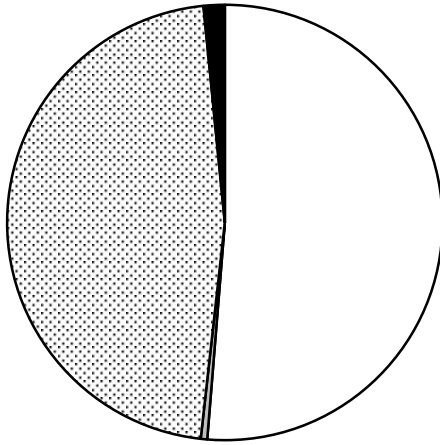


WATER UTILITY SYSTEM

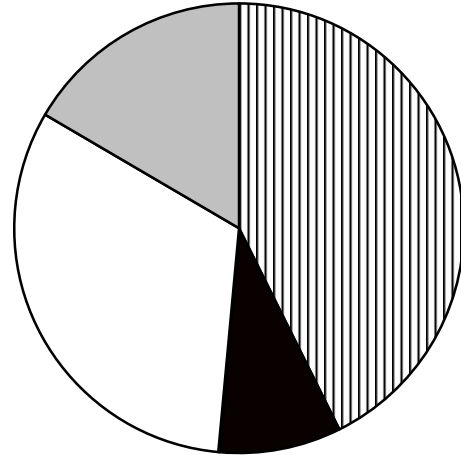
2021-2025 Capital Improvement Program

**2020-2021 Proposed
Source of Funds**



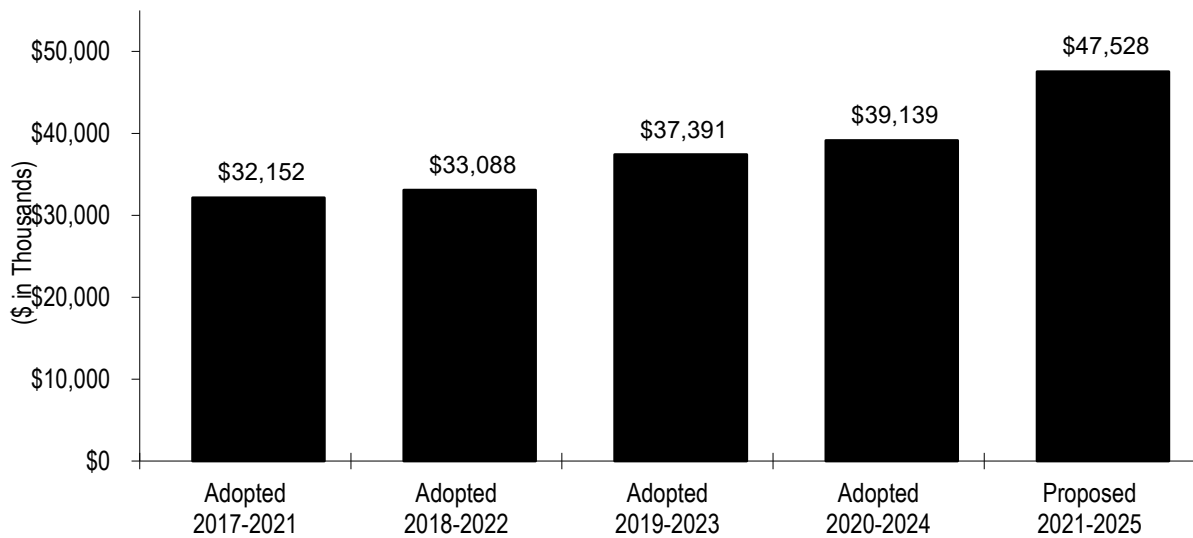
- Beginning Fund Balance
- Taxes, Fees and Charges
- ▨ Transfers
- Interest

**2020-2021 Proposed
Use of Funds**



- Construction
- Non-Construction
- ▨ Allocations and Transfers
- Reserves
- Ending Fund Balance

CIP History



Water Utility System

2021-2025 Proposed Capital Improvement Program

Overview

INTRODUCTION

The Water Utility System Capital Program includes the Water Utility Capital Fund and the Major Facilities Fund. The program’s mission is to provide superior water service at competitive rates. The 2021-2025 Proposed Capital Improvement Program (CIP) provides funding of \$47.5 million, of which \$15.6 million is allocated in 2020-2021.

MUNICIPAL WATER SYSTEM PUBLIC INFRASTRUCTURE	
MILES OF WATER MAINS	344
NUMBER OF RESERVOIRS	17
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 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

2021-2025 Proposed Capital Improvement Program

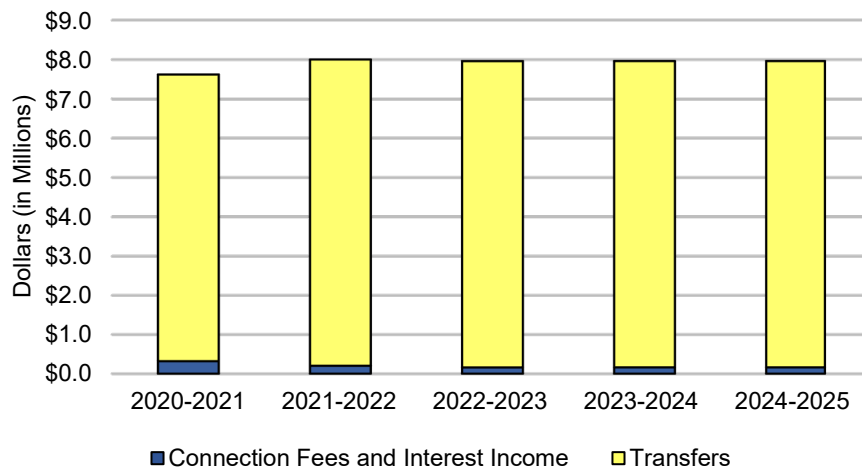
Overview

SOURCES OF FUNDING

Over the five years of this Proposed CIP, the funds available for capital improvements are estimated to total \$47.5 million, which consists of \$43.0 million in the Water Utility Capital Fund and \$4.6 million in the Major Facilities 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 \$7.3 million in the first year and \$7.8 million in each subsequent year 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



Water Utility System

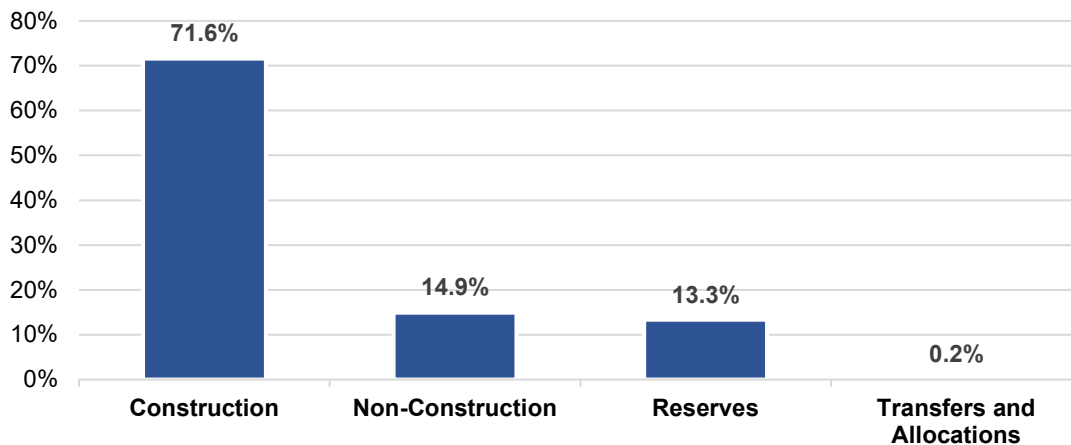
2021-2025 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

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 infrastructure improvements that are either constructed by developers or funded from the Major Facilities fees. Capital Improvements for existing customers are funded from water sale revenues, which are displayed in the 2020-2021 Proposed Operating Budget in the Water Utility Fund.

2021-2025 Water Utility System Capital Program Expenditures \$46.9 million (excludes Ending Fund Balance)



System-Wide

The Safety and Security Improvements project (\$500,000) in the Proposed CIP includes 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 2021-2025 CIP includes funding for the Annual Water Main Replacement Project (\$9.1 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 2021-2025 CIP also includes funding for Infrastructure Improvements (\$4.2 million) and System Maintenance and Repairs (\$3.9 million).

Water Utility System

2021-2025 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

The System Rehabilitation/Replacement Reserve totals \$4.7 million at the end of the 2021-2025 CIP. In the event that economic or environmental conditions (for example, drought, slowing economy) decrease revenues to the Water Utility System, use of the reserve may be required to maintain infrastructure.

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 and County 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.

The North San José and Alviso service areas have experienced some growth in the last several years, and continued 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 Reliability Well Construction project (\$1.1 million).

Evergreen Service Area

The Evergreen service area contains approximately 92% of the total customers served by the water system and accounts for 67% 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 2021-2025 Proposed CIP is the completion of the Fowler Pump Station Replacement project, the design and construction of a groundwater well, 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 2021-2025 Proposed CIP in the Edenvale service area include minor improvements, such as vault site maintenance, asphalt restoration, pump station maintenance, and other distribution system rehabilitation.

Water Utility System

2021-2025 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

Coyote Valley Service Area

Groundwater from deep-water wells provides 100% of the supply in the Coyote Valley service area. The area is largely undeveloped and primarily consists of designated open space.

MAJOR CHANGES FROM THE 2020-2024 ADOPTED CIP

The overall size of the Water Utility System CIP has increased by approximately \$8.4 million from \$39.1 million in the 2020-2024 Adopted CIP to \$47.5 million in the 2021-2025 Proposed CIP. The following table outlines the most significant changes to the CIP.

Project	Incr/(Decr)
Fowler Pump Station Replacement	(\$2.6 million)
Annual Water Main Replacement	(\$1.5 million)
North San José Well Development and Construction	(\$940,000)
North San José Reliability Well Construction	(\$360,000)
Tuers Road Site Improvements	(\$170,000)
Evergreen Reliability Well	\$1.6 million
North San José Well Development and Construction	\$2.5 million
Water Resources Administration and Operations Facility	\$14.5 million

OPERATING BUDGET IMPACT

There are no additional maintenance and operating costs associated with the projects in the 2021-2025 Proposed CIP.

Water Utility System
2021-2025 Proposed Capital Improvement Program
Source of Funds (Combined)

	Estimated						
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
Water Utility Capital Fund (500)							
Beginning Balance	9,036,748	3,715,483	287,483	307,483	169,483	268,483	3,715,483 *
Reserve for Encumbrance	968,164						
Transfers							
Transfer from the Water Utility Fund	4,800,000	7,300,000	7,800,000	7,800,000	7,800,000	7,800,000	38,500,000
TOTAL Transfers	4,800,000	7,300,000	7,800,000	7,800,000	7,800,000	7,800,000	38,500,000
Revenue from Use of Money and Property							
Interest Income	296,005	133,000	65,000	58,000	59,000	61,000	376,000
TOTAL Revenue from Use of Money and Property	296,005	133,000	65,000	58,000	59,000	61,000	376,000
Fees, Rates and Charges							
Advance System Design Fees	60,000	25,000	25,000	25,000	25,000	25,000	125,000
Meter Installation Fees	75,000	25,000	25,000	25,000	25,000	25,000	125,000
Service Connection Fees	105,000	25,000	25,000	25,000	25,000	25,000	125,000
TOTAL Fees, Rates and Charges	240,000	75,000	75,000	75,000	75,000	75,000	375,000
Total Water Utility Capital Fund (500)	15,340,917	11,223,483	8,227,483	8,240,483	8,103,483	8,204,483	42,966,483 *

* The 2021-2022 through 2024-2025 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Water Utility System
2021-2025 Proposed Capital Improvement Program
Source of Funds (Combined)

	Estimated						
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
Major Facilities Fund (502)							
Beginning Balance	5,728,037	4,307,992	2,303,992	350,992	361,992	372,992	4,307,992 *
Reserve for Encumbrance	153,050						
Revenue from Use of Money and Property							
Interest Income	125,905	112,000	63,000	27,000	27,000	25,000	254,000
TOTAL Revenue from Use of Money and Property	125,905	112,000	63,000	27,000	27,000	25,000	254,000
Total Major Facilities Fund (502)	6,006,992	4,419,992	2,366,992	377,992	388,992	397,992	4,561,992 *
TOTAL SOURCES	21,347,909	15,643,475	10,594,475	8,618,475	8,492,475	8,602,475	47,528,475 *

* The 2021-2022 through 2024-2025 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Water Utility System

2021-2025 Proposed Capital Improvement Program Use of Funds (Combined)

	Estimated 2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
<u>Water Utility System</u>							
Annual Water Main Replacement	3,200,000	1,300,000	1,800,000	2,400,000	1,900,000	1,700,000	9,100,000
Backup Generator Replacement	200,000						
Evergreen Reliability Well						200,000	200,000
Facility Sites Improvement	280,000						
Fowler Pump Station Replacement	3,415,411	250,000					250,000
Infrastructure Improvements	996,571	820,000	830,000	840,000	850,000	860,000	4,200,000
Meter Installations	143,856	50,000	50,000	50,000	50,000	50,000	250,000
North San José Reliability Well Construction	360,000	950,000	150,000				1,100,000
North San José Water Well Evaluation and Rehabilitation	415,421						
North San José Well Development and Construction	1,560,000	500,000	2,000,000				2,500,000
Safety and Security Improvements	411,518	100,000	100,000	100,000	100,000	100,000	500,000
Service Installations	387,518	200,000	200,000	200,000	200,000	200,000	1,000,000
Tuers Road Site Improvements	204,293						
Water Resources Administration & Operations Facility		2,500,000	3,000,000	3,000,000	3,000,000	3,000,000	14,500,000
Other Water - Construction	11,574,587	6,670,000	8,130,000	6,590,000	6,100,000	6,110,000	33,600,000
Water - Construction	11,574,587	6,670,000	8,130,000	6,590,000	6,100,000	6,110,000	33,600,000
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
Master Plan Engineering	166,714	175,000	180,000	185,000	190,000	200,000	930,000
Network System Flow Improvements	6,000						
Preliminary Engineering - Water	145,000	150,000	155,000	160,000	165,000	170,000	800,000
GIS Support	75,680	65,000	65,000	65,000	65,000	65,000	325,000

Water Utility System

2021-2025 Proposed Capital Improvement Program Use of Funds (Combined)

	Estimated						
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
System Maintenance/Repairs	977,453	760,000	760,000	780,000	780,000	800,000	3,880,000
General Non-Construction - Water	1,585,847	1,365,000	1,375,000	1,405,000	1,415,000	1,450,000	7,010,000
Water - Non Construction	1,585,847	1,365,000	1,375,000	1,405,000	1,415,000	1,450,000	7,010,000
Public Art Funding	136,000	2,000	2,000	2,000	2,000	2,000	10,000
Public Art Projects	136,000	2,000	2,000	2,000	2,000	2,000	10,000
Capital Program and Public Works Department Support Service Costs	22,000	9,000	8,000	9,000	8,000	8,000	42,000
Allocations	22,000	9,000	8,000	9,000	8,000	8,000	42,000
City Hall Debt Service Fund	6,000	6,000	6,000	6,000	6,000	6,000	30,000
Transfers to Special Funds	6,000	6,000	6,000	6,000	6,000	6,000	30,000
Transfers Expense	6,000	6,000	6,000	6,000	6,000	6,000	30,000
System Growth Related Projects Reserve		1,600,000					1,600,000
System Rehabilitation/Replacement Reserve		3,400,000	415,000	75,000	320,000	440,000	4,650,000
Expense Reserves - Non Construction		5,000,000	415,000	75,000	320,000	440,000	6,250,000
Total Expenditures	13,324,434	13,052,000	9,936,000	8,087,000	7,851,000	8,016,000	46,942,000
Ending Fund Balance	8,023,475	2,591,475	658,475	531,475	641,475	586,475	586,475 *
TOTAL	21,347,909	15,643,475	10,594,475	8,618,475	8,492,475	8,602,475	47,528,475 *

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

Water Capital Program

2021-2025 Proposed Capital Improvement Program

Detail of One-Time Construction Projects

North San José Well 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. 2019
Location	North San José Service Area	Revised End Date	2nd Qtr. 2022
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 groundwater production well(s) in the North San José service area. The potential locations have been identified from a preliminary hydrogeologic study and environmental data review.

Justification Construction and development of new wells will be needed 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 2021-2025 CIP - increase of \$2.5 million due to increased scope and project cost estimates.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design		60	300					300		360
Construction		1,500	200	2,000				2,200		3,700
Total		1,560	500	2,000				2,500		4,060

Funding Source Schedule (000s)										
Major Facilities Fund (502)		1,560	500	2,000				2,500		4,060
Total		1,560	500	2,000				2,500		4,060

Annual Operating Budget Impact (000s)										
Total										

Water Capital Program

2021-2025 Proposed Capital Improvement Program

Detail of One-Time Construction Projects

Water Resources Administration & Operations Facility

CSA	Environmental and Utility Services	Initial Start Date	3rd Qtr. 2020
CSA Outcome	Safe, Reliable, and Sufficient Water Supply; Reliable Water System	Initial End Date	2nd Qtr. 2025
Department	Environmental Services	Revised Start Date	
Location	TBD	Revised End Date	
Council Districts	TBD	Initial Project Budget	\$14,500,000
Appropriation	TEMP_599	FY Initiated	2020-2021

Description This project will purchase or build a new Administration and Operations Building for the Water Resources Division.

Justification Division staff are currently located in three separate buildings comprising of a converted vehicle storage warehouse, a temporary mobile office trailer, and an administration building. All three buildings have reached the end of useful life and require replacement and/or significant upgrades.

Notes The total project cost of \$14.5 million is a preliminary estimate as the site selection and scope of work are still in process. Future CIPs will include a more detailed description and cost estimate.

Major Cost Changes

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Construction			2,500	3,000	3,000	3,000	3,000	14,500		14,500
Total			2,500	3,000	3,000	3,000	3,000	14,500		14,500

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Funding Source Schedule (000s)										
Water Utility Capital Fund (500)			2,500	3,000	3,000	3,000	3,000	14,500		14,500
Total			2,500	3,000	3,000	3,000	3,000	14,500		14,500

Annual Operating Budget Impact (000s)										
Total										

Water Capital Program

2021-2025 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	A410Q		

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

	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	110	80	80				160
Construction	3,090	1,220	1,720	2,400	1,900	1,700	8,940
Total	3,200	1,300	1,800	2,400	1,900	1,700	9,100

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	3,200	1,300	1,800	2,400	1,900	1,700	9,100
Total	3,200	1,300	1,800	2,400	1,900	1,700	9,100

Annual Operating Budget Impact (000s)							
Total							

Water Capital Program

2021-2025 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

	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	187						
Construction	810	820	830	840	850	860	4,200
Total	997	820	830	840	850	860	4,200

	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL
Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	997	820	830	840	850	860	4,200
Total	997	820	830	840	850	860	4,200

Annual Operating Budget Impact (000s)							
Total							

Water Capital Program
 2021-2025 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.

	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL
Expenditure Schedule (000s)							
Design	237						
Equipment, Materials and Supplies	740	760	760	780	780	800	3,880
Total	977	760	760	780	780	800	3,880

Funding Source Schedule (000s)							
Water Utility Capital Fund (500)	977	760	760	780	780	800	3,880
Total	977	760	760	780	780	800	3,880

Water Capital Program
2021-2025 Proposed Capital Improvement Program

Summary of Projects that Start After 2020-2021

Project Name	Evergreen Reliability Well	Initial Start Date	3rd Qtr 2024
5-Yr CIP Budget	\$ 200,000	Initial End Date	2nd Qtr 2027
Total Budget	\$ 200,000	Revised Start Date	
Council Districts	8	Revised End Date	
Description	This allocation provides funding for the siting, design, development, and construction of a groundwater production well to provide water supply reliability in the Evergreen service area.		

Water Capital Program

2021-2025 Proposed Capital Improvement Program

Summary of Projects with Close-Out Costs Only in 2020-2021

Project Name	Fowler Pump Station Replacement	Initial Start Date	3rd Qtr. 2017
5-Yr CIP Budget	\$ 250,000	Initial End Date	2nd Qtr. 2019
Total Budget	\$ 3,845,851	Revised Start Date	
Council Districts	8	Revised End Date	2nd Qtr. 2021
Description	This project consists of the replacement and upgrade of the Fowler Pump Station, which will have reached the end of its useful life.		

Water Capital Program
 2021-2025 Proposed Capital Improvement Program

Summary of Reserves

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	\$ 4,650,000	Initial End Date	N/A
Total Budget	\$ 4,650,000	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. It is estimated to total \$4.7 million by the end of the 2021-2025 CIP based on current operating revenue projections through 2024-2025.		
