



Water

Capital Investment Program

Fiscal Year 2024

July 1, 2023 -
June 30, 2024



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City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Aerators at Loch Lomond

Project Description:

The existing aeration system at Loch Lomond was approaching the end of its life. An alternatives analysis recommended replacement of the current 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 2023 due to drought conditions and coordination with other projects.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701706	Account # 711-70-91-7153-57302								
Project Cost Estimate:	460,791	281,120	248,916	-	-	-	-	-	-
Net Project Cost Estimates:	460,791	281,120	248,916	-	-	-	-	-	-

ASR - Mid County Existing Infrastructure

Project Description:

Implement 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 design, construction and conversion of existing wells to permanent ASR wells.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702101	Account # 711-70-91-7153-57302								
Project Cost Estimate:	383,887	2,283,452	488,445	3,760,000	6,773,007	52,644	-	-	10,585,651
Project Funding Estimates:									
Local Operating Grants & Contrib	-	-	-	330,000	660,000	660,000	-	-	1,650,000
Net Project Cost Estimates:	383,887	2,283,452	488,445	3,430,000	6,113,007	(607,356)	-	-	8,935,651

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

ASR - Mid County New Wells

Project Description:

Implement 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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7153-57302									
Project # c702102									
Project Cost Estimate:	-	264,541	-	735,939	3,879,829	3,973,171	2,479,174	2,565,960	13,634,073
Net Project Cost Estimates:	-	264,541	-	735,939	3,879,829	3,973,171	2,479,174	2,565,960	13,634,073

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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7153-57302									
Project # c702103									
Project Cost Estimate:	-	201,306	100,000	6,854	58,324	30,329	-	-	95,507
Net Project Cost Estimates:	-	201,306	100,000	6,854	58,324	30,329	-	-	95,507

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

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 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 fiscal year 2024 will include ongoing groundwater modeling, hydraulic modeling, and property investigations.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701609	Account # 711-70-91-7153-57302								
Project Cost Estimate:	2,845,954	1,941,243	469,241	676,914	-	-	-	-	676,914
Net Project Cost Estimates:	2,845,954	1,941,243	469,241	676,914	-	-	-	-	676,914

ASR Planning- SDC

Project Description:

System Development Charge (SDC) portion of c701609.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701610	Account # 715-70-91-7153-57302								
Project Cost Estimate:	404,125	398,375	-	-	-	-	-	-	-
Net Project Cost Estimates:	404,125	398,375	-	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Beltz 12 Ammonia Removal

Project Description:

Ammonia and hydrogen sulfide were detected in raw groundwater at Beltz 12 well leading to a decrease in production to maintain water quality and reliability goals. This project will increase the capacity of the sodium hypochlorite generation system and install a contact vessel to remove ammonia and hydrogen sulfide at Beltz 12 well.

	Prior Year	Fiscal Year 2023		FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
		Budgeted	Estimated Actuals						
Account # 711-70-91-7152-57302									
Project # c702203									
Project Cost Estimate:	177,281	1,738,537	266,948	374,088	-	-	-	-	374,088
Net Project Cost Estimates:	177,281	1,738,537	266,948	374,088	-	-	-	-	374,088

Beltz WTP Upgrades

Project Description:

Many components of the Beltz Water Treatment Plant are reaching the end of their design life. This project will modernize the current facility to meet existing and future water quality and reliability goals, and incorporate the treatment of native groundwater as well as ASR water. Preliminary planning and conceptual design will begin in early 2023.

	Prior Year	Fiscal Year 2023		FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
		Budgeted	Estimated Actuals						
Account # 711-70-91-5151-57302									
Project # c702305									
Project Cost Estimate:	-	-	476,894	912,378	3,900,090	12,226,946	124,572	-	17,163,986
Net Project Cost Estimates:	-	-	476,894	912,378	3,900,090	12,226,946	124,572	-	17,163,986

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
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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.

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702002	Account # 711-70-91-7153-57302								
Project Cost Estimate:	1,604,376	2,185,801	572,367	2,115,516	8,404,931	53,276	-	-	10,573,723
Project Funding Estimates:									
FEMA - HMGP	543,002	60,664	530,076	1,308,995	2,549,084	-	-	-	3,858,079
Net Project Cost Estimates:	1,061,375	2,125,137	42,291	806,521	5,855,847	53,276	-	-	6,715,644

Branciforte Streambank Restoration

Project Description:

Restoration of, and improvements to, erosion protection to the Branciforte Drive bridge abutment and Branciforte Drive.

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702304	Account # 711-70-91-7159-57302								
Project Cost Estimate:	-	62,000	287,676	591,502	-	-	-	-	591,502
Net Project Cost Estimates:	-	62,000	287,676	591,502	-	-	-	-	591,502

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
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Water (EXISTING)

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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702202	Account # 711-70-91-7159-57901								
Project Cost Estimate:	64,479	325,521	246,264	-	-	-	-	-	-
Net Project Cost Estimates:	64,479	325,521	246,264	-	-	-	-	-	-

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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702001	Account # 711-70-91-7151-57302								
Project Cost Estimate:	33,725	73,701	9,097	11,292	-	-	-	-	11,292
Net Project Cost Estimates:	33,725	73,701	9,097	11,292	-	-	-	-	11,292

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Facility & Infrastructure Improvements

Project Description:

This project serves as a programmatic project to reserve budget for minor system issues that may not be defined or scoped by longer range planning documents, facility master plans, or condition assessments. When minor system issues are identified and sufficiently defined, a new CIP project is created and budget is reallocated. Examples of these projects include pressure regulator upgrades, backup power systems, and radio replacements.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701907	Account # 711-70-91-7159-57302								
Project Cost Estimate:	8,753	349,247	5,000	161,753	472,441	491,341	510,993	528,881	2,165,409
Net Project Cost Estimates:	8,753	349,247	5,000	161,753	472,441	491,341	510,993	528,881	2,165,409

Felton Diversion Pump Station Assessment

Project Description:

Constructed in 1978, the Felton Diversion facility is an inflatable bladder dam and pump station used to divert water from the San Lorenzo River to Loch Lomond Reservoir. This project consists of evaluation of the concrete structures, and pump station, electrical, and controls systems. Condition assessments will be performed and recommendations made for improvements to the facility which may include new pumps and drives to improve energy efficiency and safety, as well as fish passage modifications to meet current regulations.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701906	Account # 711-70-91-7153-57302								
Project Cost Estimate:	351,872	57,548	1,667	-	59,106	537,633	479,854	2,819,297	3,895,890
Net Project Cost Estimates:	351,872	57,548	1,667	-	59,106	537,633	479,854	2,819,297	3,895,890

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
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Water (EXISTING)

711- Water & Water System Development Enterprise Fund

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. Construction for the replacement of the Filtered Water Tank, Wash Water Reclamation Tank, and Solids Storage Tank began in 2021. This project is financed with low-interest loans through the State Revolving Fund (SRF) Loan Program.

	Fiscal Year 2023								
	Prior Year	Budgeted	Estimated Actuals	FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
Project # c701501	Account # 711-70-91-7152-57302								
Project Cost Estimate:	16,663,399	15,219,738	12,642,403	10,146,130	5,734,682	81,504	-	-	15,962,316
Net Project Cost Estimates:	16,663,399	15,219,738	12,642,403	10,146,130	5,734,682	81,504	-	-	15,962,316

GHWTP Facilities Improvement Project

Project Description:

The Graham Hill Water Treatment Plant was commissioned in 1960. Various components of the facility are reaching the end of their useful life; the project includes treatment process upgrades and structural, infrastructure and site improvements, to improve reliability. The project 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 United States Environmental Protection Agency's Water Infrastructure Finance and Innovation Act (WIFIA).

	Fiscal Year 2023								
	Prior Year	Budgeted	Estimated Actuals	FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
Project # c700025	Account # 711-70-91-7152-57302								
Project Cost Estimate:	9,852,383	5,478,944	5,738,103	4,320,000	24,969,029	36,870,764	38,159,667	36,814,130	141,133,590
Net Project Cost Estimates:	9,852,383	5,478,944	5,738,103	4,320,000	24,969,029	36,870,764	38,159,667	36,814,130	141,133,590

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
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Water (EXISTING)

711- Water & Water System Development Enterprise Fund

GHWTP Gate Entrance Upgrades

Project Description:

The entrance upgrades are a phased project to address safety, security, and access issues at the GHWTP. As part of the initial phase of work, the entrance roadway was widened to a two-lane, two-way road with lane markings. The existing gate was replaced with two separate gates to allow for simultaneous entering and exiting traffic. The existing access control system and cameras were relocated. Work continues with PG&E and AT&T to relocate a power pole currently located close to the new driveway.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702109	Account # 711-70-91-7153-57302								
Project Cost Estimate:	878,212	24,855	102,355	4,692	-	-	-	-	4,692
Net Project Cost Estimates:	878,212	24,855	102,355	4,692	-	-	-	-	4,692

GHWTP SCADA Radio System Replacement

Project Description:

This project will replace radio equipment used to transmit and receive 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 and the replacement and programming of base radio equipment located at the GHWTP.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702201	Account # 711-70-95-7152-57302								
Project Cost Estimate:	-	240,000	150,000	7,344	-	-	-	-	7,344
Net Project Cost Estimates:	-	240,000	150,000	7,344	-	-	-	-	7,344

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Intertie 1 - Santa Cruz-Scotts Valley

Project Description:

This project will link the City of Santa Cruz and Scotts Valley Water District through the construction of a nearly 2-mile intertie pipeline with SVWD. The Pipeline will be along La Madronna Drive, from Kite Hill Tank in Pasatiempo to the intertie pump station. The project has recieved a no-match grant from the Department of Water Resources.

	Fiscal Year 2023								
	Prior Year	Budgeted	Estimated Actuals	FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
Project # c702205	Account # 711-70-91-7151-57302								
Project Cost Estimate:	-	1,000,000	786,045	1,552,231	5,667,767	484,419	-	-	7,704,417
Project Funding Estimates:									
Local Operating Grants & Contrib	-	-	786,045	1,930,000	4,280,000	370,000	-	-	6,580,000
Net Project Cost Estimates:	-	1,000,000	-	(377,769)	1,387,767	114,419	-	-	1,124,417

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 concluded in FY 2022. Performance testing is ongoing and the project will remain active through the post construction and warranty period.

	Fiscal Year 2023								
	Prior Year	Budgeted	Estimated Actuals	FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
Project # c701801	Account # 711-70-91-7153-57302								
Project Cost Estimate:	2,935,396	194,881	33,876	-	-	-	-	-	-
Net Project Cost Estimates:	2,935,396	194,881	33,876	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
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Water (EXISTING)

711- Water & Water System Development Enterprise Fund

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).

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7151-57302									
Project # c709833									
Project Cost Estimate:	6,902,273	166,626	-	-	-	-	-	-	-
Project Funding Estimates:									
Misc non-operating revenue	-	4,436		-	-	-	-	-	-
Net Project Cost Estimates:	6,902,273	162,190		-	-	-	-	-	-

Main Replacements - Customer Initiated

Project Description:

Recurring program 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.

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 715-70-91-7151-57302									
Project # c700004									
Project Cost Estimate:	301,259	50,000	-	-	-	-	-	-	-
Net Project Cost Estimates:	301,259	50,000	-	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
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Water (EXISTING)

711- Water & Water System Development Enterprise Fund

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.

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-97-7151-57302									
Project # c701507									
Project Cost Estimate:	1,917,455	456,392	750,000	811,200	843,645	877,395	912,488	944,430	4,389,158
Net Project Cost Estimates:	1,917,455	456,392	750,000	811,200	843,645	877,395	912,488	944,430	4,389,158

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 two projects when that year's replacement project is identified.

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7151-57302									
Project # c700002									
Project Cost Estimate:	8,014,231	1,164,160	3,520,000	-	-	-	-	-	-
Project Funding Estimates:									
Misc non-operating revenue	-	3,697	-	-	-	-	-	-	-
Net Project Cost Estimates:	8,014,231	1,160,463	3,520,000	-	-	-	-	-	-

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Main Replacements - Outside Agency

Project Description:

Relocation of water mains, service lines, valves, and/or water meters as 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.

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7151-57302									
Project # c700003									
Project Cost Estimate:	1,315,936	375,000	357,000	36,080	56,243	58,493	60,833	62,962	274,611
Net Project Cost Estimates:	1,315,936	375,000	357,000	36,080	56,243	58,493	60,833	62,962	274,611

Meter Replacement Project

Project Description:

The existing water meter system had reached the end of life and was failing. Water metering is crucial in accurately registering water consumption both for billing and system management purposes. Revenue losses were estimated a 22 million gallons of water per year being delivered to customers unregistered due to performance degradation of old meters. A comprehensive business case evaluation recommended replacement of the existing meter and radio system.

	<u>Fiscal Year 2023</u>			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7153-57302									
Project # c701603									
Project Cost Estimate:	6,901,970	8,008,532	6,537,649	-	-	-	-	-	-
Net Project Cost Estimates:	6,901,970	8,008,532	6,537,649	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

NCD I/O Replacement Project

Project Description:

The Newell Creek Dam was constructed in the 1960s. 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. This project is being financed with a low-interest loans through the State Revolving Fund (SRF) Loan Program.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701606									
									Account # 711-70-91-7153-57302
Project Cost Estimate:	74,224,158	28,758,636	23,508,410	-	560,737	571,471	465,971	349,433	1,947,612
Project Funding Estimates:									
Misc non-operating revenue	2,500	-	-	-	-	-	-	-	-
Net Project Cost Estimates:	74,221,658	28,758,636	23,508,410	-	560,737	571,471	465,971	349,433	1,947,612

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
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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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702105									
Account # 711-70-91-7153-57302									
Project Cost Estimate:	2,555,890	8,148,714	848,152	-	17,627,635	13,888,137	100,193	-	31,615,965
Net Project Cost Estimates:	2,555,890	8,148,714	848,152	-	17,627,635	13,888,137	100,193	-	31,615,965

Newell Creek Pipeline Felton/Loch Lomond

Project Description:

The entire Newell Creek Pipeline extends 9.5 miles from the Newell Creek Dam to the Graham Hill Water Treatment Plant. This phase of the overall project replaces the pipeline between Loch Lomond and Felton Booster Pump Station.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702801									
Account # 711-70-91-7151-57302									
Project Cost Estimate:	-	-	-	-	-	-	-	1,868,309	1,868,309
Net Project Cost Estimates:	-	-	-	-	-	-	-	1,868,309	1,868,309

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

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. Full project description can be found here: <https://www.cityofsantacruz.com/home/showpublisheddocument/88946/637870993321130000>. Estimated project cost: \$64,703,000.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702303	Account # 711-70-91-7153-57302								
Project Cost Estimate:	-	150,000	-	-	-	1,833,299	3,568,068	5,796,707	11,198,074
Net Project Cost Estimates:	-	150,000	-	-	-	1,833,299	3,568,068	5,796,707	11,198,074

Recycled Water - SDC

Project Description:

System Development Charge (SDC) portion of c701611

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701612	Account # 715-70-91-7153-57302								
Project Cost Estimate:	173,269	205,923	202,944	-	-	-	-	-	-
Net Project Cost Estimates:	173,269	205,923	202,944	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701611	Account # 711-70-91-7153-57302								
Project Cost Estimate:	674,615	738,417	640,164	-	-	-	-	-	-
Net Project Cost Estimates:	674,615	738,417	640,164	-	-	-	-	-	-

River Bank Filtration Study

Project Description:

This project assesses the feasibility of locating new riverbank filtration wells along the San Lorenzo River near two existing surface water diversions in Felton and Santa Cruz. A feasibility study was completed Spring 2022, narrowing the study area to Santa Cruz only. Planning for future design and construction of new wells continues.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701806	Account # 711-70-91-7153-57302								
Project Cost Estimate:	998,601	621,516	308,722	279,650	765,576	1,815,965	1,929,963	1,073,058	5,864,212
Net Project Cost Estimates:	998,601	621,516	308,722	279,650	765,576	1,815,965	1,929,963	1,073,058	5,864,212

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702302	Account # 711-70-95-7152-57302								
Project Cost Estimate:	-	230,000	10,000	-	112,486	-	-	-	112,486
Project Funding Estimates:									
None	-	-	-	-	-	-	-	-	-
Net Project Cost Estimates:	-	230,000	10,000	-	112,486	-	-	-	112,486

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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701704	Account # 711-70-91-7151-57302								
Project Cost Estimate:	315,490	235,506	78,502	-	88,304	-	-	-	88,304
Net Project Cost Estimates:	315,490	235,506	78,502	-	88,304	-	-	-	88,304

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

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 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c701903	Account # 711-70-91-7151-57302								
Project Cost Estimate:	385,639	211,669	155,667	-	-	45,884	1,043,840	762,374	1,852,098
Net Project Cost Estimates:	385,639	211,669	155,667	-	-	45,884	1,043,840	762,374	1,852,098

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) when the administration building lost power for several days interrupting the work of staff and impacting normal business functions.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Project # c702107	Account # 711-70-91-7153-57302								
Project Cost Estimate:	1,970	108,030	48,435	-	-	-	-	-	-
Net Project Cost Estimates:	1,970	108,030	48,435	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

University Tank No. 4 Rehab/Replacement

Project Description:

University Tank No. 4 (U4) is a 400,000 gallon steel tank constructed in 1965. Video inspections of U4 in 2019 revealed signs of corrosion on the tank floor, shell, and roof, necessitating a full rehabilitation or replacement project to ensure ongoing reliability. Planning work determined that replacement instead rehabilitation of the current tank provided the best benefit/cost balance. The project is currently in design and includes design of a replacement tank, secondary maintenance tank, site access and drainage improvements, and fire resiliency features.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7153-57302									
Project # c701505									
Project Cost Estimate:	371,278	994,022	429,939	-	5,209,496	83,788	-	-	5,293,284
Project Funding Estimates:									
Federal capital grants	-	-	-	1,000,000	-	-	-	-	1,000,000
Net Project Cost Estimates:	371,278	994,022	429,939	(1,000,000)	5,209,496	83,788	-	-	4,293,284

Water Program Administration

Project Description:

The City originally contracted with HDR, Inc. in 2017 for five 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. HDR's Master Service Agreement was renewed in June 2022 for an additional five-year term.

	Fiscal Year 2023			FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
	Prior Year	Budgeted	Estimated Actuals						
Account # 711-70-91-7159-57302									
Project # c701901									
Project Cost Estimate:	1	2,954,788	1,928,212	1,695,840	2,614,352	2,607,524	2,601,461	2,583,750	12,102,927
Net Project Cost Estimates:	1	2,954,788	1,928,212	1,695,840	2,614,352	2,607,524	2,601,461	2,583,750	12,102,927

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

Water (EXISTING)

711- Water & Water System Development Enterprise Fund

Water Program Management Reserve

Project Description:

Establish and budget a management reserve to align with best practices of capital program implementation. 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.

	Prior Year	Fiscal Year 2023		FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
		Budgeted	Estimated Actuals						
Account # 711-70-91-7159-57302									
Project # c702003									
Project Cost Estimate:	-	7,034,600	600,000	2,626,394	8,001,620	8,607,346	1,776,219	330,044	21,341,623
Net Project Cost Estimates:	-	7,034,600	600,000	2,626,394	8,001,620	8,607,346	1,776,219	330,044	21,341,623

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.

	Prior Year	Fiscal Year 2023		FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
		Budgeted	Estimated Actuals						
Account # 711-70-91-7153-57302									
Project # c701705									
Project Cost Estimate:	1,613,222	2,738,397	1,544,292	1,085,068	13,779,535	14,330,785	10,374,049	10,737,203	50,306,640
Project Funding Estimates:									
Local Operating Grants & Contrib	-	-	-	475,000	475,000	-	-	-	950,000
Net Project Cost Estimates:	1,613,222	2,738,397	1,544,292	610,068	13,304,535	14,330,785	10,374,049	10,737,203	49,356,640

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2024- 2028

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

	Prior Year Totals	Fiscal Year 2023		FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
		Budget	Estimated Actuals						
Total Project Cost Estimate:	143,331,891	95,671,738	64,093,385	31,910,865	109,578,835	99,522,114	64,587,345	67,236,538	372,835,697
Total Project Funding Estimate:	545,502	68,797	1,316,121	5,043,995	7,964,084	1,030,000	-	-	14,038,079
Total Net Project Cost Estimate:	142,786,390	95,602,942	62,777,264	26,866,870	101,614,751	98,492,114	64,587,345	67,236,538	358,797,618

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

	Prior Year Totals	Fiscal Year 2023		FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
		Budget	Estimated Actuals						
Total Project Cost Estimate:	143,331,891	95,671,738	64,093,385	31,910,865	109,578,835	99,522,114	64,587,345	67,236,538	372,835,697
Total Project Funding Estimate:	545,502	68,797	1,316,121	5,043,995	7,964,084	1,030,000	-	-	14,038,079
Total Net Project Cost Estimate:	142,786,390	95,602,942	62,777,264	26,866,870	101,614,751	98,492,114	64,587,345	67,236,538	358,797,618

Water Totals

	Prior Year Totals	Fiscal Year 2023		FY 2024 Adopted	FY 2025 Estimate	FY 2026 Estimate	FY 2027 Estimate	FY 2028 Estimate	Total 2024 - 2028
		Budget	Estimated Actuals						
Total Project Cost Estimate:	143,331,891	95,671,738	64,093,385	31,910,865	109,578,835	99,522,114	64,587,345	67,236,538	372,835,697
Total Project Funding Estimate:	545,502	68,797	1,316,121	5,043,995	7,964,084	1,030,000	-	-	14,038,079
Total Net Project Cost Estimate:	142,786,390	95,602,942	62,777,264	26,866,870	101,614,751	98,492,114	64,587,345	67,236,538	358,797,618