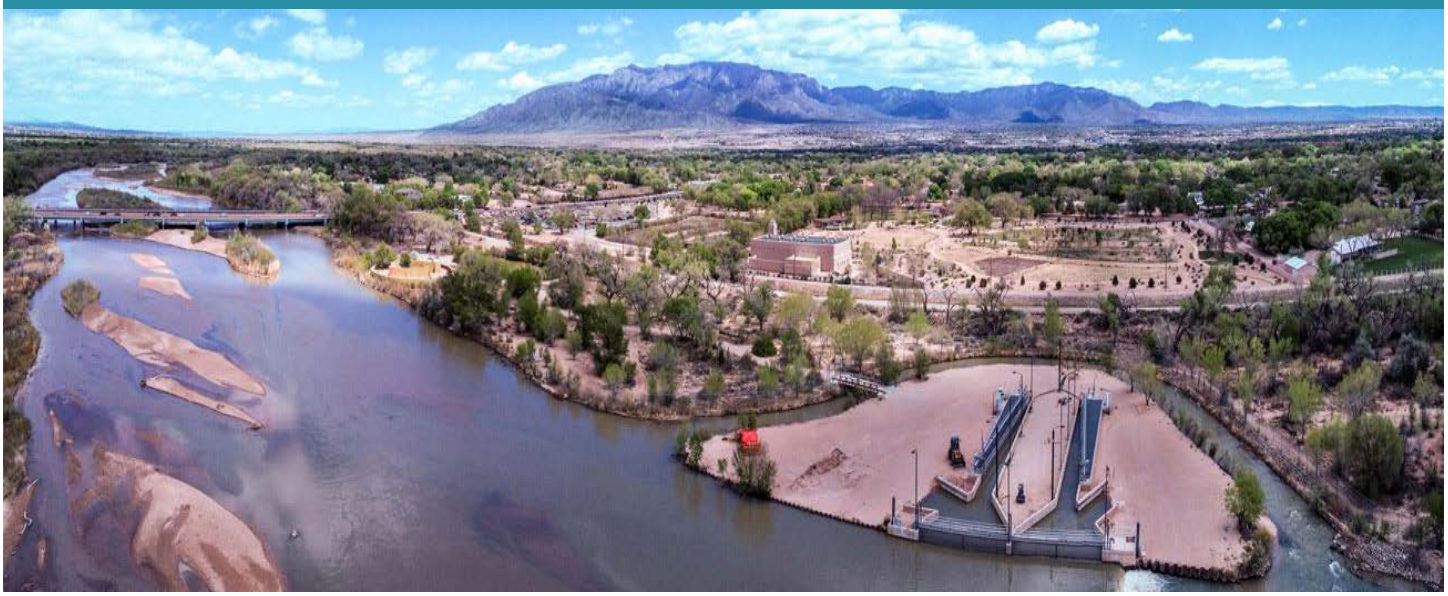
Albuquerque Bernalillo County
Water Utility Authority

DECADE PLAN
FY2022-2031



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ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY
DECADE PLAN 2022 – 2031

INTRODUCTION

The Water Authority is responsible for ensuring adequate infrastructure is available to its customers throughout the service area. Through the Capital Improvement Program (CIP), the Water Authority makes sure that the infrastructure it owns operates safely, effectively, and at a level of service that the public expects.

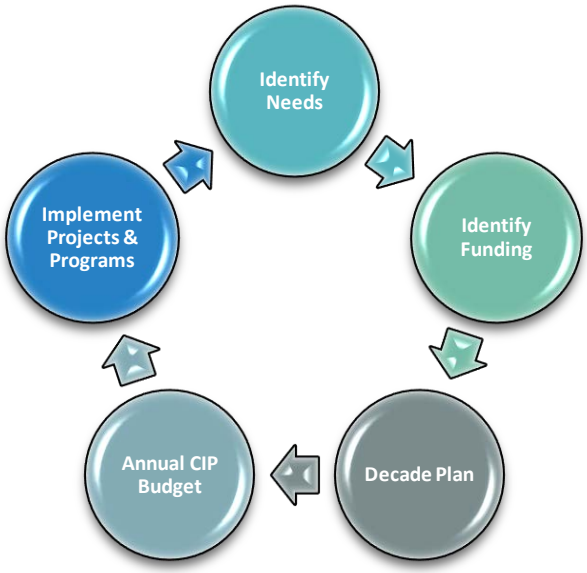
The Decade Plan is a data-driven approach to planning for how the Water Authority's future capital improvements support the priorities that guide capital investments within the current customer rate structure. The Decade Plan is used as a blueprint to identify projects and proposed spending. It is developed/updated biannually, in even-numbered fiscal years, and describes the proposed CIP spending for the next ten years. It provides a direct link from the Water Authority's financial plan to the proposed capital needs and includes detailed requirements for program development and project scope, budget, justification and alternatives.

The Decade Plan outlines projects in the Basic Rehabilitation Program, Special Projects, and Growth funding categories. Additionally, it outlines projects associated with *Water 2120*, the Water Authority's 100-year water resources plan.

Approval by the Water Authority Board is required, with at least one public hearing and due deliberation. In those fiscal years where the Decade Plan must be updated, the new Decade Plan must be approved by the Water Authority's Board before that year's CIP budget can be approved. This policy ensures there is always an approved two-year planning element in place for every approved annual CIP budget.

DEVELOPMENT OF THE DECADE PLAN & ASSET MANAGEMENT

The Decade Plan is part of a larger Capital Improvement Program planning cycle—a continuous process of planning, funding and implementation that generally includes five phases. The cycle is a multi-year process; however, it is anchored by points in which a snapshot of the CIP is made available annually to the public and the Water Authority Board. The general cycle is illustrated below:



CAPITAL NEEDS IDENTIFICATION AND PLANNING

The Planning and Engineering Division leads the effort to identify future needs by considering priorities related to urgent needs, capital renewal, and service demands and asset management principles. Potential capital improvement projects are prioritized and filtered based upon those with the highest risk, including factors such as safety, security, interruption of service, and permit compliance. As the Water Authority's Asset Management Program develops further and more detailed condition assessments are performed on individual infrastructure assets, project risk rankings and business case analyses will be defined and assigned to the respective asset or project.

IDENTIFY CAPITAL FUNDING

The Basic Rehabilitation Program provides renewal funding for water and wastewater plant and field assets throughout the service area. Under existing financial policy, fifty percent of the Basic Program funding is provided by water and sewer revenues with the balance obtained through revenue bonds, loan financing, or grant funding.

Special Projects are projects that are funded outside of the Basic Program and therefore do not affect the total renewal spending.

Growth related projects are funded through utility expansion charges (UECs), either by reimbursing capital investments made under the terms of a development agreement or by direct appropriations to a CIP project.

Water 2120 Projects continue the Water Authority's strategy for managing water resources towards providing a sustainable water supply for its customers.

CIP DECADE PLAN

The Decade Plan describes the Water Authority's projected major capital improvements over the next ten years based on planned revenues, appropriations, and spending. The Decade Plan includes a set of spreadsheet tables with the decade category and line listed. Each category in the Decade Plan has a corresponding summary sheet that describes the category with the proposed spending over the plan period. Additionally, every category will include project summary sheets which will identify the projects planned to begin in fiscal years 2022 and 2023. In general, the highest priority projects have been targeted for funding first.

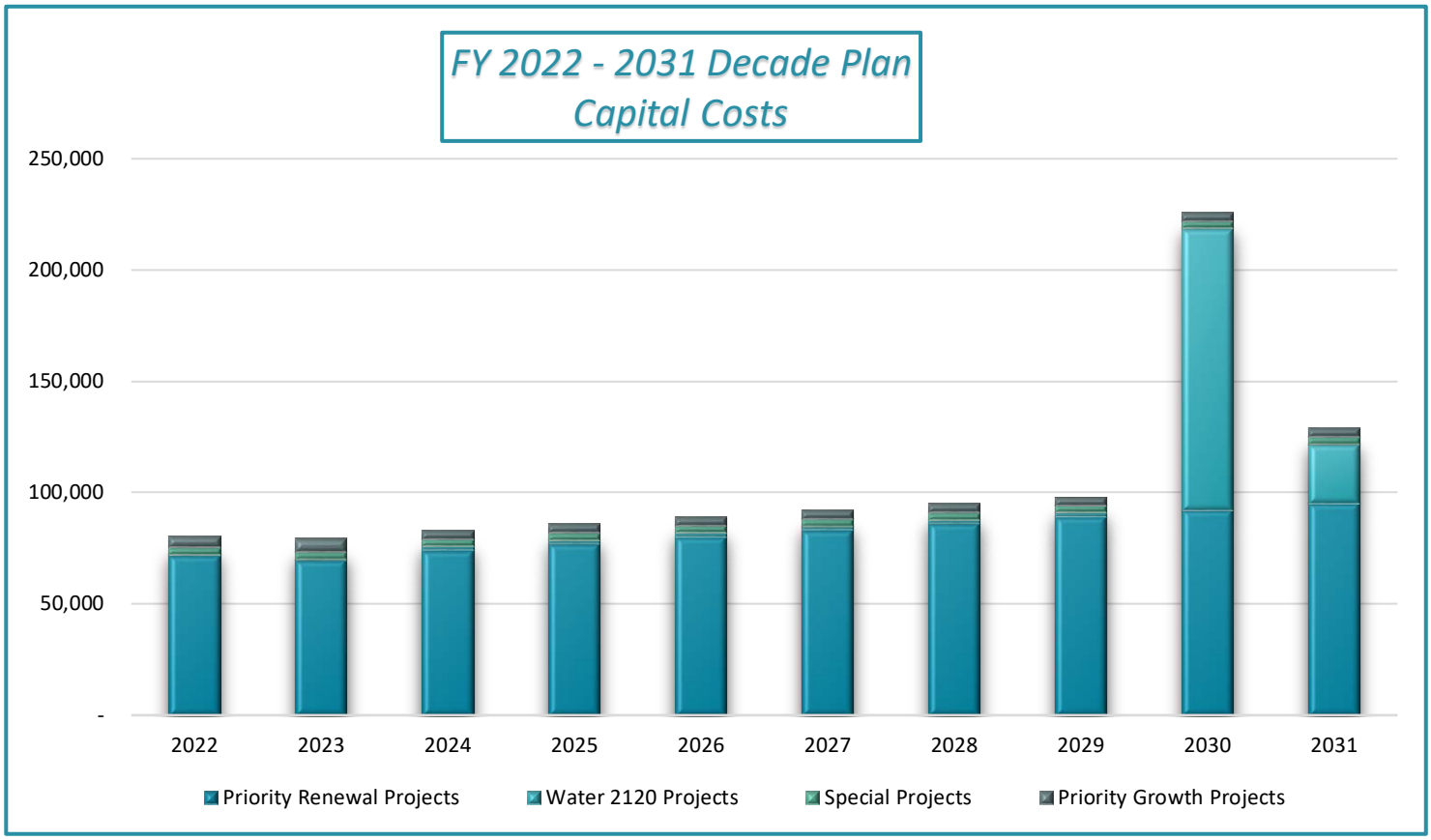
ANNUAL CIP BUDGET

The CIP Budget is introduced in April with approval of the Water Authority Board in May as part of the overall fiscal year budget process. The CIP Budget funds major improvements to Water Authority facilities and infrastructure. The annual CIP Budget also provides the needed funding to continue existing capital projects or begin new projects each year.

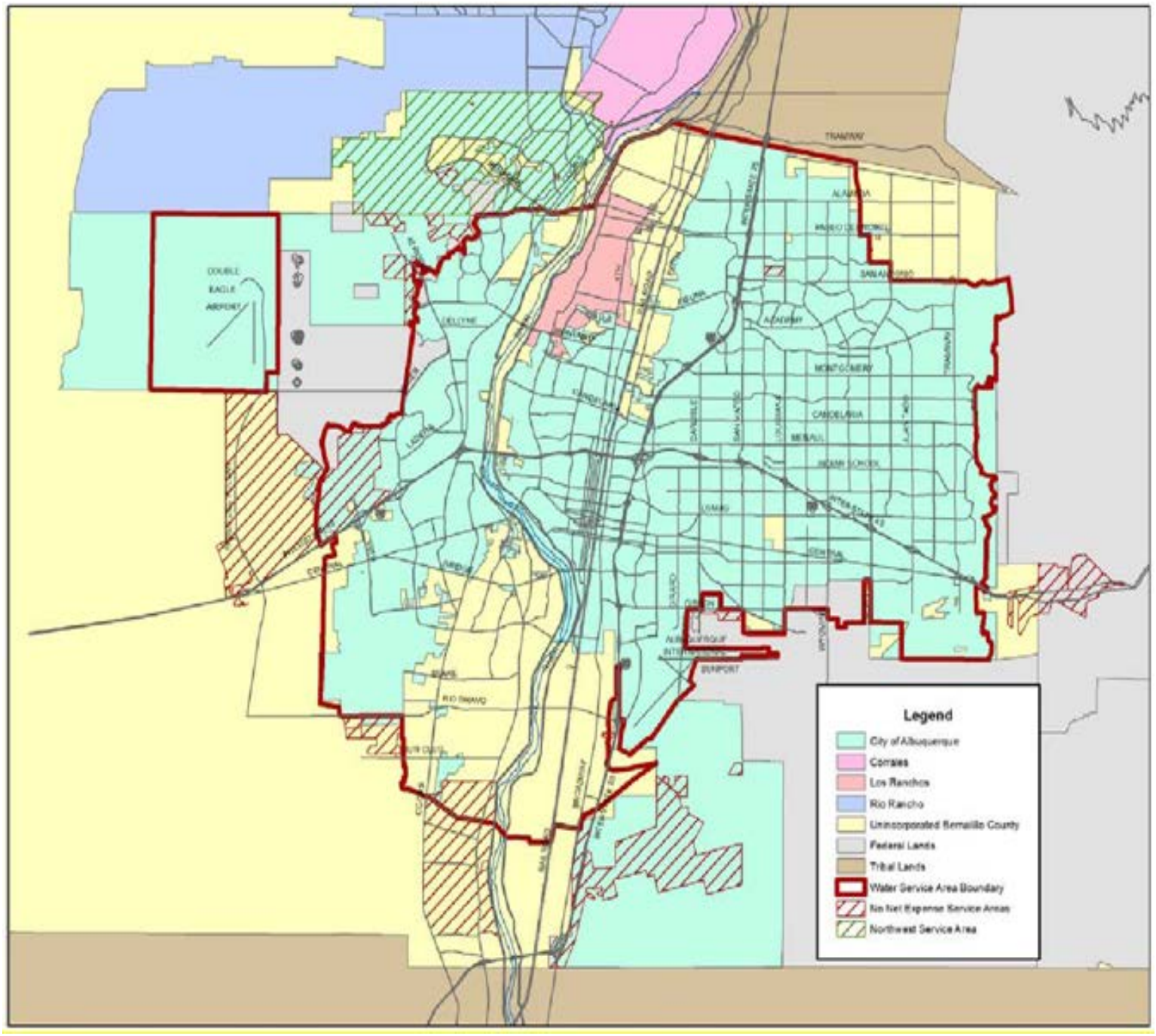
IMPLEMENT PROJECTS & PROGRAMS

The Water Authority is continually planning, designing and constructing capital improvement projects for the benefit of the utility's service area. Some projects may require years of planning and construction, with incremental CIP Budget appropriations to fund the project or program over many years. In other cases, projects may be completed in a shorter timeframe. The Planning and Engineering Division is the Water Authority's project delivery entity and is responsible for capital project development, management, and implementation through construction.

Capital Improvements include the purchase, construction, replacement, addition or major repair of Water Authority facilities, infrastructure, and equipment. The selection and evaluation of capital projects involves analysis of Water Authority requirements, speculation on growth, the ability to make estimates, and the consideration of historical perspectives. A "Capital Project" has a monetary value of at least $5,000, has a useful life of more than two years, and results in the creation or revitalization of a fixed asset. A capital project is usually relatively large compared to other "capital outlay" items in the annual operating budget.

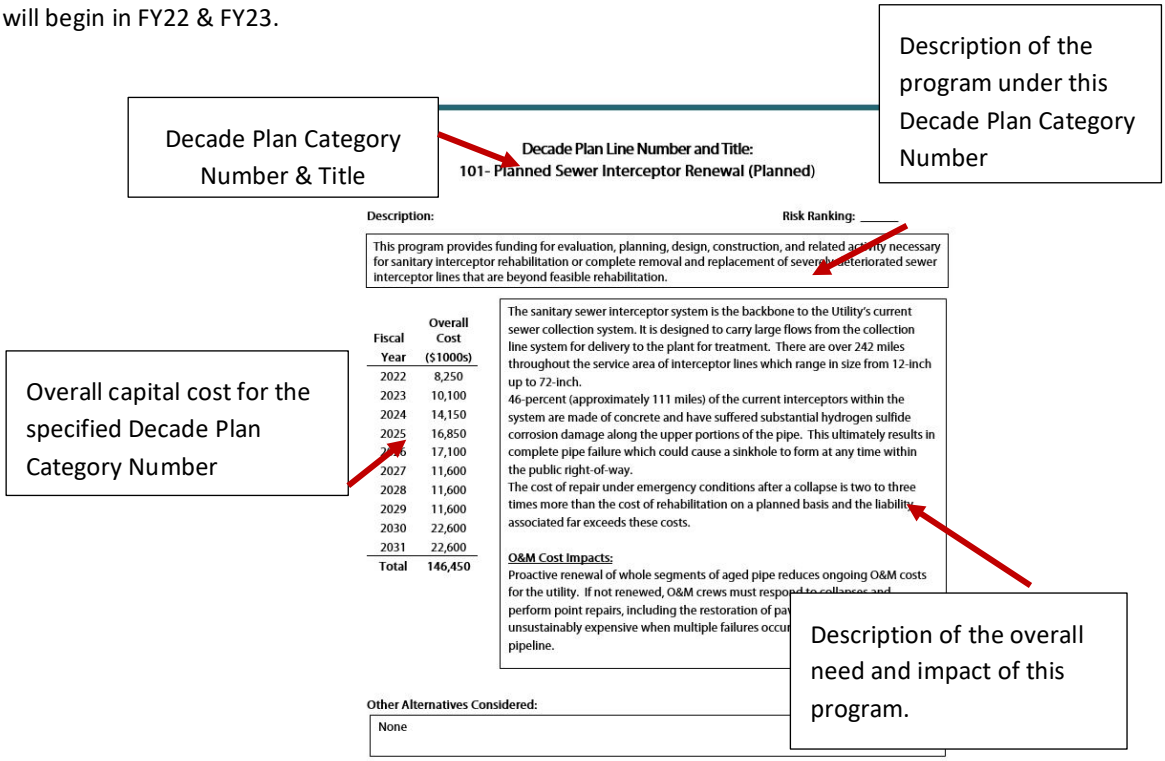


SERVICE AREA MAP

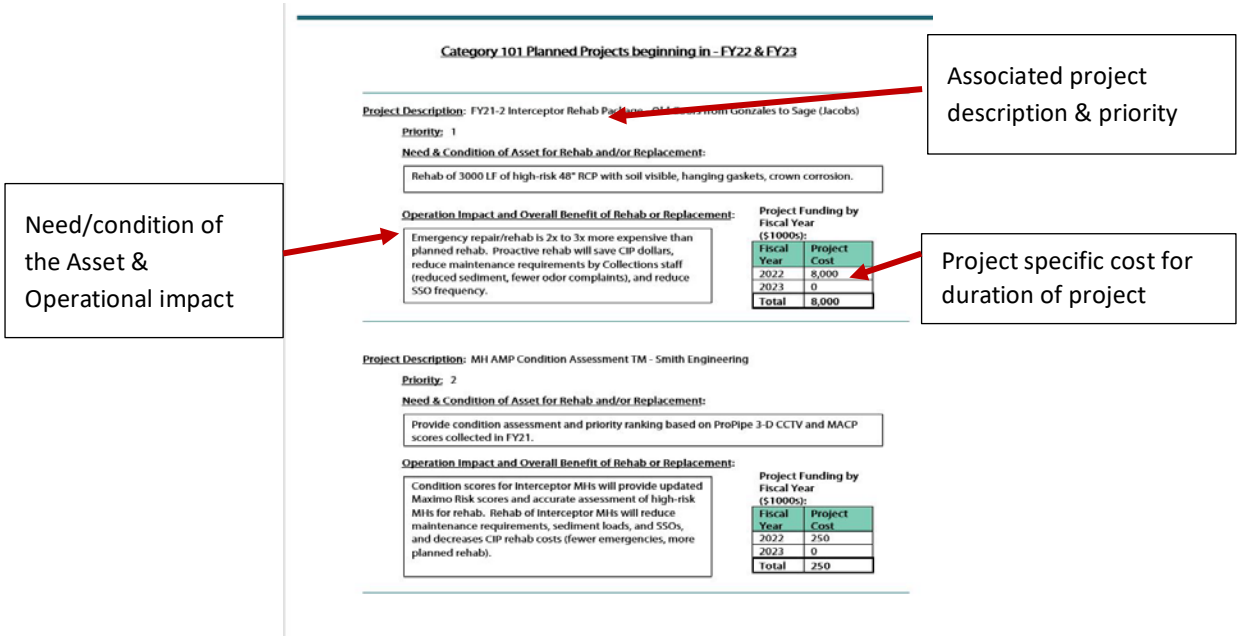


HOW TO READ THE DECADE PLAN

- Each Decade Plan category will have an overall detail for each Decade Plan category number. Additionally, each Decade Plan category number will have tables provided for each of the Capital Improvement Projects that will begin in FY22 & FY23.



- Each Decade Plan category number will have tables for each of the Capital Improvement Projects associated to that category. The projects outlined are set to begin in FY22 & FY23.



Decade Plan FY 2022 - 2031: Summary of Projects

Category No.	Category Descriptions	Projected Fiscal Year Revenue by Category ($1000's) 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Priority Renewal Projects:												
100	Sanitary Sewer Pipelines	12,150	15,500	23,906	27,605	30,264	27,600	31,600	34,600	48,600	51,600	**303,425**
200	Drinking Water Pipelines	6,475	6,150	11,275	11,475	11,225	11,225	11,225	11,225	11,225	11,225	**102,725**
300	Southside Water Reclamation Plant	27,750	19,150	14,100	11,150	6,650	6,500	7,500	14,000	6,500	6,500	**119,800**
400	Soil Amendment Facility (SAF)	50	350	50	50	50	50	50	50	50	50	**800**
500	Lift Station and Vacuum Station	1,548	3,420	2,020	1,420	1,420	1,780	1,420	1,150	1,150	1,150	**16,478**
600	Odor Control Facilities	200	50	850	50	50	50	50	50	50	50	**1,450**
700	Drinking Water Plant: Groundwater	7,850	7,775	5,792	10,206	14,929	22,474	20,606	17,190	14,630	13,056	**134,508**
800	Drinking Water Plant: Treatment	1,875	5,000	5,450	3,350	3,350	1,350	1,250	1,150	1,150	1,150	**25,075**
900	Reuse Line and Plant	1,800	200	200	200	200	200	200	200	200	200	**3,600**
1000	Compliance	365	365	365	365	365	365	365	365	365	365	**3,650**
1100	Shared Renewal	4,482	4,686	3,051	3,294	3,468	3,628	2,475	390	140	390	**26,004**
1200	Franchise Agreement Compliance	4,200	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	**40,200**
1300	Vehicles and Heavy Equipment	2,988	2,921	2,941	3,835	4,029	3,778	5,259	4,630	3,940	5,264	**39,584**
	Total Priority Renewal Projects	**71,733**	**69,567**	**74,000**	**77,000**	**80,000**	**83,000**	**86,000**	**89,000**	**92,000**	**95,000**	**817,300**
Water 2120 Projects:												
8000	All Water 2120 Projects	300	300	1,700	1,700	1,700	1,700	1,700	1,700	126,700	26,700	**164,200**
	Total Water 2120 Projects	**300**	**300**	**1,700**	**1,700**	**1,700**	**1,700**	**1,700**	**1,700**	**126,700**	**26,700**	**164,200**
Special Projects:												
9400	All Special Projects	3,350	3,350	3,350	3,350	3,350	3,350	3,350	3,350	3,350	3,350	**33,500**
	Total Special Projects	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**33,500**
Priority Growth Projects:												
2400	Land and Easement Acquisition	10	10	10	10	10	10	10	10	10	10	**100**
2700	Development Agreements	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	**12,500**
2800	MIS/GIS	3,425	4,430	2,490	2,410	2,450	2,490	2,450	2,410	2,490	2,490	**27,535**
3100	Master Plans	75	50	-	80	40	-	40	80	-	-	**365**
3200	Miscellaneous	250	250	250	250	250	250	250	250	250	250	**2,500**
	Total Priority Growth Projects	**5,010**	**5,990**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**43,000**

FY 2022-2031 Decade Plan Project Workbook

Decade Plan FY 2022 - 2031: Priority Renewal Projects

Decade Plan Category No.	Facility and Project Descriptions (Linked to detailed projects)	Project Category	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
			(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)
BASIC PROGRAM (Level 1 Priority Projects):													
100	**Sanitary Sewer Pipeline Renewal**												
101	Interceptor Renewal (Planned)	Renewal	8,250	10,100	17,206	20,705	22,264	18,600	21,600	24,600	38,600	41,600	**223,525**
102	Interceptor Renewal (Emergency)	Deficiency & Renewal	1,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	**19,000**
103	Small Diameter Sewer Line Renewal (Planned)	Renewal	1,650	2,150	3,200	3,400	4,500	5,500	6,500	6,500	6,500	6,500	**46,400**
104	Small Diameter Sewer Line Renewal (Emergency)	Renewal	750	750	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	**9,500**
105	Sewer Line CCTV Inspections	Deficiency & Renewal	500	500	500	500	500	500	500	500	500	500	**5,000**
	Sanitary Sewer Pipeline Renewal Subtotal		**12,150**	**15,500**	**23,906**	**27,605**	**30,264**	**27,600**	**31,600**	**34,600**	**48,600**	**51,600**	**303,425**
200	**Drinking Water Pipeline Renewal**												
201	Small Diameter Water Line Renewal (Planned)	Renewal	2,750	1,000	3,500	6,000	3,500	3,500	3,500	3,500	3,500	3,500	**34,250**
202	Small Diameter Water Line Renewal (Emergency)	Deficiency & Renewal	750	450	250	250	250	250	250	250	250	250	**3,200**
203	Large Diameter Water Line Renewal (Planned)	Renewal	1,000	2,650	5,150	2,650	5,000	5,000	5,000	5,000	5,000	5,000	**41,450**
204	Large Diameter Water Line Renewal (Emergency)	Deficiency & Renewal	800	800	800	1,000	1,000	1,000	1,000	1,000	1,000	1,000	**9,400**
205	Water Meters, Boxes & Services Renewal	Renewal	800	800	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	**9,600**
206	Large Water Valve Renewal	Renewal	250	250	350	350	250	250	250	250	250	250	**2,700**
207	Pressure Reducing Valve (PRV) Renewal	Renewal	125	200	225	225	225	225	225	225	225	225	**2,125**
	Drinking Water Pipeline Renewal Subtotal		**6,475**	**6,150**	**11,275**	**11,475**	**11,225**	**11,225**	**11,225**	**11,225**	**11,225**	**11,225**	**102,725**
300	**Southside Water Reclamation Plant Renewal**												
301	Preliminary Treatment Facility Renewal	Deficiency & Renewal	150	50	50	1,050	50	50	50	50	50	50	**1,600**
302	Solids Dewatering Facility Renewal	Deficiency & Renewal	50	50	50	50	50	50	50	50	50	50	**500**
303	Aeration Basin Blower Renewal	Deficiency & Renewal	50	50	50	50	50	50	50	50	50	50	**500**
304	Anaerobic Digester Renewal and Capacity Increase	Deficiency & Renewal	4,750	3,400	3,250	3,250	3,400	3,250	3,250	3,250	3,250	3,250	**34,300**
305	Primary Clarifier Renewal	Renewal	7,400	4,400	100	100	100	100	100	100	100	100	**12,600**
306	Aeration Basin Renewal	Renewal	2,000	-	2,500	3,000	1,500	1,500	1,500	1,500	1,500	1,500	**16,500**
307	Secondary Sludge Thickening Renewal	Renewal	7,500	50	50	50	50	50	50	50	50	50	**7,950**
308	Cogeneration Facility Renewal	Renewal	1,750	1,500	1,500	2,500	500	500	500	500	500	500	**10,250**
309	SWRP Renewal Contingency	Renewal	900	1,050	1,250	950	800	800	800	800	800	800	**8,950**
311	Electrical / Telemetry / Arc Flash Improvements	Renewal	1,950	5,500	5,200	50	50	50	50	50	50	50	**13,000**
312	RAS and Sludge Withdrawal Pump Improvements	Renewal	50	50	50	50	50	50	50	50	50	50	**500**
313	Plant-Wide Non Potable Water Improvements	Renewal	-	-	-	-	-	-	-	-	-	-	**-**
316	Plant Landscaping Renewal	Deficiency	1,200	3,050	50	50	50	50	1,050	7,550	50	50	**13,150**
335	Final Clarifier Improvements	Deficiency	-	-	-	-	-	-	-	-	-	-	**-**
	Southside Water Reclamation Plant Renewal Subtotal		**27,750**	**19,150**	**14,100**	**11,150**	**6,650**	**6,500**	**7,500**	**14,000**	**6,500**	**6,500**	**119,800**
400	**Soil Amendment Facility (SAF) Renewal**												
401	Soil Amendment Facility Renewal	Renewal	50	350	50	50	50	50	50	50	50	50	**800**
	SAF Renewal Subtotal		**50**	**350**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**800**

500	**Lift Station and Vacuum Station Renewal**												
501	Lift Station Renewal (Planned)	Renewal	500	500	500	500	500	500	500	500	500	500	**5,000**
509	Lift Station Renewal (Emergency)	Deficiency & Renewal	50	50	50	50	50	50	50	50	50	50	**500**
502	Lift Station 20 Renewal	Renewal	200	150	150	150	150	150	150	150	150	150	**1,550**
503	Lift Station 24 Renewal	Renewal	150	150	150	150	150	150	150	150	150	150	**1,500**
507	Electrical / Telemetry / Arc Flash Improvements	Renewal	78	-	-	-	-	360	-	-	-	-	**438**
504	Vacuum Station Renewal (Planned)	Renewal	520	2,520	1,120	520	520	520	520	250	250	250	**6,990**
510	Vacuum Station Renewal (Emergency)	Deficiency & Renewal	50	50	50	50	50	50	50	50	50	50	**500**
	Lift Station and Vacuum Station Renewal Subtotal		**1,548**	**3,420**	**2,020**	**1,420**	**1,420**	**1,780**	**1,420**	**1,150**	**1,150**	**1,150**	**16,478**
600	**Odor Control Facilities Renewal**												
601	Collection System Odor Control Renewal	Renewal	200	50	850	50	50	50	50	50	50	50	**1,450**
	Odor Control Facilities Renewal Subtotal		**200**	**50**	**850**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**1,450**
700	**Drinking Water Plant: Groundwater System Renewal**												
701	Sodium Hypochlorite Generator System Renewal	Renewal	375	375	500	400	400	400	400	400	400	400	**4,050**
702	Booster Pumping Stations Renewal	Renewal	2,500	1,425	1,600	2,582	3,018	3,379	6,320	3,823	7,825	7,851	**40,323**
703	Wells Renewal	Renewal	1,250	1,550	1,550	2,550	1,250	1,250	1,250	1,250	1,100	1,100	**14,100**
719	Reservoirs Renewal	Renewal	2,300	1,750	1,867	4,399	5,186	6,120	5,061	4,142	5,230	3,630	**39,685**
732	LV Valve Equipment / Replacement	Deficiency	75	75	75	75	75	75	75	75	75	75	**750**
735	Electrical / Telemetry / Arc Flash Improvements	Renewal	500	200	-	-	-	250	-	-	-	-	**950**
740	Arsenic Treatment Renewal	Renewal	850	2,400	200	200	5,000	11,000	7,500	7,500	-	-	**34,650**
	Drinking Water Plant: Groundwater System Renewal Subtotal		**7,850**	**7,775**	**5,792**	**10,206**	**14,929**	**22,474**	**20,606**	**17,190**	**14,630**	**13,056**	**134,508**
800	**Drinking Water Plant: Treatment Systems Renewal**												
801	Surface Water Treatment Plant Renewal	Renewal	200	200	300	300	300	300	300	200	200	200	**2,500**
802	Chemical Solids Systems Renewal	Deficiency	100	650	4,200	650	650	650	650	650	650	650	**9,500**
803	Grit Removal Basin Renewal	Deficiency	350	-	-	2,000	2,000	-	-	-	-	-	**4,350**
804	Dissolved Ozone Monitoring Renewal	Deficiency	-	500	500	-	-	-	-	-	-	-	**1,000**
805	Diversion Bar Screen Renewal	Deficiency	200	3,200	-	-	-	-	-	-	-	-	**3,400**
807	Settling Basin Edge Protection Renewal	Renewal	300	-	-	-	-	-	-	-	-	-	**300**
808	Electrical / Telemetry / Arc Flash Improvements	Renewal	400	150	150	150	150	150	50	50	50	50	**1,350**
818	Raw Water Pumping Station Renewal	Renewal	325	300	300	250	250	250	250	250	250	250	**2,675**
	Drinking Water Plant: Treatment Systems Renewal Subtotal		**1,875**	**5,000**	**5,450**	**3,350**	**3,350**	**1,350**	**1,250**	**1,150**	**1,150**	**1,150**	**25,075**
900	**Reuse Line and Plant Renewal**												
901	Reuse Linear Renewal	Renewal	100	100	100	100	100	100	100	100	100	100	**1,000**
902	Reuse Vertical Renewal	Renewal	1,700	100	100	100	100	100	100	100	100	100	**2,600**
	Reuse Line and Plant Renewal Subtotal		**1,800**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**3,600**
1000	**Compliance**												
1001	Water Quality Laboratory	Deficiency & Renewal	350	350	350	350	350	350	350	350	350	350	**3,500**
1002	NPDES Program	Deficiency	10	10	10	10	10	10	10	10	10	10	**100**
1003	Water Quality Program	Deficiency	5	5	5	5	5	5	5	5	5	5	**50**
	Compliance Subtotal		**365**	**365**	**365**	**365**	**365**	**365**	**365**	**365**	**365**	**365**	**3,650**

1100	**Shared Renewal**												
1101	Ferrous/Ferric Transfer Station 70 Renewal	Deficiency	25	25	25	25	25	25	25	25	25	25	**250**
1104	Utility Wide Asset Management Plan Update	Deficiency	1,375	425	-	250	-	250	-	250	-	250	**2,800**
1105	Security Improvements	Deficiency	100	100	100	100	100	100	100	100	100	100	**1,000**
1106	Safety Group Equipment	Deficiency	10	10	10	10	10	10	10	10	10	10	**100**
1107	Leak Detection Equipment	Renewal	5	5	5	5	5	5	5	5	5	5	**50**
1109	Scada Equipment Renewal	Renewal	2,967	4,121	2,911	2,904	3,328	3,238	2,335	-	-	-	**21,804**
	Shared Line & Plant Renewal Subtotal		**4,482**	**4,686**	**3,051**	**3,294**	**3,468**	**3,628**	**2,475**	**390**	**140**	**390**	**26,004**
1200	**Franchise Agreement Compliance**												
1201	Franchise Compliance Water & Sewer Renewal	Renewal	3,450	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,250	**32,700**
1202	DMD Street Rehab Manhole and Valve Box Adjustments	Renewal	750	750	750	750	750	750	750	750	750	750	**7,500**
	Franchise Agreement Compliance Subtotal		**4,200**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**40,200**
1300	**Vehicles and Heavy Equipment**												
1300	Fleet - Vehicle & Equipment Replacement	Renewal	2,988	2,921	2,941	3,835	4,029	3,778	5,259	4,630	3,940	5,264	**39,584**
	Vehicles and Heavy Equipment Subtotal		**2,988**	**2,921**	**2,941**	**3,835**	**4,029**	**3,778**	**5,259**	**4,630**	**3,940**	**5,264**	**39,584**
	Total Priority Renewal Projects		**71,733**	**69,567**	**74,000**	**77,000**	**80,000**	**83,000**	**86,000**	**89,000**	**92,000**	**95,000**	**817,299**

Decade Plan FY 2022 - 2031: Water 2120 Projects

Decade Plan Category No.	Facility and Project Descriptions (Linked to detailed projects)	Project Category	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
			(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)
8000	**Water 2120 Projects:**												
8000	Water 2120 Projects		300	300	1,700	1,700	1,700	1,700	1,700	1,700	126,700	26,700	**164,200**
	Water 2120 Projects Total		**300**	**300**	**1,700**	**1,700**	**1,700**	**1,700**	**1,700**	**1,700**	**126,700**	**26,700**	**164,200**

Decade Plan FY 2022 - 2031: Special Projects and Priority Growth Projects

Reference No.	Facility and Project Descriptions	Project Category	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
			(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)	(x $1000)
SPECIAL PROJECTS													
9400	**Special Projects**												
9401	Steel Waterline Renewal	Renewal	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	**10,000**
9403	Automated Meter Infrastructure (AMI)	Deficiency	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	**20,000**
9404	Renewable Energy Renewal	Deficiency	350	350	350	350	350	350	350	350	350	350	**3,500**
	Special Projects Subtotal		**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**3,350**	**67,273**
PRIORITY GROWTH PROJECTS													
2000	**Drinking Water Plant Growth**												
2400	**Land and Easement Acquisition**												
2401	Land and Easement Acquisition	Growth	10	10	10	10	10	10	10	10	10	10	**80**
	Land Acquisition Subtotal		**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**80**
2700	**Development Agreements**												
2701	Development Agreement UEC Reimbursements	Growth	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	**10,000**
	Development Agreements Subtotal		**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**10,000**
2800	**MIS/GIS**												
2801	Information Technologies (MIS / GIS)	Renewal & Deficiency	3,425	4,430	2,490	2,410	2,450	2,490	2,450	2,410	2,490	2,490	**22,555**
	MIS/GIS Subtotal		**3,425**	**4,430**	**2,490**	**2,410**	**2,450**	**2,490**	**2,450**	**2,410**	**2,490**	**2,490**	**22,555**
3100	**Master Plans**												
3101	Integrated Master Plan	Growth	75	50	-	80	40	-	40	80	-	-	365
	Master Plans Subtotal		**75**	**50**	**-**	**80**	**40**	**-**	**40**	**80**	**-**	**-**	**365**
3200	**Miscellaneous**												
3203	Low Income W/S Connections (MOU w/BernCo)	Growth	250	250	250	250	250	250	250	250	250	250	**2,500**
	Miscellaneous Subtotal		**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**250**	**2,500**
	Total Priority Growth Projects		**5,010**	**5,990**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**4,000**	**35,500**

Basic Rehabilitation Program Projects

CATEGORY 100

Sanitary Sewer Pipeline Renewal

DECADE PLAN LINE NUMBER AND TITLE:

101- Planned Sewer Interceptor Renewal (Planned)

Description:

This program provides funding for evaluation, planning, design, construction, and related activity necessary for sanitary interceptor rehabilitation or complete removal and replacement of severely deteriorated sewer interceptor lines that are beyond feasible rehabilitation.

Fiscal Year	Overall Cost ($1,000)
2022	$8,250
2023	10,100
2024	14,150
2025	16,850
2026	17,100
2027	11,600
2028	11,600
2029	11,600
2030	22,600
2031	22,600
Total	**$146,450**

The sanitary sewer interceptor system is the backbone to the Utility's current sewer collection system. It is designed to carry large flows from the collection line system for delivery to the Southside Water Reclamation Plant (SWRP) for treatment. There are over 242 miles throughout the service area of interceptor lines which range in size from 12-inch up to 72-inch.

46-percent (approximately 111 miles) of the current interceptors within the system are made of concrete and have suffered substantial hydrogen sulfide corrosion damage along the upper portions of the pipe. This ultimately results in complete pipe failure which could cause a sinkhole to form at any time within the public right-of-way.

The cost of repair under emergency conditions after a collapse is two to three times more than the cost of rehabilitation on a planned basis and the liability associated far exceeds these costs.

O&M Cost Impacts:

Proactive renewal of whole segments of aged pipe reduces ongoing O&M costs for the utility. If not renewed, O&M crews must respond to collapses and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple failures occur on the same segment of pipeline.

CATEGORY 101 PROJECTS FOR FY22-23

101- PLANNED SEWER INTERCEPTOR RENEWAL (PLANNED)

PRIORITY: 1 – OLD COORS FROM GONZALES TO SAGE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab of 3000 LF of high-risk 48" RCP with soil visible, hanging gaskets, crown corrosion.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$8,000
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$8,000**

PRIORITY: 2 – MH AMP CONDITION ASSESSMENT TM

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Provide condition assessment and priority ranking based on Pro Pipe 3-D CCTV and MACP scores collected in FY21.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Condition scores for Interceptor MHs will provide updated Maximo Risk scores and accurate assessment of high-risk MHs for rehab. Rehab of Interceptor MHs will reduce maintenance requirements, sediment loads, and SSOs, and decreases CIP rehab costs (fewer emergencies, more planned rehab).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$250**

101- PLANNED SEWER INTERCEPTOR RENEWAL (PLANNED)

PRIORITY: 3 – FORTUNA AND AVALON

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab of 3000 LF of high-risk 36"/42"/48" RCP with soil visible, hanging gaskets, crown corrosion.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	4,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$4,000**

PRIORITY: 4 – MOUNTAIN/18TH TO LOMAS/15TH

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab of 3000 LF of high-risk 60" RCP with soil visible, hanging gaskets, crown corrosion.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	4,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$4,000**

101- PLANNED SEWER INTERCEPTOR RENEWAL (PLANNED)

PRIORITY: 5 – SAN PASQUALE INTERCEPTOR MH REHAB

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab of severely corroded Interceptor MHs along San Pasquale Dr.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Rehab will reduce maintenance requirements by O&M staff, reduce likelihood of MH collapse.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	700
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$700**

PRIORITY: 6 – 12TH STREET FROM BELROSE TO I-40

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab design required based on CCTV footage showing hanging gaskets, crown corrosion, and/or soil visible.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	500
2024	7,000
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$7,500**

CATEGORY 101 PROJECTS FOR FY22-23

101- PLANNED SEWER INTERCEPTOR RENEWAL (PLANNED)

PRIORITY: 7 – 2ND STREET FROM WOODWARD TO BASEBALL FIELDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab design required based on CCTV footage showing hanging gaskets, crown corrosion, and/or soil visible.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	300
2024	5,500
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$5,800**

PRIORITY: 8 – INTERCEPTOR REHAB 2019 AMP UPDATE MAXIMO RISK SCORES - DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab design based on CCTV footage, condition/risk ratings, and input from Collections staff.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	500
2024	1,000
2025	1,500
2026	1,500
2027	1,500
2028	1,500
2029	1,500
2030	1,500
2031	1,500
Total	**$12,000**

101- PLANNED SEWER INTERCEPTOR RENEWAL (PLANNED)

PRIORITY: 9 – MH REHAB DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab design based on FY22 condition assessment, additional Pro Pipe MH CCTV/MACP scores, and input from Collections staff.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$900**

102- Emergency Sewer Interceptor Renewal

Description:

This program provides funding for emergency evaluation, planning, design, construction, and related activity necessary for sanitary interceptor rehabilitation or complete removal and replacement of severely deteriorated sewer interceptor lines that are beyond feasible rehabilitation.

Fiscal Year	Overall Cost ($1,000)
2022	$1,000
2023	2,000
2024	2,000
2025	2,000
2026	2,000
2027	2,000
2028	2,000
2029	2,000
2030	2,000
2031	2,000
Total	**$19,000**

This Decade Plan line provides funding for addressing emergency repairs of the interceptors.

The cost of repair under emergency conditions after a collapse is two to three times more than the cost of rehabilitation on a planned basis and the liability associated far exceeds these costs.

O&M Cost Impacts:

Renewal of whole segments of aged pipe, as funded by Project 101, reduces ongoing O&M costs for the utility. If not renewed, then O&M crews must respond to collapses and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple failures occur on the same segment of pipeline.

CATEGORY 102 PROJECTS FOR FY22-23

102- EMERGENCY SEWER INTERCEPTOR PROJECTS

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Interceptor & MH Repair/Rehab. Contingency funds for unplanned emergency rehab are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are required to eliminate public impact and maintain level of service to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,000
2023	2,000
2024	2,000
2025	2,000
2026	2,000
2027	2,000
2028	2,000
2029	2,000
2030	2,000
2031	2,000
Total	**$19,000**

DECADE PLAN LINE NUMBER AND TITLE:

103- Small Diameter Sewer Line Renewal (Planned)

Description:

This program provides funding for planning, design, construction, and related activity necessary for rehabilitation and replacement of deteriorating small diameter sewer collection lines.

Fiscal Year	Overall Cost ($1,000)
2022	$1,650
2023	2,150
2024	3,200
2025	3,400
2026	4,500
2027	5,500
2028	6,500
2029	6,500
2030	6,500
2031	6,500
Total	**$46,400**

There are over 1,835 miles of 8-inch and 10-inch sanitary sewer collection lines through the Authority's service area. Lines that were constructed using concrete material or other obsolete material have a life expectancy of 50 years or less. These types of lines must now be lined or replaced with suitable material to avoid collapses in the collection line and possibly the roadways that they occupy. Lining or replacement options will increase the life of the pipe up to 100 years if not longer. When the deterioration has compromised the integrity of the wall strength, the replacement option is the only option left for rehabilitation of the line. This option is about twice the cost of lining the pipe if it had been caught in time.

O&M Cost Impacts:

Proactive renewal of whole segments of aged pipe reduces ongoing O&M costs for the utility. If not renewed, then O&M crews must respond to collapses and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple failures occur on the same segment of pipeline.

CATEGORY 103 PROJECTS FOR FY22-23

103- SMALL DIAMETER SEWER LINE RENEWAL (PLANNED

PRIORITY: 1 – SAS REHAB CONTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab of 4600 LF of 8"/12" concrete SAS lines with corrosion, voids, and/or soil visible.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,500**

PRIORITY: 2 – FUTURE SAS REHAB DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab design based on CCTV footage, condition/risk ratings, and input from Collections staff.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	150
2024	300
2025	400
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$4,000**

103- SMALL DIAMETER SEWER LINE RENEWAL (PLANNED

PRIORITY: 3 – FUTURE SAS CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Construction priority based on CCTV footage, condition/risk ratings, and input from Collections staff.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repair/rehab is 2x to 3x more expensive than planned rehab. Proactive rehab will save CIP dollars, reduce maintenance requirements by Collections staff (reduced sediment, fewer odor complaints), and reduce SSO frequency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	1,500
2024	1,500
2025	2,000
2026	2,000
2027	2,000
2028	4,500
2029	6,000
2030	6,000
2031	6,000
Total	**$31,500**

PRIORITY: 4 – 4TH AND LOMAS SAS AND LIFT STATION DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Constant surcharging of flat gravity SAS lines near 4th/Lomas have caused SSOs, odor complaints, and short interval cleaning requirements. Identified solution is a new gravity SAS line and new lift station at 4th/Marble.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Construction of gravity SAS line and new lift station will drastically reduce short interval cleaning and maintenance requirements, SSOs, and odor complaints.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	500
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

DECADE PLAN LINE NUMBER AND TITLE:

104- Small Diameter Sewer Line Renewal (Emergency)

Description:

This program provides funding for unplanned and/or emergency renewal of small diameter sewer lines. Oftentimes, sewers collapse before a planned renewal project can be implemented.

Fiscal Year	Overall Cost ($1,000)
2022	$750
2023	750
2024	1,000
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$9,500**

This Decade Plan line provides funding for addressing emergency repairs of small diameter sewer lines.

The cost of repair under emergency conditions after a collapse is two to three times more than the cost of rehabilitation on a planned basis and the liability associated far exceeds these costs.

O&M Cost Impacts:

Renewal of whole segments of aged pipe, as funded by Project 103, reduces ongoing O&M costs for the utility. If not renewed, then O&M crews must respond to collapses and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple failures occur on the same segment of pipeline.

104- SMALL DIAMETER SEWER LINE RENEWAL (EMERGENCY)

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned SD SAS & MH Repair/Rehab. Contingency funds for unplanned emergency rehab are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are required to eliminate public impact and maintain level of service to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$750
2023	750
2024	1,000
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$9,500**

105- Sewer CCTV Inspections

Description:

Sanitary sewers routinely become blocked with tree roots and other materials. Also, corrosion of concrete and breakage of other types of pipes occur, that result in backups. Closed caption television (CCTV) is used to assess the condition of these lines. Some of this work is done by Water Authority staff using purchased equipment. The remainder is performed by contractors.

Fiscal Year	Overall Cost ($1,000)
2022	$500
2023	500
2024	500
2025	500
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$5,000**

This project provides funding for renewing Water Authority CCTV equipment as well as for hiring contractors to perform CCTV work.

This project provides for regular inspection of 8" to 78" sewer lines. Unlined concrete interceptors will be re-CCTV'd on a five-year cycle to identify further deterioration and help provide deterioration-rate data. In each of the other FYs, the focus will be on the small diameter lines which experience nearly all SSOs and the majority of the system collapses. These lines have generally not had any previous CCTV inspections. Through our in-house SSO reduction studies, we have identified that the likelihood of an SSO increases with pipe age. The inspections will focus on the highest risk lines each year. CCTV inspections will provide precise information on pipe defects, including grease and root issues that cause most of the Authority's SSOs. Work orders will then be generated specifying the correct cleaning tool for a specific condition, improving the cleaning effectiveness and further driving down the Authority's already low SSO rate. Seriously damaged lines will be addressed in the Small Diameter Sewer Rehab program.

O&M Cost Impacts:

The use of CCTV inspections can identify problematic pipe before it collapses and creates an emergency situation. This reduces O&M costs.

105- SEWER CCTV INSPECTIONS

PRIORITY: 1 – ANNUAL SEWER LINE CCTV INSPECTIONS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

CMOM requirement to CCTV 5% of small diameter SAS system annually, with Interceptor system CCTV'd every 5 years (2018, 2023, 2028, etc.).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

CCTV scores are used to update SAS risk model and Maximo Risk scores, providing more accurate assessment of high-risk pipes for replacement. Replacement of the worst SAS pipes reduces maintenance requirements and SSOs, and decreases CIP rehab costs (fewer emergencies, more planned rehab).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	500
2024	500
2025	500
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$5,000**

CATEGORY 200

Drinking Water Pipeline Renewal

DECADE PLAN LINE NUMBER AND TITLE:

201- Small Diameter Water Line Renewal (Planned)

Description:

This program provides funding for evaluation, planning, design, construction, and related activity necessary for the rehabilitation of water lines that have deteriorated and are past their useful life.

Fiscal Year	Overall Cost ($1,000)
2022	$2,750
2023	1,000
2024	3,500
2025	6,000
2026	3,500
2027	3,500
2028	3,500
2029	3,500
2030	3,500
2031	3,500
Total	**$34,250**

There are over 2,000 miles of small diameter (4-inch to 10-inch) water lines that serve as the distribution network for the Authority's water system. These lines are used to provide domestic metered water service, fire protection, and irrigation uses for our customers. Currently there is over 500-miles of pipe that is deficient either in wall integrity or size that poses potential threats to the Utility. As our older steel or cast-iron lines become deficient, the Utility will often respond to numerous leaks. These leaks if gone unnoticed do have the potential, under certain circumstances, to become sinkholes which destroy entire roadways and create incredible liability for the utility.

O&M Cost Impacts:

Replacing whole segments of aged pipe reduces ongoing O&M costs for the utility. If not replaced, then O&M crews must respond to leaks and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple leaks occur on the same segment of pipeline.

CATEGORY 201 PROJECTS FOR FY22-23

201- SMALL DIAMETER WATER LINE RENEWAL (PLANNED)

PRIORITY: 1 – STEEL WATER LINE (WL) REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

2307.016 Smith Design package for high-risk WL segments in Monte Vista area and Walter Rd (S of Central).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of high-risk pipe directly reduces repair requirements for Distribution. Overall ABCWUA budget benefit for planned rehab vs. emergency (significantly lower cost).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$2,500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$2,500**

PRIORITY: 2 – IN-HOUSE SMALL DIAMETER HIGH-RISK WL REPL.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of high-risk pipe using Water Authority crews. Costs for materials and pavement replacement only.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of high-risk pipe directly reduces repair requirements for Distribution. Overall ABCWUA budget benefit for planned rehab vs. emergency (significantly lower cost).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,500**

201- SMALL DIAMETER WATER LINE RENEWAL (PLANNED)

PRIORITY: 3 – STEEL WL REPLACMENT – IN HOUSE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of 7,800 LF of high-risk 6", 8", and 10" WL In-house design by Planning and Engineering Division staff.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of high-risk pipe directly reduces repair requirements for Distribution. Overall ABCWUA budget benefit for planned rehab vs. emergency (significantly lower cost).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	500
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

PRIORITY: 4 – FUTURE WL REPLACMENT DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

WL Replacement design for identified high-risk pipe segments.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of high-risk pipe directly reduces repair requirements for Distribution. Overall ABCWUA budget benefit for planned rehab vs. emergency (significantly lower cost).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,250**

DECADE PLAN LINE NUMBER AND TITLE:

202- Small Diameter Water Line Renewal (Emergency)

Description:

This program provides funding for evaluation, planning, design, construction, and related activity necessary for the rehabilitation or replacement of water lines that have deteriorated and are past their useful life.

Fiscal Year	Overall Cost ($1,000)
2022	$750
2023	450
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$3,200**

There are over 2,000 miles of small diameter (4-inch to 10-inch) water lines that serve as the distribution network for the Authority's water system. These lines are used to provide domestic metered water service, fire protection, and irrigation uses for our customers. Currently there is over 500-miles of pipe that is deficient either in wall integrity or size that poses potential threats to the Utility. As our older steel or cast-iron lines become deficient, the Utility will often respond to numerous leaks. These leaks if gone unnoticed do have the potential, under certain circumstances, to become sinkholes which destroy entire roadways and create incredible liability for the utility.

O&M Cost Impacts:

Replacing whole segments of aged pipe per Project 201 reduces ongoing O&M costs for the utility. If not replaced, then O&M crews must respond to leaks and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple leaks occur on the same segment of pipeline.

CATEGORY 202 PROJECTS FOR FY22-23

202- SMALL DIAMETER WATER LINE RENEWAL (EMERGENCY)

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Small Diameter WL Repair/replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are required to eliminate public impact and maintain level of service to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,500**

PRIORITY: 2 – STORAGE BUILDINGS (GW/WTR DIST)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Require storage areas for equipment, parts, piping for crew repairs and WL rehab/replacement.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate storage and stock of critical large diameter parts for GW and Distribution, resulting in fast response to LD pipe repairs and the opportunity to repair these LD pipes/fittings in-house, resulting in lower overall repair costs to the Water Authority. No impact to ongoing O&M labor/costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

202- SMALL DIAMETER WATER LINE RENEWAL (EMERGENCY)

PRIORITY: 3 – DEMOLITION OF WQ TRAILERS AT MISSION SITE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Demolition of abandoned WQ trailers for safety and to create additional parking/storage areas.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No operational impact.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	200
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$200**

203- Large Diameter Water Line Renewal (Planned)

Description:

This program provides funding for the rehabilitation or replacement of large diameter (14-inch and larger) water transmission pipelines that begin to leak or show signs of failure.

Fiscal Year	Overall Cost ($1,000)
2022	$1,000
2023	2,650
2024	5,150
2025	2,650
2026	5,000
2027	5,000
2028	5,000
2029	5,000
2030	5,000
2031	5,000
Total	**$41,450**

There are over 410 miles of large diameter (14-inch and larger) water transmission pipelines that serve as the transmission network for the Authority's water system. These lines are used to convey large quantities of drinking water from production facilities (e.g., wells) to storage reservoirs and between distribution system zones. When leaks occur on these lines, they can lead to a major loss of water, property damage, and street traffic disruption.

O&M Cost Impacts:

Replacing whole segments of aged pipe reduces ongoing O&M costs for the utility. If not replaced, then O&M crews must respond to leaks and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple leaks occur on the same segment of pipeline.

CATEGORY 203 PROJECTS FOR FY22-23

203- LARGE DIAMETER WATER LINE RENEWAL (PLANNED)

PRIORITY: 1 – 8E TRANSMISSION LINE DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Need for cross-trunk transfer of potable water from Sandia Manor/Supper Rock reservoirs to Escondido Reservoir as second source of supply.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

With 8E Transmission line installed and operational, repair/rehab of transmission lines in Four Hills area can occur without risk of water outages.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	150
2024	150
2025	150
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$950**

PRIORITY: 2 – OLD SANTA BARBARA PUMP STATION CUT/CAP

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Need to isolate Old SB PS to decommission Old SB PS and eliminate potential T-line leak locations.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will simplify T-Line isolation/operation of Freeway Trunk T-line between Duranes and Santa Barbara Reservoirs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

CATEGORY 203 PROJECTS FOR FY22-23

203- LARGE DIAMETER WATER LINE RENEWAL (PLANNED)

PRIORITY: 3 – 8E TRANSMISSION LINE CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Need for cross-trunk transfer of potable water from Sandia Manor/Supper Rock reservoirs to Escondido Reservoir as second source of supply.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

With 8E Transmission line installed and operational, repair/rehab of transmission lines in Four Hills area can occur without risk of water outages.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	2,000
2024	5,000
2025	2,500
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$9,500**

204 – Large Diameter Water Line Renewal (Emergency)

Description:

This program provides funding for the rehabilitation or replacement of large diameter (14-inch and larger) water transmission pipelines that begin to leak or show signs of failure.

Fiscal Year	Overall Cost ($1,000)
2022	$800
2023	800
2024	800
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$9,400**

There are over 410 miles of large diameter (14-inch and larger) water transmission pipelines that serve as the transmission network for the Authority's water system. These lines are used to convey large quantities of drinking water from production facilities (e.g., wells) to storage reservoirs and between distribution system zones. When leaks occur on these lines, they can lead to a major loss of water, property damage, and street traffic disruption.

O&M Cost Impacts:

Replacing whole segments of aged pipe per Project 203 reduces ongoing O&M costs for the utility. If not replaced, then O&M crews must respond to leaks and perform point repairs, including the restoration of pavement. This becomes unsustainably expensive when multiple leaks occur on the same segment of pipeline.

204 – LARGE DIAMETER WATER LINE RENEWAL (EMERGENCY)

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Large Diameter Transmission Line Repair/replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are required to eliminate negative public impact and maintain level of service to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$800
2023	800
2024	800
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$9,400**

205 – Water Meters, Boxes and Services Renewal

Description:

The Water Authority meters potable water usage for residences and businesses for calculating monthly bills. This funding will be used to replenish warehouse stock to include meters, meter boxes, and service line fittings between the street main and the meter that fail and require replacement.

Fiscal Year	Overall Cost ($1,000)
2022	$800
2023	800
2024	1,000
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$9,600**

A portion of the funds is directed to large revenue meter testing, repairs, and maintenance. Service line replacements reduce lost water and infrastructure damages in public right-of-way. Replacement of non- or under-registering water meters will enhance revenues and reduces unaccounted for water. Meter box replacement will reduce liability in sidewalk and other areas due to tripping and other public traffic hazards.

O&M Cost Impacts:

The AMI system will largely eliminate the need for Meter Readers. There will still be a need for technicians to address maintenance issues with the new automated meters; however, there should be a net reduction in O&M costs with AMI.

205 – WATER METERS, BOXES AND SERVICES RENEWAL

PRIORITY: 1 – ANNUAL WATER METERS/BOXES/SERVICES REHAB

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The Water Authority meters potable water usage for residences and businesses for calculating monthly bills. The Water Authority is replacing manually read meters with smart meters that use automated meter reading. Also, meters, meter boxes, and service lines between the street main and the meter that fail require replacement.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

The AMI system will largely eliminate the need for Meter Readers. There will still be a need for technicians to address maintenance issues with the new automated meters; however, there should be a net reduction in O&M costs with AMI.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$800
2023	800
2024	1,000
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$9,600**

206 – Large Water Valve Renewal

Description:

Continuous replacement of large diameter valves (16" and larger) that have become inoperable or unreliable. Renewal of these assets are required to allow isolation of sections of water distribution system during emergencies such as pipe breaks and routine maintenance.

Fiscal Year	Overall Cost ($1,000)
2022	$250
2023	250
2024	350
2025	350
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,700**

The larger and older valves are critical for controlling transmission and distribution flows. If valve operating problems occur, the large valves can be especially problematic for controlling leaks and performing construction shutoffs. When they don't work properly, the shutoffs must be extended geographically and have larger potential for lengthier and more extensive water service disruptions and reduced fire protection.

O&M Cost Impacts:

Valves that are broken (frozen) in the open position cannot be operated and maintained. Replacing these inoperable valves with working units adds to O&M costs due to required periodic valve exercising. However, working valve to allow system segment isolation is important, so the added O&M costs in justified.

206 – LARGE WATER VALVE RENEWAL

PRIORITY: 1 – LARGE VALVE REPL. PROJECTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Large Diameter Valves are critical for controlling transmission and distribution flows. Thus, repair/replacement of damaged valves is critical.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Broken valves cannot be operated/maintained. Replacing these valves will add O&M costs for periodic valve exercising, but costs are justified due to critical importance of isolating large system segments.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	150
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,300**

PRIORITY: 2 – FUTURE SJC VALVE ACTUATOR REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

SJC pipeline system contains numerous large diameter valves that are operated constantly. Improper torque ratings have contributed to premature actuator failure, and annual replacement for the next 5 years will ensure functionality of critical SJC transmission line valves.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

The SJC transmission line system is critical to meeting Eastside/Westside water supply requirements. Replacing actuators will maintain existing valve exercising activities but decrease overall system maintenance costs (well operating costs, etc.) by ensuring that SJCWTP water can be delivered to all the terminal reservoirs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	100
2025	100
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$400**

207 – Pressure Reducing Valve (PRV)Renewal

Description:

Periodic replacement of pressure reducing valves (PRV) and reconstruction of vaults (for safety and traffic control reasons) is required as the older installations deteriorate.

Fiscal Year	Overall Cost ($1,000)
2022	$125
2023	200
2024	225
2025	225
2026	225
2027	225
2028	225
2029	225
2030	225
2031	225
Total	**$2,125**

Pressure reducing valves serve a fundamental water distribution purpose and essentially replace the need for more expensive water storage facilities. Failures result in either lowered pressure (reduced fire protection and service interruptions) or excessive pressures which can damage plumbing and distribution system components. These facilities are below grade and some are in traffic areas and need to be relocated and upgraded to enhance the preventive maintenance activities and safety of the maintenance technicians.

O&M Cost Impacts:

As PRVs wear, increased maintenance is required to keep them operating properly. If PRVs fail, they can result in high system pressures resulting in increased water leakage and broken water lines. Periodic rehabilitation or replacement minimizes O&M costs.

CATEGORY 207 PROJECTS FOR FY22-23

207 – PRESSURE REDUCING VALVE (PRV)RENEWAL

PRIORITY: 1 – MOON & ACADEMY PRV VAULT CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Reconstruction of the vault to allow access and provide a safe workspace for Operators to perform preventative maintenance activities.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proper PRV access, maintenance and operation will ensure correct operating pressures, minimal system pressure changes, and decreased water leakage/broken pipes, decreasing overall O&M costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$75**

PRIORITY: 2 – PRV VALVE REPLACEMENTS (VALVES/FITTINGS)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

PRV maintenance is critical for controlling distribution flows/pressures and reducing leaks/breaks/claims. Thus, repair/replacement of damaged PRVs are critical.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Non-functioning PRVs cannot be operated/maintained. Replacing these valves will decrease overall O&M costs. Consistent pressures will be produced for ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

207 – PRESSURE REDUCING VALVE (PRV)RENEWAL

PRIORITY: 3 – CAMINO DE LA SIERRA/INDIAN SCHOOL PRV VAULT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation/reconstruction of the vault to allow access and provide safe work space for Operators to perform preventative maintenance activities.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proper PRV access, maintenance and operation will ensure correct operating pressures, minimal system pressure changes, and decreased water leakage/broken pipes, decreasing overall O&M costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	75
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$75**

PRIORITY: 4 – FUTURE PRV VAULT IMPROVEMENTS DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Will perform 1-2 design projects per year based on risk scores in Maximo and input from Distribution regarding highest priority PRV vaults for repair/rehab.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proper PRV access, maintenance and operation will ensure correct operating pressures, minimal system pressure changes, and decreased water leakage/broken pipes, decreasing overall O&M costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	75
2024	75
2025	75
2026	75
2027	75
2028	75
2029	75
2030	75
2031	75
Total	**$675**

CATEGORY 300

Southside Water Reclamation Plant Renewal

301 – Preliminary Treatment Facility Renewal

Description:

Major Preliminary Treatment Facility improvements were completed in 2017, resulting in upgrades to safety, performance, and reliability. This facility is designed for removing rags and other larger debris ahead of Lift Station 11A, which lifts sewage into the Southside Water Reclamation Plant (SWRP).

Fiscal Year	Overall Cost ($1,000)
2022	$150
2023	50
2024	50
2025	1,050
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$1,600**

This facility is needed to remove rags and other larger debris ahead of Lift Station 11A, which lifts sewage into the Southside Water Reclamation Plant (SWRP).

O&M Cost Impacts:

The new screening facility reduces the amount of O&M required to keep Lift Station 11A working properly. Currently, rags and other debris in the raw sewage periodically clog the pumps. This requires that maintenance staff members unclog the pumps to allow them to work properly. In some instances, the rags and other debris have resulted in rapid wear and damage to the pumps.

Other safety improvements and HVAC improvements are also underway.

Not making these improvements could impact the performance and reliability of Lift Station 11A and the safety of O&M staff members.

CATEGORY 301 PROJECTS FOR FY22-23

301 – PRELIMINARY TREATMENT FACILITY RENEWAL

PRIORITY: 1 – PTF BIOFILTER – BIOTOWER INSTALLATION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The SWRP Odor Control Master Plan identified the PTF biofilters as priority locations for additional hydrogen sulfide removal via installation of biotower systems. This pilot study will determine viability of this approach.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Addition of biotower system will improve odor control at SWRP but will require additional costs and manhours for O&M on an annual basis.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	1,000
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,100**

PRIORITY: 2 – PTF FIRE SYSTEM – HEAT SENSOR REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Random alarms continue to be generated from the PTF heat sensors - a building code review has identified heat sensors in the facility for removal/replacement.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Elimination of false alarms will allow Operations to focus attention/resources on actual priorities and respond accordingly. No cost increase/decrease to O&M.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$50**

301 – PRELIMINARY TREATMENT FACILITY RENEWAL

PRIORITY: 3 – VORTEX GRIT CHAMBERS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The Vortex Grit Chambers were installed in 2015/2016, and are now approaching 5 years of operation. Inspection efforts in FY22 will be performed and may result in potential repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Vortex Grit Chambers are critical for continued grit removal to protect SWRP pumps/equipment/piping. This inspection and possible repair work will not affect the overall O&M labor/cost associated with the PTF and the Vortex Grit Chambers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	50
2024	50
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

302 – Solids Dewatering Facility Renewal

Description:

The Solids Dewatering Facility is where water is separated from solids through different pumping or filtering systems. Rehabilitation is necessary for safety improvements and other minor improvements as the facility ages.

Fiscal Year	Overall Cost ($1,000)
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

The budget shown will cover the cost of design and construction of the safety improvements. Fiscal Years 2024 and beyond are to cover miscellaneous minor renewal projects anticipated as the facility ages.

O&M Cost Impacts:

None

302 – SOLIDS DEWATERING FACILITY RENEWAL

PRIORITY: 1 – SAFETY/HAVC/EQUIPMENT IMPROVEMENTS/REPL.

Need & CONDITION of Asset for Rehab and/or Replacement:

Operating Equipment and Electrical requires annual replacement and/or repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement will ensure that SDF facility operates effectively for solids dewatering. Continuous repairs will decrease O&M labor at the SDF facility.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

303 – Aeration Basin Blower Improvements

Description:

The Aeration Basin Blowers run routinely and suffer wear and tear that require renewal. These blowers have been in service for several decades and are critical for aerobic biological treatment of sewage.

Fiscal Year	Overall Cost ($1,000)
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

The existing Aeration Basin Blower systems require annual expenditures to keep them in good working order.

O&M Cost Impacts:

The operation of these blowers is critical to the treatment of the sewage. Keeping the blowers in good working order is a necessary O&M cost.

303 – AERATION BASIN BLOWER IMPROVEMENTS

PRIORITY: 1 – AERATION BLOWER/BUILDING IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Operating Equipment and Electrical requires annual replacement and/or repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement will ensure that blowers operate effectively for aeration. Continuous repairs will decrease long-term O&M labor at the blower buildings.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

304 – Anaerobic Digester Renewal and Capacity Increase

Description:

The digesters remove volatile solids in the sludge produced by the SWRP's liquid treatment operations prior to sludge dewatering and land disposal. This digestion process converts volatile solids into a methane gas by-product that is burned by the SWRP's co-generation system to produce electric power for plant operations and produce hot water for digester heating and space heating of SWRP buildings.

Fiscal Year	Overall Cost ($1,000)
2022	$4,750
2023	3,400
2024	3,250
2025	3,250
2026	3,400
2027	3,250
2028	3,250
2029	3,250
2030	3,250
2031	3,250
Total	**$34,300**

The recently completed Phase 1 of the digester renewal program addressed deteriorated mixers, safety valves, hatches, and other mechanical components of the digesters. This has brought all 14 digesters into varying levels of working order. Also, a new 2-million-gallon liquid digested sludge storage tank has been constructed as part of Project 302 - Dewatering Facility Renewal.

The funding shown will be used to continue the renewal and capacity increase of the digesters. This will include several digester roof replacements, as well as conversion of secondary digesters to primary digesters to provide more digestion capacity. Once this additional capacity is available, the different digesters will be able to be taken out of service one-at-a-time or in pairs to allow structural and coating renewal on their interiors as well as the installation of new, more energy efficient mixers. The structural rehabilitation work requires digesters to be taken out of service for extended periods of time. The funding will also be used to upgrade the mixers to more efficient units to save on energy. Also, additional improvements to the sludge heating system will be made to allow for more consistent temperature control.

O&M Cost Impacts:

Installing more efficient mixers will lower electrical energy costs, resulting in an overall reduction in O&M costs. Also, the new mixers will initially require less maintenance than decades-old mixers.

304 – ANAEROBIC DIGESTER RENEWAL AND CAPACITY INCREASE

PRIORITY: 1 – GAS HOLDER & SPHERE RENEWAL CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Coating/cover repairs required for Gas Holders to maintain internal gas pressures/water levels.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Decreased SWRP Ops attention/maintenance required, will provide consistent gas quality and pressure to Compression Building.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$2,000
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$2,000**

PRIORITY: 2 – DIGESTER 10 REHAB CONSTUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Cover replacement and coatings required for Digester 10, as well as piping gallery adjustments between Digesters 4-6.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Digester 10 will be in service, allowing other Digesters to be taken off-line for inspection/repairs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$2,500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$2,500**

304 – ANAEROBIC DIGESTER RENEWAL AND CAPACITY INCREASE

PRIORITY: 3 – DIGESTER 6 REHAB DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Cover replacement, coatings, and mixer improvements required for Digester 6.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Existing wooden cover is rotting - replacement will improve digester performance, minimize O&M, and ensure proper Odor Control.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	150
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$400**

PRIORITY: 4 – DIGESTER 6 REHAB CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Cover replacement and coatings required for Digester 10, as well as piping gallery adjustments between Digesters 4-6.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Digester 10 will be in service, allowing other Digesters to be taken off-line for inspection/repairs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	3,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$3,000**

304 – ANAEROBIC DIGESTER RENEWAL AND CAPACITY INCREASE

PRIORITY: 5 – DIGESTERS 11, 12, & 14 DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Cover replacement, coatings, and mixer improvements required for Digesters 11, 12, and 14.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Existing Digester Covers are cracked beyond repair, require replacement, new LMM, coatings, etc. to minimize O&M and ensure proper Odor Control.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	250
2024	250
2025	250
2026	150
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$900**

305 – Primary Clarifier Improvements

Description:

The Primary Clarifiers are used to remove suspended solids ahead of the Aeration Basins. Maintaining these units is important for the downstream processes to work properly and to meet NPDES permit requirements. The primary clarifiers handle sewage is corrosive resulting in deterioration of structural, mechanical, and electrical components.

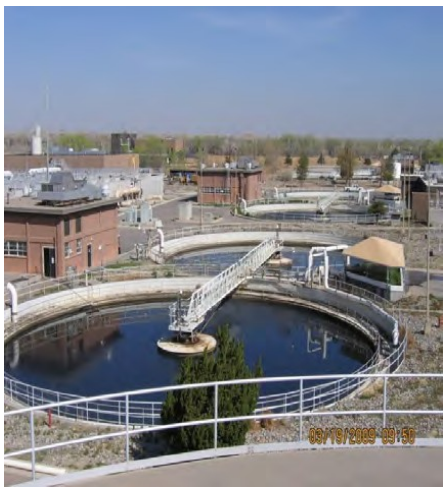
Fiscal Year	Overall Cost ($1,000)
2022	$7,400
2023	4,400
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$12,600**

The funding shown is to rehabilitate and make improvements to the existing eight primary clarifiers. This will include repair of structural concrete and replacement of the mechanical scraper mechanisms. In addition, covers will be added to assist in combating offensive odors. Improvements are also being made to the odor control biofilters to provide more effective and reliable treatment. In the future, an additional pair of clarifiers may be necessary if influent flow rates to the SWRP increase.

The funding in 2021 also covers the cost of making improvements to Primary Pumping Stations 1 and 2.

O&M Cost Impacts:

Keeping the equipment in good working order, will reduce overall maintenance costs associated with repairs of older, worn equipment.



CATEGORY 305 PROJECTS FOR FY22-23

305 – PRIMARY CLARIFIER IMPROVEMENTS

PRIORITY: 1 – PC 1-4 ODOR CONTROL REHAB + PH1/PH2 DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

PC 1-4 Odor Control Rehab required to cover PC 1-4 for future operational flexibility and to meet ultimate SWRP design flowrate.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Covered PCs 1-4 and upgraded PH1/PH2 will allow PCs 5-8 to be taken out of service periodically for maintenance, with no treatment process impact, and no Odor problems.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	300
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$600**

PRIORITY: 2 – PC 1-4 ODOR CONTROL REHAB + PH1/PH2 CONST.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

PC 1-4 Odor Control Rehab required to cover PC 1-4 for future operational flexibility and to meet ultimate SWRP design flowrate.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Covered PCs 1-4 and upgraded PH1/PH2 will allow PCs 5-8 to be taken out of service periodically for maintenance, with no treatment process impact, and no odor problems.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$7,000
2023	4,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$11,000**

305 – PRIMARY CLARIFIER IMPROVEMENTS

PRIORITY: 3 – ONGOING EQUIPMENT IMPROVEMENTS/REPL. (PUMPS/ELECTRICAL)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Operating Equipment and Electrical requires annual replacement and/or repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement will ensure that Primary Clarifiers are operating effectively for solids/BOD removal.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$1,000**

306 – Aeration Basin Renewal

Description:

The Aeration Basin (a.k.a. Process Basins) are used to treat the sanitary sewage to remove biochemical oxygen demand (BOD) and nutrients (e.g., ammonia and nitrate). These treatment in these basins is critical for meeting the discharge permit requirements for the SWRP. During Phase 1 of the program, the aeration diffusers were replaced with new, higher efficiency units.

Fiscal Year	Overall Cost ($1,000)
2022	$2,000
2023	0
2024	2,500
2025	3,000
2026	1,500
2027	1,500
2028	1,500
2029	1,500
2030	1,500
2031	1,500
Total	**$16,500**

The funding shown will be used to address structural, mechanical, electrical, and instrumentation elements of the fourteen aeration basins at the SWRP. For instance, the valves and electric operators are wearing out and/or have frozen up or failed and need replacement. If these valves fail in the future, it will be difficult to properly distribute air to the different zones of fine bubble diffusers. This adversely affects the quality of the aeration process which can cause the Water Reclamation Plant to violate the NPDES Discharge permit. It also hinders efficient use of electric power at the SWRP.

O&M Cost Impacts:

Old, worn equipment requires more periodic maintenance to keep in proper working order than new replacement equipment. Also, when equipment fails, it impacts plant performance requiring the operators to make changes in plant operations, such as switching basins.

306 – AERATION BASIN RENEWAL

PRIORITY: 1 – SOUTH AERATION BASINS 5 & 6 CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Diffuser/piping repairs/replacement plus relocation of valves above the mixed liquor level are necessary to maintain and operate these aeration basins effectively.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Rehab of the aeration basins ensures effective DO transfer in the basins, allowing SWRP Ops to make proper process changes to achieve WQ discharge criteria. Effective aeration and accessible equipment will decrease effort required for O&M activities.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$2,000
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$2,000**

307 – Secondary Sludge Thickening Improvements

Description:

This existing Dissolved Air Floatation (DAF) Facility is used to concentrate activated sludge that is periodically wasted from the secondary treatment process. Sludge concentration using DAF also conserves volume needed in the anaerobic digesters to stabilize the sludge and allows for a more efficient sludge digestion process. As the DAF equipment in the facility fails, it becomes difficult to keep up with sludge wasting requirements for the activated sludge process.

Fiscal Year	Overall Cost ($1,000)
2022	$7,500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$7,500**

The existing equipment within the DAF Facility is old and wearing out. Parts are becoming difficult to find. As the DAF equipment in the facility fails, it becomes more difficult to keep up with sludge wasting requirements for the activated sludge process.

More efficient, better performing DAF technology is available such as rotary drum thickeners (RDTs). Funding shown is for replacement of DAF with RDTs.

O&M Cost Impacts:

The existing DAF equipment is old, worn, and obsolete. Additionally, the DAF process is more mechanically intense than the proposed RDTs. Once constructed, the RDT facility will require less O&M effort to operate and maintain.

307 – SECONDARY SLUDGE THICKENING IMPROVEMENTS

PRIORITY: 1 – ROTARY DRUM THICKENER FACILITY - DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The failing DAF system is being replaced with a new RDT system for more efficient sludge concentration/digestion.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

A reliable sludge thickening system will reduce O&M labor requirements, equipment replacement costs, and electrical consumption.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

PRIORITY: 2 – ROTARY DRUM THICKENER FACILITY - CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The failing DAF system is being replaced with a new RDT system for more efficient sludge concentration/digestion.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

A reliable sludge thickening system will reduce O&M labor requirements, equipment replacement costs, and electrical consumption.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$7,000
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$7,000**

307 – SECONDARY SLUDGE THICKENING IMPROVEMENTS

PRIORITY: 3 – ONGOING ROTARY DRUM THICKNER IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Operating Equipment and Electrical requires annual replacement and/or repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement will ensure that RDT facility is operating effectively for solids thickening/sludge digestion.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$450**

308 – Cogeneration Improvements

Description:

The two cogeneration facilities use large internal combustion engines to burn biogas produced by the Anaerobic Digesters at the SWRP. The engines turn generator sets that produce electricity that is used to power the SWRP. The Cogen facilities also provide hot water for heating the digesters and other buildings at the plant.

Fiscal Year	Overall Cost ($1,000)
2022	$1,750
2023	1,500
2024	1,500
2025	2,500
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$10,250**

The funding for FY2022 and FY2023 is for design of Cogen stability improvements and ongoing Cogen equipment improvements and replacements. This includes heating and cooling system upgrades in the South Cogen facility.

The heating and cooling system upgrades for North Cogen is anticipated in FY2023 and FY2024.

O&M Cost Impacts:

Consistent operation of the Cogen facility will increase SWRP power production which will reduce PNM electrical consumption and therefor reduce electrical operating costs.

308 – COGENERATION IMPROVEMENTS

PRIORITY: 1 – COGENERATION STABILITY IMPROVEMENTS DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Addition of another 1MW to 2MW generator at SWRP will provide much-needed redundancy for Unit processes when Cogen unit(s) are temporarily down for service/maintenance.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Backup power generation for all critical SWRP unit processes will ensure SWRP Operations can maintain WW treatment throughout an extended PNM power outage or Cogen system outage.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$250**

PRIORITY: 2 – ONGOING COGEN EQUIPMENT IMPROVEMENTS/REPLACEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Operating Equipment/Electrical requires annual replacement and/or repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement will ensure that Cogen Facilities are operating effectively for continuous SWRP Power production. More consistent Cogen operation means less PNM electrical consumption, and lower operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,500
2023	1,500
2024	1,500
2025	500
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$8,000**

DECADE PLAN LINE NUMBER AND TITLE:

309 – SWRP Renewal Contingency

Description:

Much of the SWRP is over 30 years old and some elements are 50 years old. This is a complex treatment plant with many individual pieces of equipment operating in corrosive environments. Miscellaneous small renewal projects are required to address failing assets and to keep the plant in service and treating the sewage to meet the NPDES permit requirements.

Fiscal Year	Overall Cost ($1,000)
2022	$900
2023	1,050
2024	1,250
2025	950
2026	800
2027	800
2028	800
2029	800
2030	800
2031	800
Total	**$8,950**

The funding shown is to allow for small rehab projects as they are needed. Typically, these projects are designed by one of the WUA's on-call engineering consultants and the competitively bid among the WUA's four on-call contractors. This allows problems to be resolved in a quick and cost-effective manner.

O&M Cost Impacts:

Dependent upon specific project.

Not providing this funding would result in important equipment and systems not being restored to service when they failed, which could result in employee safety issues or water quality violations.

CATEGORY 309 PROJECTS FOR FY22-23

309 – SWRP RENEWAL CONTINGENCY

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned SWRP Repair/replacement projects. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are a reality for maintenance of SWRP treatment processes and level of service to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$800
2023	800
2024	800
2025	800
2026	800
2027	800
2028	800
2029	800
2030	800
2031	800
Total	**$8,000**

PRIORITY: 2 – FIVE SLIDE GATE REPLACEMENT CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of 5 failing or inoperable slide gates at SWRP.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will provide improved SWRP Ops control over sewage flow between SWRP unit processes.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	150
2024	150
2025	150
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$550**

309 – SWRP RENEWAL CONTINGENCY

PRIORITY: 3 – SWRP ENGINEERING OFFICE TRAILER CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

A second engineering office trailer at SWRP will provide 6 offices and a conference room space for Centralized Engineering personnel.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Engineering office space at SWRP would eliminate office rental space downtown, decreasing ABCWUA budget costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

DECADE PLAN LINE NUMBER AND TITLE:

311 – Electrical/Telemetry/Arc Flash Improvements

Description:

Wastewater electrical systems have reached or exceeded their 20-year life and need to be replaced. The electrical gear is essential for successful operation of SWRP.

Fiscal Year	Overall Cost ($1,000)
2022	$1,950
2023	5,500
2024	5,200
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$13,000**

Funding in FY2022 and FY2023 will be for ongoing electrical improvements and replacements to keep the SWRP operating effectively. Additionally, funding during these fiscal years will be used for Power Loop A&B design and construction, lighting protection, and MCC/Switchgear renewal and replacement.

O&M Cost Impacts:

Improvements will reduce maintenance costs.

311 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 1 – ONGOING SWRP ELECTRICAL EQUIPMENT IMPV/REPL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Operating Equipment/Electrical requires annual replacement and/or repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement will ensure that SWRP unit processes are operating effectively. More consistent electrical equipment operation means less labor/maintenance, lower electrical consumption, and lower operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

PRIORITY: 2 – POWER LP A&B – PHASE I LP ARCHITECTURE DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The current medium voltage SWRP power system has no redundancy and cannot be taken out of service without impacting critical unit process operations. The Power Loop A&B project will provide a second separate power loop for powering unit processes, so that one loop can be taken out of service while other loop continues to maintain SWRP power supply.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Power Loop A&B Upgrades will ultimately produce a resilient, redundant electrical system that can be switched from one loop to another while maintenance is performed, ensuring consistent SWRP operation and treatment below discharge permit limits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

311 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 3 – POWER LP A&B PHASE I CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The current medium voltage SWRP power system has no redundancy and cannot be taken out of service without impacting critical unit process operations. The Power Loop A&B project will provide a second separate power loop for powering unit processes, so that one loop can be taken out of service while other loop continues to maintain SWRP power supply.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Power Loop A&B Upgrades will ultimately produce a resilient, redundant electrical system that can be switched from one loop to another while maintenance is performed, ensuring consistent SWRP operation and treatment below discharge permit limits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

PRIORITY: 4 – LIGHTNING PROTECTION DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Lightning protection on all critical SWRP facilities will increase operational resiliency and decrease/eliminate potential for electrical damage from lightning strikes.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased resiliency of SWRP electrical systems will increase longevity and decrease overall cost to the Water Authority. This project will have no effect on current O&M costs or labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$50**

311 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 5 – LIGHTNING PROTECTION CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Lightning protection on all critical SWRP facilities will increase operational resiliency and decrease/eliminate potential for electrical damage from lightning strikes.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased resiliency of SWRP electrical systems will increase longevity and decrease overall cost to the Water Authority. This project will have no effect on current O&M costs or labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

PRIORITY: 6 – MCC & SWITCHGEAR SB-22 & COGEN DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

MCC/Switchgear upgrades will allow nanosecond response to electrical surges, thus protecting downstream electrical systems from voltage fluctuations, increasing overall resiliency of SWRP electrical systems.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased resiliency of SWRP electrical systems will increase longevity and decrease overall cost to the Water Authority. This project will have no effect on current O&M costs or labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

311 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 7 – MCC & SWITCHGEAR CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

MCC/Switchgear upgrades will allow nanosecond response to electrical surges, thus protecting downstream electrical systems from voltage fluctuations, increasing overall resiliency of SWRP electrical systems.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased resiliency of SWRP electrical systems will increase longevity and decrease overall cost to the Water Authority. This project will have no effect on current O&M costs or labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,000
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,000**

PRIORITY: 8 – POWER LP A&B PHASE 2 SOURCE BUS DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The current medium voltage SWRP power system has no redundancy and cannot be taken out of service without impacting critical unit process operations. The Power Loop A&B project will provide a second separate power loop for powering unit processes, so that one loop can be taken out of service while other loop continues to maintain SWRP power supply.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Power Loop A&B Upgrades will ultimately produce a resilient, redundant electrical system that can be switched from one loop to another while maintenance is performed, ensuring consistent SWRP operation and treatment below discharge permit limits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	200
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

311 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 9 – POWER LP A&B PHASE 2 CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The current medium voltage SWRP power system has no redundancy and cannot be taken out of service without impacting critical unit process operations. The Power Loop A&B project will provide a second separate power loop for powering unit processes, so that one loop can be taken out of service while other loop continues to maintain SWRP power supply.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Power Loop A&B Upgrades will ultimately produce a resilient, redundant electrical system that can be switched from one loop to another while maintenance is performed, ensuring consistent SWRP operation and treatment below discharge permit limits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	5,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$5,000**

PRIORITY: 10 – POWER LP A&B PHASE 3 LOAD BUS DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The current medium voltage SWRP power system has no redundancy and cannot be taken out of service without impacting critical unit process operations. The Power Loop A&B project will provide a second separate power loop for powering unit processes, so that one loop can be taken out of service while other loop continues to maintain SWRP power supply.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Power Loop A&B Upgrades will ultimately produce a resilient, redundant electrical system that can be switched from one loop to another while maintenance is performed, ensuring consistent SWRP operation and treatment below discharge permit limits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	300
2024	200
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

312 – RAS and Sludge Withdrawal Pump Improvements

Description:

These pumps convey Return Activated Sludge (RAS) from the Final Clarifiers to the Aeration Basins.

Fiscal Year	Overall Cost ($1,000)
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

Improvements to the RAS and Sludge Withdrawal pumps are needed to ensure the system is operating effectively.

O&M Cost Impacts:

Reduction in electrical consumption and maintenance.

312 – RAS AND SLUDGE WITHDRAWAL PUMP IMPROVEMENTS

PRIORITY: 1 – ONGOING SWRP RAS/WAS SLUDGE EQUIP IMP/REPL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Operating Equipment/Electrical requires annual replacement and/or repairs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement will ensure that SWRP RAS/WAS systems are operating effectively. More consistent equipment operation means less labor/maintenance, lower electrical consumption, and lower operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

313 – Plant Wide Non-Potable Water Improvements

Description:

The wash water system provides filtered, disinfected effluent for many essential purposes at the SWRP including cooling water for Cogeneration and Gas Compression Bldgs., polymer solution make-up water for the DAF and Sludge Dewatering facilities, pump seal lubrication water throughout the plant, wash water for activated sludge basin / clarifier foam and scum control and for general housekeeping, landscape irrigation, and similar uses that do not require non-potable water.

Fiscal Year	Overall Cost ($1,000)
2022	$100
2023	100
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$600**

Funding in FY2022 and FY2023 will be for ongoing plant-wide Non-Potable piping system improvements and replacements.

O&M Cost Impacts:

Reduction in labor and maintenance costs.

313 – PLANT WIDE NON-POTABLE WATER IMPROVEMENTS

PRIORITY: 1 – ONGOING PLANT-WIDE IMPRV/REPL.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The Non-potable, Building Hot Water, and Digester Hot Water systems circulate vital effluent re-use water for heating/cooling/lubrication/mixing/wash throughout SWRP, and requires annual maintenance to function effectively.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repair/replacement of these non-potable water circulation systems ensures that all critical SWRP unit processes can remain operational. This Non-potable water system is vital for ongoing maintenance of all SWRP facilities; a well-maintained system drastically reduces O&M labor for SWRP Ops personnel.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$600**

DECADE PLAN LINE NUMBER AND TITLE:

316 – Plant Facility, Landscaping & Asset Renewal

Description:

Wastewater Plant Facility Building upgrades, Site Landscaping, maintaining as-built SWRP master drawings, and RAMP updates are critical for ensuring a clean, safe, visually appealing, and viable SWRP Facility.

Fiscal Year	Overall Cost ($1,000)
2022	$1,200
2023	3,050
2024	50
2025	50
2026	50
2027	50
2028	1,050
2029	7,550
2030	50
2031	50
Total	**$13,150**

Funding in FY2022 and 2023 will provide significant improvements in the visual appeal and security of the facility as well as increase productivity and process control by installing the new Process Control Lab Facility. Additionally, funding will be used to update critical master facility drawings for the SWRP facility.

O&M Cost Impacts:

The new Process Control Lab Facility will increase O&M costs/labor. Updating the facility drawings has the potential to decrease O&M costs/labor.

316 – PLANT FACILITY, LANDSCAPING & ASSET RENEWAL

PRIORITY: 1 – SWRP LANDSCAPING DECAL LN & GATE IMPR DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

This project will improve access conditions at SWRP gates, create privacy, create attractive visual landscaped berms, and increase security at the critical centralized SWRP facility.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Significant improvement in visual appeal of the SWRP facility and increased overall security from external threats. Potential decrease in ongoing O&M cost/labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

PRIORITY: 2 – SWRP PROCESS CONTROL LAB FACILITY DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

This project will eliminate safety hazards associated with current lab area (in an existing electrical MCC room) by installing a dedicated lab facility for SWRP personnel to verify and confirm various biological plant processes.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Installation of this facility will increase productivity, process control, and SWRP Ops safety protocols. This additional facility will increase SWRP O&M cost/labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

316 – PLANT FACILITY, LANDSCAPING & ASSET RENEWAL

PRIORITY: 3 – SWRP PROCESS CONTROL LAB FACILITY CONST.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

This project will eliminate safety hazards associated with current lab area (in an existing electrical MCC room) by installing a dedicated lab facility for SWRP personnel to verify and confirm various biological plant processes.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Installation of this facility will increase productivity, process control, and SWRP Ops safety protocols. This additional facility will increase SWRP O&M cost/labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$750
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$750**

PRIORITY: 4 – AS-BUILT DRAWINGS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Due to complexity of the SWRP facility and the number of rehab projects ongoing, continual updates to a master facility drawing set is critical. This task requires both internal (Emerson Silva) and external consultant resources.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Knowing location of underground utilities is critical for efficient plant Operations. This work has the potential to decrease ongoing O&M cost/labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

316 – PLANT FACILITY, LANDSCAPING & ASSET RENEWAL

PRIORITY: 5 – SWRP LANDSCAPING DECAL LN & GATE IMPR CONST.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

This project will improve access conditions at SWRP gates, create privacy, create attractive visual landscaped berms, and increase security at the critical centralized SWRP facility.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Significant improvement in visual appeal of the SWRP facility and increased overall security from external threats. Potential decrease in ongoing O&M cost/labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	3,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$3,000**

335 – Final Clarifier Improvements

Description:

The final clarifiers (a.k.a., secondary clarifiers) are used to remove biosolids from the treated sewage before it undergoes ultraviolet disinfection. A major rehab of the 12 Final Clarifiers was completed in 2012; however, the clarifier mechanical, electrical, and instrumentation systems need to undergo future renewal.

Fiscal Year	Overall Cost ($1,000)
2022	$0
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$0**

The funding shown is intended to cover the costs of design and construction of rehabilitation and replacement of clarifier components.

O&M Cost Impacts:

As mechanical equipment ages, it presents higher O&M costs. Renewing the equipment will lower these costs.

CATEGORY 400

Soil Amendment Facility (SAF) Renewal

DECADE PLAN LINE NUMBER AND TITLE:

401 – Soil Amendment Facility Renewal

Description:

The soil amendment facility (SAF) is an important element in the Water Authority's wastewater treatment systems. The Southside Water Reclamation Plant (SWRP) generates approximately 60 tons of solids per day. These solids are land applied and composed at the SAF. The composed solids are sold and generate income for the utility. Without the SAF, the utility would have to pay to dispose of the solids in a landfill.

Fiscal Year	Overall Cost ($1,000)
2022	$50
2023	350
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$800**

The costs shown for this item is to allow periodic rehabilitation of the existing fixed equipment and facilities at the SAF. This includes buildings, heavy equipment, pumping systems, and grounds.

O&M Cost Impacts:

Renewing equipment as it becomes older and more prone to failures will reduce O&M costs.

The no action alternative would not allow for this important facility to be sustainable.

CATEGORY 401 PROJECTS FOR FY22-23

401 – SOIL AMENDMENT FACILITY RENEWAL

PRIORITY: 1 – ONGOING SAF FACILITY/EQUIPMENT RENEWAL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Operating SAF Equipment and Facilities requires rehab to ensure continued land application and solids composting at SAF.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Periodic repair/rehab ensures that SWRP solids can be disposed of according to permit requirements; public benefit for compost material; if SAF wasn't operational, SWRP solids disposal costs would increase (landfill disposal).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	0
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$450**

PRIORITY: 2 – SAF CANOPY IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Enclosing existing canopy to allow heated, ventilated storage of Sludge Injection Machine in the winter.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Enclosed canopy for storing Sludge Injection Machine will extend life of unit and reduce engine/maintenance repair costs and labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	350
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$350**

CATEGORY 500

Lift Station and Vacuum Station Renewal

DECADE PLAN LINE NUMBER AND TITLE:

501 – Lift Station Renewal (Planned)

Description:

This project provides funding for the planning, design, engineering services, contract and/ or in-house services related to general lift stations. This work is important in maintaining the WUA's stated Level of Service. There are 28 sanitary lift stations (does not include NWSA) that all operate continuously. Sewage is a corrosive and abrasive material to handle which causes advanced deterioration of the stations.

Fiscal Year	Overall Cost ($1,000)
2022	$500
2023	500
2024	500
2025	500
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$5,000**

This project provides for regular inspection, repair and replacement of the complex mechanical / electrical components of a lift station. Pumps wear out, losing efficiency and eventually risking catastrophic failure. Pumps are monitored for pumping rate, which is an indicator of the pump wear, and when appropriate, pulled for inspection. Pump rebuilds on the larger stations typically cost $30,000 to $40,000 each. Variable frequency drives (VFDs) are utilized on approximately 22 of the Authority's pumps to match flow rates and mitigate shock waves in the station piping.

O&M Cost Impacts:

Periodic renewal of equipment and materials will reduce O&M costs as compared to more frequent response to failures.

501 – LIFT STATION RENEWAL (PLANNED)

PRIORITY: 1 – ONGOING LIFT STATION FACILITY RENEWAL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The 37 operating lift stations require regular repair/replacement of structural/piping/mechanical/electrical components, including pumps, VFDs, valves, etc.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Periodic repair/rehab ensures continued sewage collection/pumping and avoids catastrophic failure and SSOs. Renewal reduces O&M costs via less frequent responses to equipment failures.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	500
2024	500
2025	500
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$5,000**

502 – Lift Station 20 Renewal

Description:

Lift Station 20 is the largest lift station in the Water Authority system. It pumps raw sewage from the west side of the river to the SWRP on the east side.

Fiscal Year	Overall Cost ($1,000)
2022	$200
2023	150
2024	150
2025	150
2026	150
2027	150
2028	150
2029	150
2030	150
2031	150
Total	**$1,550**

A major renewal of this facility is being completed in FY21. The funds shown will support ongoing condition assessment and maintenance of this facility. . These facilities must operate 24/7.

O&M Cost Impacts:

Replaced old, obsolete equipment and materials with new will reduce maintenance costs.

502 – LIFT STATION 20 RENEWAL

PRIORITY: 1 – FORCE MAIN CONDITION ASSESSMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

LS20 FM underneath Rio Grande River is over 35 years old, and condition assessment is needed to anticipate potential rehab needs.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive evaluation of LS20 FM will help avoid catastrophic failure/EPA violations. Evaluation will also identify required improvements to ARVs/vaults, which will allow active O&M to occur on these ARVs/vaults.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

PRIORITY: 2 – ONGOING FACILITY AND EQUIPMENT RENEWAL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

LS20 is largest lift station in WUA system, pumping raw sewage from West side to SWRP (East side). Maintaining LS20 operation is critical.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Periodic LS20 repair/rehab ensures continued sewage collection/pumping and avoids catastrophic failure and SSOs. Renewal reduces O&M costs via less frequent responses to equipment failures.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	150
2024	150
2025	150
2026	150
2027	150
2028	150
2029	150
2030	150
2031	150
Total	**$1,450**

503 – Lift Station 24 Renewal

Description:

Lift Station 24 is the second largest lift station in the Water Authority system. Funding allows pro-active renewal of the different facility components including pumps, piping, valves, instrumentation, and other components.

Fiscal Year	Overall Cost ($1,000)
2022	$150
2023	150
2024	150
2025	150
2026	150
2027	150
2028	150
2029	150
2030	150
2031	150
Total	**$1,500**

The funding shown is to allow pro-active renewal of the different facility components including pumps, piping, valves, instrumentation, and other components.

O&M Cost Impacts:

Replaced old, obsolete equipment and materials with new will reduce maintenance costs.

503 – LIFT STATION 24 RENEWAL

PRIORITY: 1 – ONGOING LIFT STATION FACILITY RENEWAL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

LS24 is second largest lift station in WUA system, collecting sewage from the northwest collection basin and pumping into the upper end of the Westside Interceptor. Maintaining LS24 operation is critical.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Periodic LS24 repair/rehab ensures continued sewage collection/pumping and avoids catastrophic failure and SSOs. Renewal reduces O&M costs via less frequent responses to equipment failures.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	150
2024	150
2025	150
2026	150
2027	150
2028	150
2029	150
2030	150
2031	150
Total	**$1,500**

504 – Vacuum Station Renewal (Planned)

Description:

The pumps, piping, valves, and other components at these facilities are exposed to wastewater that contains high levels of abrasive grit (e.g., sand) and corrosive hydrogen sulfide/sulfuric acid. This results in periodic failures of the different components.

Fiscal Year	Overall Cost ($1,000)
2022	$520
2023	2,520
2024	1,120
2025	520
2026	520
2027	520
2028	520
2029	250
2030	250
2031	250
Total	**$6,990**

The funding shown is to allow immediate repair or replacement of components when they fail or show signs of impending failure. Some of the funding in FY 2023 is for new vacuum tanks at Vacuum Station 63.

O&M Cost Impacts:

Replaced old, obsolete equipment and materials with new will reduce maintenance costs.

504 – VACUUM STATION RENEWAL (PLANNED)

PRIORITY: 1 – ONGOING VACUUM STATION FACILITY RENEWAL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The 10 operating vacuum stations require regular repair/replacement of structural/piping/mechanical/electrical components, including pumps, VFDs, valves, etc.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Periodic repair/rehab ensures continued sewage collection/pumping, and avoids catastrophic failure, sewer backups, and damage claim costs. Renewal reduces O&M costs via less frequent responses to equipment failures.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,500**

PRIORITY: 2 – AIR VAC PIT VALVES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of 1000 x $1800, 150 per year over 7 years. Not functioning properly.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Connect with AMI system.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$270
2023	270
2024	270
2025	270
2026	270
2027	270
2028	270
2029	0
2030	0
2031	0
Total	**$1,890**

504 – VACUUM STATION RENEWAL (PLANNED)

PRIORITY: 3 – VS 63 NEW VACUUM TANKS CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Construction of new VS63 steel vacuum tanks in a building structure to replace leaking buried fiberglass vacuum tanks that have been a major maintenance problem.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

New Vacuum Tanks at VS63 will reduce O&M labor/costs and extend longevity of vacuum pumps and electrical equipment.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	2,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$2,000**

DECADE PLAN LINE NUMBER AND TITLE:

507 – Electrical/Telemetry/Arc Flash Improvements

Description:

This program is for funding Lift and Vacuum Station Electrical systems, Telemetry upgrades, and Arc Flash improvements.

Fiscal Year	Overall Cost ($1,000)
2022	$78
2023	0
2024	0
2025	0
2026	0
2027	360
2028	0
2029	0
2030	0
2031	0
Total	**$438**

The Water Authority must complete an Arc Flash study every five years to identify hazards and update compliant labels. Program funding for FY2022 will be to complete this critical study.

O&M Cost Impacts:

None

507 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 1 – ELECTRICAL SYSTEM STUDGY (ARC FLASH)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Every five (5) years NFPA 70E requires that all industrial electrical equipment be re-evaluated for Arc Flash Hazards and new compliant Arc Flash Labels be affixed to each cabinet and motor.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

The outcome is a condition assessment, creation of new one-line and elevation drawings, electrical system modeling to include short circuit fault analysis, system coordination using new Time-Current Curves and complete Arc Flash Hazard calculations resulting in the placement of new Arc Flash Equipment labels.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$78
2023	0
2024	0
2025	0
2026	0
2027	360
2028	0
2029	0
2030	0
2031	0
Total	**$438**

509 – Lift Station Renewal (Emergency)

Description:

The pumps, piping, valves, and other components at these facilities are exposed to wastewater that contains high levels of abrasive grit (e.g., sand) and corrosive hydrogen sulfide/sulfuric acid. This results in periodic failures of the different components.

Fiscal Year	Overall Cost ($1,000)
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$5**00

The funding shown is to allow immediate repair or replacement of components when they fail or show signs of impending failure. The funding in FY 2021 is for construction of a new vacuum pumping station at Vacuum Station 63.

O&M Cost Impacts:

Replaced old, obsolete equipment and materials with new will reduce maintenance costs.

509 – LIFT STATION RENEWAL (EMERGENCY)

PRIORITY: 1 – ELECTRICAL SYSTEM study (ARC FLASH)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Lift Station repair/replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are a reality for maintenance of Lift Station facilities to maintain level of service to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

510 – Vacuum Station Renewal (Emergency)

Description:

The pumps, piping, valves, and other components at these facilities are exposed to wastewater that contains high levels of abrasive grit (e.g., sand) and corrosive hydrogen sulfide/sulfuric acid. This results in periodic failures of the different components.

Fiscal Year	Overall Cost ($1,000)
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$5**00

Vacuum stations are critical to the sanitary sewer system. These stations must be maintained and repaired to ensure continued service. Periodic failures must be remedied as necessary to maintain the level of service to ratepayers. Funding for this decade line will be to address unplanned emergency repairs.

O&M Cost Impacts:

None

510 – VACUUM STATION RENEWAL (EMERGENCY)

PRIORITY: 1 – ELECTRICAL SYSTEM STUDGY (ARC FLASH)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Vacuum Station repair/replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are a reality for maintenance of Vacuum Station sewage pumping to maintain level of service to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

CATEGORY 600

Odor Control Facilities Renewal

DECADE PLAN LINE NUMBER AND TITLE:

601 – Collection System Odor Control Renewal

Description:

This program provides funding for evaluation, planning, design, construction, and related activity necessary for odor control in the collection system. This work is important in maintaining the WA's stated Level of Service.

Fiscal Year	Overall Cost ($1,000)
2022	$200
2023	50
2024	850
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$1,450**

Hydrogen sulfide is the primary gas that causes offensive odors from the sewer system. These gases are naturally generated through biological activity in the sewer. Larger sewers known as interceptors are the primary odor generators in the collection pipe system and the primary focus of CIP 601 is controlling interceptor odors. However, CIP 601 will address collection system odors from all sources including small diameter pipes, pump stations and manholes.

O&M Cost Impacts:

Renewing equipment and materials as they age and become more prone to failure will reduce O&M costs.

Odor control solutions must be effective and are extremely variable, dependent on the specific issues applicable to the particular odor source. Solutions range from low tech and inexpensive to very expensive in both capital and future O&M. Solutions include improved sewer cleaning, chemical treatment, air phase treatment and correction of air flow choke points.

601 – COLLECTION SYSTEM ODOR CONTROL RENEWAL

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Collection System Odor Control repair/replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs of Odor Control are necessary to reduce odors/corrosion in Collection System. Proactive repairs reduce O&M labor/costs through reduced frequency of site visits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

PRIORITY: 2 – TIJERAS INTERCEPTOR CHEMICAL FEED SYSTEMS (1 FERRIC CHLORIE FACILITY, 1 MAG HYDROXIDE FACILITY)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Collection System Corrosion Control Master Plan identified high priority need for chemical feed systems on Tijeras Interceptor to reduce odors and control corrosion.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Additional Odor Control stations will increase O&M costs/labor but extend life of interceptor piping and reduce odors.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	0
2024	300
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$375**

601 – COLLECTION SYSTEM ODOR CONTROL RENEWAL

PRIORITY: 3 – WESTSIDE/CRL 2 W2 CHEMICAL FEED SYSTEM (FERRIC CHLORIDE & MAG HYDROXIDE)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Collection System Odor Control Master Plan identified high priority need for chemical feed systems on Westside Interceptor to reduce odors and control corrosion.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Additional Odor Control stations will increase O&M costs/labor but extend life of interceptor piping and reduce odors.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	0
2024	500
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$575**

CATEGORY 700

Drinking Water Plant: Groundwater System Renewal

DECADE PLAN LINE NUMBER AND TITLE:

701 – Sodium Hypochlorite Generator System Renewal

Description:

The Groundwater system uses on-site sodium hypochlorite generation systems for disinfection of the well water. It is important that these units be rehabbed or replaced when they become unreliable.

Fiscal Year	Overall Cost ($1,000)
2022	$375
2023	375
2024	500
2025	400
2026	400
2027	400
2028	400
2029	400
2030	400
2031	400
Total	**$4,050**

The existing sodium hypochlorite generator systems are nearing the end of their useful lives. Some systems are approaching 20 years. Various components of these systems are becoming obsolete and thereby more difficult to replace. Increasing levels of operating and capital budget are being expended to replace and/or repair the equipment. The program is needed to gradually replace all the systems with new ones. Failure to do so will eventually put the Water Authority at risk for not meeting water quality requirements for disinfection and not providing safe drinking water to the public. Service may be disrupted while new equipment is purchased and installed on an emergency basis. A replacement program extended over a ten-year period is a proactive, cost effective means of dealing with the aging assets.

O&M Cost Impacts:

Replacing old and obsolete equipment with new units will reduce O&M costs.

Not doing anything puts the Water Authority at risk for violating permit requirements, impacting health and safety, loosing public image, and disrupting service. Replacement before failure will have no service disruption impacts.

701 – SODIUM HYPOCHLORITE GENERATOR SYSTEM RENEWAL

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Sodium Hypochlorite Generation repair/replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs of hypochlorite generation systems are necessary to maintain disinfection chlorine residuals in Distribution System. Proactive repairs reduce O&M labor/costs through reduced frequency of site visits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	150
2024	150
2025	150
2026	150
2027	150
2028	150
2029	150
2030	150
2031	150
Total	**$1,500**

PRIORITY: 2 – ANNUAL HYPO GENERATOR REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement needed based on system age, manufacturer (old Chlor-Tec). Standardizing on PSI systems due to efficiency, support, readily available parts, etc.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of older systems significantly reduces O&M labor/costs through reduced frequency of site visits, reduced repair time, etc.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$125
2023	125
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,250**

701 – SODIUM HYPOCHLORITE GENERATOR SYSTEM RENEWAL

PRIORITY: 3 – ANNUAL CHLORINE ANALYZER REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replace old Rosemount chlorine analyzers with closed loop E&H units (approximately 35 sites): estimated cost $10,000/site including analyzer, booster pump and plumbing--in house installation.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of older systems significantly reduces O&M labor/costs through reduced frequency of site visits, reduced repair time, etc. Revenue loss.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	100
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

702 – Booster Pump Station Renewal

Description:

There are 39 potable water booster stations that pump water to the upper zones of the water service area. If the booster pumps and auxiliary equipment are not maintained and repaired as needed, there is a significant risk of failure to get water to customers and/or maintain the expected levels of service.

Fiscal Year	Overall Cost ($1,000)
2022	2,500
2023	1,500
2024	1,600
2025	2,582
2026	3,018
2027	3,379
2028	6,320
2029	3,823
2030	7,825
2031	7,851
Total	**$40,398**

This item is to provide funding for the renewal of booster pumping stations that supply potable water to customers with minimal or no disruption of service. Among the items requiring renewal at the different stations are control valves, motor control centers pump motors pumps, HVAC systems, and building roofs.

O&M Cost Impacts:

Replacing old and obsolete equipment with new units will reduce O&M costs.

CATEGORY 702 PROJECTS FOR FY22-23

702 – BOOSTER PUMP STATION RENEWAL

PRIORITY: 1 – GRIEGOS BOOSTER STATION CONTSRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab of Electrical Systems/Piping/New Surge Tank/Bldg. Improvements needed.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Little to no service disruption and reduce operations and maintenance costs/labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$2,000
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$2,000**

PRIORITY: 2 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Pump Station repair/replacement of pumps/motors/valves/piping. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency PS repairs are necessary to maintain water service to entire Distribution System. Proactive repairs reduce O&M labor/costs through reduced frequency of site visits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	1,000
2024	1,000
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$9,500**

702 – BOOSTER PUMP STATION RENEWAL

PRIORITY: 3 – SANDIA MANOR BOOSTER PUMP STATION REHAB

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab of Electrical Systems/MCC at Sandia Manor PS required.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Little to no service disruption and reduce operations and maintenance costs/labor.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	500
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

703 – Wells Renewal

Description:

The Water Authority must maintain a full capacity groundwater supply system even with the San Juan-Chama Drinking Water facility. At times, river water may not be available for diversion, so the Water Authority will have to rely fully on its wells. Also, the wells are needed to provide peak capacity during the high demand periods. Funding will be used for rehabilitation and replacement.

Fiscal Year	Overall Cost ($1,000)
2022	$1,250
2023	1,550
2024	1,550
2025	2,550
2026	1,250
2027	1,250
2028	1,250
2029	1,250
2030	1,100
2031	1,100
Total	**$14,100**

Along with regular inspections, programmed rehabs will prolong the life of the Wells and their components, which is the best asset management practice. Failure to program funds on a continuing basis for this activity will shorten the life of these assets. The more advanced the deterioration of the asset, the higher the cost for repairs or replacement. This program will assist with keeping the wells fully operational to meet distribution demands and level of service.

O&M Cost Impacts:

Proactive repairs reduce O&M labor and costs.

CATEGORY 703 PROJECTS FOR FY22-23

703 – WELLS RENEWAL

PRIORITY: 1 – CONTENGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Well Pump repair/replacement, including pumps, motors, discharge piping, valves, etc. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency Well site repairs are necessary to maintain low-arsenic groundwater supply for the Distribution System. Proactive repairs reduce O&M labor/costs through reduced frequency of site visits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	500
2024	500
2025	500
2026	500
2027	500
2028	500
2029	500
2030	500
2031	500
Total	**$5,000**

PRIORITY: 2 – ANNUAL PROACTIVE WELL PUMP REHAB

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Pull well pumps at 5 well sites per year, based on usage hours and flowrate. Goal is to ensure that "backbone" wells in system are rehabbed and fully operational for High-Demand season.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Low arsenic GW supply is necessary for meeting summer demands in the Distribution System. Proactive repairs reduce O&M labor/costs through reduced frequency of site visits and ensures continuous operation during Summer Demands.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$600
2023	600
2024	600
2025	600
2026	600
2027	600
2028	600
2029	600
2030	600
2031	600
Total	**$6,000**

703 – WELLS RENEWAL

PRIORITY: 3 – ANNUAL EMICC MCC MOTOR STARTER REPL.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replace obsolete EMICC MCC Motor Starters (20 MCCs per year for 8 years at $7K each).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Low arsenic GW supply is necessary for meeting summer demands in the Distribution System. Replacement of obsolete MCC motor starters reduces O&M labor/costs through reduced frequency of site visits and ensures continuous operation during Summer Demands.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	150
2024	150
2025	150
2026	150
2027	150
2028	150
2029	150
2030	0
2031	0
Total	**$1,200**

PRIORITY: 4 – LOVE WELL 8 BRINE ROOM REHAB CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Brine room rehab is required to repair wall damage from the salt/brine system of the on-site chlorine generation system; rehab will repair walls, install coatings, and ensure structural integrity of the building walls.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Rebuilt walls and coatings will allow upgraded hypochlorite generation system to operate without damage to building structure. This rehab will not change existing facility O&M labor/costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	300
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

DECADE PLAN LINE NUMBER AND TITLE:

719 – Reservoir Renewal

Description:

This program provides funding for the rehabilitation and replacement of each steel and concrete reservoir 20 years and 30 years, respectively. Failure to program funds on a continuing basis for this activity will shorten the life of these assets.

Fiscal Year	Overall Cost ($1,000)
2022	$2,300
2023	1,750
2024	1,867
2025	4,399
2026	5,186
2027	6,120
2028	5,061
2029	4,142
2030	5,230
2031	3,630
Total	**$39,685**

Along with regular inspections and cleanings, programmed rehabs will prolong the life of the steel and concrete reservoirs which is the best asset management practice. Failure to program funds on a continuing basis for this activity will shorten the life of these assets. The more advanced the deterioration of the asset, the higher the cost for re-conditioning it. This program will reduce the potential for reservoir leaks, NMED violations and loss of service.

O&M Cost Impacts:

None

719 – RESERVOIR RENEWAL

PRIORITY: 1 – CHARLES WELLS RESERVOIR

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Leaking heavily through structural cracks at Reservoir. Needs sealed. Approximately 25-60 gpm through interior concrete joints.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Reducing non-revenue loss, stabilizing the reservoir foundation, and making a viable long-term recreational facility (tennis courts)).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,700
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,700**

PRIORITY: 2 – LOMAS RESERVOIR 2 EAST

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Water Authority staff has joint material that may be impacting water quality. The joints could be coated or abated. Structural analysis by AECOM confirms that this Pritzker-style tank is not susceptible to structural failure - has a redundant structural ring support system. Interior coating rehab is selected method for reservoir rehab.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Rehab is required to remedy intermittent Water Quality issue and allow Lomas Reservoir 1 to be repaired. A replacement of the reservoir with a new, more reliable, and less vulnerable facility will result in reducing non-revenue loss and potential failure to provide water based on risk assessment.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	1,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,100**

719 – RESERVOIR RENEWAL

PRIORITY: 3 – SAFETY IMPROVEMENTS FOR EXTERIOR LADDERS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Ladder improvements required for OSHA compliance and worker safety. Corrales, Glennwood, and Santa Barbara site.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Ladder improvements required for OSHA compliance and worker safety.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$200
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,450**

PRIORITY: 4 – SANITARY SURVEY HATCH IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Reservoir hatch improvements and overflow improvements are required to comply with NMED/EPA sanitary survey requirements.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Reservoir hatch improvements and overflow improvements are required to comply with NMED/EPA sanitary survey requirements.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$200
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,450**

719 – RESERVOIR RENEWAL

PRIORITY: 5 – GLENWOOD RESERVOIR 2

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Access road required for effective maintenance and future rehab of Glenwood Hills Reservoir 2 facility.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Operations staff will be able to access reservoir via trucks, facilitating improved O&M.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

PRIORITY: 6 – RESERVOIR OVERFLOW IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Multiple Reservoirs have inadequate overflow systems, including SJC Terminal Reservoirs. Design/Construction efforts required.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Improvements will ensure that reservoirs can overflow properly without damage to reservoir or surrounding sites.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,250**

732 – Large Valve Equipment/Replacement

Description:

At each of the Water Authority's drinking water reservoirs, wells, booster pumping stations, and treatment plants, there are numerous large diameter valves. It is important that these valves be in good working condition to allow for system isolation. Funding this program will renew broken valves.

Fiscal Year	Overall Cost ($1,000)
2022	$75
2023	75
2024	75
2025	75
2026	75
2027	75
2028	75
2029	75
2030	75
2031	75
Total	**$750**

This funding identified in this project will be used to renew broken valves.

O&M Cost Impacts:

Having working valves at reservoirs and other plant sites saves O&M time and money by allowing a quick method of isolation, especially when leaks occur.

CATEGORY 732 PROJECTS FOR FY22-23

732 – LARGE VALVE EQUIPMENT/REPLACEMENT

PRIORITY: 1 – ANNUAL LARGE-DIAMETER VALVE REPLACMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Reservoir sites contain multiple large-diameter valves that must be operable to serve the transmission/distribution system. Replacement of broken valves is a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Broken valves cannot be operated/maintained. Replacing these valves will add O&M costs for periodic valve exercising, but costs are justified due to critical importance of isolating reservoirs and large system segments.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	75
2024	75
2025	75
2026	75
2027	75
2028	75
2029	75
2030	75
2031	75
Total	**$750**

735 – Electrical/Telemetry/Arc Flash Improvements

Description:

This program is for funding Groundwater Facility Electrical systems, Supervisory Control and Data Acquisition (SCADA) system hardware replacement and software upgrades, Telemetry upgrades, and Arc Flash improvements.

Fiscal Year	Overall Cost ($1,000)
2022	$500
2023	200
2024	0
2025	0
2026	0
2027	250
2028	0
2029	0
2030	0
2031	0
Total	**$9**50

The Water Authority must complete an Arc Flash study every five years to identify hazards and update compliant labels. Part of the program funding for FY2022 will be to complete this critical study. Additionally, lighting improvements and a new SCADA tower will provide for improved security and the continued critical SCADA communication with our operating facilities.

O&M Cost Impacts:

None

735 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 1 – ELECTRICAL SYSTEM STUDY (ARC FLASH)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Every five (5) years NFPA 70E requires that all industrial electrical equipment be re-evaluated for Arc Flash Hazards and new compliant Arc Flash Labels be affixed to each cabinet and motor.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

The outcome is a condition assessment, creation of new one-line and elevation drawings, electrical system modeling to include short circuit fault analysis, system coordination using new Time-Current Curves and complete Arc Flash Hazard calculations resulting in the placement of new Arc Flash Equipment labels.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$400
2023	0
2024	0
2025	0
2026	0
2027	250
2028	0
2029	0
2030	0
2031	0
Total	**$650**

PRIORITY: 2 – RESERVOIR LIGHTING IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Lighting improvements at Pajarito Res, Duranes, Franciscan Reservoir, and 7W Reservoir are necessary for personnel safety/security during night visits.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Safety/security of personnel is paramount and necessary to operate and maintain reservoir/pump station facilities. These improvements will not impact ongoing O&M costs/labor but will ensure safe conditions for workers at these facilities.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$200**

735 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 3 – BCIP SCADA TOWER

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

New Amazon Building is interfering with SCADA communications. Radio path study and potential new SCADA tower required at BCIP site.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Continued SCADA communication with operating facilities is critical for maintaining water service to ratepayers. SCADA tower improvements will not impact ongoing O&M costs/labor but will ensure ongoing communications with critical facilities.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

740 – Arsenic Treatment Renewal

Description:

The Water Authority has three arsenic removal treatment systems. Renewal and replacement of the granular ferric hydroxide media from the different pressure vessels are necessary to restore the ability of these systems to remove arsenic from the well water prior to distributing the water to the public.

Fiscal Year	Overall Cost ($1,000)
2022	$850
2023	2,400
2024	200
2025	200
2026	5,000
2027	11,000
2028	7,500
2029	7,500
2030	0
2031	0
Total	**$34,650**

Funding of this program in FY2022 and FY2023 will allow the Water Authority to meet increasing water supply demands due to development and growth in the service area.

O&M Cost Impacts:

Increase in O&M costs for labor and water treatment.

740 – ARSENIC TREATMENT RENEWAL

PRIORITY: 1 – VOLCANO CLIFFS TREATMENT FAC. & T-LINE IMPROV.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Facility will allow provide 12-15 MGD of treated GW from VC Wells 1/2/3 and Zamora Wells 1/2 for VC and Corrales Trunks.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will allow Water Authority to meet increasing demands in the VC and Corrales trunks due to ongoing development/growth. Facility will increase O&M demands on Operation staff.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$750
2023	2,000
2024	0
2025	0
2026	5,000
2027	10,000
2028	0
2029	0
2030	0
2031	0
Total	**$17,750**

PRIORITY: 2 – ARSENIC TREATMENT STRATEGY EVALUATION STUDY

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Develop a long-term strategy for utilizing existing that are currently out of service with the water system to allow arsenic wells (Walker/Coronado) to be treated for potable distribution.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Would provide out of services wells back into service for GW supply for potable distribution. Arsenic treatment would increase O&M requirements.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	1,000
2028	7,500
2029	7,500
2030	0
2031	0
Total	**$16,100**

740 – ARSENIC TREATMENT RENEWAL

PRIORITY: 3 – COLLEGE ARSENIC FACILITY MEMBRANE RACK MODULE REPLACMENT AND EXPANSION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Initial construction did not include full buildout of Membrane Rack Modules. Includes additional Modules plus replacement of existing Membrane Modules, valve replacement, etc.

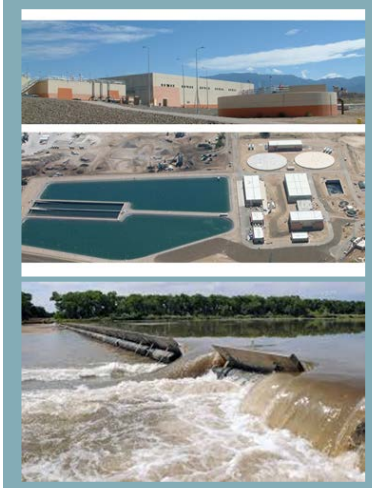
OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M impact - work done by Contractors. Overall benefit in terms of improved process flexibility/capacity/arsenic removal efficiency.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	400
2024	200
2025	200
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$800**

CATEGORY 800



Drinking Water Plant: Treatment System Renewal

801 – Surface Water Treatment Plant Renewal

Description:

This item is to provide funding for emergency capital improvements to address unanticipated equipment or other asset failures at the facilities associated with the San Juan-Chama Drinking Water Plant and related facilities. This is a critical facility in the Water Authority's drinking water system and any asset failures need to be addressed quickly to maintain the expected level of service.

Fiscal Year	Overall Cost ($1,000)
2022	$200
2023	200
2024	300
2025	300
2026	300
2027	300
2028	300
2029	200
2030	200
2031	200
Total	**$2,500**

Sometimes equipment fails earlier than its expected life and needs to be rehabilitated or replaced to maintain operation of a facility. For example, a $30,000 sludge pump at the San Juan-Chama Water Treatment Plant failed after only 2 years of operation. This pump needed to be replaced to maintain the capacity of the sludge processing system at the plant. Not renewing failed equipment increases risk due to lower facility capacity.

O&M Cost Impacts:

Dependent upon the specific project.

801 – SURFACE WATER TREATMENT PLANT RENEWAL

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned SJCWTP equipment/mechanical/structural repair or replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs of the multiple SJCWTP treatment unit processes are necessary to treat surface water for potable use in the water Distribution System. Proactive repairs reduce O&M labor/costs, maintain WQ criteria and potable treatment limits, and ensure potable water availability to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$200
2023	200
2024	200
2025	200
2026	200
2027	200
2028	200
2029	200
2030	200
2031	200
Total	**$2,000**

802 – Chemical Solids Systems Renewal

Description:

This item is to provide funding for emergency capital improvements to address unanticipated equipment or other asset failures at the key unit process facilities associated with the San Juan-Chama Drinking Water Plant. This is a critical facility in the Water Authority's drinking water system and any asset failures need to be addressed quickly to maintain the expected level of service.

Fiscal Year	Overall Cost ($1,000)
2022	$100
2023	650
2024	4,200
2025	650
2026	650
2027	650
2028	650
2029	650
2030	650
2031	650
Total	**$9,5**00

Sometimes equipment fails earlier than its expected life and needs to be rehabilitated or replaced to maintain operation of a facility. For example, a $30,000 sludge pump at the San Juan-Chama Water Treatment Plant failed after only 2 years of operation. This pump needed to be replaced to maintain the capacity of the sludge processing system at the plant. Not renewing failed equipment increases risk due to lower facility capacity.

O&M Cost Impacts:

Dependent upon the specific project.

802 – CHEMICAL SOLIDS SYSTEMS RENEWAL

PRIORITY: 1 – SLEEVE VALVE AT FINISHED WATER PS REHAB

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Malfunctioning sleeve valve is being inspected, may require replacement.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Vital control valve for Finished Water PS. No impact on current O&M activities.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

PRIORITY: 2 – PERMANENT FLUORIDE SUPPLEMENT DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Permanent fluoride supplement was a Board mandate - permanent fluoride (FSA) storage/feed system needed to replace existing temporary fluoride feed system.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased O&M requirements for new FSA storage/feed system at UP70.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

802 – CHEMICAL SOLIDS SYSTEMS RENEWAL

PRIORITY: 3 – PERMANENT FLUORIDE SUPPLEMENT CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Permanent fluoride supplement was a Board mandate - permanent fluoride (FSA) storage/feed system needed to replace existing temporary fluoride feed system.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased O&M requirements for new FSA storage/feed system at UP70.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	550
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$550**

803 – Grit Removal Basin Renewal

Description:

This item is to provide funding for emergency capital improvements to address unanticipated equipment or other asset failures at the key unit process facilities associated with the San Juan-Chama Drinking Water Plant. This is a critical facility in the Water Authority's drinking water system and any asset failures need to be addressed quickly to maintain the expected level of service.

Fiscal Year	Overall Cost ($1,000)
2022	$350
2023	0
2024	0
2025	2,000
2026	2,000
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$4,350**

Funding in FY2022 and FY2023 will improve SJCWTP performance and water quality.

O&M Cost Impacts:

None

803 – GRIT REMOVAL BASIN RENEWAL

PRIORITY: 1 – BASIN DREDGING OPERATIONS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Sediment, filter backwash, and organic matter buildup in the basins impacts available raw water storage volume and has negative WQ impacts to SJCWTP treatment processes. A dredging/mixing study followed by dredging operations needs to be implemented.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Improved SJCWTP plant performance and water quality. Contracted dredging operation should not increase O&M labor/costs at SJCWTP.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	0
2024	0
2025	2,000
2026	2,000
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$4,300**

PRIORITY: 2 – BASIN STORM DRAIN CONNECTION IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Recent SJCWTP startup revealed storm drain MH connections to the SJCWTP basins that allowed surcharging and minor flooding of downstream storm drain channels/inlets.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

MH connections need to be modified or blocked to control discharge from SJCWTP basins. No increased O&M impact to SJCWTP Operations.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$50**

804 – Dissolved Ozone Monitoring Renewal

Description:

This item is to provide funding for capital improvements to address unanticipated equipment or other asset failures at the facilities associated with the San Juan-Chama Drinking Water Plant and related facilities. This is a critical facility in the Water Authority's drinking water system and any asset failures need to be addressed quickly to maintain the expected level of service.

Fiscal Year	Overall Cost ($1,000)
2022	$0
2023	500
2024	500
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,000**

Funding beginning in FY2023 will be used to rehab aging Ozone Generators.

O&M Cost Impacts:

None

804 – DISSOLVED OZONE MONITORING RENEWAL

PRIORITY: 1 – OZONE GENERATOR REHAB

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Aging Ozone Generators will require periodic rehab to maintain Ozone generation.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No permanent operational impact - rehab will be accomplished via contractors.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	500
2024	500
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,000**

805 – SJCWTP Diversion Facility Improvements

Description:

This item is to provide funding for capital improvements to address diversion equipment or other asset failures at the San Juan-Chama Drinking Water Plant diversion structure near Alameda Open Space.

Fiscal Year	Overall Cost ($1,000)
2022	$200
2023	3,200
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$3,400**

The diversion facility is critical to diversion of river water to the Raw Water Pumping Station (and on to SJCWTP), and any asset failures need to be addressed quickly to maintain the expected level of service. This funding will allow the installation of an automated motorized cleaning system.

O&M Cost Impacts:

This improvement will reduce the need for O&M staff members to manually clean the bar screens. This will result in O&M cost savings.

805 – SJCWTP DIVERSION FACILITY IMPROVEMENTS

PRIORITY: 1 – AUTOMATED BAR SCREEN CONSTRUCTION

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The existing manual bar screen system endangers safety of WUA personnel during cleaning operations. The Automated Bar Screen will improve/eliminate these safety concerns and provide improved debris removal at the diversion facility.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Significant positive impact to O&M via decreased safety risks. Likely no net change to O&M - the decreased manual personnel time/labor will likely be offset by increased electrical costs and maintenance for the mechanical bar screen system.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	0
2024	3,000
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$3,000**

PRIORITY: 2 – FISH SCREEN RAIL/BEARING UNIT REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of Fish Screen Brush units for North and South Intake - existing rail/bearing units are in poor shape.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No Impact to O&M - maintenance for new units still required, similar to existing units. Process Operations will be improved with the new replacement units.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	200
2024	200
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$400**

807 – SJCWTP Finish Water Reservoir Improvements

Description:

This item is to provide funding for capital improvements and rehab of the two 10MG finish water reservoirs at the San Juan-Chama Drinking Water Plant.

Fiscal Year	Overall Cost ($1,000)
2022	$300
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

These reservoirs are aging and will require upgrades/repairs/rehab periodically to maintain potable WQ standards, compliance with NMED sanitary survey inspections, and treated water storage for delivery to the Distribution system; any asset failures need to be addressed quickly to maintain the expected level of service.

O&M Cost Impacts:

Slight increase in costs for mixer units.

807 – SJCWTP FINISH WATER RESERVOIR IMPROVEMENTS

PRIORITY: 1 – PAX MIXER IMPROVEMENTS IN FINISH WTR RESERVOIRS (ASW)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Poor mixing in finish water reservoirs has impacted WQ standards during SJCWTP plant start-up; effective reservoir mixing will eliminate this problem.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Higher confidence in WQ sampling results, providing accurate data for SJCWTP Ops personnel to make educated start-up/operating decisions. Slight increase in O&M labor/costs for mixer units.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

808 – Electrical/Telemetry/Arc Flash Improvements

Description:

This program is for funding SJCWTP facility Electrical systems, existing Supervisory Control and Data Acquisition (SCADA) system hardware replacement and software upgrades, Telemetry upgrades, and Arc Flash improvements.

Fiscal Year	Overall Cost ($1,000)
2022	$400
2023	150
2024	150
2025	150
2026	150
2027	150
2028	50
2029	50
2030	50
2031	50
Total	**$1**,35**0**

The Water Authority must complete an Arc Flash study every five years to identify hazards and update compliant labels. Part of the program funding for FY2022 will be to complete this critical study. Additionally, improvements to electrical equipment will be conducted in accordance with the electrical master plan. This program also has funding built in for unplanned electrical equipment repair and emergencies to ensure water treatment systems are operational to maintain water quality requirements.

O&M Cost Impacts:

Proactive replacements will reduce O&M labor and costs.

808 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned SJCWTP electrical equipment repair or replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs of SJCWTP electrical systems are necessary to treat surface water for potable use in the water Distribution System. Proactive repairs reduce O&M labor/costs, maintain WQ criteria and potable treatment limits, and ensure potable water availability to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	50
2025	50
2026	50
2027	50
2028	50
2029	50
2030	50
2031	50
Total	**$500**

PRIORITY: 2 – ELECTRICAL SYSTEM STUDY (ARC FLASH)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Every five (5) years NFPA 70E requires that all industrial electrical equipment be re-evaluated for Arc Flash Hazards and new compliant Arc Flash Labels be affixed to each cabinet and motor.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

The outcome is a condition assessment, creation of new one-line and elevation drawings, electrical system modeling to include short circuit fault analysis, system coordination using new Time-Current Curves and complete Arc Flash Hazard calculations resulting in the placement of new Arc Flash Equipment labels.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	0
2024	0
2025	0
2026	0
2027	100
2028	0
2029	0
2030	0
2031	0
Total	**$400**

808 – ELECTRICAL/TELEMETRY/ARC FLASH IMPROVEMENTS

PRIORITY: 1 – ELECTRICAL MASTER PLAN IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Improvements and replacement of electrical equipment (DeviceNet, ControlNet, etc.) and other electrical equipment (motor protection relays, etc.).).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive replacement will reduce O&M labor/costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	100
2025	100
2026	100
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

818 – Raw Water Pumping Station Renewal

Description:

This item is to provide funding for capital improvements to address equipment or other asset failures associated with the Raw Water Pump Station, Settled Water Pump Station, and the Finish Water Pump Station for the San Juan-Chama Drinking Water Plant. Both Pump Station facilities are critical to delivery of raw water to SJCWTP, and distribution of SJCWTP treated water to the potable Distribution system, and any asset failures or required improvements need to be addressed quickly to maintain the expected level of service.

Fiscal Year	Overall Cost ($1,000)
2022	$325
2023	300
2024	300
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,675**

This funding will be used to perform necessary rehab of the pumping station to maintain its ability to reliably pump water for treatment at the San Juan Chama Water Treatment Plant. For instance, the pump impellors are subject to wear due to the high sand levels in the raw water.

O&M Cost Impacts:

Proactive repairs will reduce O&M labor and costs.

CATEGORY 818 PROJECTS FOR FY22-23

818 – RAW WATER PUMPING STATION RENEWAL

PRIORITY: 1 – ANNUAL RAW WATER PUMP RENEWAL

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Raw Water pump assemblies are subjected to extreme pumping conditions (abrasive sediment), requiring proactive pump removal/teardown/inspection and repair/replacement.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repairs reduce O&M labor/costs through reduced frequency of site visits and ensure that all 12 Raw Water Pumps are operational during High-Demand season.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,500**

PRIORITY: 2 – RAW WATER PUMP STATION HVAC IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Retrofit of existing swamp cooler units to improve air cooling via passive airflow/moisture control. Will include operation of all 6 cooler units.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Retrofit will decrease O&M labor/costs through reduced frequency of site visits. Improved building cooling will improve remaining operating processes at Raw Water PS.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$75**

818 – RAW WATER PUMPING STATION RENEWAL

PRIORITY: 3 – SETTLED WATER PUMP STATION AND FINISH WATER PUMP STATION HVAC/ROOFING IMPROVEMENTS (

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

UP15 and UP50 HVAC/roofing improvements to ensure that MCC rooms are not impacted by swamp cooler runoff.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No operational impact, but significant safety improvement.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	50
2024	50
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

CATEGORY 900

Reuse Line and Plant Renewal

901 – Reuse Linear Renewal

Description:

This item is to provide funding for general renewal of reclaimed (recycled) water field assets, including pipelines and buried valves, including both the Northside and Southside Reclaimed water systems.

Fiscal Year	Overall Cost ($1,000)
2022	$100
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$1,000**

Pipelines and buried valves require periodic renewal to maintain the system's ability to serve Water Authority customers. Periodic renewal of these assets is required to minimize unexpected outages that result in emergency responses and repairs that increase the cost of system renewal.

O&M Cost Impacts:

None

901 – REUSE LINEAR RENEWAL

PRIORITY: 3 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned re-use waterline or valve repair or replacement. Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs of the multiple SJCWTP treatment unit processes are necessary to treat surface water for potable use in the water Distribution System. Proactive repairs reduce O&M labor/costs, maintain WQ criteria and potable treatment limits, and ensure potable water availability to ratepayers.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$200
2023	200
2024	200
2025	200
2026	200
2027	200
2028	200
2029	200
2030	200
2031	200
Total	**$2,000**

902 – Reuse Plant Renewal

Description:

This item is to provide funding for general renewal of reclaimed (recycled) water plant assets, including treatment facilities, pumping stations, and storage reservoirs for both the Northside and Southside Reclaimed water systems.

Fiscal Year	Overall Cost ($1,000)
2022	$1,700
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$2,600**

Treatment plants, pumping stations, and storage reservoirs require periodic renewal to maintain the system's ability to serve Water Authority customers. Periodic renewal of these assets is required to minimize unexpected outages that result in emergency responses and repairs that increase the cost of system renewal.

O&M Cost Impacts:

None

902 – REUSE PLANT RENEWAL

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned Reuse Plant Repair/replacement (reservoirs, pump stations, etc.). Contingency funds for unplanned emergency repairs are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs are required to eliminate public impact and maintain level of service to ratepayers, including many parks, schools, and commercial properties that depend on reclaimed water for turf/landscape irrigation.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$1,000**

PRIORITY: 2 – RAW WATER PUMP STATION IMPROVEMENTS DESIGN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The MDS Re-use In-Line Pump Station is required to deliver pressurized re-use water to MDS/County Soccer complex and surrounding parks - existing HGL cannot deliver reuse water to MDS.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Re-use water for irrigation will reduce potable water demand/consumption at MDS and within entire WUA water system. New MDS pump station will increase O&M requirements for GW Operations staff.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

902 – REUSE PLANT RENEWAL

PRIORITY: 3 – MESA DEL SOL REUSE IN-LINE PUMP STATION CONST.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The MDS Re-use In-Line Pump Station is required to deliver pressurized re-use water to MDS/County Soccer complex and surrounding parks - existing HGL cannot deliver reuse water to MDS.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Re-use water for irrigation will reduce potable water demand/consumption at MDS and within entire WUA water system. New MDS pump station will increase O&M requirements for GW Operations staff.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,500**

CATEGORY 1000

Compliance

1001 – Water Quality Laboratory

Description:

This item is to provide funding for renewal of laboratory equipment at the Water Authority's Water Quality Laboratory (SWRP) and the SJCWTP Laboratory. It is critical to the operation of the labs that analytical equipment and supplies be rehabilitated or replaced routinely. This is important to allow the labs to comply with the regulatory agency requirements for turnaround times and analysis accuracy.

Fiscal Year	Overall Cost ($1,000)
2022	$350
2023	350
2024	350
2025	350
2026	350
2027	350
2028	350
2029	350
2030	350
2031	350
Total	**$3,500**

The Water Quality Lab supports the operation of the Southside Water Reclamation Plant, the San Juan Chama Drinking Water Plant, and the drinking water system. To maintain the capability for scientifically valid and reliable monitoring and analysis, deteriorating analytical instruments must be replaced when performance degrades to a level that compromises data quality. Among the types of lab needs are such things as the following: inductively coupled plasma (ICP) spectrometers, high temperature ovens, digital microscopes, flow spectrometers, incubators, autoclaves, ion chromatographs, centrifuges, and other equipment, software, and supplies. The lab building also requires periodic rehab of its HVAC systems, laboratory hoods, and roof.

O&M Cost Impacts:

None

1001 – WATER QUALITY LABORATORY

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unplanned lab equipment or facility mechanical/structural repair or replacement. Contingency funds for unplanned emergency repairs/replacements are a necessity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Emergency repairs of the lab equipment and lab facilities are necessary to support operation of the SWRP and SJCWTP. Proactive repairs reduce O&M labor/costs, provide valuable data for making operational decisions, and facilitates achievement of discharge WQ criteria and potable treatment limits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$350
2023	350
2024	350
2025	350
2026	350
2027	350
2028	350
2029	350
2030	350
2031	350
Total	**$3,500**

DECADE PLAN LINE NUMBER AND TITLE:

1002 – NPDES Program

Description:

This item is to provide funding for rehabilitation of equipment, facilities, and computer software used by the staff for compliance with National Pollutant Discharge Elimination System (NPDES) Program. This NPDES program is required by the United States Environmental Agency (USEPA).

Fiscal Year	Overall Cost ($1,000)
2022	$10
2023	10
2024	10
2025	10
2026	10
2027	10
2028	10
2029	10
2030	10
2031	10
Total	**$100**

The requested funding is to rehabilitate or replace equipment, facilities, and computer software.

O&M Cost Impacts:

None

1002 – NPDES PROGRAM

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab or replacement of auto samplers, LINKO software upgrades, and field tablets/software.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M impact. Rehab/replacement allows Compliance personnel to perform their daily tasks in support of Distribution, GW, SWRP and SJCWTP Operations.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$10
2023	10
2024	10
2025	10
2026	10
2027	10
2028	10
2029	10
2030	10
2031	10
Total	**$100**

DECADE PLAN LINE NUMBER AND TITLE:

1003 – Water Quality Program

Description:

This item is to provide funding for renewal of equipment used by staff in the Drinking Water Quality Program.

Fiscal Year	Overall Cost ($1,000)
2022	$5
2023	5
2024	5
2025	5
2026	5
2027	5
2028	5
2029	5
2030	5
2031	5
Total	**$50**

The Drinking Water Quality Program performs monitoring of the drinking water system and is vital to compliance with state and federal drinking water quality regulations. It is important that the analytical and monitoring equipment used by the staff is maintained in proper operating condition. This requires periodic replacement of this equipment.

O&M Cost Impacts:

None

1003 – WATER QUALITY PROGRAM

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab or replacement of YSI multimeters, radiometers, glassware washers, turbidimeters, and field tablets/laptops.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M impact. Rehab/replacement allows Compliance personnel to monitor the drinking water system for compliance with state and federal drinking water quality regulations.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$5
2023	5
2024	5
2025	5
2026	5
2027	5
2028	5
2029	5
2030	5
2031	5
Total	**$50**

CATEGORY 1100

Shared Renewal

1101 – Ferrous/Ferric Transfer Station 70 Renewal

Description:

The El Pueblo Ferrous/Ferric Transfer Station (Station 70) is shared by the Field and Plant Divisions. Train rail cars of ferric chloride are unloaded at this facility. From here the chemical is transferred to the San Juan Chama Water Treatment Plant, College Arsenic Removal Treatment Plant, and used for odor control. Numerous deficiencies at this facility have posed safety risks to Water Authority employees and potentially the public.

Fiscal Year	Overall Cost ($1,000)
2022	$25
2023	25
2024	25
2025	25
2026	25
2027	25
2028	25
2029	25
2030	25
2031	25
Total	**$250**

Continuing improvements to this facility include the construction of double contained chemical piping on-site to control future spills.

O&M Cost Impacts:

Renewing aging equipment will keep O&M costs down.

1101 – FERROUS/FERRIC TRANSFER STATION 70 RENEWAL

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Continuing improvements at Station 70 are needed to maintain safety and operation of chemical storage/piping systems.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Proactive repairs reduce O&M labor/costs and ensure effective SJCWTP water treatment as well as Odor Control in the Collections system.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$25
2023	25
2024	25
2025	25
2026	25
2027	25
2028	25
2029	25
2030	25
2031	25
Total	**$250**

1104 – Utility-wide Asset Management Plan Update

Description: *The Water Authority, with the assistance of a consultant, is developing a utility-wide Comprehensive Asset Management Plan (CAMP) that will update the plan created in 2011. This plan will evaluate most of the Water Authority's capital assets (e.g., pipelines, treatment plants, wells) and developed a 100-year asset management spending plan.*

Fiscal Year	Overall Cost ($1,000)
2022	$1,375
2023	425
2024	0
2025	250
2026	0
2027	250
2028	0
2029	250
2030	0
2031	250
Total	**$2,800**

In accordance with asset management best practices, the Water Authority is establishing a Comprehensive Asset Management Plan (CAMP). This plan will assist in evaluating and documenting the Water Authority's capital assets, their condition, their useful life, and their risk scores. This information will be utilized for CIP planning for all Water Authority assets.

O&M Cost Impacts:

None

1104 – UTILITY-WIDE ASSET MANAGEMENT PLAN UPDATE

PRIORITY: 1 – DEVELOPMENT OF UTILITY-WIDE ASSET MGT PLAN

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Hazen is tasked to complete the CAMP to include the key components from Admin Inst. No. 30, policies and procedures developed by AMLT and key findings and recommendations from across the Water Authority.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Updated CAMP will achieve the completion of the asset registry, risk and condition scores, CIP rehab estimates.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,375
2023	425
2024	0
2025	250
2026	0
2027	250
2028	0
2029	250
2030	0
2031	250
Total	**$2,800**

DECADE PLAN LINE NUMBER AND TITLE:

1105 – Security Improvements

Description:

This item is to provide funding for implementation of physical security technology and procedures to reduce vulnerability to threats to Water Authority assets.

Fiscal Year	Overall Cost ($1,000)
2022	$100
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$1,000**

The final VSAT risk summary report identified potential security improvements at key facilities. Further evaluation is needed to strategize the implementation to reduce vulnerability.

O&M Cost Impacts:

Added operational costs for increased security benefits.

1105 – SECURITY IMPROVEMENTS

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Final VSAT Risk Summary Report (Tynwdd), Consolidated CM Fact Sheet (Tynwdd 6-29-18), and Surveillance One identified potential security improvements at key facilities. Implementation requires further evaluation and strategic planning. An initial annual budget is proposed for implementation.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased security and reduced vulnerability to security threats ensures that Water Authority can continue to provide safe clean drinking water and treated wastewater for ratepayers. Added operational costs and potential increase in O&M costs are required for increased security benefits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$1,000**

1106 – Safety Group Equipment

Description:

This item is to provide funding for renewal of equipment used by Safety Group staff to implement ABCWUA Safety Program.

Fiscal Year	Overall Cost ($1,000)
2022	$10
2023	10
2024	10
2025	10
2026	10
2027	10
2028	10
2029	10
2030	10
2031	10
Total	**$100**

Compliance with OSHA and other regulatory agency requirements can require monitoring of specify environmental conditions at the work sites. Funding for this program will rehab or replace equipment required for safety including equipment for confined space entries.

O&M Cost Impacts:

None.

1106 – SAFETY GROUP EQUIPMENT

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab or replacement of safety monitoring equipment (hand-held air monitors, etc.) for confined space entries.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M impact. Rehab/replacement allows Safety personnel to ensure ongoing WUA compliance with OSHA and other regulatory safety requirements.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$10
2023	10
2024	10
2025	10
2026	10
2027	10
2028	10
2029	10
2030	10
2031	10
Total	**$100**

1107 – Leak Detection Equipment

Description:

This item is to provide funding for renewal of equipment used by Leak Detection staff to identify the location of leaks in the water distribution system.

Fiscal Year	Overall Cost ($1,000)
2022	$5
2023	5
2024	5
2025	5
2026	5
2027	5
2028	5
2029	5
2030	5
2031	5
Total	**$50**

Leak Detection supports the Water Conservation Program (reduces Non-Revenue Water Loss) as well as Water Distribution crews to pinpoint leaks for necessary repairs.

O&M Cost Impact:

None

1107 – LEAK DETECTION EQUIPMENT

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rehab or replacement of leak detection equipment (hand-held acoustic sensors, ground microphones, and correlator units) for leak locating.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M impact. Rehab/replacement allows Leak Detection personnel to detect leaks, thereby reducing Non-Revenue Water Loss, and assisting with faster repair of leaking distribution pipes.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$5
2023	5
2024	5
2025	5
2026	5
2027	5
2028	5
2029	5
2030	5
2031	5
Total	**$50**

1109 – SCADA Master Plan Projects

Description: *The Water Authority utilizes several different SCADA platforms to monitor and control the Water and Wastewater processes. The current systems are facing obsolescence and support availability deficiencies. The SCADA Master Plan identifies the path for moving to a single platform.*

Fiscal Year	Overall Cost ($1,000)
2022	$2,967
2023	4,121
2024	2,911
2025	2,904
2026	3,328
2027	3,238
2028	2,335
2029	0
2030	0
2031	0
Total	**$21,804**

This program will implement the utility-wide SCADA management system per the SCADA Master Plan document. The projects will replace the antiquated system and will facilitate utility-wide SCADA management and operations from both SWRP and SJCWTP central control centers. This program includes short and long-term projects.

O&M Cost Impacts:

Lowered future operating costs.

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 1 – SWRP COLLECTIONS/STORM WATER PLC REPL.

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Upgrades to the Lift Station/Storm Station remote site PLCs and control architecture are required to maintain operation, since existing PLCs are no longer supported by Mfg. Includes SCADA MP projects ST7 (Storm water and Collections Telemetry Study), LT1 (Collections & Storm water PLC Upgrades), and LT12 (PLC/RTU Standards Development).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Renewed telemetry systems at remote Lift Stations and Storm stations are necessary for continued SAS pumping operations. Will result in less required O&M labor/costs due to reduced site visits.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$867
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$867**

PRIORITY: 2 – RAW WATER PUMP STATION HVAC IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of antiquated DCS HMI system at SWRP with Schneider Electric/OASyS SCADA platform (matching SJCWTP platform). Includes SCADA MP projects DS1 (HMI Standards), ST26 (SWRP HMI Network Switch Replacement), and LT3 (Reclamation DCS-HMI Upgrade).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$701
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$701**

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 3 – SCADA MASTER PLAN (01214.00200)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of antiquated DCS HMI system at SWRP with Schneider Electric/OASyS SCADA platform (matching SJCWTP platform). Includes SCADA MP projects DS1 (HMI Standards), ST26 (SWRP HMI Network Switch Replacement), and LT3 (Reclamation DCS-HMI Upgrade).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$163
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$163**

PRIORITY: 4 – SCADA MASTER PLAN (01214.00300)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of antiquated DCS HMI system at SWRP with Schneider Electric/OASyS SCADA platform (matching SJCWTP platform). Includes SCADA MP projects DS1 (HMI Standards), ST26 (SWRP HMI Network Switch Replacement), and LT3 (Reclamation DCS-HMI Upgrade).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$344
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$344**

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 5 – COLLECTIONS PLC UPGRADES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Existing Collections PLCs are at end-of-life; upgrades are required for ongoing Lift Station/Vacuum Station operation. No change to ongoing O&M labor/cost.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$379
2023	1,325
2024	190
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,894**

PRIORITY: 6 – STORMWATER PLC UPGRADES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Existing Storm water PLCs are at end-of-life; upgrades are required for ongoing Storm Station operation. No change to ongoing O&M labor/cost.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$99
2023	346
2024	50
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$495**

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 7 – RECLAMATION DCS – HMI UPGRADE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$414
2023	965
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,379**

PRIORITY: 8 – INCORPORATE SYSTEM-WIDE NETWORK MONITORING SYSTEM

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	83
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$83**

CATEGORY 1109 PROJECTS FOR FY22-23

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 9 – DEFINE OPERATIONAL DATA REQUIREMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	51
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$51**

PRIORITY: 10 – SWRP PROCESS REVIEW

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	82
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$82**

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 11 – SWTP TRAIN CONTROL PROJECT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	53
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$53**

PRIORITY: 12 – SWTP PLC AND NETWORK UPGRADE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	140
2024	558
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$698**

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 13 – GROUNDWATER/DISTRIBUTION TELEMETRY & PLC UPGRADE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	587
2024	587
2025	587
2026	587
2027	587
2028	0
2029	0
2030	0
2031	0
Total	**$2,935**

PRIORITY: 14 – ENHANCED SCADA – MAXIMO INTERFACE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	39
2024	221
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$260**

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 15 – POWER MONITORING IMPROVEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	33
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$33**

PRIORITY: 16 – OASYS CUSTOM APPLICATION REVIEW

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	33
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$33**

1109 – SCADA MASTER PLAN PROJECTS

PRIORITY: 17 – PROGRAM MANAGEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Implementation of utility-wide SCADA management system per SCADA Master Plan document (EMA). Includes completion of Short Term and Long Term identified projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Will facilitate Utility-wide SCADA management and operations from both SWRP and SJCWTP Central Control. Will not impact O&M labor costs within next 5 years but will ultimately allow for overlap with SJCWTP and SWRP plant personnel, lower overall future operating costs.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	384
2024	270
2025	270
2026	191
2027	151
2028	135
2029	0
2030	0
2031	0
Total	**$1,401**

CATEGORY 1200

Franchise Agreement Compliance

DECADE PLAN LINE NUMBER AND TITLE:

1201 – Franchise Compliance Water and Sewer Renewal

Description:

This item is to provide funding for compliance with the ABCWUA Franchise Ordinance between the City of Albuquerque/Bernalillo County and the Water Authority within the municipal limits of the service area. This decade plan item is for relocating water and sanitary sewer pipelines.

Fiscal Year	Overall Cost ($1,000)
2022	$3,450
2023	3,250
2024	3,250
2025	3,250
2026	3,250
2027	3,250
2028	3,250
2029	3,250
2030	3,250
2031	3,250
Total	**$32,700**

Continuing improvements to this facility include the construction of double The Franchise Ordinance primarily allows the Authority the use of the City's public rights-of-way as corridors to operate its water delivery and wastewater collection systems. In exchange, the Authority is responsible to pay a franchise fee associated with the use and rental as well as other detailed requirements stated in the Ordinance.

One of the conditions of use requires the Authority to fund relocation(s) of water and sewer infrastructure as needed within the rights-of-way for completion of the City's projects. These projects include installation of storm drainage, landscaping, or traffic signal facilities, and road reconstruction. The Ordinance also requires the Authority to make all reasonable efforts to relocate its utilities so as not to delay City projects. The Authority is also required to remove any and all abandoned facilities and infrastructure located in the rights-of-way within a period of 90 days following a request from the City.

O&M Cost Impacts:

None

CATEGORY 1201 PROJECTS FOR FY22-23

1201 – FRANCHISE COMPLIANCE WATER AND SEWER RENEWAL

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$900
2023	3,250
2024	3,250
2025	3,250
2026	3,250
2027	3,250
2028	3,250
2029	3,250
2030	3,250
2031	3,250
Total	**$30,150**

PRIORITY: 2 – BARCELONA PHASE 3 - BERNCO

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

1201 – FRANCHISE COMPLIANCE WATER AND SEWER RENEWAL

PRIORITY: 3 – BRIDGE BLVD PHASE 2 - BERNCO

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$500
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$500**

PRIORITY: 4 – SUNSET GARDENS WATER & SAS REPL. – COA

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$250**

1201 – FRANCHISE COMPLIANCE WATER AND SEWER RENEWAL

PRIORITY: 5 – MARBLE/ARNO PUMP STATION – COA/AMAFCA

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$850
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$850**

PRIORITY: 6 – UNIVERSITY BLVD AT TIJERAS ARROYO – COA

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$300
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

1201 – FRANCHISE COMPLIANCE WATER AND SEWER RENEWAL

PRIORITY: 7 – WESTSIDE BLVD WIDENING – COA

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$50**

PRIORITY: 8 – COMANCHE & VASSAR – COA

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Relocation of water and sewer infrastructure (WLs, SAS lines, MHs, Valves, etc.) as needed in City/County rights-of-way for completion of City/County projects, per WUA Franchise Agreements with the City/County.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact. Depending on project, some operational benefit can occur as a result of rehab/replacement of water/sewer infrastructure to facilitate City/County projects.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

1202 – Franchise Compliance MH and Valve Box Adjustments

Description:

This item is to provide funding for compliance with the ABCWUA Franchise Ordinance between the City of Albuquerque and the Water Authority within the municipal limits of the service area. This Decade Plan line item provides reimbursement funding associated with adjusting the height of manholes and valve boxes as part of City street resurfacing projects.

Fiscal Year	Overall Cost ($1,000)
2022	$750
2023	750
2024	750
2025	750
2026	750
2027	750
2028	750
2029	750
2030	750
2031	750
Total	**$7,500**

The Franchise Ordinance primarily allows the Authority the use of the City's public rights-of-way as corridors to operate its water delivery and wastewater collection systems. In exchange, the Authority is responsible to pay a franchise fee associated with the use and rental as well as other detailed requirements stated in the Ordinance.

One of the conditions of use requires the Authority to fund relocation(s) of water and sewer infrastructure as needed within the rights-of-way for completion of the City's projects. These projects include installation of storm drainage, landscaping, or traffic signal facilities, and road reconstruction. The Ordinance also requires the Authority to make all reasonable efforts to relocate its utilities so as not to delay City projects. The Authority is also required to remove any and all abandoned facilities and infrastructure located in the rights-of-way within a period of 90 days following a request from the City.

O&M Cost Impacts:

None

1202 – FRANCHISE COMPLIANCE MH AND VALVE BOX ADJUSTMENTS

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Adjustment to MHs/collars and Valve Boxes/collars following City/County/NMDOT street resurfacing projects.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M impact.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$750
2023	750
2024	750
2025	750
2026	750
2027	750
2028	750
2029	750
2030	750
2031	750
Total	**$7,500**

CATEGORY 1300

Fleet Vehicle & Equipment Replacement

DECADE PLAN LINE NUMBER AND TITLE:

1300 – Fleet Vehicle & Equipment Replacement

Description:

This project funds the replacement of utility vehicles for the Water Authority. Utility vehicles must be replaced on a programmed basis.

Fiscal Year	Overall Cost ($1,000)
2022	$2,988
2023	2,921
2024	2,941
2025	3,835
2026	4,029
2027	3,778
2028	5,259
2029	4,630
2030	3,940
2031	5,264
Total	**$39,585**

Utility vehicles are used by plant staff every day to be able to complete their various jobs. Vehicles must be replaced on a programmed basis.

O&M Cost Impacts:

Aged vehicles require more maintenance than newer units. Also, new vehicles tend to have more fuel-efficient engines, so there are reduced O&M costs.

1300 – FLEET VEHICLE & EQUIPMENT REPLACEMENT

PRIORITY: 1 – VEHICLE & EQUIPMET REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Due to aging condition of asset.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Minimize maintenance cost and increase dependability.

Detailed listing of vehicle replacements on the following pages.

					Project Funding by Fiscal Year (x $1,000)										
Priority	Year	Estimated End of Life	Expected Life	Project Description:	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
1	1960	1970	10	HYDRAULIC PWR UNIT, 1960	80	0	0	0	0	0	0	0	0	0	**80**
2	1960	1975	15	RECPL, PORTABLE, GENERATOR, 5	55										**55**
3	1989	1999	10	HYDRAULIC PWR UNIT, 1989	80										**80**
4	1991	2001	10	TRUCK, 1991, GMC, ACL, STD	113										**113**
5	1997	2012	15	SKID STEER, 1997, BOBCAT, 873	59										**59**
6	1995	2005	10	TRUCK, 1995, FORD, F-800, STD, CRANE	145										**145**
7	2000	2010	10	TRUCK, 2000, VOLVO, ACL64, STD	145										**145**
8	2000	2010	10	TRUCK, 2000, VOLVO, ACL64, STD	145										**145**
9	2001	2011	10	TRUCK, 2001, STERLING, M8500 ACTERRA, EXT	87										**87**
10	2001	2011	10	TRUCK, 2001, STERLING, M8500 ACTERRA, EXT	87										**87**
11	2001	2011	10	TRUCK, 2001, STERLING, M8500 ACTERRA, STD	87										**87**
12	2001	2011	10	SKID STEER, 2001, BOBCAT, 873	59										**59**
13	2000	2015	15	FORKLIFT, 2000, DONKEY	32										**32**
14	2003	2009	6	SUV, 2003, CHEVROLET, SUBURBAN 2500	28						31				**59**
15	2004	2014	10	TRUCK, 2004, KENWORTH, T8, STD	140										**140**
16	2005	2015	10	TRUCK, 2005, KENWORTH, T8, STD	140										**140**
17	2005	2015	10	TRUCK, 2005, KENWORTH, T8, STD	140										**140**
18	1999	2009	10	TRUCK, 1999, GMC, C7 7000, STD	113										**113**
19	2007	2022	15	BACKHOE, 2007, CASE, 580SM	92										**92**
20	2007	2022	15	BACKHOE, 2007, CASE, 580SM	92										**92**
21	2007	2022	15	BACKHOE, 2007, CASE, 580SM	92										**92**
22	2010	2020	15	710 BOX SCREENER	125										**125**
23	1988	1998	10	TRUCK, 1988, MACK, STD	140										**140**
24	1983	1993	10	FLATBED TRAILER, 1983, MARTINEZ TRAILER, LOW	22										**22**
25	1987	1997	10	FLATBED TRAILER, 1987, BIG TEX, 16S	22										**22**
26	1989	1999	10	TRAILER, 1989, HMDE, HMD	22										**22**
27	1990	2000	10	FLATBED TRAILER, 1990, MCT, LOW	22										**22**
28	1994	2004	10	1994, TRUCK, FORD, LT9000, SINGLE	61										**61**
29	1994	2004	10	SLUDGE DUMP, 1994, FRUE, DFA	52										**52**
30	1996	2006	10	BOX TRAILER, 1996, CRIT, CRI	15										**15**
31	1997	2007	10	TRAILER, 1997, HMDE, TRA	15										**15**
32	1997	2007	10	HYDRAULIC PWR UNIT, 1997, HMDE, TRA	80										**80**
33	1997	2007	10	HYDRAULIC PWR UNIT, 1997, HMDE, TRA	80										**80**
34	1997	2007	10	HYDRAULIC PWR UNIT, 1997, HMDE, TRA	80										**80**
35	1997	2007	10	TRUCK, 1997, FORD, F800, STD	75										**75**

					Project Funding by Fiscal Year (x $1,000)										
Priority	Year	Estimated End of Life	Expected Life	Project Description:	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
36	1998	2008	10	BOX TRAILER, 1998, KEMA, TRA	15										**15**
37	1999	2009	10	TRUCK, 1999, GMC, C7 7000, STD	113										**113**
38	2001	2007	6	TRUCK, 2001, FORD, F250, STD, UTILITY BODY	38						42				**80**
39	2001	2007	6	TRUCK, 2001, FORD, F450, STD		42					46				**88**
40	2001	2011	10	FLATBED TRAILER, 2001, BIG TEX, PIP		42									**42**
41	2001	2011	10	TANK TRAILER, 2001, HEIL, 620		41									**41**
42	2001	2011	10	TANK TRAILER, 2001, HEIL, 620		41									**41**
43	2001	2011	10	TANK TRAILER, 2001, HEIL, 620		41									**41**
44	2001	2011	10	TANK TRAILER, 2001, HEIL, 620		41									**41**
45	2001	2011	10	TRUCK, 2001, STERLING, L9500, STD		87									**87**
46	2001	2011	10	TRUCK, 2001, STERLING, L9500, STD		87									**87**
47	2002	2008	6	SEDAN, 2002, CHEVROLET, MALIBU		20					22				**42**
48	2002	2008	6	SUV, 2002, CHEVROLET, TAHOE		25					28				**53**
49	2002	2012	10	TRUCK, 2002, STERLING, L9500, STD		87									**87**
50	2003	2009	6	TRUCK, 2003, FORD, F250, STD		32					35				**67**
51	2003	2009	6	TRUCK, 2003, FORD, F250, STD											**67**
52	2003	2009	6	TRUCK, 2003, FORD, F250, STD											**32**
53	2003	2009	6	TRUCK, 2003, FORD, F450, STD		42					46				**32**
54	2003	2009	6	TRUCK, 2003, FORD, F450, STD		42					46				**88**
55	2003	2009	6	TRUCK, 2003, FORD, F450, STD		42					46				**88**
56	2003	2009	6	TRUCK, 2003, FORD, F450, STD		42					46				**88**
57	2003	2009	6	TRUCK, 2003, FORD, F450, STD		42					46				**88**
58	2003	2009	6	TRUCK, 2003, FORD, F450, STD, CRANE		60					66				**126**
59	2003	2009	6	TRUCK, 2003, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
60	2003	2009	6	TRUCK, 2003, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
61	2003	2009	6	TRUCK, 2003, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
62	2003	2009	6	TRUCK, 2003, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
63	2003	2013	10	TILT DECK TRAILER, 2003, TRAILMAX, UT		11									**11**
64	2003	2013	10	TILT DECK TRAILER, 2003, TRAILMAX, UT		11									**11**
65	2003	2013	10	TILT DECK TRAILER, 2003, TRAILMAX, UT		11									**11**
66	2003	2013	10	TRUCK, 2003, KENWORTH, T8, STD		140									**140**
67	2004	2010	6	TRUCK, 2004, FORD, F250, STD		32					35				**67**
68	2004	2010	6	TRUCK, 2004, FORD, F250, STD		32					35				**67**
69	2004	2010	6	TRUCK, 2004, FORD, F250, STD		32					35				**67**

					Project Funding by Fiscal Year (x $1,000)										
Priority	Year	Estimated End of Life	Expected Life	Project Description:	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
70	2004	2010	6	TRUCK, 2004, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
71	2004	2014	10	SLUDGE DUMP, 2004, TRAVIS, UT		42									**42**
72	2004	2014	10	SLUDGE DUMP, 2004, TRAVIS, UT		42									**42**
73	2005	2011	6	TRUCK, 2005, CHEVROLET, SILVERADO 1500, STD		28					30				**58**
74	2005	2011	6	SUV, 2005, CHEVROLET, S10 BLAZER		27					30				**57**
75	2005	2011	6	SUV, 2005, CHEVROLET, S10 BLAZER		27					30				**57**
76	2005	2011	6	SUV, 2005, CHEVROLET, S10 BLAZER		27					30				**57**
77	2005	2011	6	SUV, 2005, CHEVROLET, TRAILBLAZER		27					30				**57**
78	2005	2011	6	SUV, 2005, CHEVROLET, TRAILBLAZER		27					30				**57**
79	2005	2011	6	SUV, 2005, CHEVROLET, TRAILBLAZER		27					30				**57**
80	2005	2011	6	TRUCK, 2005, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
81	2005	2011	6	TRUCK, 2005, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
82	2005	2011	6	TRUCK, 2005, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
83	2005	2011	6	TRUCK, 2005, CHEVROLET, SILVERADO 1500, EXT		30					32				**62**
84	2005	2011	6	TRUCK, 2005, CHEVROLET, SILVERADO 2500, STD		32					35				**67**
85	2005	2011	6	TRUCK, 2005, CHEVROLET, SILVERADO 2500, STD		32					35				**67**
86	2005	2015	10	FLATBED TRAILER, 2005, CSTM, DUM		6									**6**
87	2005	2015	10	GOOSENECK TRAILER, 2005, BIG TEX, TRA		19									**19**
88	2005	2015	10	GOOSENECK TRAILER, 2005, BIG TEX, UT		15									**15**
89	2005	2015	10	GOOSENECK TRAILER, 2005, BIG TEX, UT		15									**15**
90	2005	2015	10	GOOSENECK TRAILER, 2005, BIG TEX, UT		15									**15**
91	2005	2015	10	HYDRAULIC PWR UNIT, 2005, WEDL, TRA		80									**80**
92	2005	2015	10	TRUCK, 2005, FORD, F650, STD		28									**28**
93	2005	2015	10	TRUCK, 2005, KENWORTH, T8, STD		140									**140**
94	2005	2015	10	TRUCK, 2005, KENWORTH, T8, STD		140									**140**
95	2005	2015	10	TRUCK, 2005, KENWORTH, T8, STD		140									**140**
96	2006	2012	6	SEDAN, 2006, DODGE, STRATUS		20						22			**42**
97	2006	2012	6	SUV, 2006, CHEVROLET, S10 BLAZER		27						30			**57**
98	2006	2012	6	SUV, 2006, CHEVROLET, TRAILBLAZER		27						30			**57**
99	2006	2012	6	TRUCK, 2006, FORD, F350, STD, UTILITY BODY		43						47			**90**
100	2006	2012	6	TRUCK, 2006, FORD, F350, STD, UTILITY BODY		43						47			**90**
101	2006	2012	6	TRUCK, 2006, FORD, F450, STD, UTILITY BODY		43						47			**90**
102	2006	2012	6	TRUCK, 2006, FORD, F450, STD, UTILITY BODY		43						47			**90**
103	2006	2012	6	VAN, 2006, FORD, E-150, STD		22						24			**46**

					Project Funding by Fiscal Year (x $1,000)										
Priority	Year	Estimated End of Life	Expected Life	Project Description:	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
104	2006	2012	6	VAN, 2006, FORD, E-150, STD		22						24			**46**
105	2006	2012	6	VAN, 2006, FORD, E-350, STD		27						30			**57**
106	2006	2012	6	TRUCK, 2006, CHEVROLET, SILVERADO 3500, STD		42						46			**88**
107	2006	2012	6	TRUCK, 2006, CHEVROLET, SILVERADO 4500, STD		42						46			**88**
108	2006	2012	6	TRUCK, 2006, CHEVROLET, SILVERADO 4500, STD		42						46			**88**
109	2006	2016	10	BOX TRAILER, 2006, BIG TEX, 7X1		22									**22**
110	2006	2016	10	FLATBED TRAILER, 2006, BIG TEX, 12F		22									**22**
111	2006	2016	10	FLATBED TRAILER, 2006, BIG TEX, 16F		22									**22**
112	2006	2016	10	FLATBED TRAILER, 2006, BIG TEX, 16F		22									**22**

Water 2120 Projects

CATEGORY 8000

Water 2120 Projects

8000 – *Water 2120* Projects

Description: *The Water Utility Authority works to provide reliable, high-quality, affordable, and sustainable water supply, wastewater collection treatment, and reuse systems to support a healthy, environmentally sustainable and economically viable community. Water 2120 outlines a plan to ensure success over the next century.*

Fiscal Year	Overall Cost ($1,000)
2022	$435
2023	235
2024	635
2025	635
2026	635
2027	635
2028	635
2029	635
2030	635
2031	635
Total	**$5,750**

This program will provide funding in FY2022 and FY2023 to complete projects that will support the *Water 2120* plan. Projects under this program will increase storage capacity of drinking water.

O&M Cost Impacts:

Dependent on project.

8000 – WATER 2120 PROJECTS

PRIORITY: 1 – REAL ESTATE SERVICES IN ABIQUIU AREA

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Real Estate Broker Services.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Negotiate mutually accepted terms for the grant of easements from property owners.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$35
2023	35
2024	35
2025	35
2026	35
2027	35
2028	35
2029	35
2030	35
2031	35
Total	**$350**

PRIORITY: 2 – ABIQUIU EASEMENT PURCHASES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Purchase of easements to raise water level by 10 feet and increase storage capacity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

No O&M cost impact.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$200
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$200**

8000 – WATER 2120 PROJECTS

PRIORITY: 3 – ADDITIONAL AQUIFER STORAGE AND RECOVERY WELL (ASR)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Includes shared infrastructure for IDPR, capacity is new supply, an additional 3,000 is developed to replace NI-25 capacity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Installation of new ASR well will require additional time/labor/manpower for maintenance and operation of ASR well (FTEs TBD).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$200**

PRIORITY: 4 – SOUTH TO NORTH REUSE PIPELINE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Connect the Northside I-25 Reuse to the Southside Reuse including additional eastside reuse sites (2035)).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

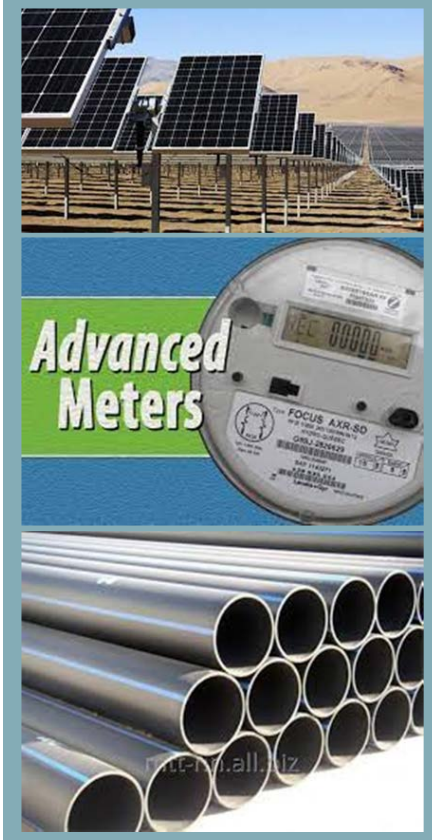
Installation of new S-N Reuse Pipeline will require additional time/labor/manpower for O&M.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$200**

Special Projects

CATEGORY 9400



Special Projects

9401 – Steel Waterline Renewal

Description:

This program provides funding for evaluation, planning, design, construction, and related activity necessary for the rehabilitation or replacement of steel water lines which tend to be the oldest water lines in the system and typically past their useful life.

Fiscal Year	Overall Cost ($1,000)
2022	$1,000
2023	1,000
2024	1,000
2025	1,000
2026	1,000
2027	1,000
2028	1,000
2029	1,000
2030	1,000
2031	1,000
Total	**$10,000**

There are over 60 miles of small diameter steel water lines (12" and less) that serve the Water Authority distribution system. These lines are among the small diameter water lines that provide metered water service, fire protection, and irrigation for customers. Steel lines in general are the oldest water lines (greater than 50 years) and most prone to numerous leaks due to deterioration and corrosion of the thin steel wall.

Steel line leakage is highly problematic, with water waste and repeated repairs causing disruption of service and traffic. Undetected leakage can be catastrophic: a sinkhole can destroy an entire roadway segment. Or a leak can surface as a geyser, with resulting projectiles causing extensive damage and/or threat to life. Finding the lines that have the highest leak potential and replacing them prior to catastrophic failure is essential to reducing the Authority's exposure to life- and property-threatening risk.

9401 – STEEL WATERLINE RENEWAL

PRIORITY: 1 – MONTE VISTA & WALTER

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

2307.016 Smith Design package for high-risk WL segments in Monte Vista area and Walter Rd (S of Central).

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of high-risk pipe directly reduces repair requirements for Distribution. Overall ABCWUA budget benefit for planned rehab vs. emergency (significantly lower cost).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,000
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,000**

PRIORITY: 2 – STEEL WATERLINE REPLACEMENT FROM IN-HOUSE DRAWINGS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of 7,800 LF of high-risk 6", 8", and 10" WL. In-house design Planning and Engineering Division.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement of high-risk pipe directly reduces repair requirements for Distribution. Overall ABCWUA budget benefit for planned rehab vs. emergency (significantly lower cost).

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	1,000
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,000**

9403 – Automated Meter Infrastructure (AMI)

Description:

This program provides funding for evaluation, planning, design, construction, and related activity necessary for the rehabilitation or replacement of steel water lines which tend to be This project provides funding for the planning, design, engineering services, construction, contract services, equipment and related activities necessary to provide Advanced Metering Infrastructure (AMI) throughout the water service area, including meter replacements, as appropriate. oldest water lines in the system and typically past their useful life.

Fiscal Year	Overall Cost ($1,000)
2022	$2,000
2023	2,000
2024	2,000
2025	2,000
2026	2,000
2027	2,000
2028	2,000
2029	2,000
2030	2,000
2031	2,000
Total	**$20,000**

This project funds replacement of existing revenue meters with AMI equipped "smart" meters and the infrastructure needed to capture meter reading information. AMI utilizes a fixed communication infrastructure of licensed or unlicensed radio frequency (RF) technology to transmit daily or more frequent meter reads from the meter to the utility. No personnel are required to leave the utility offices to acquire meter reads. AMI offers enhanced functionality and customer benefits including of off-cycle reads along with all associated field visits. Benefits from the access to increased customer usage information (interval usage at a minimum of four reads per day) includes tamper/theft detection, flow profiling, meter right sizing and leak detections on a meter-by-meter basis or system-wide level.

9403 – AUTOMATED METER INFRASTRUCTURE (AMI)

PRIORITY: 1 – AMI METER INFRASTRUCTURE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Rate Ordinance requires funding of $2M annually.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Reduced injury, increased meter and billing accuracy, water conservation, customer-side leak detection, modelling improvements.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$2,000
2023	2,000
2024	2,000
2025	2,000
2026	2,000
2027	2,000
2028	2,000
2029	2,000
2030	2,000
2031	2,000
Total	**$20,000**

9404 – Renewable Energy Projects

Description:

The Water Authority needs to become less reliant upon non-renewable energy supplies such as fossil fuel generated electricity and natural gas. The Water Authority has installed solar arrays at the Southside Water Reclamation Plant (SWRP) and more recently at the San Juan Chama Water Treatment Plant to generate electricity.

Fiscal Year	Overall Cost ($1,000)
2022	$350
2023	350
2024	350
2025	350
2026	350
2027	350
2028	350
2029	350
2030	350
2031	350
Total	**$3,500**

The funding will also allow for the evaluation of additional renewable projects such as optimization including expanding the existing biogas production at the SWRP and replacing high wattage lighting with energy efficient light emitting diodes (LED) at Authority.

9404 – RENEWABLE ENERGY PROJECTS

PRIORITY: 1 – RENEWAL ENERGY PROJECTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The Water Authority needs to become less reliant upon non-renewable energy supplies such as fossil fuel generated electricity and natural gas. The Water Authority has installed solar arrays at the Southside Water Reclamation Plant (SWRP) and more recently at the San Juan Chama Water Treatment Plant to generate electricity.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Optimization including expanding the existing biogas production at the SWRP and replacing high wattage lighting with energy efficient light emitting diodes (LED) at Authority. O & M energy expense will reduce overtime.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$350
2023	350
2024	350
2025	350
2026	350
2027	350
2028	350
2029	350
2030	350
2031	350
Total	**$3,500**

Growth Projects

CATEGORY 2400

Land and Easement Acquisition

2401 – Land and Easement Acquisition

Description:

The Water Authority often must pay for the use of private property to locate its pipelines. Also, land must sometimes be purchased to site new facilities such as wells, reservoirs, and pumping stations.

Fiscal Year	Overall Cost ($1,000)
2022	$10
2023	10
2024	10
2025	10
2026	10
2027	10
2028	10
2029	10
2030	10
2031	10
Total	**$100**

Land acquisitions are necessary for future Water and Wastewater facilities. New reservoirs and satellite treatment facilities such as the Bosque Reuse plants may require land purchases to site the facility. Additional buffer property around the Southside Reclamation Plant has also been considered to further reduce odor complaints by the Mountain View neighborhood.

O&M Impacts

None

2401 – LAND AND EASEMENT ACQUISITION

PRIORITY: 1 – LAND ACQUISITION AND/OR EASEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Land acquisitions are necessary for future Water and Wastewater facilities. New reservoirs and satellite treatment facilities such as Bosque Reuse and Mesa Del Sol treatment plants may require land purchases to site the facility. Additional buffer property around the Southside Reclamation Plant has also been considered to further reduce odor complaints by the Mountain View neighborhood.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Improve land and/or easement access to future Water Authority sites.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$10
2023	10
2024	10
2025	10
2026	10
2027	10
2028	10
2029	10
2030	10
2031	10
Total	**$100**

CATEGORY 2700

Development Agreement UEC Reimbursements

2701 – Development Agreement UEC Reimbursements

Description:

Provides reimbursement of developer's expenses to construct major facilities as the capacity of those facilities is utilized by development.

Fiscal Year	Overall Cost ($1,000)
2022	$1,250
2023	1,250
2024	1,250
2025	1,250
2026	1,250
2027	1,250
2028	1,250
2029	1,250
2030	1,250
2031	1,250
Total	**$12,500**

In accordance with sound utility practice, the Authority requires developers of new service into undeveloped areas to construct the necessary major facilities. We then agree to reimburse the developer using funds from utility expansion charges as connections are made to those facilities. This causes the developer (not the current ratepayers) to assume the market risk for constructing major new facilities.

O&M Impact

None

2701 – DEVELOPMENT AGREEMENT UEC REIMBURSEMENTS

PRIORITY: 1 – DEVELOPMENT AGREEMENT UEC REIMBURSEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

In accordance with sound utility practice, the Authority requires developers of new service into undeveloped areas to construct the necessary major facilities. We then agree to reimburse the developer using funds from utility expansion charges as connections are made to those facilities. This causes the developer (not the current ratepayers) to assume the market risk for constructing major new facilities.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

None

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$1,250
2023	1,250
2024	1,250
2025	1,250
2026	1,250
2027	1,250
2028	1,250
2029	1,250
2030	1,250
2031	1,250
Total	**$12,500**

CATEGORY 2800

Information Technologies (MIS/GIS)

2801 – Information Technology (MIS/GIS)

Description:

This project encompasses primarily new technology initiatives and the upgrade of hardware/software which is either approaching end-of-life or is unsupported by the vendor. Hardware life span is estimated between 3-5 years; with software life span of a current release level can range from 6 months to 2 years. As technology continues to increase in its support of business operations, it is critical to maintain its currency.

Fiscal Year	Overall Cost ($1,000)
2022	$3,425
2023	4,430
2024	2,490
2025	2,410
2026	2,450
2027	2,490
2028	2,450
2029	2,410
2030	2,490
2031	2,490
Total	**$27,535**

Servers and Databases (New and Upgrades): This category covers servers that house all software applications and the databases that support those applications. Applications include CC&B, Maximo, Kronos, LIMS and GIS, among others. Databases include Oracle and SQL Server and some that are no longer supported. It also includes networking equipment.

Applications (New and Upgrades): This category covers the purchase and upgrades of new software, both enterprise-wide and division specific. Examples include: CC&B, Maximo, SharePoint, LIMS, H2O Water Waste, and Kronos. On average, 2-4 service packs (including several patches) are released each year, with major releases occurring every 1-3 years.

Client Services (New and Upgrades): This category covers hardware and software at the employees' desktop. It includes the ongoing upgrade of desktop computers, monitors, keyboards, etc. and the upgrades of Windows operating systems and Microsoft software. It also includes the purchase of new desktop equipment and software.

Geographic Information Systems (GIS – New and Upgrades): This category represents all purchases done within the GIS environment to include new software and software. It includes the purchase of GIS-related software for Maximo and mobile devices, including vehicle tracking.

Mobile, Security and Telecommunications (New and Upgrades): This new category addresses the mobile, security and telecommunications environment to include portable devices, phones, vehicle location devices, radios, security cameras, etc. It is expected that category will expand over the coming years due to the advancement of mobile, security and telecommunications technology.

Risks: Most items requested either provides for continual efficient running and backups of mission critical systems (CC&B, Maximo, Kronos, LIMS, GIS, Security) or provide ongoing improvements to officer operations to improve efficiencies and lower costs.

CATEGORY 2801 PROJECTS FOR FY22-23

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Unanticipated IT equipment/software upgrades, licenses, or replacements.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Requirements to maintain existing IT functionality, operability, and security.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	100
2025	100
2026	100
2027	100
2028	100
2029	100
2030	100
2031	100
Total	**$1,000**

PRIORITY: 2 – LEAD/COPPER EPA MANDATE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Required by EPA, no choice in the matter.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Required by EPA, no choice in the matter.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	150
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$400**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 3 – RECLAMATION SCADA UPGRADES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Provide Professional Service for Upgrade.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

This will bring Reclamation SCADA to be upgraded to mirror STP SCADA system.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	50
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

PRIORITY: 4 – CITY HALL CORE UPGRADE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

City Hall core is currently 10 years old and coming to end of life.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Core Upgrade will allow ABCWUA to move to 40G uplinks and refresh EOL equipment.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$250**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 5 – APPLICATION BUILDS, INTEGRATIONS, ENHANCEMENTS, AND DB HEALTH CHECKS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Enhancement/fixes to current applications including but not limited to, AO, LMS, PE, PCA, Website, SharePoint, Cognos, Splunk, Power BI

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

New Features. Improved Functionality. Alleviate security vulnerabilities.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$800
2023	500
2024	500
2025	800
2026	800
2027	800
2028	800
2029	800
2030	800
2031	800
Total	**$7,400**

PRIORITY: 6 – MANAGED SERVICES – SECURITY VULNERABILITES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Security vulnerabilities can expose the organizations data, subjecting them to malware and ransomware attacks.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Alleviate organizations risk to malware and ransomware attacks.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$200
2023	200
2024	200
2025	200
2026	200
2027	200
2028	200
2029	200
2030	200
2031	200
Total	**$2,000**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 7 – UPGRADES/PATCHES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Keep applications current and within Support. Kronos, Cognos, Appworx, Finance Enterprise,

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

New Features. Improved Functionality. Alleviate security vulnerabilities.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	150
2024	1,400
2025	810
2026	1,350
2027	990
2028	1,100
2029	1,160
2030	1,390
2031	1,240
Total	**$9,740**

PRIORITY: 8 – REPLACE IMAGE REPOSITORY

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

We are currently using a custom coded system that is versioned locked. The original programmer is no longer employed at the authority. Even though we have done a great job supporting this and it seems to be a very stable system, eventually it will no longer run as .NET is upgraded.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Commercially supported system that will grow and change with the times and as computers and OS change over time.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	750
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$1,000**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 9 – MAINTENANCE AND SUPPORT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Maintenance and Support for applications - LMS, SharePoint, OPPS.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Maintenance and Support of Application.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	150
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$300**

PRIORITY: 10 – MAXIMO USER LICENSES FOR EZMAX MOBILE USERS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Standardization with mobile workforce to Ezmax and Compliance work.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Standardization of MWFM, compliance work order tracking enhancements.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	50
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$150**

CATEGORY 2801 PROJECTS FOR FY22-23

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 11 – CONTINUATION OF A MAXIMO SUPPORT PROJECT (IT & ASSET MANAGEMENT)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Professional services to assist with Maximo support and enhancements.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Given the criticality and broad use of Maximo, additional consultant assistance needed.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$150
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$250**

PRIORITY: 12 – ACTIVE G SUPPORT/ENHANCEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Mobile inspection report, MapEngine upgrade.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Provides support and buildout for Mobile workforce solutions.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	150
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$400**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 13 – EZ MAX MOBILE 6.X UPGRADE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Upgrade to stay on current software releases.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Functionality and security.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	50
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$150**

PRIORITY: 14 – INTERPRO – EXMAX MOBILE DEVELOOPMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Professional services for Ezmax enhancements.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Increased functionality for Mobile workforce users.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$50
2023	25
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$75**

CATEGORY 2801 PROJECTS FOR FY22-23

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 15 – UPGRADE CURRENT GIS SILVERLIGHT WEBSITE TO HTML5

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Silverlight is being deprecated and currently only runs on Internet Explorer, also soon to be deprecated.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Newer and faster website, move away from custom coded website.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	$200

PRIORITY: 16 – SQL SERVER LICENSING

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Additional licensing to cover growth.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Keep us in SQL server licensing compliance.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$25
2023	25
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$50**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 17 – SCADA NETWORK/SERVER INFRASTUCTURE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Replacement of aging infrastructure.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Replacement equipment for aging infrastructure.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	75
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	$150

PRIORITY: 18 – NEW APPLICATION FOR CSD

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

inProcess - New application for CSD. Requested for Training and process documentation.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Process Mapping and employee training/development.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	50
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	$125

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 19 – CONVERT GEOMETRIC NETWORK TO UTILITY NETWORK

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Used for modelling by Utility Development Group, Water Quality and Reclamation to understand hydraulics of systems and other features.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Utility Network greatly expands how assets can be modeled and includes many new improved features.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$100
2023	60
2024	40
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$200**

PRIORITY: 20 – MOVE APPLICATIONS TO THE CLOUD

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Finance Enterprise and Customer Care and Billing applications.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Provide an effective disaster recovery solution, secure data, keep up to date with security patches and upgrades.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$200
2023	500
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$700**

CATEGORY 2801 PROJECTS FOR FY22-23

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 21 – MAXIMO UPGRADE 8.X

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Upgrade to stay on current software releases.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

New Features. Improved Functionality. Alleviate security vulnerabilities.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	250
2024	250
2025	0
2026	0
2027	250
2028	250
2029	0
2030	0
2031	0
Total	**$1,000**

PRIORITY: 22 – SERVERS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Additional Simplivity Nodes and Netapp Storage Disks.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Keep up with growth of server infrastructure.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	150
2024	0
2025	500
2026	0
2027	150
2028	0
2029	150
2030	0
2031	150
Total	**$1,100**

CATEGORY 2801 PROJECTS FOR FY22-23

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 23 – STP DR CORE UPGRADE

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

STP DR core is currently 10 years old and coming to end of life.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

STP DR Core Upgrade will allow ABCWUA to move to 40G uplinks and refresh EOL equipment.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	250
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$250**

PRIORITY: 24 – CITY HALL PALO ALTO REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Going EOL/EOS on Oct 31, 2024.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

If this device fails then internet traffic will stop at City Hall.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 25 – LAB VANTAGE UPGRADE/ENHANCEMENTS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Upgrade to stay on current software releases.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Functionality and security.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

PRIORITY: 26 – SCADA INTEGRATIONS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Limited SCADA to Maximo integrations- need to re write as we migrate to new SCADA platform.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Operational impacts include better Asset Data.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	50
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$50**

CATEGORY 2801 PROJECTS FOR FY22-23

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 27 – RE-IMPLEMENT FLEET AVL INTEGRATION (ODOMETER/RUNTIME)

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Import odometer/ run times for PM's.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

Improved PM/CM for fleet.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	35
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$35**

PRIORITY: 28 – PHONE/CONFERENCE ROOM UPGRADES

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Existing VoIP phones are end of life and need to be replaced.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

VoIP Phones will be upgraded to support any future software upgrades.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	160
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$160**

2801 – INFORMATION TECHNOLOGY (MIS/GIS)

PRIORITY: 29 – CITY HALL/SURFACE WATER PLANT ASA REPLACEMENT

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Going EOL/EOS on Sept 30, 2025.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

If these devices fail, then our VPN clients and tunnels will be down.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$0
2023	100
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0
2031	0
Total	**$100**

CATEGORY 3100

Integrated Master Plan

3101 – Integrated Master Plan

Description:

The Authority is conducting a comprehensive and ongoing integrated resource master planning for all water, wastewater and non-potable water reuse supply, distribution, and treatment facilities. This planning effort will examine levels of service, service areas and resource commitments, as well as identify future facilities, master plan line and service requirements across the Authority's service area

Fiscal Year	Overall Cost ($1,000)
2022	$75
2023	50
2024	0
2025	80
2026	40
2027	0
2028	40
2029	80
2030	0
2031	0
Total	**$365**

Sound utility management requires having a well-developed and adopted plan for delivering service. The latest adopted Master Plans for water and sewer were developed in the late 1970's. Since then, many assumptions upon which they were developed have changed drastically. Widespread effects of conservation have reduced flows in water and sewer lines. That is beneficial by making more capacity available, but this results in longer fluid residence times causing quality concerns in water lines and additional odor potentials in sewers. The Authority is being pressed to provide service into new areas that will be assessed in this planning work. Good facility master planning is needed to wisely meet the needs of present and future ratepayers.

3101 – INTEGRATED MASTER PLAN

PRIORITY: 1 – CONTINGENCY FUNDS

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

Contingency Funds to continue the Integrated Master Plan.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

None

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$75
2023	50
2024	0
2025	80
2026	40
2027	0
2028	40
2029	80
2030	0
2031	0
Total	**$365**

CATEGORY 3200

Low Income Water/Sewer Connections

3203 – Low Income Water/Sewer Connections (MOU w/BERNCO)

Description:

This project provides funding through the PIPE program for the cost of Utility expansion for low- income customers who meet established criteria.

Fiscal Year	Overall Cost ($1,000)
2022	$250
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,500**

The Water Authority has set aside funds to assist low- income residents in obtaining basic sanitation and clean water services. This program is targeted for low- income residents who are currently using septic tanks for wastewater and wells for drinking water, but who have not connected to available ABCWUA service due to cost. The Authority will supplement up to 2/3rds of the cost for connection to the system.

3203 – LOW INCOME WATER/SEWER CONNECTIONS (MOU W/BERNCO)

PRIORITY: 1 – PARTNERS IN IMPROVING AND PROTECTING THE ENVIRONMENT (PIPE) PROGRAM

NEED & CONDITION OF ASSET FOR REHAB AND/OR REPLACEMENT:

The Water Authority and the County will work to 1) identify all premises that are adjacent to public water and sewer lines in Water Authority service area, 2) determine whether each premise is connected to the Water Authority's sewer and/or water system. The County 1) identify low- income households within premises, 2) make necessary arrangements to connect low- income households to public sewer and/or water lines and ensure on-site liquid waste disposal system are properly abandoned using funds appropriated for that purpose and committed by the agreement.

OPERATION IMPACT AND OVERALL BENEFIT OF REHAB OR REPLACEMENT:

This program is to provide low and moderate-income water and sewer connection assistance with the Water Authority service area. This will protect and improve groundwater quality, and public and environmental health.

Project Funding by Fiscal Year ($1000s):

Fiscal Year	Project Cost
2022	$250
2023	250
2024	250
2025	250
2026	250
2027	250
2028	250
2029	250
2030	250
2031	250
Total	**$2,500**