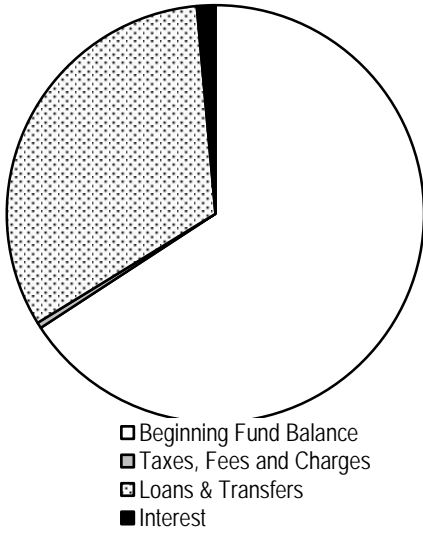


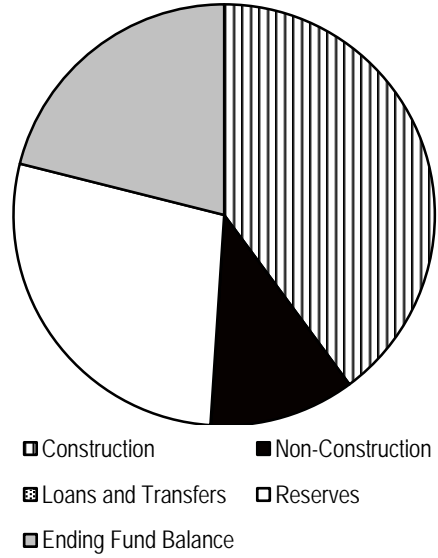
WATER UTILITY SYSTEM

2019-2023 Capital Improvement Program

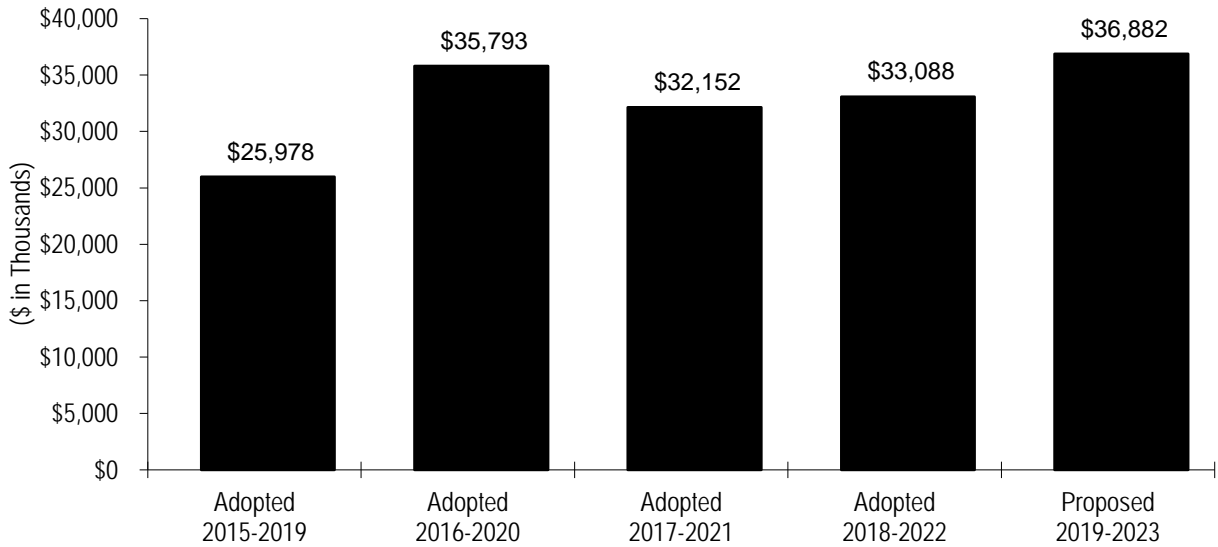
**2018-2019 Proposed
Source of Funds**



**2018-2019 Proposed
Use of Funds**



CIP History



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Water Utility System

2019-2023 Proposed Capital Improvement Program

North

- A) North San José Reliability Well #6 Construction
- B) North San José Well #5 Development and Construction



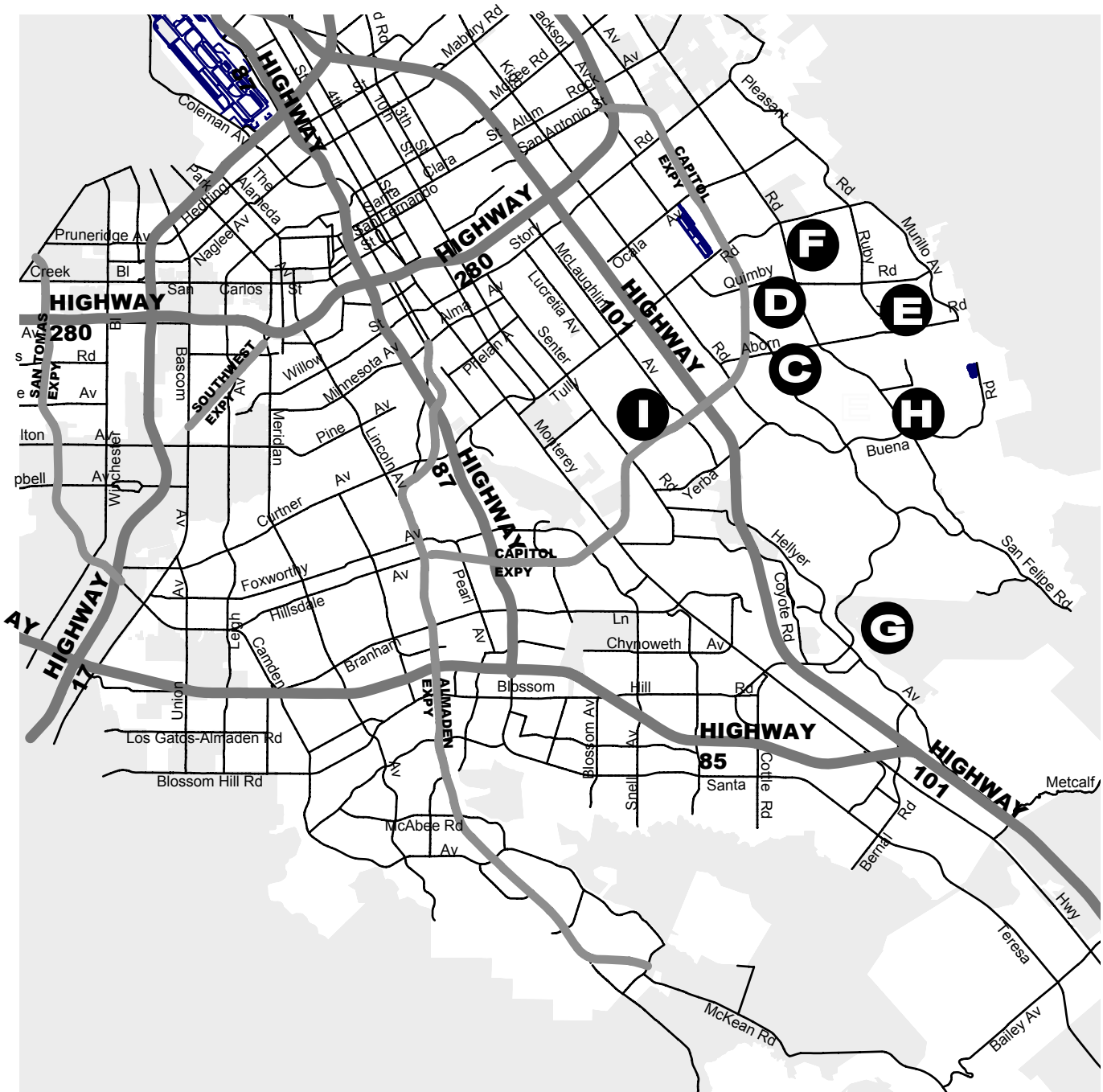
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Water Utility System

2019-2023 Proposed Capital Improvement Program

South

- C)** Facility Site Improvements
- D)** Annual Water Main Replacement
- E)** Fowler Pump Station Replacement
- F)** Gumdrop Dr. Main Replacement
- G)** Backup Generator Replacement
- H)** Safety and Security Improvements (Evergreen Service Area)
- I)** Tuers Rd. Site Improvements



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Water Utility System

2019-2023 Proposed Capital Improvement Program

Overview

INTRODUCTION

The Water Utility System Capital Program includes the Water Utility Capital Fund and the Major Facilities Fund. The Water Utility System Capital Program is developed to ensure reliable utility infrastructure for the San José Municipal Water System (Muni Water), which provides water utility service, in accordance with State of California State Water Resources Control Board requirements, to areas approved for development by the City Council and within the City’s water service area. The program’s mission is to provide superior water service at competitive rates. The 2019-2023 Proposed Capital Improvement Program (CIP) provides funding of \$36.9 million, of which \$16.6 million is allocated in 2018-2019.

MUNICIPAL WATER SYSTEM PUBLIC INFRASTRUCTURE	
MILES OF WATER MAINS	345
NUMBER OF RESERVOIRS	18
NUMBER OF PUMP STATIONS	15
NUMBER OF GROUNDWATER WELLS	14

Muni Water provides water service to approximately 24,000 customers in five service areas of the City of San José: Alviso, North San José, Coyote Valley, Edenvale, and Evergreen. The Alviso service area (Council District 4) includes the area within the corporate limits of the former City of Alviso. The North San José service area (Council District 4) is generally north of Trimble Road, between the Guadalupe River and Coyote Creek. The Coyote Valley service area (Council District 2) encompasses the area generally south of Tulare Hill, west of Highway 101, and north of Palm Avenue. The Edenvale service area (Council District 8) is south of Hellyer Avenue and east of Coyote Creek. The Evergreen service area generally coincides with the boundaries of Council District 8, east of Highway 101.

This program is part of the Environmental and Utility Services City Service Area (CSA) and supports the following outcomes: *Reliable Utility Infrastructure* and *Safe, Reliable, Sufficient Water Supply*.

PROGRAM PRIORITIES AND OBJECTIVES

Muni Water’s CIP’s guiding objective is to provide a safe, reliable water supply. Based on the CSA outcomes supported by this program, the following list of priorities has been developed:

- Maintain the existing water utility system infrastructure;
- Provide facilities necessary for new development as identified in the Envision San José 2040 General Plan; and
- Ensure that the fire flow pressure and volume as recommended by the San José Fire Department is maintained.

Water Utility System

2019-2023 Proposed Capital Improvement Program

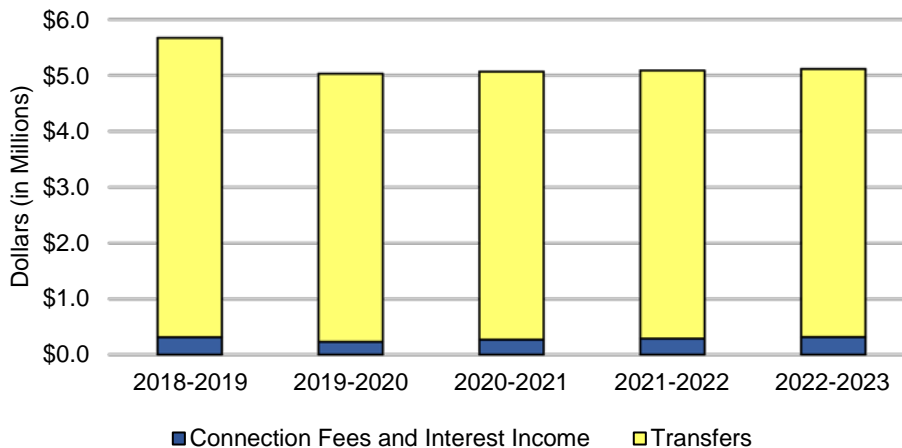
Overview

SOURCES OF FUNDING

Over the five years of this Proposed CIP, the funds available for capital improvements are estimated to total \$36.9 million, which consists of \$31.2 million in the Water Utility Capital Fund and \$5.6 million in the Major Facilities Fee Fund. Revenue for the Proposed CIP is derived from a combination of funding sources: transfers from the Water Utility Fund to the Water Utility Capital Fund, fee income, and interest income. The Water Utility Fund derives its revenue primarily from water sales in the service areas. The amount of the transfer from the Water Utility Fund is \$5.4 million in 2018-2019 and \$4.8 million in each of the remaining years of the CIP. Fee revenue in the Water Utility Capital Fund is generated from Service Connection Fees, Advanced System Design Fees, and Meter Installation Fees.

Revenue in the Major Facilities Fund is generated primarily through development fees associated with the connection and operation of major water facilities in the five service areas. Revenues received from Major Water Facilities Fees are not budgeted due to the volatility of this revenue stream. Revenue will be recognized, and programmed as necessary during the year, as it is received.

Summary of Revenues



PROGRAM HIGHLIGHTS

The Water Utility 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 by service area. For further information on the program's individual projects, please refer to the Detail Pages.

To meet the service needs of new developments in the Municipal Water System service area, the program continues its policy of requiring developers to construct distribution system improvements, such as pipelines, service connections, groundwater wells, and fire hydrants. Reservoirs, pump stations, and other large facilities are either constructed by developers or funded from the Major Facilities fees. Construction and reconstruction of projects for existing customers are funded from

Water Utility System

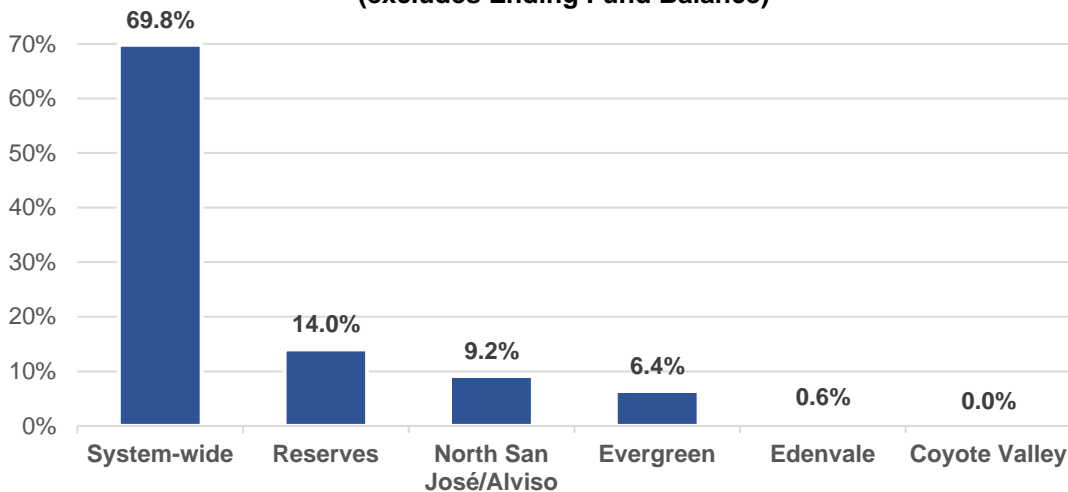
2019-2023 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

water sale revenues, which are displayed in the 2018-2019 Proposed Operating Budget in the Water Utility Fund.

2019-2023 Water Utility System Capital Program Expenditures \$33.0 million (excludes Ending Fund Balance)



System-Wide

The Safety and Security Improvements project (\$500,000) in the Proposed CIP will include the installation of safety and security equipment at various system facilities, in order to maintain reliable utility infrastructure, ensure water supplies remain secured, and provide a safe working environment for staff performing operations and maintenance. In an effort to maintain and upgrade the City's Muni Water distribution system, the 2019-2023 CIP includes funding for the Annual Water Main Replacement Project (\$8.4 million), which will prioritize water mains for replacement throughout the service areas of Muni Water System by rating pipe segments based on age, adequacy of size and flow, the number of leaks or failures that have occurred, and the difficulty to repair the pipe following an unexpected failure. The Tuers Road Site Improvements project (\$510,000) will fund the creation of conceptual plans providing options for new and/or renovated office facilities. In addition, the project funds current facility maintenance and organizational needs such as facility renovation, office reorganization, and roof maintenance.

The System Rehabilitation/Replacement Reserve totals \$3.9 million at the end of the 2019-2023 CIP, which is approximately seven percent of the projected potable water revenue for 2019-2023. In the event that economic or environmental conditions (e.g. drought, slowing economy, etc.) decrease revenues to the Water Utility System, use of the reserve may be required to maintain infrastructure.

Water Utility System

2019-2023 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

North San José and Alviso Service Areas

The North San José and Alviso service areas use water supplied by the Hetch-Hetchy system under the Water Supply Agreement (WSA) with the City of San Francisco. San José is a party to the agreement with 27 suburban agencies. The current agreement, which will expire June 30, 2034, was approved by the City Council in June 2009.



Cadwallader Tank Exterior

The North San José and Alviso service areas have experienced some growth in the last several years, and growth is assumed in this CIP. In order to meet future demand forecasts, the City continues to work with developers to construct new groundwater wells once viable locations are determined. Increased focus on rehabilitation and construction of groundwater wells will enable the San José Municipal Water System to minimize costs to customers, supply groundwater under emergency situations, and take advantage of Indirect Potable Reuse of purified water when available. The Proposed

CIP includes funding for the North San José Well #5 Development and Construction project (\$1.6 million) in 2018-2019 and funding for the North San José Reliability Well #6 Construction project (\$1.5 million) in the out years of the CIP.

Evergreen Service Area

The Evergreen service area contains approximately 92% of the total customers served by the water system and accounts for 72% of total water usage. Customers in the Evergreen area receive water supplied by the Santa Clara Valley Water District. The Evergreen service area has experienced minimal growth in the last several years. Included in the Proposed CIP is the Fowler Pump Station Replacement project (\$2.1 million), as well as other miscellaneous improvements to extend the useful life of the system.

Edenvale Service Area

Basic water facilities for domestic supply and fire protection for the Edenvale service area north of Silver Creek Valley Road include three wells and a reservoir. Groundwater from deep-water wells provides 100% of the supply in the Edenvale service area. The quality, supply, and management of this local groundwater basin are monitored by the Santa Clara Valley Water District. Projects scheduled in the 2019-2023 Proposed CIP in the Edenvale service area include minor improvements,

Water Utility System

2019-2023 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

such as vault site maintenance, asphalt restoration, pump station maintenance, other distribution system rehabilitation, and back-up generator replacement.

Coyote Valley Service Area

Groundwater from deep-water wells provides 100% of the supply in the Coyote Valley service area. City funding for developer-constructed water facilities in the primarily industrial North Coyote Valley service area was provided in accordance with the Master Development Agreement between the City and the coalition of North Coyote Valley developers. Once development occurs in this service area, developers will pay for the cost of expanding the water system into this area.

MAJOR CHANGES FROM THE 2018-2022 ADOPTED CIP

The overall size of the Water Utility System CIP has increased by approximately \$3.8 million from \$33.1 million in the 2018-2022 Adopted CIP to \$36.9 million in the 2019-2023 Proposed CIP. The following table outlines the most significant changes to project budgets, including new/augmented allocations.

Project	Incr/(Decr)
Annual Water Main Replacement	\$3,490,000
Fowler Pump Station Replacement	\$540,000
Tuers Road Site Improvements	\$510,000
Repayment of Commercial Paper	(\$627,000)

OPERATING BUDGET IMPACT

There are no additional maintenance and operating costs associated with the projects in the 2019-2023 Proposed CIP.

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2018-2019 CAPITAL BUDGET

**2019-2023 CAPITAL
IMPROVEMENT PROGRAM**



**WATER UTILITY
SYSTEM**

**SOURCE AND USE OF FUNDS
STATEMENTS**

Water Utility System
2019-2023 Proposed Capital Improvement Program
Source of Funds (Combined)

	Estimated						
	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	5-Year Total
Water Utility Capital Fund (500)							
Beginning Balance	4,446,878	5,764,069	1,414,069	1,604,069	1,436,069	1,727,069	5,764,069
Reserve for Encumbrance	3,232,471						
Transfers							
Transfer from the Water Utility Fund	4,450,000	5,360,000	4,800,000	4,800,000	4,800,000	4,800,000	24,560,000
TOTAL Transfers	4,450,000	5,360,000	4,800,000	4,800,000	4,800,000	4,800,000	24,560,000
Revenue from Use of Money and Property							
Interest Income	135,799	125,000	75,000	99,000	109,000	128,000	536,000
TOTAL Revenue from Use of Money and Property	135,799	125,000	75,000	99,000	109,000	128,000	536,000
Fees, Rates and Charges							
Advance System Design Fees	75,000	25,000	25,000	25,000	25,000	25,000	125,000
Meter Installation Fees	100,000	25,000	25,000	25,000	25,000	25,000	125,000
Service Connection Fees	25,000	25,000	25,000	25,000	25,000	25,000	125,000
TOTAL Fees, Rates and Charges	200,000	75,000	75,000	75,000	75,000	75,000	375,000
Total Water Utility Capital Fund (500)	12,465,148	11,324,069	6,364,069	6,578,069	6,420,069	6,730,069	31,235,069
Major Facilities Fund (502)							
Beginning Balance	5,239,399	5,144,362	2,081,362	2,146,362	2,225,362	2,314,362	5,144,362

Water Utility System
2019-2023 Proposed Capital Improvement Program
Source of Funds (Combined)

	Estimated						
	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	5-Year Total
Reserve for Encumbrance	41,800						
Revenue from Use of Money and Property							
Interest Income	68,963	112,000	80,000	94,000	104,000	112,000	502,000
TOTAL Revenue from Use of Money and Property	68,963	112,000	80,000	94,000	104,000	112,000	502,000
Total Major Facilities Fund (502)	5,350,162	5,256,362	2,161,362	2,240,362	2,329,362	2,426,362	5,646,362
TOTAL SOURCES	17,815,310	16,580,431	8,525,431	8,818,431	8,749,431	9,156,431	36,881,431

Water Utility System

2019-2023 Proposed Capital Improvement Program Use of Funds (Combined)

	Estimated 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	5-Year Total
<u>Water Utility System</u>							
Annual Water Main Replacement		1,300,000	1,600,000	1,300,000	1,800,000	2,400,000	8,400,000
Backup Generator Replacement		200,000					200,000
Cadwallader Reservoir Rehabilitation	193,993						
Edenvale Reservoir Rehabilitation	230,706						
Facility Sites Improvement	20,000	300,000					300,000
Fowler Pump Station Replacement	60,000	2,100,000					2,100,000
Gumdrop Drive Main Replacement	700,000						
Infrastructure Improvements	1,147,331	800,000	810,000	820,000	830,000	840,000	4,100,000
Meter Installations	125,856	50,000	50,000	50,000	50,000	50,000	250,000
North San José Reliability Well #6 Construction			360,000	950,000	150,000		1,460,000
North San José Water Well Evaluation and Rehabilitation	878,907						
North San José Well #5 Development and Construction		1,560,000					1,560,000
Safety and Security Improvements	375,874	100,000	100,000	100,000	100,000	100,000	500,000
Service Installations	391,712	200,000	200,000	200,000	200,000	200,000	1,000,000
Other Water - Construction	4,124,379	6,610,000	3,120,000	3,420,000	3,130,000	3,590,000	19,870,000
Water - Construction	4,124,379	6,610,000	3,120,000	3,420,000	3,130,000	3,590,000	19,870,000
Advance System Design	200,000	200,000	200,000	200,000	200,000	200,000	1,000,000
Major Facilities Fee Administration	15,000	15,000	15,000	15,000	15,000	15,000	75,000
Major Water Facility Fee Update	66,800						
Master Plan Engineering	151,212	155,000	160,000	165,000	170,000	175,000	825,000
Network System Flow Improvements	6,000	6,000	6,000	6,000	6,000	6,000	30,000
Preliminary Engineering - Water	135,000	140,000	145,000	150,000	155,000	160,000	750,000

Water Utility System


2019-2023 Proposed Capital Improvement Program Use of Funds (Combined)

	Estimated						
	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	5-Year Total
GIS Support	181,600	65,000	65,000	65,000	65,000	65,000	325,000
Repayment of Commercial Paper	627,000						
Reservoir Seismic Evaluation	200,000						
System Maintenance/Repairs	989,888	740,000	740,000	760,000	760,000	780,000	3,780,000
Tuers Road Site Improvements		510,000					510,000
Water Management System Enhancements	67,000						
General Non-Construction - Water	2,639,500	1,831,000	1,331,000	1,361,000	1,371,000	1,401,000	7,295,000
Water - Non Construction	2,639,500	1,831,000	1,331,000	1,361,000	1,371,000	1,401,000	7,295,000
Public Art Funding	124,000	7,000	16,000	4,000			27,000
Public Art Projects	124,000	7,000	16,000	4,000			27,000
Capital Program and Public Works Department Support Service Costs	8,000	7,000	6,000	6,000	6,000	16,000	41,000
Allocations	8,000	7,000	6,000	6,000	6,000	16,000	41,000
City Hall Debt Service Fund	11,000	8,000	8,000	8,000	8,000	20,000	52,000
Transfers to Special Funds	11,000	8,000	8,000	8,000	8,000	20,000	52,000
Transfers Expense	11,000	8,000	8,000	8,000	8,000	20,000	52,000
North Coyote Valley Water System Reserve		168,000					168,000
System Growth Related Projects Reserve		1,600,000					1,600,000
System Rehabilitation/Replacement Reserve		2,854,000	294,000	358,000	193,000	202,000	3,901,000
Expense Reserves - Non Construction		4,622,000	294,000	358,000	193,000	202,000	5,669,000
Total Expenditures	6,906,879	13,085,000	4,775,000	5,157,000	4,708,000	5,229,000	32,954,000
Ending Fund Balance	10,908,431	3,495,431	3,750,431	3,661,431	4,041,431	3,927,431	3,927,431
TOTAL	17,815,310	16,580,431	8,525,431	8,818,431	8,749,431	9,156,431	36,881,431



2018-2019 CAPITAL BUDGET

**2019-2023 CAPITAL
IMPROVEMENT PROGRAM**



**WATER UTILITY
SYSTEM**

DETAIL OF PROJECTS

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of One-Time Construction Projects

Backup Generator Replacement

CSA	Environmental and Utility Services	Initial Start Date	3rd Qtr. 2017
CSA Outcome	Safe, Reliable, and Sufficient Water Supply; Reliable Utility System	Initial End Date	1st Qtr. 2019
Department	Environmental Services	Revised Start Date	3rd Qtr. 2018
Location	102 Silver Creek Valley Road	Revised End Date	2nd Qtr. 2019
Council Districts	2	Initial Project Budget	\$180,000
Appropriation	A401M	FY Initiated	2017-2018

Description The existing backup generator at Edenvale Wells installed in 1984 is outdated and has reached the end of its useful life. The replacement of an existing 415 kiloWatt diesel standby generator is required for meeting the current air quality permitting requirements.

Justification This project will ensure the efficient operation of the water system and maintain reliable utility infrastructure.

Notes

Major Cost Changes 2019-2023 CIP - Increase of \$20,000 due to required permits.

	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design			30					30		30
Construction			170					170		170
Total			200					200		200

Funding Source Schedule (000s)										
Water Utility Capital Fund (500)			200					200		200
Total			200					200		200

Annual Operating Budget Impact (000s)										
Total										

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of One-Time Construction Projects

Facility Sites Improvement

CSA	Environmental and Utility Services	Initial Start Date	3rd Qtr. 2017
CSA Outcome	Safe and Reliable Utility System	Initial End Date	2nd Qtr. 2019
Department	Environmental Services	Revised Start Date	
Location	Various Facility Sites	Revised End Date	
Council Districts	City-wide	Initial Project Budget	\$320,000
Appropriation	A402K	FY Initiated	2017-2018

Description This project will repair and replace the deteriorated access road and storm water drainage systems at various facility sites, such as the Cadwallader Reservoir site and Maintenance Yard.

Justification This project will ensure the efficient operation of the water system and maintain reliable utility infrastructure.

Notes

Major Cost Changes

	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design		20								20
Construction			300					300		300
Total		20	300					300		320

Funding Source Schedule (000s)										
Water Utility Capital Fund (500)		20	300					300		320
Total		20	300					300		320

Annual Operating Budget Impact (000s)										
Total										

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of One-Time Construction Projects

Fowler Pump Station Replacement

CSA	Environmental and Utility Services	Initial Start Date	3rd Qtr. 2017
CSA Outcome	Safe, Reliable, and Sufficient Water Supply; Reliable Utility Infrastructure	Initial End Date	2nd Qtr. 2019
Department	Environmental Services	Revised Start Date	
Location	Fowler Road	Revised End Date	
Council Districts	8	Initial Project Budget	\$1,560,000
Appropriation	A402N	FY Initiated	2017-2018

Description This project consists of the replacement and upgrade of the Fowler Pump Station, which will have reached the end of its useful life.

Justification To ensure the efficient operation of the water system and to maintain reliable utility infrastructure, pump stations must be replaced at the end of their useful life. In addition, the redesign of the pump station will increase the operating efficiency and improve system operations.

Notes

Major Cost Changes 2019-2023 CIP - Increase of \$600,000 due to an updated construction cost estimate.

	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design		60								60
Construction			2,100					2,100		2,100
Total		60	2,100					2,100		2,160

Funding Source Schedule (000s)										
	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Water Utility Capital Fund (500)		60	2,100					2,100		2,160
Total		60	2,100					2,100		2,160

Annual Operating Budget Impact (000s)										
	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Total										

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of One-Time Construction Projects

North San José Well #5 Development and Construction

CSA	Environmental and Utility Services	Initial Start Date	2nd Qtr. 2016
CSA Outcome	Safe, Reliable, and Sufficient Water Supply	Initial End Date	2nd Qtr. 2017
Department	Environmental Services	Revised Start Date	3rd Qtr. 2018
Location	North San José service area	Revised End Date	4th Qtr. 2019
Council Districts	4	Initial Project Budget	\$1,560,000
Appropriation	A6274	FY Initiated	2015-2016

Description This allocation provides funding for the development and construction of a groundwater production well in the North San José service area. The potential locations for this well have been identified from a preliminary hydrogeologic study and environmental data review. The next phase of this project is to determine the potential yield and water quality, followed by a well design concept, bid, and construction. This is anticipated to be completed by December 2019.

Justification Construction and development of a new well will be needed to supply groundwater to allow for operational flexibility by supplementing the existing treated water supplies, and to ensure a reliable potable water supply in order to meet increasing demands as growth and development continue in the North San José and Alviso service areas.

Notes

Major Cost Changes

	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design	0									0
Bid & Award			60					60		60
Construction			1,500					1,500		1,500
Total	0		1,560					1,560		1,560

Funding Source Schedule (000s)										
Major Facilities Fund (502)	0		1,560					1,560		1,560
Total	0		1,560					1,560		1,560

Annual Operating Budget Impact (000s)										
Total										

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of One-Time Construction Projects

Tuers Road Site Improvements

CSA	Environmental and Utility Services	Initial Start Date	3rd. Qtr. 2018
CSA Outcome	Reliable Utility Infrastructure; Safe, Reliable, and Sufficient Water Supply	Initial End Date	2nd. Qtr. 2019
Department	Environmental Services	Revised Start Date	
Location	3025 Tuers Road (San Jose Municipal Water Building)	Revised End Date	
Council Districts	7	Initial Project Budget	\$510,000
Appropriation	TEMP_307	FY Initiated	FY 18-19

Description This allocation provides funding to improve site conditions at 3025 Tuers Road, including but not limited to the creation of conceptual plans for new and/or renovated office facilities. In addition, the project funds facility maintenance and organizational needs such as facility renovation, office reorganization, and roof maintenance.

Justification This funding is needed to improve site conditions at San Jose Municipal Water. This proposal will involve collaboration with the Public Works Department and their consultant, IBI Group Architecture Planning, to develop a conceptual interim plan for both the O&M Building B and Buildings C & D located at 3025 Tuers Road. In addition, staff will develop possible options for new and renovated office facilities estimated to be \$260,000 in design costs. The proposal will also fund aesthetic improvements, including exterior painting, replace worn carpet, and cubicle configuration. The cost for this work is estimated to be \$250,000.

Notes

Major Cost Changes

	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design			260					260		260
Construction			250					250		250
Total			510					510		510

Funding Source Schedule (000s)										
Water Utility Capital Fund (500)			510					510		510
Total			510					510		510

Annual Operating Budget Impact (000s)										
Total										

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of Ongoing Construction Projects

Annual Water Main Replacement

CSA	Environmental and Utility Services	Initial Start Date	Ongoing
CSA Outcome	Safe, Reliable, and Sufficient Water Supply; Reliable Water System	Initial End Date	Ongoing
Department	Environmental Services	Revised Start Date	
Location	System-wide	Revised End Date	
Council Districts	City-wide	Initial Project Budget	
Appropriation	TEMP_130		

Description This project is part of a continuing program to maintain and upgrade the City's Municipal Water distribution system. Most water pipes have a design life of roughly 50 years, depending upon when it was manufactured and the soil conditions where it is installed. The program has prioritized water mains for replacement throughout the service areas of Muni Water System by rating pipe segments based on age, adequacy of size and flow, the number of leaks or failures that have occurred, and the difficulty to repair the pipe if it failed considering location and traffic conditions.

Justification To ensure the efficient operation of the water system and to maintain reliable utility infrastructure.

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

Major Cost Changes

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design		50	60	80	80		270
Construction		1,250	1,540	1,220	1,720	2,400	8,130
Total		1,300	1,600	1,300	1,800	2,400	8,400

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)		1,300	1,600	1,300	1,800	2,400	8,400
Total		1,300	1,600	1,300	1,800	2,400	8,400

Annual Operating Budget Impact (000s)							
Total							

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of Ongoing Construction Projects

Infrastructure Improvements

CSA	Environmental and Utility Services	Initial Start Date	Ongoing
CSA Outcome	Reliable Utility Infrastructure	Initial End Date	Ongoing
Department	Environmental Services	Revised Start Date	
Location	System-wide	Revised End Date	
Council Districts	2, 4, 7, 8	Initial Project Budget	
Appropriation	A5366		

Description This allocation provides funding to replace and/or refurbish pumps, motors, valves, electrical control mechanisms, generators, and water mains that are nearing the end of their useful lives. The selection and scope of the projects selected in any particular year will be based on the previous year's maintenance needs.

Justification Mechanical and electrical equipment requires replacement at the end of its service life to ensure ongoing operation.

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

Major Cost Changes

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	0						
Construction	1,147	800	810	820	830	840	4,100
Total	1,147	800	810	820	830	840	4,100

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	1,147	800	810	820	830	840	4,100
Total	1,147	800	810	820	830	840	4,100

Annual Operating Budget Impact (000s)							
Total							

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of Ongoing Construction Projects

Meter Installations

CSA	Environmental and Utility Services	Initial Start Date	Ongoing
CSA Outcome	Reliable Utility Infrastructure	Initial End Date	Ongoing
Department	Environmental Services	Revised Start Date	
Location	System-wide	Revised End Date	
Council Districts	2, 4, 7, 8	Initial Project Budget	
Appropriation	A4347		

Description This allocation provides funding to purchase, test, and install water meters for new developments and customers, the cost of which is offset by the meter installation fees paid by developers and property owners.

Justification New meters are needed to provide water to new utility customers.

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

Major Cost Changes

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Construction	126	50	50	50	50	50	250
Public Art	0						
Total	126	50	50	50	50	50	250

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	126	50	50	50	50	50	250
Total	126	50	50	50	50	50	250

Annual Operating Budget Impact (000s)							
Total							

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of Ongoing Construction Projects

Safety and Security Improvements

CSA	Environmental and Utility Services	Initial Start Date	Ongoing
CSA Outcome	Reliable Utility Infrastructure	Initial End Date	Ongoing
Department	Environmental Services	Revised Start Date	
Location	System-wide	Revised End Date	
Council Districts	2, 4, 7, 8	Initial Project Budget	
Appropriation	A4095		

Description This project includes the repair and installation of additional safety and security improvements at various system facilities. Examples of improvements include new and repaired fencing at reservoirs, construction of concrete block walls around wells, and the installation of safety railing at various sites.

Justification This project will maintain reliable utility infrastructure, ensure water supplies remain secured, and provide a safe working environment for staff performing operations and maintenance.

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

Major Cost Changes

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Construction	376	100	100	100	100	100	500
Total	376	100	100	100	100	100	500

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	376	100	100	100	100	100	500
Total	376	100	100	100	100	100	500

Annual Operating Budget Impact (000s)							
Total							

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of Ongoing Construction Projects

Service Installations

CSA	Environmental and Utility Services	Initial Start Date	Ongoing
CSA Outcome	Reliable Utility Infrastructure	Initial End Date	Ongoing
Department	Environmental Services	Revised Start Date	
Location	System-wide	Revised End Date	
Council Districts	2, 4, 7, 8	Initial Project Budget	
Appropriation	A4348		

Description This allocation provides funding for the installation of connections between water mains and meters and the extension of existing water mains. A portion of this work related to new development is paid for by developer fees. The remainder of the work, which is not tied to developer fees, entails connections to water, service laterals, sampling stations, meter boxes, air release valves, and main extensions in existing service areas to increase the operability of the system.

Justification As development proceeds in the City, connections between water mains and meters are required to service new customers. Additional minor connections and appurtenances are periodically needed to reliably operate the system and ensure a safe drinking water supply.

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

Major Cost Changes

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Construction	392	200	200	200	200	200	1,000
Public Art	0						
Total	392	200	200	200	200	200	1,000

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	392	200	200	200	200	200	1,000
Total	392	200	200	200	200	200	1,000

Annual Operating Budget Impact (000s)							
Total							

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of One-Time Non-Construction Projects

Water Utility Non-Construction One-Time

CSA Environmental and Utility Services
CSA Outcome Reliable Utility System; Reliable Utility Infrastructure; Safe, Reliable, and Sufficient Water Supply
Department Environmental Services
Council Districts 7
Appropriation Water Utility Non-Construction One-Time

Description This allocation provides funding to improve site conditions at 3025 Tuers Road, including but not limited to the creation of conceptual plans for new and/or renovated office facilities. In addition, the project funds facility maintenance and organizational needs such as facility renovation, office reorganization, and roof maintenance.

Notes

	PRIOR YEARS	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design			260					260		260
Construction			250					250		250
Total			510					510		510

Funding Source Schedule (000s)										
Water Utility Capital Fund (500)			510					510		510
Total			510					510		510

Water Capital Program
 2019-2023 Proposed Capital Improvement Program
Detail of Ongoing Non-Construction Projects

Advance System Design

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 2, 4, 7, 8
Appropriation A4346

Description This allocation funds the design, engineering, and inspection for the connection of new developments to the Water Utility System. Project costs are offset by developer fees.

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

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	200	200	200	200	200	200	1,000
Total	200	200	200	200	200	200	1,000

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	200	200	200	200	200	200	1,000
Total	200	200	200	200	200	200	1,000

Water Capital Program
 2019-2023 Proposed Capital Improvement Program
Detail of Ongoing Non-Construction Projects

GIS Support

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts City-wide
Appropriation A7365

Description This allocation funds Geographic Information System (GIS) related updates, improvements, support services, and other associated needs.

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

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	182	65	65	65	65	65	325
Total	182	65	65	65	65	65	325

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	182	65	65	65	65	65	325
Total	182	65	65	65	65	65	325

Water Capital Program
 2019-2023 Proposed Capital Improvement Program
Detail of Ongoing Non-Construction Projects

Major Facilities Fee Administration

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 2, 4, 7, 8
Appropriation A5369

Description This allocation provides funding to administer the Major Facilities Fees. The Major Facilities Fund receives fees associated with the connection and operation of major water facilities constructed in the North San José, Evergreen, Alviso, Edenvale, and Coyote Valley areas.

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

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
General Administration	15	15	15	15	15	15	75
Total	15	15	15	15	15	15	75

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Funding Source Schedule (000s)							
Major Facilities Fund (502)	15	15	15	15	15	15	75
Total	15	15	15	15	15	15	75

Water Capital Program
 2019-2023 Proposed Capital Improvement Program
Detail of Ongoing Non-Construction Projects

Master Plan Engineering

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 2, 4, 7, 8
Appropriation A4349

Description This allocation is used to update the Water System Master Plan based on anticipated development and customer consumption.

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

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Project Feasibility Development	150	155	160	165	170	175	825
Design	1						
Total	151	155	160	165	170	175	825

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	151	155	160	165	170	175	825
Total	151	155	160	165	170	175	825

Water Capital Program

2019-2023 Proposed Capital Improvement Program

Detail of Ongoing Non-Construction Projects

Network System Flow Improvements

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 2, 4, 7, 8
Appropriation A4350

Description This allocation is used to perform computer analysis of the water distribution system, including modeling of the system's reservoirs, pump stations, and distribution facilities, in order to prioritize replacement of existing facilities and development of new facilities.

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

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	6	6	6	6	6	6	30
Total	6	6	6	6	6	6	30

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	6	6	6	6	6	6	30
Total	6	6	6	6	6	6	30

Water Capital Program
 2019-2023 Proposed Capital Improvement Program
Detail of Ongoing Non-Construction Projects

Preliminary Engineering - Water

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 2, 4, 7, 8
Appropriation A4952

Description This allocation provides funding for project development in the early stages of planning.

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

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	135	140	145	150	155	160	750
Total	135	140	145	150	155	160	750

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	135	140	145	150	155	160	750
Total	135	140	145	150	155	160	750

Water Capital Program
 2019-2023 Proposed Capital Improvement Program
Detail of Ongoing Non-Construction Projects

System Maintenance/Repairs

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts 2, 4, 7, 8
Appropriation A5876

Description This allocation funds emergency and miscellaneous repairs in the distribution system.

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

	FY18 EST	FY19	FY20	FY21	FY22	FY23	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	224						
Construction	26						
Equipment, Materials and Supplies	740	740	740	760	760	780	3,780
Total	990	740	740	760	760	780	3,780

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	990	740	740	760	760	780	3,780
Total	990	740	740	760	760	780	3,780



2018-2019 CAPITAL BUDGET

**2019-2023 CAPITAL
IMPROVEMENT PROGRAM**

**WATER UTILITY
SYSTEM**

**SUMMARY OF PROJECTS THAT
START AFTER 2018-2019**

SUMMARY OF RESERVES

Water Capital Program
2019-2023 Proposed Capital Improvement Program

Summary of Projects that Start After 2018-2019

Project Name	North San José Reliability Well #6 Construction	Initial Start Date	3rd Qtr. 2018
5-Yr CIP Budget	\$ 1,460,000	Initial End Date	2nd Qtr. 2021
Total Budget	\$ 1,460,000	Revised Start Date	3rd Qtr. 2019
Council Districts	4	Revised End Date	2nd Qtr. 2022
Description	This project constructs a groundwater well in the North San José service area to provide water supply reliability to existing customers.		

Water Capital Program
 2019-2023 Proposed Capital Improvement Program

Summary of Reserves

Project Name	North Coyote Valley Water System Reserve	Initial Start Date	N/A
5-Yr CIP Budget	\$ 168,000	Initial End Date	N/A
Total Budget	\$ 168,000	Revised Start Date	
Council Districts	2	Revised End Date	
Description	This reserve sets aside funds in the Water Utility Capital Fund for outstanding North Coyote Valley Water System project close-out activities, to be completed by the contractor relating to final project documentation. There are outstanding project close-out issues that continue to remain unresolved. The Department periodically attempts to coordinate with the land owner and their attorney to obtain the last necessary project documentation.		

Project Name	System Growth Related Projects Reserve	Initial Start Date	N/A
5-Yr CIP Budget	\$ 1,600,000	Initial End Date	N/A
Total Budget	\$ 1,600,000	Revised Start Date	
Council Districts	2	Revised End Date	
Description	This reserve sets aside funds in the Major Facilities Fund for acquisition of property and the construction of facilities to accommodate future system growth and development.		

Project Name	System Rehabilitation/Replacement Reserve	Initial Start Date	N/A
5-Yr CIP Budget	\$ 3,901,000	Initial End Date	N/A
Total Budget	\$ 3,901,000	Revised Start Date	
Council Districts	2	Revised End Date	
Description	This reserve sets aside funds in the Water Utility Capital Fund for rehabilitation and/or replacement of existing facilities. Ordinance No. 26903, which was approved by the City Council on May 27, 2003, requires that this reserve total 7% of annual operating revenues. This reserve is estimated to total \$3.9 million by the end of the 2019-2023 CIP based on current operating revenue projections through 2022-2023.		
