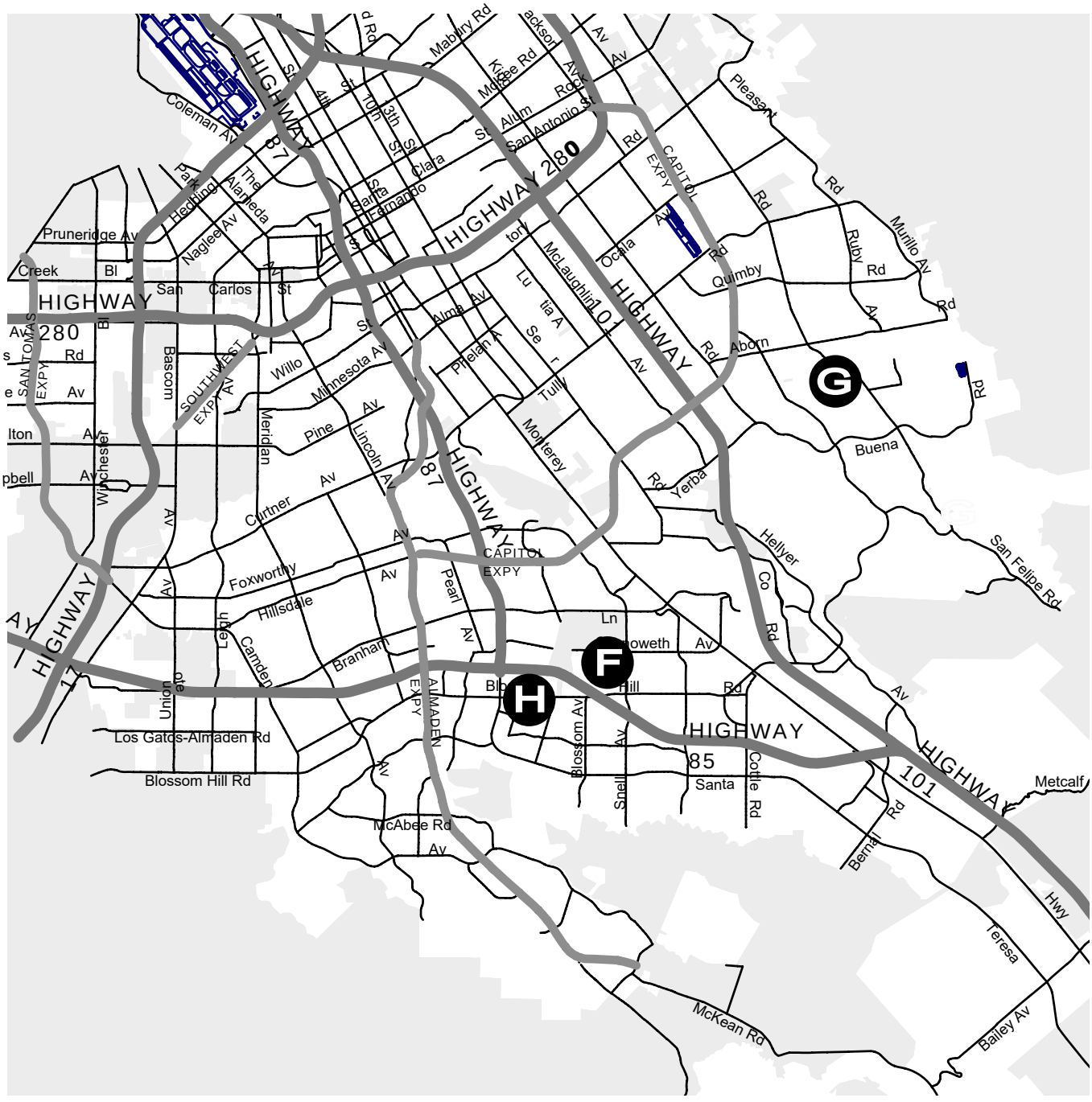
Storm Sewer System

2018-2022 Proposed 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 Proposed Capital Improvement Program

Overview

INTRODUCTION

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 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.

The 2018-2022 Proposed Capital Improvement Program (CIP) provides funding of $42.8 million, of which $25.3 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:

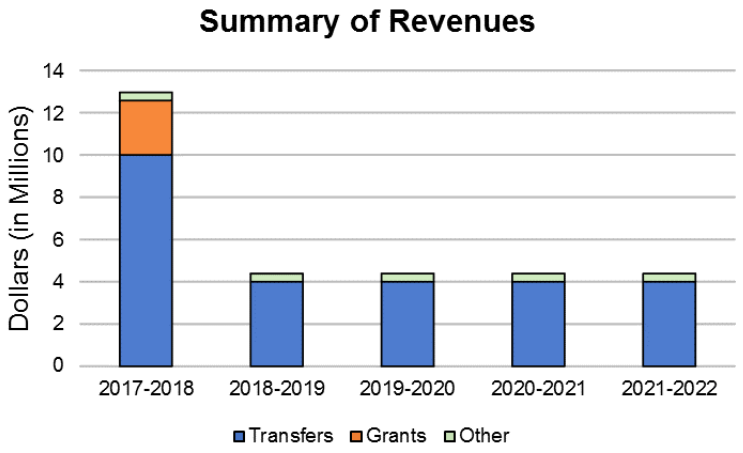
- Area-wide drainage capacity projects are identified and developed through the Storm Sewer Master Plan, which is based on the Envision San José 2040 General Plan (General Plan);
- Critical storm sewer system improvements that address localized ponding and flooding are generally identified through inspection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

SOURCES OF FUNDING

The 2018-2022 Proposed CIP provides funding of $42.8 million, of which $25.3 million is allocated in 2017-2018. The program funding level decreased by $6.5 million from $49.3 million in the 2017-2021 Adopted CIP, mainly due to the completion of several multi-million dollar projects (anticipated to be completed 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 Proposed CIP assumes no rate increase for the Storm Sewer Operating Fund for 2017-2018.

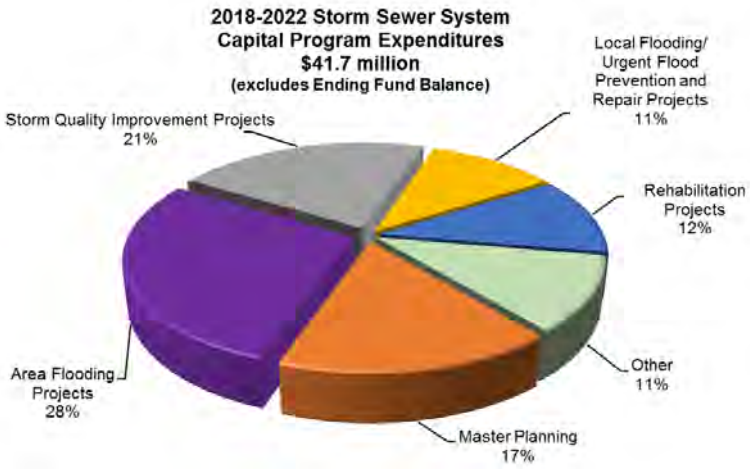
SOURCES OF FUNDING

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.



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.



Storm Sewer System

2018-2022 Proposed Capital Improvement Program

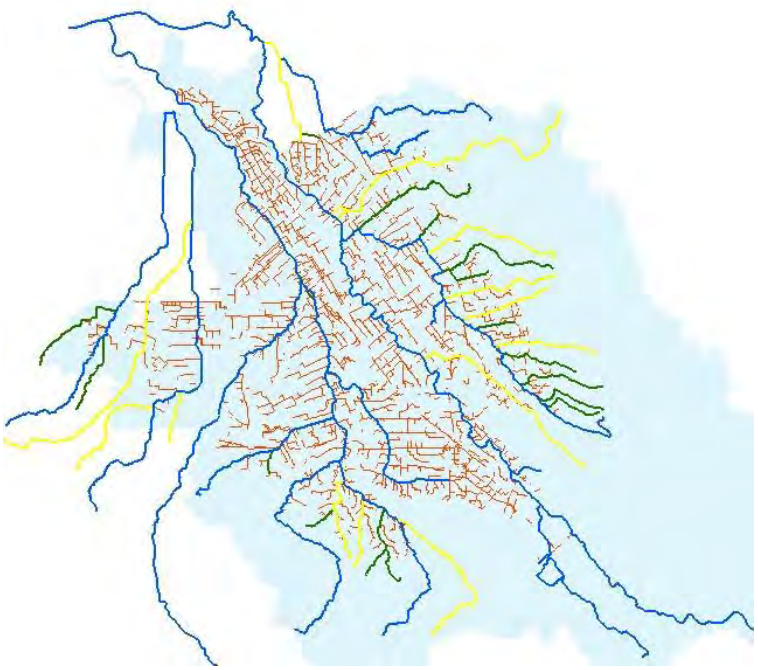
Overview

PROGRAM HIGHLIGHTS

Projects in this Proposed 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 $6.9 million in the 2018-2022 Proposed CIP, which includes $5.5 million for Master Planning and $1.4 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

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.

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 Proposed CIP, total funding of approximately $4.9 million is programmed for rehabilitation projects, which include: $2.1 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, which is a consolidation of the Minor Neighborhood Storm Sewer Improvements and Storm Sewer Improvements – Special Corridors allocations in prior years. 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 ($112,000) and Park Avenue Green Street Pilot ($38,000). To date, $3.6 million has been encumbered in 2016-2017 to deliver these projects. 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 function as a soil- and

PROGRAM HIGHLIGHTS

plant-based filtration measure, and pervious pavers and infiltration trenches, which will allow stormwater run-off to infiltrate into the ground. In the 2018-2022 Proposed CIP, project allocations for the Chynoweth Avenue Green Street and Park Avenue Green Street Pilot total approximately $150,000 as these projects will be significantly completed before the end of 2016-2017, sourced by approximately $2.6 million in grant funding and approximately $680,000 in matching funds.

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 $6.5 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 $6.5 million from $49.3 million in the 2017-2021 Adopted CIP to $42.8 million in the 2018-2022 Proposed CIP, mainly due to the completion of several multi-million dollar projects (anticipated to be completed 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 Proposed CIP. However, the 2017-2018 Proposed 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.

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2017-2018 Capital Budget

2018-2022 Capital Improvement Program

Storm Sewer System

Source and Use of Funds Statements

Storm Sewer System

2018-2022 Proposed Capital Improvement Program

Source of Funds (Combined)

	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	11,668,849	1,014,334	589,334	537,334	587,334	11,668,849
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**	**24,416,334**	**5,187,334**	**4,764,334**	**4,714,334**	**4,766,334**	**41,120,334**
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 Proposed 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**	**25,298,828**	**5,927,828**	**5,466,828**	**5,428,828**	**5,492,828**	**42,842,828**

Storm Sewer System

2018-2022 Proposed Capital Improvement Program

Use of Funds (Combined)

	Estimated 2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	5-Year Total
Storm Sewer System							
Alviso Storm Pump Station	918,089	9,021,000	45,000				9,066,000
Chynoweth Avenue Green Street	2,355,000	112,000					112,000
Condition Assessment Storm Sewer Repairs	581,310	250,000	150,000	150,000	150,000	150,000	850,000
Large Trash Capture Devices	16,568,940	6,210,000	273,000				6,483,000
Storm Sewer Improvements	1,842,345	500,000	500,000	500,000	500,000	500,000	2,500,000
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	1,221,256	38,000					38,000
Stockton Avenue - Julian Street Storm Sewer Improvements		350,000					350,000
Storm Pump Station Rehabilitation and Replacement	1,402,943	1,000,000	300,000	300,000	250,000	250,000	2,100,000
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
Green Infrastructure Improvements		500,000	450,000	450,000	450,000	450,000	2,300,000
Other Storm Sewer - Construction	**28,023,138**	**19,381,000**	**2,418,000**	**2,050,000**	**1,950,000**	**1,950,000**	**27,749,000**
Storm Sewer - Construction	**28,023,138**	**19,381,000**	**2,418,000**	**2,050,000**	**1,950,000**	**1,950,000**	**27,749,000**
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	363,342	350,000	300,000	250,000	250,000	250,000	1,400,000
Storm Sewer Master Plan - City-wide	2,118,110	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000	5,500,000
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
Permit Review and Inspection for Outside Agencies - Storm Sewer	50,000	50,000	50,000	50,000	50,000	50,000	250,000

Storm Sewer System

2018-2022 Proposed 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	**3,186,452**	**2,155,000**	**2,105,000**	**2,055,000**	**2,055,000**	**2,055,000**	**10,425,000**
Storm Sewer - Non Construction	**3,186,452**	**2,155,000**	**2,105,000**	**2,055,000**	**2,055,000**	**2,055,000**	**10,425,000**
Public Art Allocation	472,500	85,000	15,000	12,000	12,000	12,000	136,000
Public Art Projects	**472,500**	**85,000**	**15,000**	**12,000**	**12,000**	**12,000**	**136,000**
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	**32,622,090**	**23,754,000**	**4,846,000**	**4,425,000**	**4,325,000**	**4,325,000**	**41,675,000**
Ending Fund Balance	12,341,343	1,544,828	1,081,828	1,041,828	1,103,828	1,167,828	1,167,828
TOTAL	**44,963,433**	**25,298,828**	**5,927,828**	**5,466,828**	**5,428,828**	**5,492,828**	**42,842,828**

2017-2018 Capital Budget

2018-2022 Capital Improvement Program

Storm Sewer System

Detail of 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.

	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	700	9,021					9,021		9,725
Post Construction				45				45		45
Total	**1,125**	**918**	**9,021**	**45**				**9,066**		**11,110**
Funding Source Schedule (000s)										
Storm Sewer Capital Fund	1,125	918	9,021	45				9,066		11,110
Total	**1,125**	**918**	**9,021**	**45**				**9,066**		**11,110**
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**	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 large trash capture devices are still under development, as the needed cleaning frequency of these devices is new to the City's operations. 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 Large Trash Capture devices. 2018-2022 CIP - Increase of $11.9 million million to support the installation of Large Trash Capture 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	16,002	6,000	236				6,236		23,696
Post Construction			100	37				137		137
Total	**2,001**	**16,569**	**6,210**	**273**				**6,483**		**25,053**
Funding Source Schedule (000s)										
Storm Sewer Capital Fund	2,001	16,569	6,210	273				6,483		25,053
Total	**2,001**	**16,569**	**6,210**	**273**				**6,483**		**25,053**
Annual Operating Budget Impact (000s)										
Maintenance										
Total										

Stockton Avenue - Julian Street Storm Sewer Improvements

CSA	Environmental and Utility Services
CSA Outcome	Reliable Utility Infrastructure
Department	Public Works
Location	Stockton Avenue and Julian Street
Council Districts	3
Appropriation	A7802

Initial Start Date	3rd Qtr. 2016
Initial End Date	2nd Qtr. 2017
Revised Start Date	3rd Qtr. 2017
Revised End Date	2nd Qtr. 2018
Initial Project Budget	$350,000
FY Initiated	2016-2017

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.

Justification This project is needed due to minimal storm capacity in the existing storm sewer system.

Notes

Major Cost Changes

	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**
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 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							

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	TEMP_106		

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 Jose.

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							

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 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	3	3	3	3	3	3	15
Design	68	50	50	50	50	50	250
Bid & Award	3	3	3	3	3	3	15
Construction	953	944	244	244	194	194	1,820
Maintenance, Repairs, Other	0						
Total	**1,403**	**1,000**	**300**	**300**	**250**	**250**	**2,100**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund	1,403	1,000	300	300	250	250	2,100
Total	**1,403**	**1,000**	**300**	**300**	**250**	**250**	**2,100**
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

	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							

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

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**

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**

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	350	350	300	250	250	250	1,400
Design	13						
Total	**363**	**350**	**300**	**250**	**250**	**250**	**1,400**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund	363	350	300	250	250	250	1,400
Total	**363**	**350**	**300**	**250**	**250**	**250**	**1,400**

Detail of Ongoing Non-Construction Projects

Permit Review and Inspection for Outside Agencies - Storm Sewer

CSA Environmental and Utility Services
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**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund	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.

	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**

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**

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	1,100	1,100	1,100	1,100	1,100		4,400
Design	1,018					1,100	1,100
Total	**2,118**	**1,100**	**1,100**	**1,100**	**1,100**	**1,100**	**5,500**
Funding Source Schedule (000s)							
Storm Sewer Capital Fund	2,118	1,100	1,100	1,100	1,100	1,100	5,500
Storm Drainage Fee Fund							
Total	**2,118**	**1,100**	**1,100**	**1,100**	**1,100**	**1,100**	**5,500**

Storm Sewer Capital Program

2018-2022 Proposed Capital Improvement Program

Summary of Projects with Close-Out Costs Only in 2017-2018

Project Name	Chynoweth Avenue Green Street	**Initial Start Date**	3rd Qtr. 2014
5-Yr CIP Budget	$ 112,000	**Initial End Date**	2nd Qtr. 2017
Total Budget	$ 2,749,181	**Revised Start Date**	
Council Districts	10	**Revised End Date**	2nd Qtr. 2018
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.		

Project Name	Park Avenue Green Street Pilot	**Initial Start Date**	2nd Qtr. 2013
5-Yr CIP Budget	$ 38,000	**Initial End Date**	2nd Qtr. 2014
Total Budget	$ 1,451,167	**Revised Start Date**	3rd Qtr. 2014
Council Districts	6	**Revised End Date**	2nd Qtr. 2018
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.		

Storm Sewer Capital Program

2018-2022 Proposed 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.