



## Water Department

## Capital Investment Projects 2023-2027



City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2023 - 2027

Water (NEW)

711- Water & Water System Development  
 Enterprise Fund

**GHWTP Chlorination Station Improvements**

**Project Description:**

The Graham Hill Water Treatment Plant has a system of pumps that feed a liquid chlorine solution into the water treatment process to ensure the finished water leaving the facility is properly disinfected. This project will upgrade the pump station by installing additional pumps so the disinfection process will remain uninterrupted in the event of a pump failure.

**Fiscal Year 2022**

	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702301</b>									
									<b>Account # 711-70-92-7152-57302</b>
<b>Project Cost Estimate:</b>	-	-	-	250,000	-	-	-	-	250,000
<b>Project Funding Estimates:</b>									
None	-	-	-	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	-	-	-	250,000	-	-	-	-	250,000

City of Santa Cruz  
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 Fiscal Years 2023 - 2027

Water (NEW)

711- Water & Water System Development  
 Enterprise Fund

**North Coast System Phase 4**

**Project Description:**

The City diverts water from several coastal sources to the North Coast Pipeline, an approximately 19-mile raw water conveyance pipeline traversing mountainous and remote terrain adjacent to Highway 1 along the coast to the Coast Pump Station within City limits. The existing pipeline is reaching the end of its useful life and has been prone to numerous failures in recent years. The extent of the pipeline within City limits and a portion of the pipeline alignment along the coast has been replaced as part of prior phases. The North Coast System Phase 4 project consists of the replacement of the remaining approximately 10 miles of pipeline in existing or slightly modified alignments. In addition to rehabilitation of the Majors Diversion structure.

	Fiscal Year 2022			FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
	Prior Year	Budgeted	Estimated Actuals						
<b>Project # c702303</b>									
								<b>Account # 711-70-91-7153-57302</b>	
<b>Project Cost Estimate:</b>	-	-	-	150,000	-	-	1,879,294	3,647,046	5,676,340
<b>Project Funding Estimates:</b>									
None	-	-	-	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	-	-	-	150,000	-	-	1,879,294	3,647,046	5,676,340

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2023 - 2027

**Water (NEW)**

**711- Water & Water System Development  
 Enterprise Fund**

**SCADA I/O Hardware and Wiring Upgrade**

**Project Description:**

Existing Process Control wiring and input/output (I/O) modules are at, or near, end of life. This project aims to replace a total of six wiring drops which consist of both I/O module hardware and communication wiring. These I/O modules facilitate the monitoring and control of Water Treatment Plant processes. This project is intended to be performed in a staggered manner, limiting impact to water treatment operations.

	Fiscal Year 2022			FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
	Prior Year	Budgeted	Estimated Actuals						
<b>Project # c702302</b>									
									<b>Account # 711-70-95-7152-57302</b>
<b>Project Cost Estimate:</b>	-	-	-	230,000	-	-	-	-	230,000
<b>Project Funding Estimates:</b>									
None	-	-	-	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	-	-	-	230,000	-	-	-	-	230,000

City of Santa Cruz  
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 Fiscal Years 2023 - 2027

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

	Prior Year Totals	Fiscal Year 2022		FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
		Budget	Estimated Actuals						
<b>Total Project Cost Estimate:</b>	-	-	-	630,000	-	-	1,879,294	3,647,046	6,156,340
<b>Total Project Funding Estimate:</b>	-	-	-	-	-	-	-	-	-
<b>Total Net Project Cost Estimate:</b>	-	-	-	630,000	-	-	1,879,294	3,647,046	6,156,340

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2023 - 2027

**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**Aerators at Loch Lomond**

**Project Description:**

Replacement of the existing aeration system at Loch Lomond with a diffuser-style oxygenation system. Construction of the liquid oxygen tank, foundation, liquid oxygen tank and mechanical components (piping, valves, etc.) have been completed. In-reservoir work to install the diffuser system was postponed until spring/summer 2022 due to drought conditions and space constraints due to in-reservoir work as part of the NCD I/O Replacement Project.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701706</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	440,462	203,126	203,125	38,323	-	-	-	-	38,323
<b>Net Project Cost Estimates:</b>	440,462	203,126	203,125	38,323	-	-	-	-	38,323

**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. Work includes pilot testing at existing wells and conversion of existing wells to permanent ASR wells.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702101</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	43,219	1,326,179	1,326,179	1,261,950	3,543,979	2,760,432	-	-	7,566,361
<b>Net Project Cost Estimates:</b>	43,219	1,326,179	1,326,179	1,261,950	3,543,979	2,760,432	-	-	7,566,361

City of Santa Cruz  
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 Fiscal Years 2023 - 2027

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702102</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	-	219,000	219,000	45,541	2,571,670	3,846,368	3,927,533	2,443,635	12,834,747
<b>Net Project Cost Estimates:</b>	-	219,000	219,000	45,541	2,571,670	3,846,368	3,927,533	2,443,635	12,834,747

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702103</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	-	165,000	165,000	36,306	167,274	57,821	29,980	-	291,381
<b>Net Project Cost Estimates:</b>	-	165,000	165,000	36,306	167,274	57,821	29,980	-	291,381



City of Santa Cruz  
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 Fiscal Years 2023 - 2027

**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**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 FY2023 will include ongoing groundwater modeling, hydraulic modeling and property investigations.

	Fiscal Year 2022			FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
	Prior Year	Budgeted	Estimated Actuals						
<b>Project # c701609</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	2,605,769	438,286	438,286	718,540	62,000	-	-	-	780,540
<b>Net Project Cost Estimates:</b>	2,605,769	438,286	438,286	718,540	62,000	-	-	-	780,540

**ASR Planning- SDC**

**Project Description:**

System Development Charge (SDC) portion of c701609.

	Fiscal Year 2022			FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
	Prior Year	Budgeted	Estimated Actuals						
<b>Project # c701610</b>	<b>Account # 715-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	380,622	544,878	544,878	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	380,622	544,878	544,878	-	-	-	-	-	-



City of Santa Cruz  
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**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**Beltz 12 Ammonia Removal**

**Project Description:**

This project will upsize the sodium hypochlorite generation system and install a contact vessel to remove ammonia and hydrogen sulfide at Beltz 12. The chlorine demand and the required contact time was determined by a study performed by Corona Environmental in 2021.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702203</b>	<b>Account # 711-70-91-7152-57302</b>								
<b>Project Cost Estimate:</b>	-	1,800,000	1,800,000	107,519	-	-	-	-	107,519
<b>Net Project Cost Estimates:</b>	-	1,800,000	1,800,000	107,519	-	-	-	-	107,519

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702108</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	69,525	436,892	436,892	480,645	-	-	-	-	480,645
<b>Net Project Cost Estimates:</b>	69,525	436,892	436,892	480,645	-	-	-	-	480,645

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**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 relocate approximately 2,250 feet of the pipeline to increase pipeline resiliency and the reliability of supply from Loch Lomond. This project is a continuation of work and supersedes c701803-Brackney Landslide Risk Reduction.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702002</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	577,692	737,449	737,449	2,019,210	7,750,168	-	-	-	9,769,378
<b>Project Funding Estimates:</b>									
<b>FEMA - HMGP</b>	-	603,665	603,665	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	577,692	133,784	133,784	2,019,210	7,750,168	-	-	-	9,769,378

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702202</b>	<b>Account # 711-70-91-7159-57901</b>								
<b>Project Cost Estimate:</b>	-	390,000	390,000	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	-	390,000	390,000	-	-	-	-	-	-

City of Santa Cruz  
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 Fiscal Years 2023 - 2027

**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. This project will identify infrastructure improvements (tank aerators) to improve water turnover, enhance water quality, reduce water waste, and improve operations efficiency.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702001</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	24,259	79,762	79,762	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	24,259	79,762	79,762	-	-	-	-	-	-

**Facility & Infrastructure Improvements**

**Project Description:**

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

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701907</b>	<b>Account # 711-70-91-7159-57302</b>								
<b>Project Cost Estimate:</b>	-	420,000	420,000	-	446,064	462,568	479,684	497,432	1,885,748
<b>Net Project Cost Estimates:</b>	-	420,000	420,000	-	446,064	462,568	479,684	497,432	1,885,748

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2023 - 2027

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701906</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	201,255	190,852	190,852	-	-	123,159	509,763	446,244	1,079,166
<b>Net Project Cost Estimates:</b>	201,255	190,852	190,852	-	-	123,159	509,763	446,244	1,079,166

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701501</b>	<b>Account # 711-70-91-7152-57302</b>								
<b>Project Cost Estimate:</b>	7,412,373	16,037,597	16,037,597	8,250,865	10,661,566	4,128,439	-	-	23,040,870
<b>Net Project Cost Estimates:</b>	7,412,373	16,037,597	16,037,597	8,250,865	10,661,566	4,128,439	-	-	23,040,870

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2023 - 2027

**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 design-build team will complete the design phase in 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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c700025</b>	<b>Account # 711-70-91-7152-57302</b>								
<b>Project Cost Estimate:</b>	6,513,293	5,791,364	5,791,364	2,218,339	5,638,712	23,776,977	36,311,883	37,820,422	105,766,333
<b>Net Project Cost Estimates:</b>	6,513,293	5,791,364	5,791,364	2,218,339	5,638,712	23,776,977	36,311,883	37,820,422	105,766,333

**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 was completed in calendar year 2021. Post construction testing will continue through 2022

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701502</b>	<b>Account # 711-70-91-7152-57302</b>								
<b>Project Cost Estimate:</b>	1,783,039	214,460	214,460	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	1,783,039	214,460	214,460	-	-	-	-	-	-

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2023 - 2027

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702109</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	184,351	581,836	581,836	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	184,351	581,836	581,836	-	-	-	-	-	-

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702201</b>	<b>Account # 711-70-95-7152-57302</b>								
<b>Project Cost Estimate:</b>	-	150,000	150,000	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	-	150,000	150,000	-	-	-	-	-	-

City of Santa Cruz  
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 Fiscal Years 2023 - 2027

**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**Laguna Creek Diversion Retrofit**

**Project Description:**

The City diverts water from Laguna Creek, originally constructed in 1890, into the North Coast Pipeline. This project was designed and constructed to meet modern fish screening requirements and to manage sediment while reliably diverting water to the City. Design, permitting, and environmental review occurred in FY2020-2021 and construction will conclude in FY 2022.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701801</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	1,158,521	2,662,493	2,662,493	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	1,158,521	2,662,493	2,662,493	-	-	-	-	-	-

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c709833</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	6,901,907	166,992	166,992	-	-	-	-	-	-
<b>Project Funding Estimates:</b>									
Misc non-operating revenue	-	4,436	4,436	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	6,901,907	162,556	162,556	-	-	-	-	-	-



City of Santa Cruz  
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 Fiscal Years 2023 - 2027

**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 inadequate mains. Funds, to the extent of the appropriation, are disbursed to customers on a first-come, first-served basis.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c700004</b>	<b>Account # 715-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	301,259	50,000	50,000	-	55,758	57,821	59,961	62,179	235,719
<b>Net Project Cost Estimates:</b>	301,259	50,000	50,000	-	55,758	57,821	59,961	62,179	235,719

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701507</b>	<b>Account # 711-70-97-7151-57302</b>								
<b>Project Cost Estimate:</b>	1,188,556	972,976	972,976	437,315	1,449,708	1,503,346	1,558,973	1,616,654	6,565,996
<b>Net Project Cost Estimates:</b>	1,188,556	972,976	972,976	437,315	1,449,708	1,503,346	1,558,973	1,616,654	6,565,996

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**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.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c700002</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	8,006,531	122,884	122,884	1,048,976	2,333,345	-	-	-	3,382,321
<b>Project Funding Estimates:</b>									
Misc non-operating revenue	-	3,697	3,697	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	8,006,531	119,187	119,187	1,048,976	2,333,345	-	-	-	3,382,321

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c700003</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	1,315,936	150,000	150,000	-	55,758	57,821	59,961	62,179	235,719
<b>Net Project Cost Estimates:</b>	1,315,936	150,000	150,000	-	55,758	57,821	59,961	62,179	235,719

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 Fiscal Years 2023 - 2027

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701603</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	1,656,857	10,110,262	10,110,262	3,142,958	-	-	-	-	3,142,958
<b>Net Project Cost Estimates:</b>	1,656,857	10,110,262	10,110,262	3,142,958	-	-	-	-	3,142,958

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701606</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	48,306,254	51,369,569	51,369,569	4,891,490	531,368	544,090	564,222	371,202	6,902,372
<b>Net Project Cost Estimates:</b>	48,306,254	51,369,569	51,369,569	4,891,490	531,368	544,090	564,222	371,202	6,902,372

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**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 the Newell Creek Pipeline was identified as the highest priority segment for replacement. The Project will relocate the pipeline out of Henry Cowell State Park 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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702105</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	1,065,789	3,217,682	3,217,682	6,282,090	14,366,405	8,123,366	-	-	28,771,861
<b>Net Project Cost Estimates:</b>	1,065,789	3,217,682	3,217,682	6,282,090	14,366,405	8,123,366	-	-	28,771,861

**Recycled Water - SDC**

**Project Description:**

System Development Charge (SDC) portion of c701611

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701612</b>	<b>Account # 715-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	173,269	82,923	82,923	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	173,269	82,923	82,923	-	-	-	-	-	-

City of Santa Cruz  
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**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**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.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701611</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	594,552	163,383	163,383	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	594,552	163,383	163,383	-	-	-	-	-	-

**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. Feasibility study was completed spring 2022. Planning for future design and construction of new wells continues.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701806</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	963,735	584,505	584,505	44,221	539,201	2,115,461	1,901,130	817,429	5,417,442
<b>Net Project Cost Estimates:</b>	963,735	584,505	584,505	44,221	539,201	2,115,461	1,901,130	817,429	5,417,442

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**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701704</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	281,432	269,564	269,564	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	281,432	269,564	269,564	-	-	-	-	-	-

**Tait Diversion Rehab/Replacement**

**Project Description:**

The Tait Diversion diverts surface water from the San Lorenzo River to the Graham Hill Water Treatment Plant. Alternative analyses of this aging facility include fish passage and screening upgrades, evaluation of climate change impacts due to sea level rise, and riverine geomorphological assessments. A future phase of the project (FY25) includes planning, design and construction of flood-protection improvements and hydraulic capacity upgrades (pumps, piping, etc.) at the Coast Pump Station in coordination with the City's Water Rights Project, and the Habitat Conservation Plan (HCP).

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701903</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	297,062	156,608	156,608	112,125	-	306,466	634,382	583,239	1,636,212
<b>Net Project Cost Estimates:</b>	297,062	156,608	156,608	112,125	-	306,466	634,382	583,239	1,636,212

City of Santa Cruz  
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**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**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.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702107</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	-	50,000	50,000	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	-	50,000	50,000	-	-	-	-	-	-

**University Tank No. 4 Rehab/Replacement**

**Project Description:**

Design of in-kind replacement of University Tank No. 4 (0.4MG) with a bolted-steel tank and appurtenances including a small maintenance tank, station piping, fire resiliency improvements and minor site improvements.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701505</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	199,525	885,490	885,490	253,523	4,720,472	161,034	-	-	5,135,029
<b>Net Project Cost Estimates:</b>	199,525	885,490	885,490	253,523	4,720,472	161,034	-	-	5,135,029



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**Water (EXISTING)**

**711- Water & Water System Development  
 Enterprise Fund**

**Water Program Administration**

**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 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701901</b>	<b>Account # 711-70-91-7159-57302</b>								
<b>Project Cost Estimate:</b>	-	3,551,339	3,551,339	1,359,564	2,527,076	2,495,788	2,588,132	2,487,160	11,457,720
<b>Net Project Cost Estimates:</b>	-	3,551,339	3,551,339	1,359,564	2,527,076	2,495,788	2,588,132	2,487,160	11,457,720

**Water Program Management Reserve**

**Project Description:**

A best practice of capital program implementation is to establish and budget a 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 and contingencies to cover unanticipated cost changes due to schedule slippage, program risks, and other uncertainty.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c702003</b>	<b>Account # 711-70-91-7159-57302</b>								
<b>Project Cost Estimate:</b>	-	8,866,256	8,866,256	-	5,099,815	5,228,658	5,469,230	5,635,455	21,433,158
<b>Net Project Cost Estimates:</b>	-	8,866,256	8,866,256	-	5,099,815	5,228,658	5,469,230	5,635,455	21,433,158

City of Santa Cruz  
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**Water (EXISTING)**

711- Water & Water System Development  
 Enterprise Fund

**Water Supply Augmentation**

**Project Description:**

This project replaces projects c701402 & c701403 to capture various higher level feasibility studies and analyses to support the evaluation of water supply alternatives identified by the Water Supply Advisory Committee.

	Fiscal Year 2022								
	Prior Year	Budgeted	Estimated Actuals	FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
<b>Project # c701705</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	698,965	621,909	621,909	2,119,721	2,932,871	6,342,964	8,934,115	10,225,337	30,555,008
<b>Net Project Cost Estimates:</b>	698,965	621,909	621,909	2,119,721	2,932,871	6,342,964	8,934,115	10,225,337	30,555,008

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

	Prior Year Totals	Fiscal Year 2022		FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
		Budget	Estimated Actuals						
<b>Total Project Cost Estimate:</b>	93,346,010	113,781,515	113,781,515	34,869,221	55,453,210	62,092,579	63,028,949	63,068,567	288,512,526
<b>Total Project Funding Estimate:</b>	-	611,798	611,798	-	-	-	-	-	-
<b>Total Net Project Cost Estimate:</b>	93,346,010	113,169,717	113,169,717	34,869,221	55,453,210	62,092,579	63,028,949	63,068,567	288,512,526

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

	Prior Year Totals	Fiscal Year 2022		FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
		Budget	Estimated Actuals						
<b>Total Project Cost Estimate:</b>	93,346,010	113,781,515	113,781,515	35,499,221	55,453,210	62,092,579	64,908,243	66,715,613	294,668,866
<b>Total Project Funding Estimate:</b>	-	611,798	611,798	-	-	-	-	-	-
<b>Total Net Project Cost Estimate:</b>	93,346,010	113,169,717	113,169,717	35,499,221	55,453,210	62,092,579	64,908,243	66,715,613	294,668,866

**Water Totals**

	Prior Year Totals	Fiscal Year 2022		FY 2023 Adopted	FY 2024 Estimate	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	Total 2023 - 2027
		Budget	Estimated Actuals						
<b>Total Project Cost Estimate:</b>	93,346,010	113,781,515	113,781,515	35,499,221	55,453,210	62,092,579	64,908,243	66,715,613	294,668,866
<b>Total Net Project Cost Estimate:</b>	93,346,010	113,169,717	113,169,717	35,499,221	55,453,210	62,092,579	64,908,243	66,715,613	294,668,866