Water Department

Capital Investment Projects 2022-2026

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (NEW)

711- Water & Water System Development Enterprise Fund

CMMS Software Replacement for Water Dept

Project Description:

In 2019 an operations and maintenance technology evaluation found the current work order and preventive maintenance system called Maintenance Connection, used by the Water-Distribution Section as well as several Public Works sections, is not sufficiently supporting the City's needs. This system will be replaced with one that is more intuitive, GIS-based, and aligned with work processes and that enhances coordination between various City divisions.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702202									**Account # 711-70-91-7159-57901**
Project Cost Estimate:	-	-	-	390,000	-	-	-	-	390,000
Net Project Cost Estimates:	-	-	-	390,000	-	-	-	-	390,000

GHWTP SCADA Radio System Replacement

Project Description:

The goal of this the project is replace the radio equipment used to transmit and receive control and status information between the Graham Hill Water Treatment Plant (GHWTP) and remote sites. The existing radio infrastructure is no longer supported and the sole manufacturer is no longer in business. The scope of this project involves approximately 30 remote water site locations including the replacement and programming of base radio equipment located at the GHWTP.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702201									**Account # 711-70-95-7152-57302**
Project Cost Estimate:	-	-	-	150,000	-	-	-	-	150,000
Net Project Cost Estimates:	-	-	-	150,000	-	-	-	-	150,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

New Capital Projects for Water & Water System Development Enterprise Fund (711 & 715) Totals

		Fiscal Year 2021							
	Prior Year Totals	Budget	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Total Project Cost Estimate:	-	-	-	540,000	-	-	-	-	540,000
Total Project Funding Estimate:	-	-	-	-	-	-	-	-	-
Total Net Project Cost Estimate:	-	-	-	540,000	-	-	-	-	540,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Aerators at Loch Lomond

Project Description:

Following the condition assessment and design of a new aeration system at Loch Lomond Reservoir, construction of the new system should be completed in FY2021.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701706									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	93,336	550,252	506,825	-	-	-	-	-	-
Net Project Cost Estimates:	93,336	550,252	506,825	-	-	-	-	-	-

ASR - Mid County Existing Infrastructure

Project Description:

Evaluate the feasibility of Aquifer Storage and Recovery (ASR) in the Mid County Groundwater Basin per the recommendations of the Water Supply Advisory Committee. This project looks specifically at the use of existing infrastructure in the Mid County Basin.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702101									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	-	601,000	156,889	1,150,000	970,000	30,000	10,000	-	2,160,000
Net Project Cost Estimates:	-	601,000	156,889	1,150,000	970,000	30,000	10,000	-	2,160,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

ASR - Mid County New Wells

Project Description:

Evaluate the feasibility of Aquifer Storage and Recover (ASR) in the Mid County Groundwater Basin per the recommendations of the Water Supply Advisory Committee. This project looks specifically at the use of new infrastructure in the Mid County Basin.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702102									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	-	219,000	-	-	60,000	420,000	4,560,000	2,140,000	7,180,000
Net Project Cost Estimates:	-	219,000	-	-	60,000	420,000	4,560,000	2,140,000	7,180,000

ASR - New Pipelines

Project Description:

Evaluate the feasibility of Aquifer Storage and Recovery (ASR) in the Mid County and Santa Margarita Groundwater Basins per the recommendations of the Water Supply Advisory Committee. Project would potentially provide additional potable water to City and other agency customers, addressing part or all of water supply deficiencies. This project will plan, design, and potentially construct infrastructure requirements (pipes, pumps, etc) for ASR in one or both basins.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702104									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	-	-	-	-	-	-	-	720,000	720,000
Net Project Cost Estimates:	-	-	-	-	-	-	-	720,000	720,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

ASR - Santa Margarita Groundwater Basin

Project Description:

Evaluate the feasibility of Aquifer Storage and Recover (ASR) in the Santa Margarita Groundwater Basin per the recommendations of the Water Supply Advisory Committee. This project looks specifically at the use of new property, and infrastructure (wells, pipelines, etc.) in the Santa Margarita Basin.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702103									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	-	165,000	-	-	-	250,000	700,000	720,000	1,670,000
Net Project Cost Estimates:	-	165,000	-	-	-	250,000	700,000	720,000	1,670,000

ASR Planning

Project Description:

Evaluate the feasibility of Aquifer Storage and Recovery (ASR) in the Mid County and Santa Margarita Groundwater Basins per the recommendations of the Water Supply Advisory Committee. Project would potentially provide additional potable water to City and other agency customers, addressing part or all of water supply deficiencies. Project requires feasibility studies, design, permitting, and construction of infrastructure improvements. Funds in FY2022 will include ongoing pilot work and groundwater modeling.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701609									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	2,258,906	817,000	156,847	-	-	-	-	-	-
Net Project Cost Estimates:	2,258,906	817,000	156,847	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

715- Water & Water System Development Enterprise Fund

ASR Planning- SDC

Project Description:
System Development Charge (SDC) portion of c701609.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701610									Account # 715-70-91-7153-57302
Project Cost Estimate:	364,225	561,275	-	-	-	-	-	-	-
Net Project Cost Estimates:	364,225	561,275	-	-	-	-	-	-	-

Bay St Reservoir Storage Building

Project Description:
This project will create alternative storage space for critical spare parts and materials. Currently important backup materials are stored at the Coast Pump Station, which is prone to flooding. Extensive inventory damage was sustained during the 2017 winter storms. The project scope includes design and construction of a concrete foundation and installation of a prefabricated building for storage at the Bay Street Reservoir.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701910									Account # 711-70-95-7159-57202
Project Cost Estimate:	-	150,000	-	-	-	-	-	-	-
Net Project Cost Estimates:	-	150,000	-	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Beltz 10 and 11 Rehab & Development

Project Description:

This project involves the rehabilitation of Beltz 10 (an existing groundwater production well) and the conversion of an existing monitoring well to a production well (Beltz 11). This project will shift pumping to different geologic layers of the mid-county groundwater basin, helping to ensure sustainable groundwater management. This project will close in FY2022 and the evaluation continued in the ASR project.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c700026									Account # 711-70-91-7153-57302
Project Cost Estimate:	186,922	173,096	20,000	-	-	-	-	-	-
Net Project Cost Estimates:	186,922	173,096	20,000	-	-	-	-	-	-

Beltz WTP Filter Rehabilitation

Project Description:

The Beltz Water Treatment Plant treats groundwater from the Mid-County Groundwater Basin. The original treatment plant was constructed in the 1960s and receives routine maintenance. This project will make major improvements to one of the two pressure filters.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702108									Account # 711-70-91-7153-57302
Project Cost Estimate:	-	450,000	421,640	-	-	-	-	-	-
Net Project Cost Estimates:	-	450,000	421,640	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Brackney Landslide Area Pipeline Risk Reduction

Project Description:

The Newell Creek Pipeline in the Brackney landslide area is susceptible to damage from repeated landslides. This project will replace approximately 875 feet of the pipeline to increase pipeline resiliency and the reliability of supply from Loch Lomond. This project is currently funded by the FEMA Hazard Mitigation Grant Program. This project is a continuation of work and supersedes c701803-Brackney Landslide Risk Reduction.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702002									Account # 711-70-91-7153-57302
Project Cost Estimate:	66,511	601,841	376,527	220,000	3,750,000	1,230,000	-	-	5,200,000
Project Funding Estimates:									
FEMA - HMGP	-	371,595	371,595	-	-	-	-	-	-
Net Project Cost Estimates:	66,511	230,246	4,932	220,000	3,750,000	1,230,000	-	-	5,200,000

CPS 20" RW Pipeline Replacement

Project Description:

Replacement of the Coast Pump Station discharge pipeline. This pipeline coveys on average 90% of the City raw water supply, and has experienced several leaks in recent years. The project consists of microtunneling a new/replacement pipe under the San Lorenzo River at the Coast Pump Station. Project will be complete in FY21.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701707									Account # 711-70-91-7151-57302
Project Cost Estimate:	2,658,858	5,027,000	4,411,972	-	-	-	-	-	-
Net Project Cost Estimates:	2,658,858	5,027,000	4,411,972	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Distribution System Water Quality Improvements

Project Description:

Certain zones of the water distribution system have the potential to experience elevated water age, and low chlorine residuals. To avoid high water age, these areas are flushed to improve water turnover and maintain water quality. This practice consumes operations staff time, and increases water loss. This project will identify infrastructure improvements (tank aerators) to improve water turnover, enhance water quality, reduce water waste, and improve operations efficiency.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702001									**Account # 711-70-91-7151-57302**
Project Cost Estimate:	17,538	58,619	58,272	-	-	-	-	-	-
Net Project Cost Estimates:	17,538	58,619	58,272	-	-	-	-	-	-

Facility & Infrastructure Improvements

Project Description:

Various capital improvements projects under $200K. Specific projects to be identified annually.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701907									**Account # 711-70-91-7159-57302**
Project Cost Estimate:	-	-	-	420,000	430,000	450,000	460,000	480,000	2,240,000
Net Project Cost Estimates:	-	-	-	420,000	430,000	450,000	460,000	480,000	2,240,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Felton Diversion Pump Station Assessment

Project Description:

This project consists of evaluation of the existing dam and pump station with recommendations for improvements to the facility which may include new pumps and drives to improve energy efficiency, as well as fish passage modifications.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701906									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	167,685	83,796	-	110,000	-	-	130,000	520,000	760,000
Net Project Cost Estimates:	167,685	83,796	-	110,000	-	-	130,000	520,000	760,000

GHWTP CC Tanks Replacement

Project Description:

Infrastructure improvements to the Graham Hill Water Treatment Plant are necessary to meet regulatory requirements, improve operations and increase overall reliability. This project will improve the seismic resiliency of key process tanks, improve water quality, and enhance treatment residuals management. The design phase of this project is complete for the replacement of the Filtered Water Tank, Wash Water Reclamation Tank (Reclaim Tank), and Solids Storage Tank. Construction is anticipated to start in March 2021. This project is expected to be financed with low-interest loans through the State Revolving Fund (SRF) Loan Program.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701501									**Account # 711-70-91-7152-57302**
Project Cost Estimate:	5,161,044	5,275,189	4,574,657	12,680,000	12,880,000	8,990,000	1,220,000	-	35,770,000
Net Project Cost Estimates:	5,161,044	5,275,189	4,574,657	12,680,000	12,880,000	8,990,000	1,220,000	-	35,770,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

GHWTP Facilities Improvement Project

Project Description:

Treatment process and structural improvements to the Graham Hill Water Treatment Plant (GHWTP) to improve reliability of meeting water quality goals, support aquifer storage and recovery and water transfers, and assure supply and treatment resiliency given unknown climate change impacts to future hydrology and water quality. The conceptual design of this project is complete and selection of a progressive design-build team will be complete summer of 2021. The design-build team will execute the design phase from 2021 through 2024 with a subsequent construction duration from 2024 through 2027. This project is expected to be financed with low interest loans through the State Revolving Fund (SRF) Loan Program and the Water Infrastructure Finance and Innovation Act (WIFIA) program.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c700025								**Account # 711-70-91-7152-57302**	
Project Cost Estimate:	4,245,433	1,512,882	1,321,044	5,490,000	5,040,000	3,160,000	30,160,000	34,230,000	78,080,000
Net Project Cost Estimates:	4,245,433	1,512,882	1,321,044	5,490,000	5,040,000	3,160,000	30,160,000	34,230,000	78,080,000

GHWTP Flocculator Rehab/Replacement

Project Description:

Design and in-kind replacement of aging paddle wheel flocculators at the Graham Hill Water Treatment Plant. This project will reduce the risk of a major process failure during the construction phase of other major process improvements. Construction of this project will be completed in calendar year 2021.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701502								**Account # 711-70-91-7152-57302**	
Project Cost Estimate:	278,611	1,705,281	1,588,566	-	-	-	-	-	-
Net Project Cost Estimates:	278,611	1,705,281	1,588,566	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

GHWTP Gate Entrance Upgrades

Project Description:

The Graham Hill Water Treatment Plant entrance roadway will be updated to a two-lane two-way road with lane markings. The existing gate will be replaced with two separate gates to allow for simultaneously entering and exiting traffic. The existing access control system and cameras will be used but relocated, with provisions for future replacement. The personnel gate will be relocated to the south side of the gate. Engineered gravel strips will be included on both the north and south side of the entrance roadway to help improve the temporary parking situation during construction.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702109									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	-	350,000	347,138	-	-	-	-	-	-
Net Project Cost Estimates:	-	350,000	347,138	-	-	-	-	-	-

Graham Hill WTP Tube Settler Replacement

Project Description:

Design and in-kind replacement of tube settlers and related appurtenances. Construction of this project was combined with the Graham Hill Water Treatment Plant Flocculator Replacement Project and will be completed in calendar year 2021.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701708									**Account # 711-70-91-7152-57302**
Project Cost Estimate:	1,309,865	468,114	873	-	-	-	-	-	-
Net Project Cost Estimates:	1,309,865	468,114	873	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Laguna Creek Diversion Retrofit

Project Description:

The City passively diverts water from Laguna Creek, originally constructed in 1890, into pipelines that carry the water to the North Coast Pipeline. Recent assessments indicate that the facility is in good structural condition; however, multiple deficiencies were identified including sediment accumulation, limited remote operating & monitoring capabilities, access & safety concerns, non-compliance with modern fish screening requirements and ongoing downstream habitat degradation due to the facility operations. This project will design and construct needed improvements. Design, permitting, and environmental review is planned for FY2020-2021 and construction is planned for FY2021-2022.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701801									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	677,750	1,353,795	809,337	2,190,000	10,000	-	-	-	2,200,000
Net Project Cost Estimates:	677,750	1,353,795	809,337	2,190,000	10,000	-	-	-	2,200,000

Main Replacement - Eng Section - Transmission

Project Description:

Similar to c700002, Main Replacements, this project specifically funds water transmission mains, or pipes 10" or larger. This project is funded partially by System Development Charges (20% SDC – Fund 715).

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c709833									**Account # 711-70-91-7151-57302**
Project Cost Estimate:	6,901,907	166,992	-	-	-	-	-	-	-
Project Funding Estimates:									
Misc non-operating revenue	-	4,436	-	-	-	-	-	-	-
Net Project Cost Estimates:	6,901,907	162,556	-	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

715- Water & Water System Development Enterprise Fund

Main Replacements - Customer Initiated

Project Description:

Recurring annual Main Replacement program initiated on an as-needed basis to accommodate customer-requested service connections to non-existent or inadequate mains. Funds, to the extent of the appropriation, are disbursed to customers on a first-come, first-served basis.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c700004									**Account # 715-70-91-7151-57302**
Project Cost Estimate:	301,259	50,000	-	-	50,000	60,000	60,000	60,000	230,000
Net Project Cost Estimates:	301,259	50,000	-	-	50,000	60,000	60,000	60,000	230,000

Main Replacements - Distribution Section

Project Description:

Recurring program to replace deteriorated or undersized water mains, as identified and prioritized by the Department and implemented by the Distribution Section. Projects are typically based on leak history, but also address water quality and fire flow issues.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701507									**Account # 711-70-97-7151-57302**
Project Cost Estimate:	1,128,084	1,033,448	311,001	-	20,000	1,440,000	1,490,000	1,530,000	4,480,000
Net Project Cost Estimates:	1,128,084	1,033,448	311,001	-	20,000	1,440,000	1,490,000	1,530,000	4,480,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Main Replacements - Engineering Section

Project Description:

Recurring program to replace distribution system water mains identified and prioritized by the Department based on maintaining water system reliability, delivering adequate fire flows, improving circulation and water quality, and reducing maintenance costs. These projects are typically installed by contractors according to bid plans and specifications. Funds may also be budgeted in project c709833 and will be distributed between the 2 projects when that year's replacement project is identified. An updated Main Replacement Master Plan is under development and will be completed in Fiscal Year 2021.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c700002									**Account # 711-70-91-7151-57302**
Project Cost Estimate:	7,958,774	170,641	54,800	-	960,000	2,100,000	-	-	3,060,000
Project Funding Estimates:									
Misc non-operating revenue	-	3,697	-	-	-	-	-	-	-
Net Project Cost Estimates:	7,958,774	166,944	54,800	-	960,000	2,100,000	-	-	3,060,000

Main Replacements - Outside Agency

Project Description:

Water main, service line, valve, or water meter relocation necessitated by City, County or other Agency improvements such as road improvement, storm drain improvement projects, and/or other projects that conflict with existing water infrastructure.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c700003									**Account # 711-70-91-7151-57302**
Project Cost Estimate:	1,315,936	150,000	20,000	-	-	40,000	60,000	60,000	160,000
Net Project Cost Estimates:	1,315,936	150,000	20,000	-	-	40,000	60,000	60,000	160,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Meter Replacement Project

Project Description:

Implementation of system-wide water meter replacement program necessary to address a metering system that is at the end of its life, as seen in increasing number of failing meters. Water metering is crucial in accurately registering water consumption both for billing and system management purposes. Revenue losses are realized with an estimated 22 million gallons of water per year being delivered to customers unregistered due to performance degradation of old meters.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701603									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	913,729	4,983,816	1,898,453	6,420,000	1,940,000	-	-	-	8,360,000
Net Project Cost Estimates:	913,729	4,983,816	1,898,453	6,420,000	1,940,000	-	-	-	8,360,000

N Coast System Repair/Replace-Planning

Project Description:

The City diverts water from several north coast streams to the North Coast Pipeline. The North Coast System Rehab project (c. 2005) was planned to be implemented in phases over a 15-20 year timeframe to evaluate, rehabilitate and/or replace portions to ensure continued reliability. Project c709835 funded phases 2-3 which are complete; this project (c701908) will fund a planning update in FY 2021, as work is needed to prioritize the remaining phases, and complete a hydraulic analysis and pipe sizing analysis given reduced diversion volumes due in stream flow commitments. Future phases of design and construction will be implemented under new project numbers. (Project 2.1)

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701908									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	195,119	447,000	311,139	-	-	-	-	-	-
Net Project Cost Estimates:	195,119	447,000	311,139	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

N. Coast System Major Diversion Rehab

Project Description:

The City passively diverts water from Majors Creek, originally constructed in 1914, into pipelines that carry the water to the North Coast Pipeline. Recent assessments indicate that the facility is in good structural condition; however, multiple deficiencies were identified including sediment accumulation, limited remote operating & monitoring capabilities, access & safety concerns, non-compliance with modern fish screening requirements and ongoing downstream habitat degradation due to the facility operations. This project will evaluate, design, and construct improvements at the facility pending a planning study update on the forthcoming North Coast System Repair/Replacement project, c701908.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701802								**Account # 711-70-91-7153-57302**	
Project Cost Estimate:	163,187	204	-	-	-	-	130,000	330,000	460,000
Net Project Cost Estimates:	163,187	204	-	-	-	-	130,000	330,000	460,000

NCD I/O Replacement Project

Project Description:

The Newell Creek Dam was constructed in the 1960's. A pipeline runs through the base of the dam to deliver water to the reservoir from Felton Diversion and from the reservoir to the Graham Hill Water Treatment Plant. The pipeline will be replaced along with related infrastructure. This project is being implemented with oversight by the Division of Safety of Dams and, having demonstrated compliance with existing seismic regulations, is an upgrade to improve day to day operations and emergency drawdown rate. Construction started in the spring 2020 and will continue through 2022. This project is being financed with a low-interest loans through the State Revolving Fund (SRF) Loan Program.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701606								**Account # 711-70-91-7153-57302**	
Project Cost Estimate:	18,331,907	41,799,480	43,161,289	39,780,000	9,600,000	60,000	-	-	49,440,000
Net Project Cost Estimates:	18,331,907	41,799,480	43,161,289	39,780,000	9,600,000	60,000	-	-	49,440,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Newell Creek Pipeline Felton/Graham Hill WTP

Project Description:

This project includes approximately 4.5 miles of Newell Creek Pipeline from Felton to the Graham Hill Water Treatment Plant. This segment of pipe was identified as the highest priority segment for replacement. The Project will relocate the pipeline out of Pipeline Road and into Graham Hill Road, avoiding multiple geologic hazards that have caused past breaks. The project will initiate design in parallel with a program level environmental review. This project is intended to ensure continued reliability of this critical water supply transmission main.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702105								**Account # 711-70-91-7153-57302**	
Project Cost Estimate:	-	1,352,000	844,793	2,910,000	16,830,000	9,620,000	140,000	-	29,500,000
Net Project Cost Estimates:	-	1,352,000	844,793	2,910,000	16,830,000	9,620,000	140,000	-	29,500,000

Newell Creek Pipeline Rehab/Replacement

Project Description:

This Newell Creek Pipeline was constructed in the 1960s and extends from Newell Creek Dam to the Graham Hill Water Treatment Plant. The pipeline is experiencing increasing breaks attributed to a combination of age, pipe condition, and unstable geological conditions. This project includes a planning level assessment: design, environmental review and construction of the three pipeline phases are budgeted under their own capital project number and budget: Newell Creek Pipeline Felton/Graham Hill WTP, Newell Creek Pipeline Newell Creek Dam/Felton, and Brackney Landslide Area.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701701								**Account # 711-70-91-7153-57302**	
Project Cost Estimate:	812,525	668,318	334,114	340,000	10,000	-	-	-	350,000
Net Project Cost Estimates:	812,525	668,318	334,114	340,000	10,000	-	-	-	350,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

715- Water & Water System Development Enterprise Fund

Recycled Water - SDC

Project Description:
System Development Charge (SDC) portion of c701611.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701612									Account # 715-70-91-7153-57302
Project Cost Estimate:	173,269	82,923	-	-	-	-	-	-	-
Net Project Cost Estimates:	173,269	82,923	-	-	-	-	-	-	-

Recycled Water Feasibility Study

Project Description:
Evaluate the feasibility of using treated wastewater for beneficial uses as per the recommendations of the Water Supply Advisory Committee. This Phase 2 study pursues projects highlighted in the Phase 1 Recycled Water Facilities Planning Study including irrigation, groundwater recharge, as well as regional projects with neighboring water agencies. This project is scheduled to be completed in FY2022.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701611									Account # 711-70-91-7153-57302
Project Cost Estimate:	463,200	388,538	165,800	-	-	-	-	-	-
Net Project Cost Estimates:	463,200	388,538	165,800	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

River Bank Filtration Study

Project Description:

This project assesses the feasibility of locating new riverbank filtration wells along the San Lorenzo River near two different existing surface water diversions at Tait and Felton. Field work is occurring in two phases, fall of calendar years 2020 and 2021. Feasibility study to be completed spring 2022. If found feasible, locations and design parameters for installation of vertical or horizontal wells would be recommended. Construction would be scheduled and budgeted in future years.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701806									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	705,682	476,445	329,324	230,000	620,000	530,000	2,080,000	1,860,000	5,320,000
Net Project Cost Estimates:	705,682	476,445	329,324	230,000	620,000	530,000	2,080,000	1,860,000	5,320,000

Security Camera & Building Access Upgrades

Project Description:

Continuation of the evaluation and implementation of security camera and building access upgrades at various water department facilities.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701704									**Account # 711-70-91-7151-57302**
Project Cost Estimate:	209,990	341,006	210,000	-	-	-	-	-	-
Net Project Cost Estimates:	209,990	341,006	210,000	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Tait Diversion Rehab/Replacement

Project Description:

Phase 1 includes initial visual condition assessment and preliminary engineering for diversion intake site (dam, intake structures, and fish passage) and, if needed, design and permitting services for near term rehabilitation for near term rehabilitation due to noted structural deficiencies. A future phase of work includes full condition assessment and alternatives evaluation of the Coast Pump Station facility to mitigate against flooding, improve fish passage & screening and long-term operational considerations (e.g. climate change impacts).

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701903								**Account # 711-70-91-7151-57302**	
Project Cost Estimate:	205,004	201,420	126,556	-	-	-	230,000	690,000	920,000
Net Project Cost Estimates:	205,004	201,420	126,556	-	-	-	230,000	690,000	920,000

Union/Locust Back-up Generator

Project Description:

The Water Administration Building does not currently have a backup generator. This vulnerability was highlighted during the 2019 Public Safety Power Shutoffs (PSPS). The administration building lost power for several days. This interrupted the work of staff and impacted normal business functions in particular the customer service group who handle billing and new account signups. This project is one of several City projects currently under consideration for grant funding by the California Office of Emergency Management Services.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702107								**Account # 711-70-91-7153-57302**	
Project Cost Estimate:	-	50,000	50,000	-	-	-	-	-	-
Net Project Cost Estimates:	-	50,000	50,000	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

University Tank No. 4 Rehab/Replacement

Project Description:

Perform engineering analysis and condition assessment of the aging University No. 4 (U4) tank and associated piping to ensure reliable service. Alternatives to be considered installing a larger high-pressure pipeline to bypass the U4 tank and pump directly, parallel & equal sized tanks, and rehab/replacement of the existing tank with maintenance tank to bring the U4 tank offline. Project will include condition assessment, design, and acquisition of easements, permitting, and construction.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701505									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	114,728	225,000	94,867	700,000	460,000	4,680,000	140,000	-	5,980,000
Net Project Cost Estimates:	114,728	225,000	94,867	700,000	460,000	4,680,000	140,000	-	5,980,000

University Tank No. 5 Replacement

Project Description:

Project was completed in FY 2021. Project includes replacement of 800 feet of 12" water main in El Refugio Way, and construction of a 35,000 gallon maintenance tank to provide service during future inspection and maintenance and replacement of the University Tank No. 5 to meet modern seismic code and provide operational improvements.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701506									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	4,061,397	252,260	97,100	-	-	-	-	-	-
Net Project Cost Estimates:	4,061,397	252,260	97,100	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Water Program Administration and Contingency

Project Description:

The City has contracted with HDR Inc., for 5 years to provide Program Management Services. As Program Manager, HDR supplements City staff and brings the additional technical and managerial resources required to implement an expanded Capital Investment Program.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701901									**Account # 711-70-91-7159-57302**
Project Cost Estimate:	-	3,514,203	3,400,000	2,610,000	2,670,000	2,760,000	2,850,000	2,950,000	13,840,000
Net Project Cost Estimates:	-	3,514,203	3,400,000	2,610,000	2,670,000	2,760,000	2,850,000	2,950,000	13,840,000

Water Program Management Reserve

Project Description:

A best practice of capital program implementation is to establish and budget management reserve. Both the American Association of Cost Estimating Engineers and Project Management Institute recommend budgeting for a contingency fund independent of individual project estimates that would cover unanticipated cost changes due to scope change, schedule slippage, and program risks. In summary, funding for this project will function as a contingency reserve to cover unplanned but predictable cost changes in any separate project under the Capital Investment Program.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702003									**Account # 711-70-91-7159-57302**
Project Cost Estimate:	-	3,182,256	2,500,000	5,940,000	5,260,000	4,950,000	6,020,000	9,820,000	31,990,000
Net Project Cost Estimates:	-	3,182,256	2,500,000	5,940,000	5,260,000	4,950,000	6,020,000	9,820,000	31,990,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Water Quality Lab Upgrades

Project Description:

After a significant flooding event, upgrades need to be made to the Water Quality Lab to upgrade laboratory grade cabinetry, counter-tops and flooring. Other upgrades include: fume hoods and energy efficient lighting.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c702005									**Account # 711-70-91-7159-57203**
Project Cost Estimate:	-	22,700	481,000	-	-	-	-	-	-
Net Project Cost Estimates:	-	22,700	481,000	-	-	-	-	-	-

Water Supply Augmentation

Project Description:

This CIP replaces projects c701402 & c701403 to capture various studies and analyses to support the evaluation of water supply alternatives (Aquifer Storage and Recovery (ASR), transfers, recycled water) to further the Water Supply Advisory Committee (WSAC) recommendations.

		Fiscal Year 2021							
	Prior Year	Budgeted	Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Project # c701705									**Account # 711-70-91-7153-57302**
Project Cost Estimate:	383,615	874,560	298,319	50,000	50,000	60,000	60,000	60,000	280,000
Net Project Cost Estimates:	383,615	874,560	298,319	50,000	50,000	60,000	60,000	60,000	280,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2022 - 2026

Existing Capital Projects for Water & Water System Development Enterprise Fund (711 & 715) Totals

	Prior Year Totals	Fiscal Year 2021 Budget	Fiscal Year 2021 Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Total Project Cost Estimate:	61,825,996	80,556,350	69,439,142	81,240,000	61,610,000	40,830,000	50,500,000	56,170,000	290,350,000
Total Project Funding Estimate:	-	379,728	371,595	-	-	-	-	-	-
Total Net Project Cost Estimate:	61,825,996	80,176,622	69,067,547	81,240,000	61,610,000	40,830,000	50,500,000	56,170,000	290,350,000

Water Totals for Water & Water System Development Enterprise Fund (711 & 715)

	Prior Year Totals	Fiscal Year 2021 Budget	Fiscal Year 2021 Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Total Project Cost Estimate:	61,825,996	80,556,350	69,439,142	81,780,000	61,610,000	40,830,000	50,500,000	56,170,000	290,890,000
Total Project Funding Estimate:	-	379,728	371,595	-	-	-	-	-	-
Total Net Project Cost Estimate:	61,825,996	80,176,622	69,067,547	81,780,000	61,610,000	40,830,000	50,500,000	56,170,000	290,890,000

Water Totals

	Prior Year Totals	Fiscal Year 2021 Budget	Fiscal Year 2021 Estimated Actuals	FY 2022 Adopted	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	Total 2022 - 2026
Total Project Cost Estimate:	61,825,996	80,556,350	69,439,142	81,780,000	61,610,000	40,830,000	50,500,000	56,170,000	290,890,000
Total Net Project Cost Estimate:	61,825,996	80,176,622	69,067,547	81,780,000	61,610,000	40,830,000	50,500,000	56,170,000	290,890,000