



**Sonoma
Water**

Capital Improvement Plan 2023-2028



Our Mission:

The Sonoma County Water Agency (Sonoma Water), a special district, was created in 1949 by an act of the California State Legislature. Sonoma Water is a wholesale supplier of water to parts of Sonoma and Marin counties; provides flood control services and sanitation services; and has the authority to generate electricity and provide recreational facilities in connection with its facilities. Environmental regulations impacting its core functions have resulted in Sonoma Water's active engagement in natural resource (e.g., fisheries, wetlands, etc.) protection, recovery, and enhancement. Sonoma Water is implementing the Russian River Biological Opinion, issued by the National Marine Fisheries Service in September 2008, to improve operations for the benefit of endangered coho salmon and threatened steelhead trout, and chinook salmon.

Mission Statement:

Effectively manage the water resources in our care for the benefit of people and the environment through resource and environmental stewardship, technical innovation, and responsible fiscal management. This mission statement and Sonoma Water's values are reflected in its Strategic Plan – a five year plan of goals and strategies to address Sonoma Water's most pressing needs in the areas of Water Supply, Sanitation, Flood Protection, Energy, Climate Change and Internal Operations. This plan guides Sonoma Water as it addresses the challenges it faces in pursuing its mission. The projects in this Capital Projects Plan are derived from the objectives in Sonoma Water's Strategic Plan and from its Water Supply Strategies Action Plan.

Objectives

Water Transmission and Supply Systems:

Sonoma Water provides high quality drinking water to more than 600,000 people in Sonoma and Marin counties. From its large collector wells near the Russian River, Sonoma Water distributes naturally filtered water to the cities of Santa Rosa, Rohnert Park, Cotati, Petaluma and Sonoma; the Town of Windsor; and Valley of the Moon and North Marin water districts. These cities and water districts (water contractors) distribute the water to residents and businesses.

Transmission and supply goals outlined in Sonoma Water's strategic plan include: (1) protecting the drinking water supply and promoting water use efficiency; and (2) maintaining and improving the reliability of the Water Transmission System.

Flood Control:

Flood risks in most communities in Sonoma County have been reduced through the construction of flood protection facilities which include flood control channels and stormwater detention reservoirs. Sonoma Water maintains these flood protection facilities in a manner that balances public safety and environmental needs.

Flood control goals outlined in Sonoma Water's strategic plan include strategies to: (1) assess, maintain, and upgrade flood protection facilities; (2); increase effectiveness of stream maintenance activities; (3) strengthen an integrated watershed management approach to flood protection; and (4) pursue new sources of funding.

Sanitation Systems:

Sonoma Water manages and operates eight different sanitation districts and zones throughout Sonoma County that serve more than 50,000 people. These include the Sonoma Valley, Russian River, Occidental and South Park County sanitation districts and the Geyserville, Penngrove, Sea Ranch and Airport-Larkfield-Wikiup sanitation zones. High-quality tertiary treated recycled water is an important source of water that helps offset potable water demands.

Sanitation goals as outlined in Sonoma Water's strategic plan include strategies to: (1) assess, maintain, and upgrade wastewater treatment and reuse facilities to improve operational reliability; (2) decrease overflows from wastewater collection systems; and (3) improve financial health of wastewater treatment and water reuse systems.

Sonoma Water Capital Improvement Plan:

Sonoma Water's 2023-2028 Capital Improvement Plan identifies approximately \$359.8 million in projects to be implemented over the next five years for meeting our mission and mandate. The Capital Improvement Plan supports efforts to enhance service reliability, provide a more resilient water supply, protect public and environmental health, meet regulatory compliance needs, and promote renewable energy resources. Some of those efforts include: replacement and rehabilitation of aging infrastructure that has served its useful life; implementation of projects required under the Biological Opinion for water supply operations along the Russian River and protection of salmonids; implementation of natural hazard reliability projects to increase systems reliability following a major earthquake along the Rodgers Creek Fault; and projects that protect the quality of water in our streams while also serving to sustain local water supplies by offsetting other demands, such as through supporting recycled water to offset the use of imported Russian River water and local groundwater use.

Within this plan, \$191.6 million is programmed for the Water Supply and Transmission Funds; \$3.7 million is planned within Sonoma Water's Flood Control Zones; and \$143.6 million will be expended within the various Sanitation Districts and Zones managed by Sonoma Water. Approximately \$20.9 million is planned for the Internal Services Fund.



CAPITAL IMPROVEMENT PLAN
FY 2023-2028

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA22001	F	IMP	Active	Advanced Quantitative Precipitation Information (AQPI) Radar Installations	This project entails designing the installation of two radar units as part of the larger AQPI project. The radar units will be installed at a reclaimed pond located at the Airport treatment plant, and at a water storage reservoir located in Sea Ranch.	Internal Services Fund	Facilities Fund	500	500
WA21014	F	IMP	Active	Supervisory Control and Data Acquisition (SCADA) Software and Hardware	SCADA software and hardware: The scope of the project is to upgrade SCADA workstations and software to current supported versions. Other objectives include upgrades to field components such as Programmable Logic Controllers (PLCs) and Remote Telemetry devices.	Internal Services Fund	Facilities Fund	20,376	22,499
SUBTOTAL								20,876	22,999
WA19033	PF	IMP	Active	Matanzas Reservoir Outlet Improvement	The Matanzas Reservoir Outlet Improvement project is focused on identifying improvements needed to the reservoir's outlet structure to meet NRCS dam design guidelines set forth in Technical Release NO. 60. TR-60 requires that the principal spillway be designed to pass the 100-year rainfall without causing the auxiliary spillway to activate. A recent dam assessment performed by California NRCS found the current reservoir does not meet the TR-60 standard, and recommendations were made to coordinate with NRCS to explore options for bringing the reservoir into compliance and also investigate downstream flooding impacts from any proposed principal spillway improvements. Implementation of project relies on funding from Natural Resource Conservation Service.	Zone 1A Flood Control	Zone 1A	2,383	18,003
WA06074	PF	IMP	Active	Santa Rosa Creek Fish Passage	This project involves the repair of an extension to the fish ladder on Santa Rosa Creek that goes through the tunnel starting at E street and going under downtown Santa Rosa. The purpose of the extension is to limit the flow into the fish ladder in order to maximize the range of flows for which it is passable. The upstream end of the extension has settled and subsequently the weirs in the extension are not functioning as designed. The project design is to remove the extension and replace it with a shorter structure. The project also involves repair of bank erosion on the north bank of the creek adjacent to the extension, monitoring of the fish passage conditions in the ladder extension and upper part of the fish ladder, and cleanup of debris caught by the trash racks at the fish ladder extension inlet. The project also includes fish passage improvements to the existing fish ladder at the vortex tube, along Montgomery Drive, near Spring Lake Park, and a nearby grade control structure. Implementation is dependent on future grant funding. Design and environmental compliance work is partially funded by a Wildlife Conservation Board grant.	Zone 1A Flood Control	Zone 1A	103	103
WA22002	PF	IMP	Active	Laguna-Mark West Watershed Restoration Phase 2	The next phase of the Laguna-Mark West Master Restoration Plan is implementation of the High Priority Project identified during the development of the conceptual restoration plan. The project would restore wetland and riparian habitat by restoring the alignment of a section of the Laguna de Santa Rosa adjacent to the site to its historical path. The project would achieve these goals by reconstructing the historical channel and reconnecting two seasonal tributary channels from the east, abandoning the existing Laguna de Santa Rosa channel, installation of an ecological maintenance access path, and revegetating the site with native wetland and riparian plants. The project would restore 64 acres of freshwater marsh, 25 acres of wet meadow, and 30 acres of mixed riparian forest where there is currently seasonal farmland. Implementation is dependent on future grant funding.	Zone 1A Flood Control	Zone 1A	1,050	1,050



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA21002	PF	IMP	Active	Upper Copeland & Lichau Creeks Flood Resiliency and Enhancement	Flood reduction project on Coyote Family Farms property located along the watershed divide between Copeland Creek and Roberts Creek (tributary to Lichau Creek) with potential flood benefit to both Flood Control Zones 1A & 2A. Project involves planning, design, environmental compliance, and construction of a detention basin with the objective of capturing Copeland Creek out-of-bank flows during the 100-year event with a secondary objective of reducing peak flows along Roberts Creek as well. The basin is intended to reduce frequency and magnitude of flooding in Penngrove, Rohnert Park, and Petaluma. The basin may also enhance aquifer recharge and function as a wetland habitat. Cost sharing between flood control zones will be determined at future date, as will grant funding opportunities be explored. Construction implementation is reliant in part on securing grant funding.	Zone 1A Flood Control	Zone 1A	75	75
SUBTOTAL								3,611	19,231
WA21002	PF	IMP	Active	Upper Copeland & Lichau Creeks Flood Resiliency and Enhancement	Flood reduction project on Coyote Family Farms property located along the watershed divide between Copeland Creek and Roberts Creek (tributary to Lichau Creek) with potential flood benefit to both Flood Control Zones 1A & 2A. Project involves planning, design, environmental compliance, and construction of a detention basin with the objective of capturing Copeland Creek out-of-bank flows during the 100-year event with a secondary objective of reducing peak flows along Roberts Creek as well. The basin is intended to reduce frequency and magnitude of flooding in Penngrove, Rohnert Park, and Petaluma. The basin may also enhance aquifer recharge and function as a wetland habitat. Cost sharing between flood control zones will be determined at future date, as will grant funding opportunities be explored. Construction implementation is reliant in part on securing grant funding.	Zone 2A Flood Control	Zone 2A	75	75
SUBTOTAL								75	75
WA14023	F/FBO	IMP	Active	Dry Creek Habitat Enhancement Project (Phase 3)	Project is the third phase of a 6 mile enhancement project identified in the Russian River Biological Opinion (National Marine Fisheries Service, 2008). The Project site is within the Dry Creek channel and on private properties in an unincorporated area of Sonoma County, California. The objective of the Project is to increase the amount of high quality rearing habitat for juvenile Coho and steelhead by implementing enhancement practices that emulate natural geomorphic effects. The primary enhancement approaches planned for the Project include, but are not limited to the following: Backwater Channels & Ponds; Constructed Riffles; Pool Enhancement; Winter Refuge Enhancement; Log Jams and Large Woody Debris Placement; Boulder Clusters; and Streambank Stabilization, Repair and Construction.	Water Supply	Warm Springs Dam	7,502	7,502
SUBTOTAL								7,502	7,502
WA10058	F	IMP	Request	Miraber Infiltration Ponds 2 & 3 Rehabilitation	This project proposes to regrade infiltration ponds 2 and 3 toward the influent channel. This will allow the pond to drain back to the influent channel after flooding.	Water Transmission System	O&M Fund	1,057	1,057
WA08064	F	IMP	Active	Santa Rosa Aqueduct & Russian River-Cotati Intertie Cathodic Protection	The Santa Rosa Aqueduct was installed between 1968 to 1985 and consists of approximately 83,100 feet (16 miles) of 36-inch and 42-inch diameter cement mortar lined and coated steel pipe. It runs from Ya-ka-ama to Summerfield in Santa Rosa. The Russian River/Cotati Aqueduct is a 48-inch diameter steel pipeline that connects the southern and eastern aqueduct transmission lines and crosses the Russian River. This project will replace the existing galvanic cathodic protection system with an impressed current cathodic protection system for these two aqueducts to improve corrosion protection of the steel pipelines. The project will be completed in phases.	Water Transmission System	O&M Fund	3,152	3,152



CAPITAL IMPROVEMENT PLAN
FY 2023-2028

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA18008	F	IMP	Active	Tank Recoating & Maintenance Program	A maintenance program to protect the water transmission system's above grade welded steel storage tanks. The program will protect the system's 18 tanks, including recoating and relining the exterior and interior surfaces and replace the cathodic protection systems. Recent tank inspections have identified corrosion that necessitates maintenance actions to attain the expected functional life of the facilities. The Project includes the design and construction of tank repairs, recoating, and structural improvements at the tank. The project will maintain the functional life of the asset and improve the resilience of the water storage and transmission system.	Water Transmission System	O&M Fund	45,582	83,677
WA21007	F	IMP	Active	Pump Replacements - Mirabel 8, 9 & 10 and Wohler 2, 4, 8 & 11	Pumps consist of a motor, discharge head, column set, drive shafts and bowl assembly (pump). When the motor is started, it turns the shafts and pump to start pumping water to the pipeline. These pumps are an integral part of the water delivery system and need to be kept in good running condition at all times. The pumps are routinely monitored, maintained, and rebuilt as necessary. However, the rubber bearings in the pump columns are vulnerable to degradation in chlorinated water, particularly the lower portions of the pump column that are normally submerged within the collector well caissons with elevated chlorine concentrations. These pump's column sets are past their useful life and need to be replaced.	Water Transmission System	O&M Fund	4,082	5,103
WA22005	F	IMP	Request	Mirabel Collector 4 Reach Rods Replacement	Reach Rods in Collector 4 are used to operate the lateral valves within the collector wells. This project will replace, in-kind, rusted, corroded, and worn out reach rods.	Water Transmission System	O&M Fund	315	315
WA22006	F	IMP	Request	Wohler/Mirabel Chlorine Detector	Chlorine gas (CL2) detectors inform staff, prior to entry, when gas is present within the tank rooms at Wohler and Mirabel. Current detector equipment is obsolete and the manufacturer does not support the product any longer. This project is to replace the existing antiquated CL2 detectors with up-to-date equipment.	Water Transmission System	O&M Fund	337	337
WA22007	F	IMP	Request	Lateral Valve Replacements	Underwater structures in the Mirabel collector wells are showing some evidence of corrosion and encrustation. In particular, some of the valve stem risers, brackets, and ladders show rust discoloration and, in some cases, scale and iron oxide nodules. Also, the ladders in Collectors 3 and 5 showed signs of more advanced stages of rusting near the bottom of the well. This project will replace the valves at Collectors 1 through 5.	Water Transmission System	O&M Fund	6,757	6,757
WA23001	F	IMP	Request	Collector 1 Motor Operated Valve and Actuator Replacement	In the Wohler area, at Collector #1, there is a 20 inch pipeline, with an 18 inch Motor Operated Valve, that is coming to the end of its useful life. The valve and actuator will need to be replaced, in kind.	Water Transmission System	O&M Fund	195	195
WA23002	F	IMP	Request	Hearn Avenue Electrical Project	Repair/update electrical feed and communication lines to the equipment on the south side of Hearn Avenue. This includes power and instrumentation communications to the cathodic rectifier, AQ flowmeter, and pressure transducer. Directional boring for new conduits, new wire, communication cabling, and verification.	Water Transmission System	O&M Fund	1,134	1,134
WA23003	F	IMP	Request	River Diversion Structure Dam Fill Pipeline	In the Mirabel area, at RDS, there is a 2.5 inch pipeline that is coming to the end of its useful life. The pipeline will need to be exposed and repaired or replace any worn, broken or failing spots in the pipe. All pipe will be replaced, in kind with the same type of pipe and parts. The backflow device will be replaced at the same time. This project was identified when a leak in the pipeline was found.	Water Transmission System	O&M Fund	190	190
WA18002	F	IMP	Request	Wohler-Forestville Pipeline 54 inch Throttling Valve	The existing 54 inch butterfly valve has failed and allows flow to the Cotati AQ when it should not be. This causes uncertainty with regulatory and operational functionality. The existing valve will be replaced with an improved valve that will allow flow control via automation and Supervisory Control and Data Acquisition (SCADA) control.	Water Transmission System	O&M Fund	832	832
WA18001	F	IMP	Request	48 inch Mainline Valve at Vinehill Ranch	Install mainline valve at Vinehill Ranch at location where AQ was hit by pipe driller in 2013. This will be a 48 inch butterfly valve and be utilized as an isolation valve.	Water Transmission System	O&M Fund	330	330



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA15008	F	IMP	Request	Collector 6 Valves and Vault Replacement	This project proposes to install a new vault around two existing shutoff valves located along the 20 inch and 24 inch discharge pipes at collector 6. This new vault is required to facilitate needed repairs and maintenance on the valves.	Water Transmission System	O&M Fund	482	482
WA23004	F	IMP	Request	Collector 6 Drainage Repair	The area around Collector 6 slopes inland. When the Russian River spills over its banks, the area around Collector 6 becomes flooded and accessibility to the Collector becomes difficult for operating and maintaining the site. This project would regrade the area around Collector 6 to slope toward the Russian River, thereby minimizing the flooding around and near Collector 6 and keeping access to the site open.	Water Transmission System	O&M Fund	110	110
WA15010	F	IMP	Active	Mirabel Chlorine Building Water Line	Construct new waterline from Collector well No. 3 to service the Mirabel Chlorination Building. The project will replace the existing water line which has reached the end of its useful life.	Water Transmission System	O&M Fund	151	151
WA19007	F	IMP	Request	Mirabel Collector 3 Blowoff	This project provides a way to separately blow off to the pond after any disinfection of the Caisson. This will reduce the chance of introducing issues to the main line. The project will install a separate valve and piping, directed to the pond. Adding a blow off at each Caisson would allow isolation of the Caisson being worked on and the ability to blow off the disinfected water without having to isolate other Caissons and Pipelines in the process. This will facilitate the ability to pump water from all other Caissons in order to disinfect a single Caisson.	Water Transmission System	O&M Fund	388	388
WA19008	F	IMP	Request	Mirabel Collector 4 Blowoff	This project provides a way to separately blow off to the pond after any disinfection of the Caisson. This will reduce the chance of introducing issues to the main line. The project will install a separate valve and piping, directed to the pond. Adding a blow off at each Caisson would allow isolation of the Caisson being worked on and the ability to blow off the disinfected water without having to isolate other Caissons and Pipeline in the process. This will facilitate the ability to pump water from all other Caissons in order to disinfect a single Caisson.	Water Transmission System	O&M Fund	388	388
WA14028	F	IMP	Request	Mirabel - River Road Fiber Optic Line	Install new fiber optic cable within existing conduit (abandoned chlorine solution line), between River Road Chlorine building and Collector 5, in order to upgrade the information and signal expansion that is needed for the Wohler and Mirabel area.	Water Transmission System	O&M Fund	1,127	1,127
WA18003	F	IMP	Active	Wohler Road Fiber Optic	Sonoma County Transportation & Public Works is rehabilitating the Wohler Bridge crossing the Russian River, which affects Sonoma Water's existing fiber optic communication cables. The cables will be either re-strung across the bridge or buried under the Russian River.	Water Transmission System	O&M Fund	298	298
WA20022	PF	IMP	Active	Mirabel 12kV Seismic, Flood, and Fire Resiliency	Electrical power for the Mirabel pumping facilities is provided from the Wohler sub-station through a 12 kV power line. The overhead power line is susceptible to seismic, flooding, and fire hazards. This project proposes to mitigate that vulnerability by implementing relocation, undergrounding, and/or retrofit measures. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	O&M Fund	13,110	13,110
WA22010	F	IMP	Active	Mirabel Wellfield #1 Rehabilitation	Project entails full rehabilitation of well, casing, pump, motor and electrical upgrade so that water can be pumped from the well to caisson 1 and/or infiltration ponds.	Water Transmission System	O&M Fund	678	678
WA22004	F	IMP	Active	Mirabel Wellfield #7 Rehabilitation	Electrical rehabilitation and pump install for Well #7 of the Russian River Wellfield located at the Mirabel production facility. Electrical is out of code and parts are not available so a new electrical panel is needed. Well #7 pumps water to infiltration ponds and Collector Well 1.	Water Transmission System	O&M Fund	664	664
WA22011	F	IMP	Request	Mirabel Ponds Interconnection	This project would install twelve box culverts (4 per pond) at Mirabel. Each set of culverts would connect the Infiltration Ponds 1-4, for a timely equalization, during a back-flooding event. The project will allow the movement of water between infiltration ponds, more effectively, as the Russian River begins to crest.	Water Transmission System	O&M Fund	2,252	2,252
SUBTOTAL								83,611	122,727



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA20012	F	IMP	Active	Dry Creek Habitat Enhancement Project (Phase 4)	To address fish habitat issues associated with high flows in Dry Creek, as indicated in the Biological Opinion, this project will construct modifications designed to enhance fish habitat in Dry Creek Mile 4 while accommodating stream flows necessary to support water supply.	Water Transmission System	Watershed Planning and Restoration	252	252
WA20013	F	IMP	Active	Dry Creek Habitat Enhancement Project (Phase 5)	To address fish habitat issues associated with high flows in Dry Creek, as indicated in the Biological Opinion, this project will construct modifications designed to enhance fish habitat in Dry Creek Mile 5 while accommodating stream flows necessary to support water supply.	Water Transmission System	Watershed Planning and Restoration	200	200
WA20014	F	IMP	Active	Dry Creek Habitat Enhancement Project (Phase 6)	To address fish habitat issues associated with high flows in Dry Creek, as indicated in the Biological Opinion, this project will construct modifications designed to enhance fish habitat in Dry Creek Mile 6 while accommodating stream flows necessary to support water supply.	Water Transmission System	Watershed Planning and Restoration	1,173	1,173
SUBTOTAL								1,625	1,625
WA14003	PF	IMP	Active	Santa Rosa Creek Crossing	The 36-inch Santa Rosa aqueduct crosses Santa Rosa Creek near Sonoma Avenue. Although Santa Rosa Creek is deeply incised into the fan deposits at the pipeline undercrossing, the steep stream banks are above the groundwater level and composed predominately of fine-grained alluvial fan deposits. In addition, the creek has been locally modified. Due to the high level of ground shaking that can be expected from rupture on the nearby Rodgers Creek fault, local failure of stream banks and pipeline could occur. The project proposes to mitigate the risk of pipeline rupture resulting from a major earthquake. Hazard Mitigation Grant Funds from the Federal Emergency Management Agency (FEMA) will be pursued to provide partial funding.	Water Transmission System	Santa Rosa Aqueduct Capital Fund	11,465	11,465
SUBTOTAL								11,465	11,465
WA17008	PF	IMP	Request	Cotati-Kastania Pipeline (Section 1-Cotati to Ely Booster Station)	Section 1 of the Cotati-Kastania Pipeline project will increase transmission system capacity to the portion of the Sonoma Water's southern service area. The pipeline begins at the existing Russian River-Cotati Intertie pipeline, near the intersection of Madrone Road and Stony Point Road, and ends at the Ely Booster Station. The diameter of the pipeline has been modeled at 48 inches and the length of the route is approximately 7 miles. Construction implementation is reliant on pending budget approvals.	Water Transmission System	Petaluma Aqueduct Capital Fund	29,525	57,225
WA16007	F/FBO	IMP	Active	Ely Booster Station Flood Protection	Ely Booster Station is part of Sonoma Water's water transmission system and supplies water to over 200,000 residents in Marin and Sonoma County by pumping potable water to the City of Petaluma, the North Marin Water District, and the Marin Municipal Water District. The site was inundated by flood water in December of 2014, nearly flooding the high voltage electrical equipment with similar events in 2016 and 2017. Sonoma Water is proposing to implement the Ely Road Flood Protection project to reduce the flood risks of future rain events. The project will lift the electrical equipment above the floodplain and it is expected that a number of electrical items will need to be replaced during the project. The project includes elevating the existing transformer, switchgear, and generator out of the floodplain. The project will also increase the structural integrity of the Station. All of the pipeline appurtenances (gages) associated with the pipeline at Ely Booster Station will also be lifted out of the floodplain.	Water Transmission System	Petaluma Aqueduct Capital Fund	630	630
WA16006	F	IMP	Active	Wilfred Booster Station	Wilfred Booster station built in 1972 needs to be upgraded to newer more efficient equipment. Replace Wilfred Booster Station's electrical building, motor, and other critical electrical components.	Water Transmission System	Petaluma Aqueduct Capital Fund	3,134	3,134
WA22008	PF	IMP	Request	Petaluma River Crossing	The 33-inch Petaluma aqueduct crosses the Petaluma River close to Highway 101. This crossing is vulnerable to liquefaction and lateral spread hazard with the potential to result in pipeline failure from a major earthquake. The project proposes to mitigate the seismic risk, which can be accomplished by relocating the pipeline such that it is below the lateral spread zone.	Water Transmission System	Petaluma Aqueduct Capital Fund	6,145	6,260



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
SUBTOTAL								39,434	67,249
WA10106	PF	IMP	Active	Bennett Valley Fault Crossing	Implement measures to increase water supply reliability and mitigate the risk of pipeline rupture in the vicinity where the 20 inch diameter Sonoma Aqueduct and 24 inch diameter Oakmont Pipeline traverse the Bennett Valley Fault system in Rincon Valley. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	Sonoma Aqueduct Capital Fund	3,705	3,705
WA15002	PF	IMP	Request	Calababas Creek Crossing	The 20-inch Sonoma aqueduct crosses Calababas Creek near Sylvia drive off Sonoma Highway in Glen Ellen. The location has very high susceptibility to liquefaction and a high susceptibility to lateral spread hazard. The overall lateral spread potential is approximately 3 feet of displacement at the location of the pipeline. As a result, the pipeline has a high risk of failure. This natural hazard reliability project will modify the pipeline crossing to mitigate the risk of rupture during a major earthquake. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	Sonoma Aqueduct Capital Fund	360	430
WA21004	PF	IMP	Request	Sonoma Creek Crossings (Lawndale Road)	The 20-inch diameter Sonoma Aqueduct crosses Sonoma Creek at Lawndale Road off Sonoma Highway utilizing overhead spans (pedestrian bridge steel truss) with structural connections that make the pipeline susceptible to failure during a major seismic event. Liquefaction and lateral spread displacements will likely cause the pipeline to fail due to minor differential movement or settlement. The proposed project is a natural hazard reliability project that will provide structural modifications to the support structures and pipeline in order to withstand a major seismic event. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	Sonoma Aqueduct Capital Fund	1,783	2,088
WA21005	PF	IMP	Request	Sonoma Creek Crossing (Madrone Road)	The 16-inch diameter Sonoma Aqueduct crossing of Sonoma Creek at Madrone Road off Sonoma Highway is susceptible to failure during a major seismic event. Liquefaction and lateral spread displacements will likely cause the pipeline to fail due to minor differential movement or settlement. The proposed project is a natural hazard reliability project that will provide structural modifications to the support the pipeline in order to withstand a major seismic event. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	Sonoma Aqueduct Capital Fund	608	2,076
WA23005	F	IMP	Request	Sonoma Booster Station Mezzanine	Additional storage for pipelines, materials and appurtenances are needed throughout Sonoma Water's Distribution System. The addition of a mezzanine at the Sonoma Booster Station will allow staff the ability to store materials at a strategic location within Sonoma Water's distribution system. This will allow staff to effectively perform maintenance of the water distribution's infrastructure without having to store materials at a distant location.	Water Transmission System	Sonoma Aqueduct Capital Fund	250	250
SUBTOTAL								6,706	8,549
WA10106	PF	IMP	Active	Bennett Valley Fault Crossing	Implement measures to increase water supply reliability and mitigate the risk of pipeline rupture in the vicinity where the 20 inch diameter Sonoma Aqueduct and 24 inch diameter Oakmont Pipeline traverse the Bennett Valley Fault system in Rincon Valley. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	Storage Fund	3,705	3,705
WA18005	F	IMP	Active	Kawana to Sonoma Booster Station Pipeline, Phase 1	Construction of the Kawana to Sonoma Booster Station (SBS) pipeline consists of approximately 3 miles of water transmission pipeline, between the Kawana Tanks, Ralphine tanks, and the Sonoma Booster Pump Station. The pipeline will provide operational redundancy and reliability to the system should repairs or replacement be necessary or if a catastrophic event occurs, such as a major earthquake on the Rodgers Creek Fault. Phase 1 of the project will replace the 0.3 mile segment between SBS and the Ralphine tanks. This portion of the existing pipeline traverses beneath Spring Lake, making any potential repairs difficult. The new pipeline will be located outside the footprint of the normally inundated area of the lake.	Water Transmission System	Storage Fund	7,995	7,995



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA11072	F	IMP	Active	Ralphine Tanks - Flow Management	The Ralphine water storage tanks are located at Spring Lake Regional County Park, and are part of the Water Agency's Santa Rosa Aqueduct water transmission system. The project proposes to reconfigure piping at the four above ground steel water reservoirs at the Ralphine Tank farm to improve water circulation/turnover for enhanced water quality and address over constrained structural conditions to reduce the risk of damage during a seismic event.	Water Transmission System	Storage Fund	1,930	1,930
WA20021	F	IMP	Active	Seismic Retrofit of Storage Tanks (Cot1-3, Eld2, Kast, Son2, Ra1-4)	Sonoma Water's transmission system includes 18 steel water storage tanks at nine independent locations. Seismic assessment of the tanks indicate that some tanks may be vulnerable to tensile hoop overstress in the bottom course of the tank shell, resulting from the sloshing of water during a major earthquake. This project proposes to implement operational or design measures to mitigate those structural vulnerabilities.	Water Transmission System	Storage Fund	5,950	8,320
SUBTOTAL								19,580	21,950
WA04048	PF	IMP	Request	Collector 3 & 5 Liquefaction Mitigation	The project will address potential for structural failure of collector wells 3 & 5 at the Mirabel production facilities by mitigating the potential for liquefaction induced lateral spread. Ground improvements, structural upgrades or a combination of approaches will be used to increase the factor of safety for future seismic events. The proposed project will evaluate environmental constraints and assess subsurface soil conditions for mitigating liquefaction induced lateral spread hazards at collectors 3 & 5. Mitigation options may include ground modifications, structural improvements, and/or structural retrofit of the caissons. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	Common Facilities Fund	11,400	11,400
WA07046	PF	IMP	Request	Collector 6 Liquefaction Mitigation	The project will address potential for structural failure of collector well 6 at the Wohler production facilities by mitigating the potential for liquefaction induced lateral spread. Ground improvements, structural upgrades, or a combination of approaches will be used to increase the factor of safety for seismic events. The damage caused by such displacements could be so severe as to render the caisson irreparable. The Collector 6 Liquefaction Mitigation project is a natural hazard reliability project to decrease the structure's vulnerability to failure during a major seismic event. Construction implementation is reliant in part on securing grant funding.	Water Transmission System	Common Facilities Fund	550	5,750
WA15012	F	IMP	Request	Mirabel/Wohler Maintenance and Storage Building (Demuth)	Provide a pre-engineered metal storage building in the Mirabel area for water transmission/supply maintenance related operations and storage of emergency equipment, materials and supplies.	Water Transmission System	Common Facilities Fund	4,354	4,354
WA20015	F	IMP	Active	River Diversion Structure Motor Control Center, Pump, and Seismic Upgrade	The purpose of the RDS facility is to transfer water from the Russian River to a series of infiltration ponds that recharge the groundwater basins for Collectors 3, 4, and 5. Several issues have been identified at the RDS facility including the need for replacement of the pumps, the motor control center, and a seismic and structural retrofit project. This project rolls all of those issues into one capital improvement project that will take a holistic look at the system and address the issues listed above.	Water Transmission System	Common Facilities Fund	2,613	2,613
WA16016	F	IMP	Active	Warm Springs Dam Hydroturbine Retrofit	Sonoma Water owns, operates, and maintains the Warm Springs Dam Hydropower Facility (Hydropower Facility). The Hydropower Facility has been in operation since 1989 and produces approximately 9,000–16,000 megawatt-hour per year. The project will modernize and implement retrofits of outdated electrical, mechanical, instrumentation and control systems to extend the useful life of the system, and improve system efficiency and resiliency. The existing hydroturbine is oversized relative to near and long term flow rates. Therefore, this project will replace the hydroturbine runner (impeller) with a smaller one to operate more efficiently. The project, in combination with changing the power buyer from PWRPA to PG&E, will add annual revenue.	Water Transmission System	Common Facilities Fund	2,592	2,592



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA22009	F/FBO	IMP	Active	Santa Rosa Plain Wells Drought Resiliency (Occidental Road & Sebastopol Road)	The project will expand and improve the resiliency of the drinking water supply for over 600,000 people in Sonoma and Marin counties, while also supporting sustainable groundwater management by enabling aquifer storage and recovery (ASR). The project will rehabilitate two groundwater production wells located at Sebastopol Road and Occidental Road groundwater production well facilities by making improvements to meet drinking water standards. Additionally, ASR components will be added at both facilities to recharge potable drinking water from transmission pipelines into the aquifer, as conditions allow. The project will result in an average of 1,400 acre feet per year (AFY) of water supply and an average of 500 AFY of groundwater recharge. Substantially funded by a CA Department of Water Resources grant.	Water Transmission System	Common Facilities Fund	162	162
SUBTOTAL								21,671	26,871
WA17011	F	IMP	Active	Aeration System Electrical Project	The mechanical aerators used in the wastewater treatment plant's aeration basins, which provide the biological treatment, are reaching the end of their useful life and will be replaced. Additional biological loads due to the tertiary process backwash require additional aeration, which requires additional power supply. Project completion will include design and construction of the electrical improvements needed for the additional aeration requirements.	Airport-Larkfield-Wikiup Sanitation Zone	ALWSZ Construction	895	895
WA19025	F	IMP	Request	Airport Treatment Plant Headworks Meter, Piping, and Chlorine Improvements	The existing Parshall flume which is used to measure the flow coming into the treatment plant often gets overwhelmed in a flooded condition during either high flows or operational changes. This issue causes the actual influent flow measurements to be inaccurate. To correct this issue, this project will excavate the existing pipelines and install a new flow meter, which will be located in a new vault, and includes some minor electrical work to bring power and signal to and from the flow meter, repaving the excavated area, and finally programming and commissioning. In this same area there are pipelines that transfer both wastewater and chlorine that are in need of replacement. These additional improvements will be done during the same period to reduce duplication of excavation and flow disturbance activities.	Airport-Larkfield-Wikiup Sanitation Zone	ALWSZ Construction	357	357
WA19026	PF	IMP	Active	Main Electrical Breaker and Switchgear Replacement	The Airport Treatment Plant, receives power from PG&E at 12,000 volts. However, the switchgear for the treatment plant does not have a main breaker. Consequently, the only way to de-energize the switchgear for routine maintenance is to request a shut down from PG&E. Further complicating the situation, the switchgear is fed from the same PG&E circuit as the Sonoma County Airport (STS), so a shutdown must be coordinated with the airport. With the lack of circuit breakers, working around the equipment is extremely hazardous. An electrical fault in the equipment must be cleared by the breaker in the PG&E substation. In November of 2018, the switchgear had a fault that disrupted power to the entire PG&E circuit, including the Sonoma County Airport. The purpose of this project is to install a new 12 kV-switchgear with a main breaker to resolve these issues. This project will increase the safety of the existing equipment, and will bring the current installation into compliance with current electrical code and PG&E requirements.	Airport-Larkfield-Wikiup Sanitation Zone	ALWSZ Construction	3,090	3,090
WA14027	F	IMP	Request	Filter Modules Replacement	The Airport Larkfield-Wikiup Sanitation Zone Waste Water Treatment Plant treats waste water to tertiary standards meeting Title 22 requirements for disinfected recycled water. A critical element of the treatment plant is the microfiltration filters. These filters require periodic replacement of the filter media. This project will replace microfiltration filter modules at end of useful life.	Airport-Larkfield-Wikiup Sanitation Zone	ALWSZ Construction	611	611
WA20016	F	IMP	Request	Recycled Water Pipeline Improvements	The Airport Larkfield Wikiup Sanitation Zone's recycle water system is the only mechanism to dispose of the highly treated wastewater that leaves the treatment plant. The Zone's current roster of recycle water users only use about one-third of the available water and additional users could improve the beneficial use. This project would construct two additional recycle water turnouts to supply high volume users.	Airport-Larkfield-Wikiup Sanitation Zone	ALWSZ Construction	520	520
SUBTOTAL								5,473	5,473



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA22013	PF	IMP	Active	Geyserville Force Main Replacement Project	The project will replace 1600 lineal feet of existing 6 inch force main between the lift station and the treatment plant. The asbestos cement pipe (ACP) force main was installed in 1979 and has experienced emergency repairs. This project will replace the old ACP line with HDPE pipe to reduce maintenance costs, improve reliability and reduce potential sewer overflows. Project will provide conduits for future installation of power and communication cables to improve system reliability between the lift station and the treatment plant. Improvements will address concerns stated in the Local Hazard Mitigation Plan 2018. Implementation is dependent on future grant funding.	Geyserville Sanitation Zone	GSZ Construction	2,199	2,199
SUBTOTAL								2,199	2,199
WA22014	PF	IMP	Request	Replace/Upsize Force Main Phase 1 & 2	To prevent future Sanitary Sewer Overflows (SSO), like the one that occurred during the October 2021 rain event, where crews pumped approximately 200,000 gallons to minimize the SSO, this project proposes to replace the existing 6 inch force main (constructed in 1977) with a new 8 inch force main from the lift station through the Sonoma Marin Area Rail Transit's (SMART) right of way to Wilmington Lift Station. Phase 1 of the project is expected to reconstruct the line from the lift station to Corona Road and Phase 2 of the project will similarly upgrade the existing 6 inch force main from Corona Road to the Wilmington Lift Station. Implementation is dependent on future grant funding.	Penngrove Sanitation Zone	PSZ Construction	12,860	12,860
SUBTOTAL								12,860	12,860
WA08025	F	IMP	Request	Future Capital Replacements	Construction of improvements to repair, rehabilitate, or replace portions of the collection and treatment systems that are deteriorated or have insufficient capacity for existing flows.	Sea Ranch Sanitation Zone	SRSZ Construction	250	350
WA19027	F	IMP	Active	Sea Ranch Sanitation Creek Crossing	The influent carrier pipe at Sea Ranch Central Waste Water Treatment Plant is an 8 inch carrier pipe and 14 inch casing pipe that crosses the creek adjacent to the treatment plant. This pipe is nearing the end of its useful life and will be assessed for necessary rehabilitation, or replacement, or other appropriate approach to mitigate the risk of pipeline failure.	Sea Ranch Sanitation Zone	SRSZ Construction	263	263
SUBTOTAL								513	613
WA18013	F	IMP	Active	Automation Project	The Automation Project will remotely monitor and control wastewater storage between the Occidental lift station and equalization facility. Replace existing pump control panels and instruments at Lift station; install a slide gate and actuator, lighting and disconnect switches and PLC and communication at the Lift Station. Provide two valve actuators, flow meter, PLC and communication at the EQ Facility.	Occidental County Sanitation District	OCSZ Construction	550	550
WA22015	PF	IMP	Active	Occidental County Sanitation District-Graton Pipeline	In an effort to minimize future rate increases by reducing Occidental County Sanitation District costs and providing Graton with an additional source of stable revenue, OCSZ and Graton are evaluating the feasibility of constructing a pipe to transport untreated wastewater from OCSZ to Graton for treatment and disposal. The proposed pipeline is located in a mixture of public streets and within easements through private properties. It will install approximately 30,000 feet of new 4 inch diameter sewer from OCSZ lift station to Graton's existing sewer system. Implementation is dependent on future grant funding.	Occidental County Sanitation District	OCSZ Construction	11,065	11,065
SUBTOTAL								11,615	11,615
WA19019	PF	IMP	Active	Force Main, Headworks, and Lift Station	This project entails replacement of the approximately 9,000 foot force main between the lift station on Riverside Drive and the treatment plant. Additionally the project will include condition assessment of the treatment plant headworks and the 11 lift stations throughout the service area to determine improvements to provide operational and process flow stabilization. Project implementation relies upon securing prop 1 grant funding.	Russian River County Sanitation District	RRCSD Construction	51,223	51,223



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA19028	F	IMP	Active	Main Lift Diesel Tank Replacement	The current underground diesel fuel tank at Russian River main lift station provides fuel for the back up power supply generator. This project proposes to replace the underground tank with an above ground tank and enclosure by 2025 in order to meet current health and safety code requirements. Effective September 25, 2014, Senate Bill (SB) 445 (Stats. 2014, Ch. 547) changed the underground storage tank (UST) regulatory program regarding design and construction of USTs. Specifically, this change requires permanent removal of any UST designed and constructed before January 1, 1984 that does not meet the requirements of certain Health and Safety Codes. USTs must be removed before December 31, 2025. Penalties for systems out of compliance are \$500 to \$5,000 per day per underground storage tank.	Russian River County Sanitation District	RRCSD Construction	896	896
WA22016	F	IMP	Request	Northern and Western Collection System Raising	The collection system in and around the Drakes Estates Lift Station includes a really deep main which requires all of the individual laterals to connect to the main at depths which do not allow easy maintenance. Several laterals have collapsed and/or failed in the area and each event is costly to repair and has only been done in a temporary fashion. In these instances a neighboring lateral has been used to connect the failed lateral which is a much more feasible project than digging to the deep main. However, this method is not necessarily sustainable if multiple neighboring laterals fail.	Russian River County Sanitation District	RRCSD Construction	323	1,786
WA22017	F	IMP	Request	Recycle Water Truck Fill Station	The Russian River County Sanitation District (RRCSD) is allowed to discharge its effluent from October 1 through May 15 per the North Coast Basin Plan. During the non-discharge seasons the RRCSD land disposes effluent on lands adjacent to the treatment plant and serves Title 22 recycled water to Northwood Golf Course. Historically and most notably during times of drought conditions the RRCSD has been contacted to provide trucked Title 22 recycled water for various purposes, most commonly for construction projects to provide dust control and compaction. The RRCSD however does not currently have a truck fill location that can be accessed by contractors. The project would require approximately 1,300 feet of pipeline to be connected to the existing recycled water pipeline the RRCSD currently operates which serves the Northwood Golf Course. The pipeline would run to a truck fill station constructed with the necessary appurtenances for accessing the truck fill including paving and drainage. The fill station would include a hydrant and access enclosure and the necessary Title 22 requirements such as a hand wash station. The truck fill station would benefit the public by offsetting the use of potable water currently used for construction and maintenance projects overseen by many State and local agencies in the Guerneville and Coastal Region. Additionally, the truck fill station could also be used for fire protection. The volume of recycled water used would also offset the required land irrigation at the RRCSD treatment facility.	Russian River County Sanitation District	RRCSD Construction	1,091	1,091
WA23006	F	IMP	Request	Water Quality Lab Remodel	The District's water quality laboratory was constructed approximately 40 years ago. The floors, cabinets, work spaces, countertops, electrical and laboratory equipment has passed its useful life and/or does not meet current standards. A consultant will be utilized in FY22/23 to prepare a conceptual plan for design and construction in FY23/24.	Russian River County Sanitation District	RRCSD Construction	633	633
SUBTOTAL								54,166	55,629
WA14021	F	IMP	Active	Sonoma Creek Bank Repair	Repair eroding banks in 3 locations that are posing a risk to Sanitation structures. Two locations along Sonoma Creek and one along Kohler Creek at 13965 Arnold Drive in Glen Ellen. Site A is adjacent to Sonoma Valley sanitation sewer trunk line. Site B is adjacent to manhole and siphon under Sonoma Creek. Site C is a manhole on the trunk line adjacent to eroding bank in Kohler Creek.	Sonoma Valley County Sanitation District	SVCSD Operations	2,004	2,004



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA23007	F	IMP	Request	Sonoma Valley Roof Replacement	Replace roofs at the Administration Building (5,760 sf) and Maintenance Building (2,200 sf) at SVTP, including upgrading/replacing access hatches, ladder extension, fall protection, skylights, venting, drains, HVAC, etc. Project will also upgrade the roofing drainage of the Influent/Effluent Building where the roofing material was recently replaced.	Sonoma Valley County Sanitation District	SVCSO Operations	805	805
WA17006	F	IMP	Active	Sonoma Valley Treatment Plant Blower Improvement Project	Wastewater treatment is a biological process which requires oxygen. Oxygen is supplied to the aeration basin by large high volume blowers through fine bubble diffusers. The District is pursuing a project to complete a comprehensive technical evaluation and based on the results of the evaluation the District plans to rehabilitate or replace the five existing 150 horsepower centrifugal blowers that are 40 years old and at the end of their useful life.	Sonoma Valley County Sanitation District	SVCSO Operations	150	150
WA22003	F	IMP	Request	Re-coat Aeration, Chlorine Contact & Grit Basins	Install paint-on epoxy layer to reline the 4 concrete Aeration Basins, 2 concrete Chlorine Contact Basins, and the Concrete Grit Structure. Work on Aeration basins assumes removing existing 2 inch thick grout layer, a nominal amount of concrete repairs, install new 2 inch thick grout layer, and 2 coats of different color epoxy coating. Work on Chlorine Contact and Grit Structure assumes shot blasting to prepare the existing concrete surface, a nominal amount of concrete repairs, then applying 2 coats of different color epoxy coating. Consultant investigation to core sample the various basins to verify structural integrity.	Sonoma Valley County Sanitation District	SVCSO Operations	2,582	2,582
WA23008	F	IMP	Request	Advanced Metering Infrastructure Replacement	Reading the SVCSO recycled water meters requires two operators and a full day or more to complete. Some of the meters are in vaults in roads where traffic can make them unsafe to read. This project is being initiated to replace the existing meters with newer models, similar to those on the potable water system, which can be read remotely. The scope of the full project includes purchasing new meters, purchasing radio antennas (520M Smartpoints), and hiring a contractor to install the meters. The meter locations will need to be surveyed for installation compatibility. Some locations will need retrofitting by the contractor prior to meter installation.	Sonoma Valley County Sanitation District	SVCSO Operations	490	490
WA23009	F	IMP	Request	Dechlorination conversion to Sodium Bisulfite	With unreliable recent deliveries of sulfur dioxide, this work is intended to develop and construct backup system that will allow totes of sodium bisulfite to be used on a temporary basis to dechlorinate the plant effluent. This temporary system is intended to be used as a backup system until a UV system can be funded and constructed, estimated at 5-10 years.	Sonoma Valley County Sanitation District	SVCSO Operations	350	350
WA23010	F	IMP	Request	Management Unit Restoration	Sonoma Land Trust is initiating efforts to restore significant tidal portions of Sonoma Creek Baylands and has expressed interest in coordinating restoration efforts with SVCSO. SVCSO owns, operates, and maintains two large recycled water storage ponds and several freshwater mitigation ponds on two parcels known as the SVCSO Management Units 1 and 2. Existing levees surrounding the management units are highly vulnerable to flooding and erosion and require regular maintenance and levee road repairs. These problems will only be exacerbated with sea level rise. This project aims at restoring tidal action within the management units and incorporating long-term measures to protect existing infrastructure. This project aims at supporting and coordinating with Sonoma Land Trust final design process to support future grant applications to fund construction.	Sonoma Valley County Sanitation District	SVCSO Operations	101	101
WA18021	F	IMP	Active	Chase St Bridge Sewer Pipe Replacement	City of Sonoma is replacing the Chase St bridge over Nathanson Creek, and during the process removing the District's above-grade sewer line and casing and replacing it with a below-grade siphon. Project is funded by Federal transportation funding. The District has supported the City with funding and review of plans for the siphon. Project will occur when funding becomes available. This budget covers preparation of an agreement with City for the District to fund sewer pipe installation during bridge construction, funding to construct the siphon, and staff time to inspect the installation of the siphon.	Sonoma Valley County Sanitation District	SVCSO Construction	195	195



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA18020	F/FBO	IMP	Active	Clarifier Seismic Retrofit	The project entails replacement of the interior mechanical components of two 140-foot diameter concrete clarifier tanks at the Sonoma Valley CSD WWTP to meet current seismic design requirements. Construction will be predominantly limited to work within the concrete tanks for removal of existing, interior mechanical components and some foundation work. Following foundation work and surface preparation of the concrete floor, the new mechanical components will be installed within the clarifiers. Project is partially funded with a FEMA grant.	Sonoma Valley County Sanitation District	SVCS Construction	365	365
WA17013	F	IMP	Active	Local Hazard Mitigation Projects	Implement measures to increase resiliency of collection and treatment systems against natural hazards, such as seismic or flooding events.	Sonoma Valley County Sanitation District	SVCS Construction	760	920
WA19023	F	IMP	Active	Trunk Sewer Replacement, Phase 5	The Sonoma Valley County Sanitation District phase 5 project involves the replacement of approximately 8,245 linear feet of existing 21 inch and 18 inch reinforced concrete pipe trunk main in the SVCS collection system with a larger sized trunk main to accommodate existing peak flows without overflows. This project is being built in response to a cease and desist order issued by the California Regional Water Quality Control Board to the SVCS on June 10, 2015 (CDO No.R2-2015-0032).	Sonoma Valley County Sanitation District	SVCS Construction	16,146	16,146
WA21018	PF	IMP	Request	Effluent Recycled Water Line Replacement	The project would consist of installing approximately 5000 feet of new 24-inch diameter PVC pipeline that would parallel the existing effluent line from the District's Wastewater Treatment Plant (WWTP) to the District's B1 pump station. The new effluent pipeline would run from the existing effluent meter within the WWTP, then head east along the WWTP access road, then south down 8th Street East; then east on State Highway 12 crossing under the existing rail road tracks, then south down an existing gravel access road to the District's B1 Pump station. The existing pipeline would be abandoned in place. Construction implementation is reliant in part on securing grant funding.	Sonoma Valley County Sanitation District	SVCS Construction	5,845	5,845
WA21019	F	IMP	Active	Influent/Effluent Pumping and Piping Upgrade	The electrical and mechanical pumping, piping and valving systems associated with the Sonoma Valley Treatment Plants Influent pumping and piping room are in need of replacement. Overall age of infrastructure and corrosion of piping has led to the need for replacement. Some of the electrical equipment is from 1978 original construction. The Project includes the design and construction of influent pumping and piping, new electrical equipment, variable frequency drives, and new programming and logical controls for the facility. The project is critical to overall function of the treatment plant and improves the resilience of the facility.	Sonoma Valley County Sanitation District	SVCS Construction	6,951	6,951
WA22012	PF	IMP	Active	Hooker Creek Trunk Main Seismic Mitigation	The 18 inch reinforced concrete pipe sewer crossing at Hooker Creek in Sonoma Valley has been identified as being vulnerable to liquefaction, lateral spread, and ground shaking. In addition, there is an active bank failure propagating in the direction of the trunk main. This project will develop alternatives to mitigate the seismic and erosion risks, and includes design and construction of a new crossing. The project reduces the risk of trunk main failure and associated public health and safety risk and environmental impacts. Construction implementation is reliant in part on securing grant funding.	Sonoma Valley County Sanitation District	SVCS Construction	3,344	3,344
WA23011	F	IMP	Request	Disinfection System Upgrades	The existing disinfection system at the Sonoma Valley Treatment Plant utilizes gaseous chlorine for disinfection and sulfur dioxide for dechlorination. The Project includes planning, design, and construction of a new ultraviolet disinfection system, associated piping, electrical, and new programming and logical controls for the system.	Sonoma Valley County Sanitation District	SVCS Construction	1,100	12,494



**CAPITAL IMPROVEMENT PLAN
FY 2023-2028**

REQ #	FUNDING STATUS	PROJECT TYPE*	PROJECT STATUS	PROJECT NAME	PROJECT DESCRIPTION	DIVISION	FUNDING SOURCE	5 YEAR TOTAL	FUNDING REQUESTED \$ '000
WA23012	F	IMP	Request	Sludge Thickener Upgrade	Replace interior mechanical components of the 50-foot diameter concrete sludge thickener tank at the Sonoma Valley County Sanitation District Wastewater Treatment Plant to meet current seismic design requirements. Construction will be predominantly limited to work within the concrete tanks for removal of existing, interior mechanical components and some foundation work. Following foundation work and surface preparation of the concrete floor, the new mechanical components will be installed within the sludge thickener tank.	Sonoma Valley County Sanitation District	SVCS Construction	1,767	1,767
SUBTOTAL								42,955	54,509
WA21012	F	IMP	Request	Barbara-Winston Collection System Replacement Project	Significant portions of the sanitary sewers located in the neighborhoods and side streets along the Moorland Avenue corridor, between Bellevue Avenue and West Robles Avenue are asbestos concrete pipe (ACP) constructed in the 1960's. The pipes have a variety of observed structural defects, including joint offsets, line deviations, and cracks which make them susceptible to failure and increased infiltration. The project will replace these pipes that are nearing the end of their useful life, including approximately 3200 feet of 6-inch and 8-inch pipe with new polyvinyl chloride (PVC) pipe, along with approximately 60 laterals, 12 manholes and appurtenant facilities and surface restoration.	South Park County Sanitation District	SPCSD Construction	4,639	4,639
WA21013	F	IMP	Request	Santa Rosa Ave Sewers Collection System - Todd to E. Robles	Wastewater collection from the properties located along Santa Rosa Avenue, between E. Todd Avenue and E. Robles Avenue, is served by two sewers located along the eastern and western portions of Santa Rosa Avenue. These existing sewer pipes predominantly consist of vitrified clay and asbestos concrete pipe (VCP & ACP) constructed in the 1950's and 60's, respectively. The clay pipes are characterized by an abundance of cracks and roots, with a few more severe hinge fractures and one observation of "broken, soil visible". The asbestos pipe has some cracks and two sags which can adversely affect operations. These pipe segments, which are nearing the end of their useful life, total approximately 6650 feet of 6-inch, 8-inch, and 12-inch pipe that are susceptible to failure and infiltration leading to increased wastewater overflow risks. The project will replace these pipes with new polyvinyl chloride (PVC) pipe, in addition to approximately 20 manholes, numerous laterals serving approximately 35 mostly-commercial properties, and appurtenant facilities and surface restoration.	South Park County Sanitation District	SPCSD Construction	9,188	9,188
SUBTOTAL								13,827	13,827
GRAND TOTAL								\$ 359,764	\$ 466,968



CAPITAL IMPROVEMENT PLAN
FY 2023-2028

DESCRIPTION & ABBREVIATION

REQ:
This is the project tracking number or project request number

FUNDING STATUS
F= Fully Funded PF = Partially Funded U = Unfunded FBO= Funded By Others

PROJECT TYPE
BLD = Building DEMO = Demolition DM= Deffered Maintenance for CIP IMP = Improvement LDI = Land Improvements SP = Space / Move Management PL = Planning

PROJECT STATUS
ACTIVE = Currently in progress REQUEST = Pending for funding

PROJECT NAME
Name of the project - keywords / brief description

PROJECT DESCRIPTION
Description of project - may include details / current status update

BUILDING / SITE LOCATION
Location of the project

FUNDING REQUESTED '000
Funding needed to complete the project in thousands of dollars