

A large red circular water tower is under construction. A white crane with a lattice boom is positioned in the center, lifting a component. A red lift bucket is visible on the left side of the structure. The tower is surrounded by a dense forest of tall evergreen trees under a clear blue sky. The text "Water Department Capital Investment Projects" is overlaid in the center.

# **Water Department Capital Investment Projects**

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (NEW)**

711- Water & Water System Development  
Enterprise Fund

**ASR - Mid County Existing Infrastructure**

**Project Description:**

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

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c702101									Account # 711-70-91-7153-57302
Project Cost Estimate:	-	-	-	601,000	884,000	1,207,000	-	-	2,692,000
Net Project Cost Estimates:	-	-	-	601,000	884,000	1,207,000	-	-	2,692,000

**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 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c702102									Account # 711-70-91-7153-57302
Project Cost Estimate:	-	-	-	219,000	369,000	4,509,000	541,000	7,060,000	12,698,000
Net Project Cost Estimates:	-	-	-	219,000	369,000	4,509,000	541,000	7,060,000	12,698,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (NEW)**

711- Water & Water System Development  
Enterprise Fund

**ASR - New Pipelines**

**Project Description:**

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

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c702104</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	-	-	-	-	-	353,000	1,688,000	2,503,000	4,544,000
<b>Net Project Cost Estimates:</b>	-	-	-	-	-	353,000	1,688,000	2,503,000	4,544,000

**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 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c702103</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	-	-	-	165,000	728,000	-	1,639,000	6,351,000	8,883,000
<b>Net Project Cost Estimates:</b>	-	-	-	165,000	728,000	-	1,639,000	6,351,000	8,883,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (NEW)**

711- Water & Water System Development  
Enterprise Fund

**N. Coast Repair Ph4 Des and Const**

**Project Description:**

This project relates to projects c709835 and c701908 and implements Phase 4 of a program that initially contemplated six phases to replace the North Coast System. In Fiscal Years 2021 and 2022 the planning work will occur under project c701908 to perform hydraulic analyses and siting studies to define the scope, schedule and budget for Phase 4. Once defined, Phase 4 work is scheduled to begin in FY 2024 with initial environmental work and continue in FY2025 with final environmental work and design, followed by construction.

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
<b>Project # c702108</b>									<b>Account # 711-70-91-7153-57302</b>
<b>Project Cost Estimate:</b>	-	-	-	-	-	-	507,000	1,988,000	2,495,000
<b>Net Project Cost Estimates:</b>	-	-	-	-	-	-	507,000	1,988,000	2,495,000

**N. Coast Repair Ph5 Des and Const**

**Project Description:**

This project relates to projects c709835 and c701908 and implements Phase 5 of a program that initially contemplated six phases to replace the North Coast System. In Fiscal Years 2021 and 2022 the planning work will occur under project c701908 to perform hydraulic analyses and siting studies to define the scope, schedule and budget for Phase 5. Once defined, Phase 5 work is scheduled to begin in FY 2025 with initial environmental work, followed in future years with final environmental work, design and construction.

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
<b>Project # c702109</b>									<b>Account # 711-70-91-7153-57302</b>
<b>Project Cost Estimate:</b>	-	-	-	-	-	-	-	319,000	319,000
<b>Net Project Cost Estimates:</b>	-	-	-	-	-	-	-	319,000	319,000



City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (NEW)**

711- Water & Water System Development  
Enterprise Fund

**Newell Creek Pipeline Felton/Graham Hill WTP**

**Project Description:**

This project includes approximately 4.5 miles of Newell Creek Pipeline from Felton to the Graham Hill Water Treatment Plant. This segment of pipe was identified as the highest priority segment for replacement. The Project will relocate the pipeline out of Pipeline Road and into Graham Hill Road, avoiding multiple geologic hazards that have caused past breaks. The project will initiate design in parallel with a program level environmental review. This project is intended to ensure continued reliability of this critical water supply transmission main. In Fiscal Year 2021 this project will apply for low interest loan financing through the Water Infrastructure Finance and Innovation Act (WIFIA) program.

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
Project # c702105									
									Account # 711-70-91-7153-57302
Project Cost Estimate:	-	-	-	1,352,000	2,029,000	14,444,000	14,581,000	-	32,406,000
Net Project Cost Estimates:	-	-	-	1,352,000	2,029,000	14,444,000	14,581,000	-	32,406,000

**Newell Creek Pipeline Felton/Loch Lomond WTP**

**Project Description:**

This project includes approximately 4.0 miles of Newell Creek Pipeline from Felton to the Loch Lomond Dam. This project is intended to ensure continued reliability of this critical water supply transmission main. Design would begin in Fiscal Year 24.

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
Project # c702106									
									Account # 711-70-91-7153-57302
Project Cost Estimate:	-	-	-	-	-	68,000	3,044,000	1,501,000	4,613,000
Net Project Cost Estimates:	-	-	-	-	-	68,000	3,044,000	1,501,000	4,613,000

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2021 - 2025

Water (NEW)

711- Water & Water System Development  
 Enterprise Fund

**Union/Locust Building Generator**

**Project Description:**

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

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Prior Year	Estimated Actuals						
Project # c702107									
Project Cost Estimate:		-	-	150,000	-	-	-	-	150,000
Net Project Cost Estimates:		-	-	150,000	-	-	-	-	150,000

Account # 711-70-91-7153-57302

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2021 - 2025

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

	Prior Year Totals	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budget	Estimated Actuals						
<b>Total Project Cost Estimate:</b>	-	-	-	2,487,000	4,010,000	20,581,000	22,000,000	19,722,000	68,800,000
<b>Total Project Funding Estimate:</b>	-	-	-	-	-	-	-	-	-
<b>Total Net Project Cost Estimate:</b>	-	-	-	2,487,000	4,010,000	20,581,000	22,000,000	19,722,000	68,800,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**Aerators at Loch Lomond**

**Project Description:**

Following the condition assessment and design of a new aeration system at Loch Lomond Reservoir, construction of the new system should be completed in FY2020.

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701706	Account # 711-70-91-7153-57302								
Project Cost Estimate:	8,588	300,000	300,000	-	-	-	-	-	-
Net Project Cost Estimates:	8,588	300,000	300,000	-	-	-	-	-	-

**ASR Planning**

**Project Description:**

Evaluate the feasibility of Aquifer Storage and Recovery (ASR) in the Mid County and Santa Margarita Groundwater Basins per the recommendations of the Water Supply Advisory Committee. Project would potentially provide additional potable water to City and other agency customers, addressing part or all of water supply deficiencies. Project requires feasibility studies, design, permitting, and construction of infrastructure improvements. Funds in FY2021 will include ongoing pilot work and groundwater modeling. (Project 3.3)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701609	Account # 711-70-91-7153-57302								
Project Cost Estimate:	1,161,317	965,968	1,728,916	244,000	-	-	-	-	244,000
Net Project Cost Estimates:	1,161,317	965,968	1,728,916	244,000	-	-	-	-	244,000



City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

715- Water & Water System Development  
Enterprise Fund

**ASR Planning- SDC**

**Project Description:**

SDC portion of c701609 (Project 3.3)

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025						
	Prior Year	Budgeted	Estimated Actuals												
Project # c701610															
Account # 715-70-91-7153-57302															
Project Cost Estimate:	314,305	611,195	611,195	-	-	-	-	-	-						
Net Project Cost Estimates:	314,305	611,195	611,195	-	-	-	-	-	-						

**Bay St Reservoir Storage Building**

**Project Description:**

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

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025						
	Prior Year	Budgeted	Estimated Actuals												
Project # c701910															
Account # 711-70-95-7159-57202															
Project Cost Estimate:	-	150,000	150,000	-	-	-	-	-	-						
Net Project Cost Estimates:	-	150,000	150,000	-	-	-	-	-	-						

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**Brackney Landslide Area Pipeline Risk Reduction**

**Project Description:**

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

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c702002</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	-	-	-	-	2,704,000	2,590,000	-	-	5,294,000
<b>Net Project Cost Estimates:</b>	-	-	-	-	2,704,000	2,590,000	-	-	5,294,000

**CPS 20" RW Pipeline Replacement**

**Project Description:**

Replacement of the Coast Pump Station discharge pipeline. This pipeline conveys on average 90% of the City raw water supply, and has experienced several leaks in recent years. The project consists of microtunneling a new/replacement pipe under the San Lorenzo River at the Coast Pump Station. Design is complete and project has been advertised for bids. Construction is expected to be completed by Fall 2020. (Project 2.3)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c701707</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	603,431	1,399,672	1,399,672	3,049,000	-	-	-	-	3,049,000
<b>Net Project Cost Estimates:</b>	603,431	1,399,672	1,399,672	3,049,000	-	-	-	-	3,049,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**Distribution System Water Quality Improvements**

**Project Description:**

Certain zones of the water distribution system have the potential to experience elevated water age, and low chlorine residuals. To avoid high water age, these areas are flushed to improve water turnover and maintain water quality. This practice consumes operations staff time, and increases water loss. This project will identify infrastructure improvements (tank aerators) to improve water turnover, enhance water quality, reduce water waste, and improve operations efficiency. (Project 4.4.1)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c702001	Account # 711-70-91-7151-57302								
Project Cost Estimate:	-	75,347	75,347	-	-	-	-	-	-
Net Project Cost Estimates:	-	75,347	75,347	-	-	-	-	-	-

**Facility & Infrastructure Improvements**

**Project Description:**

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

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701907	Account # 711-70-91-7153-57302								
Project Cost Estimate:	-	-	-	-	441,000	455,000	471,000	486,000	1,853,000
Net Project Cost Estimates:	-	-	-	-	441,000	455,000	471,000	486,000	1,853,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**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. (Project 1.4)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701906	Account # 711-70-91-7153-57302								
Project Cost Estimate:	32,666	234,334	234,334	-	-	-	-	207,000	207,000
Net Project Cost Estimates:	32,666	234,334	234,334	-	-	-	-	207,000	207,000

**GHWTP CC Tanks Replacement**

**Project Description:**

Infrastructure improvements to the GHWTP 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 nearly complete for the replacement of the Filtered Water Tank, Wash Water Reclamation Tank (Reclaim Tank), and Sludge Storage Tank. Construction is anticipated to start in winter 2020. This project is expected to be financed with low-interest loans through the State Revolving Fund (SRF) Loan Program. (Project 4.3)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701501	Account # 711-70-91-7152-57302								
Project Cost Estimate:	2,750,348	2,835,525	2,835,525	3,228,000	12,587,000	12,920,000	2,434,000	-	31,169,000
Net Project Cost Estimates:	2,750,348	2,835,525	2,835,525	3,228,000	12,587,000	12,920,000	2,434,000	-	31,169,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**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. 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. In Fiscal Year 2021 this project will be part of a low interest loan financing application through the Water Infrastructure Finance and Innovation Act (WIFIA) program. (Project 4.4)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c700025	Account # 711-70-91-7152-57302								
Project Cost Estimate:	2,332,648	2,002,242	2,002,242	1,022,000	2,464,000	2,636,000	8,053,000	31,947,000	46,122,000
Net Project Cost Estimates:	2,332,648	2,002,242	2,002,242	1,022,000	2,464,000	2,636,000	8,053,000	31,947,000	46,122,000

**GHWTP Flocculator Rehab/Replacement**

**Project Description:**

Design and in-kind replacement of aging paddle wheel flocculators at the Graham Hill Water Treatment Plant. This project will reduce the risk of a major process failure during the construction phase of other major process improvements. Construction of this project will be completed in calendar year 2020. (Project 4.2)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701502	Account # 711-70-91-7152-57302								
Project Cost Estimate:	120,697	1,843,255	1,843,255	-	-	-	-	-	-
Net Project Cost Estimates:	120,697	1,843,255	1,843,255	-	-	-	-	-	-

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**Graham Hill WTP Tube Settler Replacement**

**Project Description:**

Design and in-kind replacement of tube settlers and related appurtenances. Construction of this project was combined with the GHWTP Flocculator Replacement Project and will be completed in calendar year 2020. (Project 4.1)

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
<b>Project # c701708</b>									
								<b>Account # 711-70-91-7152-57302</b>	
<b>Project Cost Estimate:</b>	220,653	1,541,139	1,541,139	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	220,653	1,541,139	1,541,139	-	-	-	-	-	-

**Laguna Creek Diversion Retrofit**

**Project Description:**

The City passively diverts water from Laguna Creek, originally constructed in 1890, into pipelines that carry the water to the North Coast Pipeline. Recent assessments indicate that the facility is in good structural condition; however, multiple deficiencies were identified including sediment accumulation, limited remote operating & monitoring capabilities, access & safety concerns, non-compliance with modern fish screening requirements and ongoing downstream habitat degradation due to the facility operations. This project will design and construct needed improvements. Design, permitting, and environmental review is planned for FY2020 and construction is planned for FY2021. (Project 1.1)

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
<b>Project # c701801</b>									
								<b>Account # 711-70-91-7153-57302</b>	
<b>Project Cost Estimate:</b>	105,774	741,325	741,325	1,111,000	2,028,000	13,000	-	-	3,152,000
<b>Net Project Cost Estimates:</b>	105,774	741,325	741,325	1,111,000	2,028,000	13,000	-	-	3,152,000



City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**Main Replacements - Eng Section - Transmain**

**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 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c709833</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	4,381,685	2,687,215	2,687,215	-	-	-	-	-	-
<b>Project Funding Estimates:</b>									
Misc non-operating revenue	-	4,436	4,436	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	4,381,685	2,682,779	2,682,779	-	-	-	-	-	-

**Main Replacements -Customer Initiated**

**Project Description:**

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

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c700004</b>	<b>Account # 715-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	301,259	50,000	50,000	-	55,000	57,000	59,000	61,000	232,000
<b>Net Project Cost Estimates:</b>	301,259	50,000	50,000	-	55,000	57,000	59,000	61,000	232,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**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.

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701507	Account # 711-70-97-7151-57302								
Project Cost Estimate:	1,024,340	563,192	563,192	574,000	606,000	626,000	647,000	668,000	3,121,000
Net Project Cost Estimates:	1,024,340	563,192	563,192	574,000	606,000	626,000	647,000	668,000	3,121,000

**Main Replacements- Engineering Section**

**Project Description:**

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

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c700002	Account # 711-70-91-7151-57302								
Project Cost Estimate:	6,079,129	2,050,286	2,050,286	-	-	-	-	-	-
Project Funding Estimates:									
Misc non-operating revenue	-	3,697	3,697	-	-	-	-	-	-
Net Project Cost Estimates:	6,079,129	2,046,589	2,046,589	-	-	-	-	-	-

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**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 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c700003</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	1,315,936	150,000	150,000	-	55,000	57,000	59,000	61,000	232,000
<b>Net Project Cost Estimates:</b>	1,315,936	150,000	150,000	-	55,000	57,000	59,000	61,000	232,000

**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 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c701603</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	164,198	350,000	350,000	2,347,000	2,424,000	2,504,000	2,587,000	2,672,000	12,534,000
<b>Net Project Cost Estimates:</b>	164,198	350,000	350,000	2,347,000	2,424,000	2,504,000	2,587,000	2,672,000	12,534,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**N Coast System Repair/Replace-Planning**

**Project Description:**

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

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c701908</b>									
								<b>Account # 711-70-91-7153-57302</b>	
<b>Project Cost Estimate:</b>	195,119	419,000	419,000	447,000	462,000	-	-	-	909,000
<b>Net Project Cost Estimates:</b>	195,119	419,000	419,000	447,000	462,000	-	-	-	909,000

**N. Coast System Major Diversion Rehab**

**Project Description:**

The City passively diverts water from Majors Creek, originally constructed in 1914, into pipelines that carry the water to the North Coast Pipeline. Recent assessments indicate that the facility is in good structural condition; however, multiple deficiencies were identified including sediment accumulation, limited remote operating & monitoring capabilities, access & safety concerns, non-compliance with modern fish screening requirements and ongoing downstream habitat degradation due to the facility operations. This project will evaluate, design, and construct improvements at the facility pending a planning study update on the forthcoming North Coast System Repair/Replacement project, c701908. (Project 1.2)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c701802</b>									
								<b>Account # 711-70-91-7153-57302</b>	
<b>Project Cost Estimate:</b>	111,571	7,304	7,304	-	-	-	-	192,000	192,000
<b>Net Project Cost Estimates:</b>	111,571	7,304	7,304	-	-	-	-	192,000	192,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**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 is anticipated to start in spring 2020. This project is expected to be financed with low-interest loans through the State Revolving Fund (SRF) Loan Program and will be part of a low interest loan financing application through the Water Infrastructure Finance and Innovation Act (WIFIA) program. (Project 1.5)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c701606</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	7,090,944	4,556,381	4,556,381	37,979,000	35,893,000	16,875,000	1,470,000	-	92,217,000
<b>Net Project Cost Estimates:</b>	7,090,944	4,556,381	4,556,381	37,979,000	35,893,000	16,875,000	1,470,000	-	92,217,000

**Newell Creek Pipeline Rehab/Replacement**

**Project Description:**

This Newell Creek Pipeline was constructed in the 1960s and extends from Newell Creek Dam to the Graham Hill Water Treatment Plant. The pipeline is experiencing increasing breaks attributed to a combination of age, pipe condition, and unstable geological conditions. This project includes a planning level assessment: hydraulic analysis, evaluation of alternative alignments, recommended phasing, prioritization, lifecycle cost analysis and a program-level environmental impact report. Planning analysis recommends replacement in at least 3 phases, each with their own capital project number and budget: Newell Creek Pipeline Felton/Graham Hill WTP, Newell Creek Pipeline Newell Creek Dam/Felton, and was created, in FY 20 to carry forward initial design and environmental analysis. Another project: "Brackney Landslide Area Pipeline Risk Reduction" is also proceeding into preliminary design, based a FEMA grant funding opportunity. (Project 2.2)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c701701</b>	<b>Account # 711-70-91-7153-57302</b>								
<b>Project Cost Estimate:</b>	605,915	802,895	802,895	61,000	110,000	-	-	-	171,000
<b>Net Project Cost Estimates:</b>	605,915	802,895	802,895	61,000	110,000	-	-	-	171,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

715- Water & Water System Development  
Enterprise Fund

**Recycled Water - SDC**

**Project Description:**

SDC portion of c701611

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Prior Year	Estimated Actuals						
Project # c701612									
									Account # 715-70-91-7153-57302
Project Cost Estimate:	169,645	86,547	86,547	-	-	-	-	-	-
Net Project Cost Estimates:	169,645	86,547	86,547	-	-	-	-	-	-

**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 high level assessment of the potential uses of treated wastewater from the City's Wastewater Treatment Facility. An additional study (Phase 2) will provide more detail about a shortlist of feasible projects and their ability to meet supply shortages. (Project 3.2)

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Prior Year	Estimated Actuals						
Project # c701611									
									Account # 711-70-91-7153-57302
Project Cost Estimate:	381,602	155,358	155,358	159,000	-	-	-	-	159,000
Net Project Cost Estimates:	381,602	155,358	155,358	159,000	-	-	-	-	159,000



City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**River Bank Filtration Study**

**Project Description:**

This project assesses the feasibility of locating new riverbank filtration wells along the San Lorenzo River near two different existing surface water diversions at Tait and Felton. 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. (Project 4.5)

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
	Prior Year	Budgeted	Estimated Actuals						
Project # c701806		Account # 711-70-91-7153-57302							
Project Cost Estimate:	289,657	431,810	440,899	-	243,000	714,000	381,000	1,950,000	3,288,000
Net Project Cost Estimates:	289,657	431,810	440,899	-	243,000	714,000	381,000	1,950,000	3,288,000

**Security Camera & Building Access Upgrades**

**Project Description:**

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

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
	Prior Year	Budgeted	Estimated Actuals						
Project # c701704		Account # 711-70-91-7151-57302							
Project Cost Estimate:	176,996	150,000	150,000	224,000	-	-	-	-	224,000
Net Project Cost Estimates:	176,996	150,000	150,000	224,000	-	-	-	-	224,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**Tait Diversion Rehab/Replacement**

**Project Description:**

Phase 1 includes initial visual condition assessment and preliminary engineering for diversion intake site (dam, intake structures, and fish passage) and, if needed, design and permitting services for near term rehabilitation. A future phase of work includes full condition assessment of the Coast Pump Station that will include alternatives to mitigate against flooding. (Project 1.3.1)

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c701903</b>	<b>Account # 711-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	95,953	239,198	242,277	-	2,000	2,000	2,000	454,000	460,000
<b>Net Project Cost Estimates:</b>	95,953	239,198	242,277	-	2,000	2,000	2,000	454,000	460,000

**Transmission System Improvements-SDC**

**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).

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
<b>Project # c700017</b>	<b>Account # 715-70-91-7151-57302</b>								
<b>Project Cost Estimate:</b>	967,615	915	915	-	-	-	-	-	-
<b>Project Funding Estimates:</b>									
Misc non-operating revenue	-	1,109	1,109	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	967,615	(194)	(194)	-	-	-	-	-	-

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

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

**Project Description:**

Perform engineering analysis and condition assessment of the aging University No. 4 (U4) tank and associated piping to ensure reliable service. Project includes an alternatives analysis to consider installing a larger high-pressure pipeline to bypass the U4 tank and pump directly. Project will include condition assessment, design, and acquisition of easements, permitting, and construction. (Project 6.1)

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
<b>Project # c701505</b>									<b>Account # 711-70-91-7153-57302</b>
<b>Project Cost Estimate:</b>	36,881	-	-	195,000	906,000	239,000	4,726,000	475,000	6,541,000
<b>Net Project Cost Estimates:</b>	36,881	-	-	195,000	906,000	239,000	4,726,000	475,000	6,541,000

**University Tank No. 5 Replacement**

**Project Description:**

Completed engineering analysis and replacement of the aging 2 Million Gallon University No. 5 tank to ensure continued reliable service. Project includes replacement of 800 feet of 12" water main in El Refugio Way, and construction of a 35,000 gallon maintenance tank to provide service during future inspection and maintenance. Except for final paving, all construction activities will be complete in Fiscal Year 2020. (Project 6.2)

	Prior Year	Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
		Budgeted	Estimated Actuals						
<b>Project # c701506</b>									<b>Account # 711-70-91-7153-57302</b>
<b>Project Cost Estimate:</b>	2,387,779	1,897,218	1,897,218	-	-	-	-	-	-
<b>Net Project Cost Estimates:</b>	2,387,779	1,897,218	1,897,218	-	-	-	-	-	-

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

**Water (EXISTING)**

711- Water & Water System Development  
Enterprise Fund

**Water Program Administration and Contingency**

**Project Description:**

The City has contracted with HDR Inc., for 5 years to provide Program Management Services. As Program Manager, HDR supplements City staff and brings the additional technical and managerial resources required to implement an expanded Capital Investment Program. 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 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701901	Account # 711-70-91-7159-57302								
Project Cost Estimate:	-	2,041,457	3,532,701	8,670,000	9,190,000	8,066,000	5,811,000	3,038,000	34,775,000
Net Project Cost Estimates:	-	2,041,457	3,532,701	8,670,000	9,190,000	8,066,000	5,811,000	3,038,000	34,775,000

**Water Resources Building**

**Project Description:**

This project will provide for new office and storage space for the Watershed Resources Division that is currently housed in temporary trailers. Those trailers will be displaced by the upcoming projects at Graham Hill Water Treatment Plant. There is no available City-owned options so leased space options, are being reviewed.

Fiscal Year 2020									
	Prior Year	Budgeted	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
Project # c701702	Account # 711-70-91-7153-57302								
Project Cost Estimate:	31,290	-	-	-	-	-	-	-	-
Net Project Cost Estimates:	31,290	-	-	-	-	-	-	-	-

City of Santa Cruz  
 Adopted Capital Investment Program Budget (by department)  
 Fiscal Years 2021 - 2025

**Water (EXISTING)**

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

**Water Supply Augmentation**

**Project Description:**

This CIP replaces projects c701402 & c701403 to capture various studies and analyses to support the evaluation of water supply alternatives (ASR, transfers, recycled water) to further the WSAC recommendations. (Project 3.1)

		Fiscal Year 2020		FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	Total 2021 - 2025
	Prior Year	Budgeted	Estimated Actuals						
Project # c701705		Account # 711-70-91-7153-57302							
Project Cost Estimate:	280,402	140,000	163,571	480,000	138,000	11,000	-	-	629,000
Net Project Cost Estimates:	280,402	140,000	163,571	480,000	138,000	11,000	-	-	629,000

City of Santa Cruz  
Adopted Capital Investment Program Budget (by department)  
Fiscal Years 2021 - 2025

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

	Fiscal Year 2020								Total 2021 - 2025
	Prior Year Totals	Budget	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	
<b>Total Project Cost Estimate:</b>	33,738,346	29,478,778	31,768,708	59,790,000	70,308,000	47,765,000	26,700,000	42,211,000	246,774,000
<b>Total Project Funding Estimate:</b>	-	9,242	9,242	-	-	-	-	-	-
<b>Total Net Project Cost Estimate:</b>	33,738,346	29,469,535	31,759,465	59,790,000	70,308,000	47,765,000	26,700,000	42,211,000	246,774,000

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

	Fiscal Year 2020								Total 2021 - 2025
	Prior Year Totals	Budget	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	
<b>Total Project Cost Estimate:</b>	33,738,346	29,478,778	31,768,708	62,277,000	74,318,000	68,346,000	48,700,000	61,933,000	315,574,000
<b>Total Project Funding Estimate:</b>	-	9,242	9,242	-	-	-	-	-	-
<b>Total Net Project Cost Estimate:</b>	33,738,346	29,469,535	31,759,465	62,277,000	74,318,000	68,346,000	48,700,000	61,933,000	315,574,000

**Water Totals**

	Fiscal Year 2020								Total 2021 - 2025
	Prior Year Totals	Budget	Estimated Actuals	FY 2021 Estimate	FY 2022 Estimate	FY 2023 Estimate	FY 2024 Estimate	FY 2025 Estimate	
<b>Total Project Cost Estimate:</b>	33,738,346	29,478,778	31,768,708	62,277,000	74,318,000	68,346,000	48,700,000	61,933,000	315,574,000
<b>Total Net Project Cost Estimate:</b>	33,738,346	29,469,535	31,759,465	62,277,000	74,318,000	68,346,000	48,700,000	61,933,000	315,574,000