

Water Department CIP



City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Advanced Metering infrastructure (AMI)

Project Description:

Implementation of system-wide water meter replacement necessary to address a system that is at the end of its design 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. As recommended in the Water Conservation Master Plan, this program accelerates the completion of system-wide Advanced Metering Infrastructure (AMI) implementation which enables early leak detection, customer conservation tools, streamlined workflows and enhances system analysis capabilities.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701603									
							Account # 711-70-91-7153-57302		
Project Cost Estimate:	30,817	274,183	274,183	-	5,752,000	5,180,000	-	-	10,932,000
Net Project Cost Estimates:	30,817	274,183	274,183	-	5,752,000	5,180,000	-	-	10,932,000

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 FY2020.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701706									
							Account # 711-70-91-7153-57302		
Project Cost Estimate:	1,377	548,623	548,623	-	-	-	-	-	-
Net Project Cost Estimates:	1,377	548,623	548,623	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

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

ASR and In-Lieu Feasibility Study

Project Description:

Evaluate the feasibility of Aquifer Storage and Recovery in the Mid County and Santa Margarita Groundwater Basins and/or water exchanges and transfers with neighboring water agencies as per the recommendations of the Water Supply Advisory Committee. Funds in FY2020 will include ongoing pilot work in both basins as well as groundwater modeling. Project requires feasibility studies, agreements with other agencies, and design, permitting, and construction of infrastructure improvements. Project would potentially provide additional potable water to City and other agency customers, addressing part or all of water supply deficiencies.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701609	Account # 711-70-91-7153-57302								
Project Cost Estimate:	434,886	2,474,614	2,474,614	-	2,837,000	4,373,000	7,617,000	7,257,000	22,084,000
Net Project Cost Estimates:	434,886	2,474,614	2,474,614	-	2,837,000	4,373,000	7,617,000	7,257,000	22,084,000

ASR and In-Lieu Feasibility Study - SDC

Project Description:

Evaluate the feasibility of Aquifer Storage and Recovery in the Mid County and Santa Margarita Groundwater Basins and/or water exchanges and transfers with neighboring water agencies as per the recommendations of the Water Supply Advisory Committee. Funds in FY2020 will include ongoing pilot work in both basins as well as groundwater modeling. Project requires feasibility studies, agreements with other agencies, and design, permitting, and construction of infrastructure improvements. Project would potentially provide additional potable water to City and other agency customers, addressing part or all of water supply deficiencies.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701610	Account # 715-70-91-7153-57302								
Project Cost Estimate:	178,240	897,260	897,260	-	500,000	500,000	500,000	500,000	2,000,000
Net Project Cost Estimates:	178,240	897,260	897,260	-	500,000	500,000	500,000	500,000	2,000,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Bay Street Reservoir Reconstruction

Project Description:

The Bay Street Reservoir reached the end of its useful life and was replaced with two 6 MG tanks. The Notice of Completion has been recorded and post-construction activities are wrapping-up.

		Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
	Prior Year	Budgeted	Estimated Actuals						
Project # c700313		Account # 711-70-91-7153-57302							
Project Cost Estimate:	20,158,292	253,284	253,284	-	-	-	-	-	-
Net Project Cost Estimates:	20,158,292	253,284	253,284	-	-	-	-	-	-

Project # c700027		Account # 715-70-91-7153-57302							
Project Cost Estimate:	5,111,508	86,988	86,988	-	-	-	-	-	-
Net Project Cost Estimates:	5,111,508	86,988	86,988	-	-	-	-	-	-

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 basin.

		Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
	Prior Year	Budgeted	Estimated Actuals						
Project # c700026		Account # 711-70-91-7153-57302							
Project Cost Estimate:	80,604	428,639	428,639	-	-	-	-	-	-
Net Project Cost Estimates:	80,604	428,639	428,639	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Brackney Landslide Risk Reduction

Project Description:

Engineering work completed to apply to the Hazard Mitigation Grant Program for a project to reduce the risk of a landslide on Brackney Rd in order to protect the Newell Creek Pipeline that is our pipeline bringing raw water from the Loch Lomond Reservoir to the Graham Hill Water Treatment Plant. Such work will be completed within the larger Newell Creek Pipeline Replacement project, c701701.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701803									
								Account # 711-70-91-7153-57302	
Project Cost Estimate:	49,312	20,788	20,788	-	-	-	-	-	-
Net Project Cost Estimates:	49,312	20,788	20,788	-	-	-	-	-	-

Coast Pump Stat. & Tail Well Flood Reduction

Project Description:

Engineering work completed to apply to the Hazard Mitigation Grant Program for a project to reduce the risk of damage to the Coast Pump Station and Tait Wells No. 4 when the San Lorenzo River floods. Such work will be completed within the new Coast Pump Station and San Lorenzo River Diversion Rehabilitation project, c701903.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701804									
								Account # 711-70-91-7151-57302	
Project Cost Estimate:	48,575	18,725	18,725	-	-	-	-	-	-
Net Project Cost Estimates:	48,575	18,725	18,725	-	-	-	-	-	-

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

711- Water & Water System Development
Enterprise Fund

CPS & SLR Diversion Rehab

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, development of an RFP to procure design and permitting services for near term rehabilitation. Phase 2 includes full condition assessment of the Coast Pump Station and Diversion and associated improvements to mitigate current and future flood damage.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701903									
								Account # 711-70-91-7151-57302	
Project Cost Estimate:	-	260,000	260,000	-	-	-	-	-	-
Net Project Cost Estimates:	-	260,000	260,000	-	-	-	-	-	-

CPS 20" RW Pipeline Replacement

Project Description:

Replacement of the Coast Pump Station discharge pipeline. The project includes design of a replacement line for the existing discharge pipeline under the San Lorenzo River followed by construction.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701707									
								Account # 711-70-91-7151-57302	
Project Cost Estimate:	64,721	770,399	770,399	2,500,000	-	-	-	-	2,500,000
Net Project Cost Estimates:	64,721	770,399	770,399	2,500,000	-	-	-	-	2,500,000

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Facility & Infrastructure Improvements

Project Description:

Various capital improvements projects under \$200K and not included in the Program. Specific projects to be identified annually.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701907	Account # 711-70-91-7153-57302								
Project Cost Estimate:	-	-	-	-	417,000	435,000	454,000	473,000	1,779,000
Net Project Cost Estimates:	-	-	-	-	417,000	435,000	454,000	473,000	1,779,000

Felton Diversion Pump Station Assessment

Project Description:

This project consists of evaluation of the existing dam and pump station with recommendations to rehabilitate or replace existing facilities. A hydraulic assessment of the existing facility will be conducted to determine what, if any, improvements or operational changes are needed to pump from the diversion directly to the GHWTP. To improve energy efficiency, new pumps and drives at the diversion are also anticipated.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701906	Account # 711-70-91-7153-57302								
Project Cost Estimate:	-	367,000	367,000	-	125,000	-	-	-	125,000
Net Project Cost Estimates:	-	367,000	367,000	-	125,000	-	-	-	125,000

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Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

GHWTP CC Tanks Replacement

Project Description:

Infrastructure improvements to the GHWTP are necessary to meet regulatory requirements, improve operations and increase overall reliability. The design phase of this project is nearly complete for the replacement of the Filtered Water Tank, Wash Water Reclamation Tank (Reclaim Tank), and Sludge Storage Tank.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701501	Account # 711-70-91-7152-57302								
Project Cost Estimate:	1,588,295	4,400,025	4,400,025	-	13,601,000	11,542,000	340,000	-	25,483,000
Net Project Cost Estimates:	1,588,295	4,400,025	4,400,025	-	13,601,000	11,542,000	340,000	-	25,483,000

GHWTP Flocculator Rehab/Replacement

Project Description:

Design and repair or replacement of aging paddle wheel flocculators at the Graham Hill Water Treatment Plant. A condition assessment and alternatives analysis will be performed to determine the best path forward considering cost, schedule, and operations.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701502	Account # 711-70-91-7152-57302								
Project Cost Estimate:	-	320,000	320,000	-	57,000	-	-	-	57,000
Net Project Cost Estimates:	-	320,000	320,000	-	57,000	-	-	-	57,000

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Graham Hill WTP Tube Settler Replacement

Project Description:

Design and replacement of tube settlers and related appurtenances. As part of the project, the tube settlers for three basins will be replaced-in-kind and will also include the replacement of associated valves and piping, and making concrete crack repairs in the basins.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701708	Account # 711-70-91-7152-57302								
Project Cost Estimate:	161,700	2,013,500	2,013,500	-	-	-	-	-	-
Net Project Cost Estimates:	161,700	2,013,500	2,013,500	-	-	-	-	-	-

Graham Hill WTP Upgrades

Project Description:

Process improvements to the Graham Hill Water Treatment Plant (GHWTP) are necessary to meet regulatory requirements, improve operations and increase overall system reliability. This project currently includes condition assessments, alternatives analyses, preliminary designs and preparation of a Facilities Improvement Project report. Final design and construction services are future phases included in this project.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c700025	Account # 711-70-91-7152-57302								
Project Cost Estimate:	840,077	1,594,449	1,594,449	-	4,708,000	2,201,000	5,560,000	43,313,000	55,782,000
Net Project Cost Estimates:	840,077	1,594,449	1,594,449	-	4,708,000	2,201,000	5,560,000	43,313,000	55,782,000

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Loch Lomond Facilities Improvements

Project Description:

Complete facilities assessment and improvement program at Loch Lomond. A Use study was completed in FY 2013 which resulted in a number of planned projects to enhance the recreation area usability for its visitors. Several ADA and other recreational improvements are being pursued

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701301									
									Account # 711-70-91-7153-57302
Project Cost Estimate:	73,626	211,374	211,374	-	-	-	-	-	-
Net Project Cost Estimates:	73,626	211,374	211,374	-	-	-	-	-	-

Main Replacements – Engr Transm

Project Description:

Similar to c700002 Main Replacements, this project specifically funds water transmission mains, or pipes 10" or larger. This project is funded by System Development Charges (100% SDC – Fund 715).

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c700017									
									Account # 715-70-91-7151-57302
Project Cost Estimate:	898,743	354,788	354,788	-	156,000	163,000	170,000	178,000	667,000
Net Project Cost Estimates:	898,743	354,788	354,788	-	156,000	163,000	170,000	178,000	667,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Main Replacements – Engr Transm - SDC

Project Description:

Similar to c700002, Main Replacements, this project specifically funds water transmission mains, or pipes 10" or larger.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c709833	Account # 711-70-91-7151-57302								
Project Cost Estimate:	3,923,971	1,311,466	1,311,466	-	-	-	-	-	-
Net Project Cost Estimates:	3,923,971	1,311,466	1,311,466	-	-	-	-	-	-

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 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701507	Account # 711-70-97-7151-57302								
Project Cost Estimate:	774,437	425,563	425,563	-	261,000	272,000	284,000	296,000	1,113,000
Net Project Cost Estimates:	774,437	425,563	425,563	-	261,000	272,000	284,000	296,000	1,113,000

City of Santa Cruz
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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 projects c709833 and c700017 and will be distributed between the 3 projects when that year's replacement project is identified.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c700002	Account # 711-70-91-7151-57302								
Project Cost Estimate:	5,650,142	2,517,985	2,517,985	-	-	-	-	-	-
Net Project Cost Estimates:	5,650,142	2,517,985	2,517,985	-	-	-	-	-	-

N Coast System Laguna Diversion Rehab

Project Description:

The City passively diverts water from Laguna Creek into pipelines that carry the water to the North Coast Pipeline. The North Coast System Rehab project (c. 2002) included the evaluation of the North Coast diversions to determine if they are sound and if modifications could be made to improve the efficiency and reduce the potential environmental impacts associated with City operations. This project will update the findings of the 2002 analysis, and design and construct needed improvements.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701801	Account # 711-70-91-7153-57302								
Project Cost Estimate:	7,353	212,647	212,647	-	72,000	324,000	1,129,000	161,000	1,686,000
Net Project Cost Estimates:	7,353	212,647	212,647	-	72,000	324,000	1,129,000	161,000	1,686,000

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

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 into pipelines that carry the water to the North Coast Pipeline. The North Coast System Rehab project (c. 2002) included the evaluation of the North Coast diversions to determine if they are sound and if modifications could be made to improve the efficiency and reduce the potential environmental impacts associated with City operations. This project will update the findings of the 2002 analysis, and design and construct needed improvements.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701802	Account # 711-70-91-7153-57302								
Project Cost Estimate:	7,353	162,647	162,647	-	-	-	-	82,000	82,000
Net Project Cost Estimates:	7,353	162,647	162,647	-	-	-	-	82,000	82,000

N Coast System Repair/Replace -Phase 4

Project Description:

The City diverts water from several north coast streams to the North Coast Pipeline. The North Coast System Rehab project (c. 2002) consists of six phases over a 15-20 year timeframe to evaluate, rehabilitate and/or replace portion's to ensure continued reliability. Project c709835 funded phases 1-3 which are complete; this project will fund the planning work needed to prioritize the remaining phases and complete the fourth phase.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701908	Account # 711-70-91-7153-57302								
Project Cost Estimate:	-	-	-	-	522,000	-	-	-	522,000
Net Project Cost Estimates:	-	-	-	-	522,000	-	-	-	522,000

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

N Coast System Repair/Replacement

Project Description:

Springs and streams along the coast north of the City limits supply approximately 25% of the City's raw water. Some of the facilities related to these water supplies are reaching the end of their useful life. This program consists of six phases over the next 15 to 20 years to evaluate, rehabilitate, and replace portions of the existing infrastructure to ensure continued reliability. Phases 1-3 are complete; future phases will be completed under separate project numbers. Refer to c701908.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c709835									
								Account # 711-70-91-7153-57302	
Project Cost Estimate:	13,876,208	164,050	164,050	-	-	-	-	-	-
Net Project Cost Estimates:	13,876,208	164,050	164,050	-	-	-	-	-	-

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 is reaching the end of its design life and will be replaced along with all 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 strictly addressing rehabilitation and replacement issues.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701606									
									Account # 711-70-91-7153-57302
Project Cost Estimate:	3,424,414	6,868,330	6,868,330	-	23,141,000	29,563,000	21,084,000	134,000	73,922,000
Net Project Cost Estimates:	3,424,414	6,868,330	6,868,330	-	23,141,000	29,563,000	21,084,000	134,000	73,922,000

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Newell Creek Access Rd Bridge

Project Description:

The footings of this bridge are eroding due to erosion from Newell Creek. This project is scheduled for completion summer 2019 and will reinforce the footings with rock buttressing.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701904									
									Account # 711-70-91-7151-57302
Project Cost Estimate:	-	150,000	150,000	-	-	-	-	-	-
Net Project Cost Estimates:	-	150,000	150,000	-	-	-	-	-	-

Newell Creek Pipeline Rehab/Replacement

Project Description:

This pipeline was constructed in the 1960s and extends from the toe of the Newell Creek Dam to Graham Hill Water Treatment Plant. This project will conduct a condition assessment and program level environmental review followed by rehab and/or replacement of all or parts of the pipeline. This project is intended to ensure continued reliability of this critical water supply transmission main. The project also includes adding the pipeline to the City's hydraulic water model and a hazard mitigation analysis.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701701									
									Account # 711-70-91-7153-57302
Project Cost Estimate:	9,500	2,013,100	2,013,100	-	-	-	-	-	-
Net Project Cost Estimates:	9,500	2,013,100	2,013,100	-	-	-	-	-	-

City of Santa Cruz
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Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Pressure Regulating Stations

Project Description:

Evaluation and replacement of aging pressure regulating stations (PRS). A PRS maintains (sustains or reduces) downstream pressure in order to deliver sufficient water pressure. The water distribution system contains 15 PRS and they vary in age, with the oldest being 66 years. This project will continue rehabilitation or replacement through FY2021.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701703	Account # 711-70-91-7151-57302								
Project Cost Estimate:	117,338	212,662	212,662	-	-	-	-	-	-
Net Project Cost Estimates:	117,338	212,662	212,662	-	-	-	-	-	-

Programmable Logic Controllers (PLC) Upg

Project Description:

Will enable better integration of future CIP projects at the Graham Hill Water Treatment Plant with the PLC system.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701905	Account # 711-70-95-7152-57302								
Project Cost Estimate:	-	160,000	160,000	-	-	-	-	-	-
Net Project Cost Estimates:	-	160,000	160,000	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

715- Water & Water System Development
Enterprise Fund

Recycled Water

Project Description:

Evaluate the feasibility of using treated wastewater for beneficial uses as per the recommendations of the Water Supply Advisory Committee. The Recycled Water Facilities Planning Study provided a higher level assessment of the potential uses of treated wastewater from the City's Wastewater Treatment Facility. An additional study will provide more detail about a shortlist of feasible projects, and their ability to meet supply shortages.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701612	Account # 715-70-91-7153-57302								
Project Cost Estimate:	166,319	39,873	39,873	-	-	-	-	-	-
Net Project Cost Estimates:	166,319	39,873	39,873	-	-	-	-	-	-

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. The Recycled Water Facilities Planning Study provided a higher level assessment of the potential uses of treated wastewater from the City's Wastewater Treatment Facility. An additional study will provide more detail about a shortlist of feasible projects, and their ability to meet supply shortages.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701611	Account # 711-70-91-7153-57302								
Project Cost Estimate:	372,214	100,286	100,286	-	-	-	-	-	-
Net Project Cost Estimates:	372,214	100,286	100,286	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

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: Tait Street and Felton. 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.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701806									
								Account # 711-70-91-7153-57302	
Project Cost Estimate:	59,244	1,490,756	1,490,756	-	375,000	-	-	-	375,000
Net Project Cost Estimates:	59,244	1,490,756	1,490,756	-	375,000	-	-	-	375,000

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.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701704									
								Account # 711-70-91-7151-57302	
Project Cost Estimate:	139,227	105,773	105,773	-	-	-	-	-	-
Net Project Cost Estimates:	139,227	105,773	105,773	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Source Water Data Project

Project Description:

Evaluate source water quality, operational and infrastructure alternatives to maximize use of surface water. Source water testing began in October 2016 and will continue through 2018. This project was prompted in part by the recommendations of the Water Supply Advisory Committee, accepted by Council in Nov 2015, to evaluate use of additional winter flows in the San Lorenzo River for various purposes to solve the regional water supply issues. This project also includes the development of Standard Operating Procedures, data organization, and laboratory training as well as development of a database and accompanying guidance document to unify past, present, and future water sampling and testing efforts across water program projects.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701608									
								Account # 711-70-91-7153-57302	
Project Cost Estimate:	328,825	671,175	671,175	-	-	-	-	-	-
Net Project Cost Estimates:	328,825	671,175	671,175	-	-	-	-	-	-

Spillway Bridge Replacement

Project Description:

Replace the bridge that spans the Newell Creek Dam spillway. The existing spillway bridge was not constructed to support heavy vehicle traffic like construction equipment, operations equipment, and fire trucks.

	Prior Year	Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
		Budgeted	Estimated Actuals						
Project # c701807									
								Account # 711-70-91-7154-57302	
Project Cost Estimate:	2,600	1,015,450	1,015,450	-	-	-	-	-	-
Net Project Cost Estimates:	2,600	1,015,450	1,015,450	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

Spoils and Stockpile Handling Facilities Impro

Project Description:

Completion of the project that includes covering material storage for materials (sand, base rock, cold mix and spoils) at the City's Corporation yard. Improvements will allow for better handling of wet spoils generated by the vactor truck, as well as prevent sediment laden runoff from entering the storm water drainage system.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701508	Account # 711-70-91-7151-57302								
Project Cost Estimate:	227,871	122,129	122,129	-	-	-	-	-	-
Net Project Cost Estimates:	227,871	122,129	122,129	-	-	-	-	-	-

Union/Locust Building Remodel

Project Description:

Remodel of Union/Locust Building to reduce Library footprint and expand Water space.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701805	Account # 711-70-91-7159-57203								
Project Cost Estimate:	35,195	869,805	869,805	-	-	-	-	-	-
Net Project Cost Estimates:	35,195	869,805	869,805	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

711- Water & Water System Development
Enterprise Fund

University Tank No. 4 Rehab/Replace

Project Description:

Perform engineering analysis and condition assessment of the aging University 4 tank and associated piping to ensure reliable service. Project includes an alternatives analysis to consider installing a larger high-pressure pipeline to bypass the U4 tank and pump directly from the U4 pump station to the U5 tank. Project will include condition assessment, design, acquisition of construction easements from UC Santa Cruz, permitting, and construction.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701505	Account # 711-70-91-7153-57302								
Project Cost Estimate:	-	220,000	220,000	-	-	-	-	-	-
Net Project Cost Estimates:	-	220,000	220,000	-	-	-	-	-	-

University Tank No. 5 Replacement

Project Description:

Complete engineering analysis and replacement of the aging University 5 tank to ensure continued reliable service.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701506	Account # 711-70-91-7153-57302								
Project Cost Estimate:	377,468	4,050,532	4,050,532	-	-	-	-	-	-
Net Project Cost Estimates:	377,468	4,050,532	4,050,532	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

Water (EXISTING)

715- Water & Water System Development
Enterprise Fund

Water Main Replacements -Customer Initiated

Project Description:

Recurring program similar to the other Main Replacement Projects; however, these projects are 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 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c700004	Account # 715-70-91-7151-57302								
Project Cost Estimate:	301,259	50,000	50,000	-	-	-	-	-	-
Net Project Cost Estimates:	301,259	50,000	50,000	-	-	-	-	-	-

Water Main Replacements -Outside Agency

Project Description:

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

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c700003	Account # 711-70-91-7151-57302								
Project Cost Estimate:	1,254,334	602,458	602,458	-	-	-	-	-	-
Net Project Cost Estimates:	1,254,334	602,458	602,458	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

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. Funding for this project will also function as a contingency reserve to cover unplanned but predictable cost increases in any separate project under the Capital Investment Program.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701901	Account # 711-70-91-7159-57302								
Project Cost Estimate:	-	-	2,204,182	-	3,577,000	3,711,000	2,515,000	3,560,000	13,363,000
Net Project Cost Estimates:	-	-	2,204,182	-	3,577,000	3,711,000	2,515,000	3,560,000	13,363,000

Water Supply Augmentation

Project Description:

This CIP replaces projects c701402 & c701403 to capture various studies and analyses to further the WSAC recommendations. The work conducted in other CIP projects relate to this one; e.g., ASR/In-Lieu, Recycled Water, desalination.

Fiscal Year 2019									
	Prior Year	Budgeted	Estimated Actuals	FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
Project # c701705	Account # 711-70-91-7153-57302								
Project Cost Estimate:	128,978	3,879,374	3,879,374	-	469,000	435,000	454,000	473,000	1,831,000
Net Project Cost Estimates:	128,978	3,879,374	3,879,374	-	469,000	435,000	454,000	473,000	1,831,000

City of Santa Cruz
 Adopted Capital Investment Program Budget (by department)
 Fiscal Years 2020 - 2024

Water (EXISTING)

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

Water Treatment Plant Filter Rehabilitation and Upgrades

Project Description:

This project rehabilitated and improved the filter performance at the Graham Hill WTP. The Notice of Completion has been recorded and post-construction activities are wrapping-up.

		Fiscal Year 2019		FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
	Prior Year	Budgeted	Estimated Actuals						
Project # c701303		Account # 711-70-91-7152-57302							
Project Cost Estimate:	5,815,666	221,634	221,634	-	-	-	-	-	-
Net Project Cost Estimates:	5,815,666	221,634	221,634	-	-	-	-	-	-

City of Santa Cruz
Adopted Capital Investment Program Budget (by department)
Fiscal Years 2020 - 2024

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

	Fiscal Year 2019			FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2020 - 2024
	Prior Year Totals	Budget	Estimated Actuals						
Total Project Cost Estimate:	66,720,689	42,932,334	45,136,516	2,500,000	56,570,000	58,699,000	40,107,000	56,427,000	214,303,000
Total Project Funding Estimate:	-	-	-	-	-	-	-	-	-
Total Net Project Cost Estimate:	66,720,689	42,932,334	45,136,516	2,500,000	56,570,000	58,699,000	40,107,000	56,427,000	214,303,000

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

	Fiscal Year 2019			FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2019 - 2021
	Prior Year Totals	Budget	Estimated Actuals						
Total Project Cost Estimate:	66,720,689	42,932,334	45,136,516	2,500,000	56,570,000	58,699,000	40,107,000	56,427,000	214,303,000
Total Project Funding Estimate:	-	-	-	-	-	-	-	-	-
Total Net Project Cost Estimate:	66,720,689	42,932,334	45,136,516	2,500,000	56,570,000	58,699,000	40,107,000	56,427,000	214,303,000

Water Totals

	Fiscal Year 2019			FY 2020 Adopted	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	Total 2019 - 2021
	Prior Year Totals	Budget	Estimated Actuals						
Total Project Cost Estimate:	66,720,689	42,932,334	45,136,516	2,500,000	56,570,000	58,699,000	40,107,000	56,427,000	214,303,000
Total Net Project Cost Estimate:	66,720,689	42,932,334	45,136,516	2,500,000	56,570,000	58,699,000	40,107,000	56,427,000	214,303,000