

Capital Improvement Plan 2022-27

## Overview

#### 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 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 Improvement Plan are derived from the objectives in Sonoma Water's Strategic Plan and from its Water Supply Strategies Action Plan.

### **Agency 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 goal outlined in Sonoma Water's strategic plan includes 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.

## Purpose and Background of Funds

Sonoma Water's Capital Improvement Plan identifies projects to be constructed over the next five years, and designed to meet its mission and strategic objectives.

#### Water Transmission

In order to reliably, safely, and efficiently supply potable water to its eight water contractors, Sonoma Water owns and operates the Water Transmission System which includes the facilities necessary to provide high quality drinking water to its customers. Sonoma Water plans, performs environmental reviews, designs, and constructs capital improvement projects for the Water Transmission System. These improvements are guided by the terms and conditions of the Restructured Agreement for Water Supply (Agreement) between Sonoma Water and its Water Contractors. The Water Contractors' Water Advisory Committee and/or Technical Advisory Committee meets regularly (Water Advisory

Committee quarterly and Technical Advisory Committee monthly) with Sonoma Water to discuss the scheduling and financing of water transmission system projects and other water supply and transmission system issues.

Capital improvements made to the Water Transmission System are typically funded from the Storage Facilities Fund, the Aqueduct Capital Funds (Santa Rosa, Petaluma, Sonoma aqueducts), and the Common Facilities Fund to meet the needs of the water contractors for the facilities identified under the Agreement. Capital projects have been scheduled to accommodate funding limitations, to provide the least disruption to existing facilities and water contractors, and to allow an orderly and timely start-up to meet the conditions of the Agreement or any new laws or regulations governing drinking water suppliers.

#### Water Supply

The Water Supply funds include the Russian River Projects Fund, the Recycled Water Fund, and the Warm Springs Dam Fund. These three funds are used: (1) to pay the costs for water supply and erosion control activities along the Russian River arising from assurances given by Sonoma Water for the construction of the Covote Valley Dam Project and Warm Springs Dam Project; (2) to pay the costs incurred by Sonoma Water in securing and defending its appropriative water rights necessary for the realization of the full benefit of those projects; (3) to pay the costs incurred by Sonoma Water in operating the Coyote Valley Dam and Warm Springs Dam Projects; (4) to pay the costs for water supply issues arising from activities of the Potter Valley Project; and (5) for fishery enhancement programs to ensure compliance with environmental regulations and pay for recycled water projects.

#### Flood Control Zones

Special Revenue Funds are used to construct and improve flood control facilities and to provide program support services for the flood control zones in Sonoma County. Common types of features constructed to help alleviate flooding are channelization works, bypass conduit systems, diversion and detention systems. In addition, natural systems are maintained to provide flood control capacity. Sonoma County is divided into nine major watershed areas. Flood control zones were created encompassing eight of these watersheds. Zone 1A (Laguna-Mark West), Zone 2A (Petaluma River), and Zone 3A (Valley of the Moon/Upper Sonoma Creek) have the most active flood control programs. Zone 4A (Upper Russian River) and Zone 6A (Dry Creek) are completely inactive. Zone 5A (Lower Russian River) and Zone 8A (South Coastal) are less active than Zones 1A, 2A, and 3A, with only ongoing maintenance of existing facilities being performed. Zone 7A (North Coastal) has minimal fund reserves earning interest. The ninth watershed area, covering the lower portions of Sonoma Creek and the Petaluma River. was never established as a zone.

Flood control zones were created to reduce the frequency of flooding within the zone through construction of facilities to safely handle projected storm flows. An appointed advisory committee for each active zone meets regularly to make recommendations to Sonoma Water's Board of Directors regarding priorities for flood protection projects within each zone. Proposed projects are evaluated in consideration of historical flooding problems, areas benefited, alternative funding available, special safety and health factors, coordination with other public projects, and environmental concerns.

Flood Control Zone 1A is the watershed area that drains into and includes the Laguna de

Santa Rosa and Mark West Creek.

Flood Control Zone 2A is the watershed area in Sonoma County that drains into and includes the Petaluma River, with the exception of the most southerly portion of the area, which consists primarily of reclaimed tidelands.

Flood Control Zone 3A is the watershed area in Sonoma County that drains into and includes Sonoma Creek, generally north of Highway 121.

The primary funding source for all three Zones is an ad valorem property tax. In the past, capital projects in Zone 1A and 2A were also funded by a voter-approved 10-year benefit assessment program for flood control, which ended June 30, 2007. Some additional funds are sometimes available from cities, the County, and community development sources to construct flood control projects. In more recent years, grants from state bond measures have also been a source of funding for flood control projects.

#### Sanitation

Sonoma Water owns and operates four sanitation zones, which include Airport-Larkfield-Wikiup, Geyserville, Penngrove, and Sea Ranch. Sonoma Water is also responsible for the overall management (including operation) of four County Sanitation Districts. The four districts include Occidental, Russian River, Sonoma Valley, and South Park. Each county sanitation district exists as a separate legal entity. The sanitation zones operate as zones of benefit, similar to Sonoma Water's flood control zones. Sanitation projects are scheduled according to the specific needs for each zone or district. Funding of projects may be accomplished by federal and/or state grants, state revolving fund loans, certificates of participation, notes, revenue bonds, or on a pay-as-you-go basis.

#### Airport-Larkfield-Wikiup Sanitation Zone

The Airport-Larkfield-Wikiup Sanitation Zone covers about 2,100 acres, 2,700 parcels, and collects, treats, and recycles wastewater from about 3,900 equivalent single family dwellings. Its treatment plant treats wastewater to a tertiary level, and this system provides recycled water for agricultural and municipal reuse. The treatment facility currently has a dry weather capacity of 0.9 million gallons per day. In recent years, Sonoma Water has completed a sewer master plan, developed a computer model of the collection system, and conducted a multihazard vulnerability assessment of the Airport-Larkfield-Wikiup Sanitation Zone infrastructure.

#### Geyserville Sanitation Zone

The Geyserville Sanitation Zone covers about 180 acres, 320 parcels, and collects, treats, and recycles wastewater from about 400 equivalent single family dwellings. Its treatment facility is designed to treat an average dry weather flow of up to 92,000 gallons per day. The current and future treatment facility inflows are expected to remain less than the treatment and disposal capacity of the Geyserville Sanitation Zone facilities. Sonoma Water conducted multi-hazard vulnerability assessment of the Geyserville Sanitation Zone infrastructure in 2018. Disinfection facilities changed from chlorine gas to sodium hypochlorite in 2019. Sodium hypochlorite is a safer material for plant operators to handle than chlorine gas.

#### **Occidental County Sanitation District**

The Occidental County Sanitation District covers about 55 acres, 120 parcels, and collects, treats, and recycles wastewater from about 300 equivalent single family dwellings. In 2018, the Occidental County Sanitation District commenced trucking of its wastewater to the Airport-Larkfield-Wikiup Sanitation

Zone treatment plant for contracted treatment and beneficial reuse, and the Occidental County Sanitation District plant is now used for equalization storage of high flows. This operational change was implemented in order to end discharges of secondary treated wastewater into Dutch Bill Creek, and comply with a cease and desist order issued by the North Coast Regional Water Quality Control Board.

The Occidental County Sanitation District faces serious financial and operational difficulties. Due to the district's small ratepayer base, operating revenues are not sufficient to fund ongoing operations, maintenance and administrative activities. Sonoma Water annually subsidizes from its General Fund the Occidental County Sanitation District. The ability to increase rates in this district is limited, and funding for any significant capital project would be financed mostly through outside funding, as available. The Occidental County Sanitation District is preparing a feasibility study to evaluate the construction of a pipeline to the Graton Community Services District for treatment and disposal in lieu of trucking. Preliminary estimates indicate that if this pipeline can be completed, it is possible that annual subsidies could be ceased.

#### Penngrove Sanitation Zone

The Penngrove Sanitation Zone covers about 480 acres, 420 parcels, and collects, treats, and recycles wastewater from about 560 equivalent single family dwellings. Sonoma Water operations in the Penngrove Sanitation Zone are limited to administrative services and operation/maintenance of the collection system and pumping station. The wastewater collected by the Penngrove Sanitation Zone collection system flows through the City of Petaluma's collection system to the City of

Petaluma's wastewater treatment facility, where it is treated to meet tertiary standards. Sonoma Water conducted a multi-hazard vulnerability assessment of the Penngrove Sanitation Zone infrastructure in 2018, and recently completed a project that enhances the operational reliability of the pumping station during flood events.

#### Russian River County Sanitation District

The Russian River County Sanitation District covers about 2,700 acres, 3,300 parcels, and collects, treats, and recycles wastewater from about 3,800 equivalent single family dwellings. Its treatment plant is permitted to treat an average dry weather flow of up to 0.71 million gallons per day to tertiary wastewater treatment standards. The Russian River County Sanitation District has an easement on forested property adjacent to the treatment plant which it uses for spray irrigation of recycled water. In addition, turf at the Northwood Golf Course is irrigated with recycled water. In 2022, seismic retrofit improvements were completed on the Russian River County Sanitation District treatment plant's three clarifier basins using FEMA hazard mitigation grant funding.

The Russian River County Sanitation District has recently completed a Sanitary Sewer Capacity Assessment and developed a computer model of its collection system. A multi-hazard vulnerability assessment was conducted and a Local Hazard Mitigation Plan was developed for Russian River County Sanitation District's collection, treatment, and recycled water systems.

#### Sea Ranch Sanitation Zone

The Sea Ranch Sanitation Zone covers about 4,600 acres, 800 parcels, and collects, treats, and recycles wastewater from about 590 equivalent single family dwellings. It consists of two wastewater collection and treatment systems located in Central and North Sea Ranch.

These collection and disposal systems operate independently and are isolated from each other. The Central and North treatment facilities are designed to treat average daily dry weather flows of up to 27,000 and 160,000 gallons per day, respectively. Wastewater from the Central system is treated to secondary levels and is disposed of through irrigation on land that is adjacent to the treatment facility. Currently, the Sea Ranch Sanitation Zone North treatment facility pumps raw wastewater to the Gualala Community Services District's wastewater treatment facility, where it is combined with Gualala Community Services District's influent and treated to tertiary standards. This combined recycled water is irrigated on the Sea Ranch Golf Links. The Sea Ranch Water Company is under contract to operate and maintain the Sea Ranch Sanitation Zone facilities for Sonoma Water.

Sonoma Water and The Sea Ranch Association, owner of the Sea Ranch Water Company, continue to investigate options for the continued operation of the Sea Ranch Sanitation Zone.

#### Sonoma Valley County Sanitation District

The Sonoma Valley County Sanitation District covers about 4,500 acres, 11,500 parcels, and collects, treats, and recycles wastewater from about 20,500 equivalent single family dwellings. Its system provides wastewater collection, tertiary level treatment, and reuse and disposal service for the Sonoma Valley area. Recycled water is used to irrigate local crops and some limited urban landscapes during the summer. During the winter, treated wastewater is provided to the Napa-Sonoma Salt Ponds for environmental restoration of the ponds, or is otherwise discharged to San Pablo Bay via Schell Slough and Hudeman Slough. The Sonoma Valley County Sanitation District treatment facility is permitted to treat an average daily dry weather flow of up to 3.0 million gallons per day.

A cease and desist order was issued to Sonoma Valley County Sanitation District by the San Francisco Bay Regional Water Quality Control Board in 2015 for wet weather discharges from its collection system between 2010 and 2015. The order requires Sonoma Valley County Sanitation District to complete certain capital improvements to address capacity deficiencies in the collection system. In response to the order, several phases of Sonoma Valley County Sanitation District's trunk main replacement program have been completed since 2015. This Capital Improvement Plan includes substantial continuing investment in trunk main replacement/rehabilitation projects, including phases 4C and 5.

A master plan and computer model of the Sonoma Valley County Sanitation District collection system was completed, and the multi-hazard vulnerability assessment for the Sonoma Valley County Sanitation District collection, treatment, and recycled water systems is currently being updated. The Local Hazard Mitigation Plan, originally approved by the Federal Emergency Management Agency in 2016, provides the Sonoma Valley County Sanitation District eligibility for certain federal disaster mitigation funding, including grant funds Sonoma Valley County Sanitation District is currently utilizing to seismically retrofit the secondary treatment clarifies at the wastewater treatment plant.

#### South Park County Sanitation District

The South Park County Sanitation District covers about 1,500 acres, 2,200 parcels, and collects, treats, and recycles wastewater from about 4,000 equivalent single family dwellings. Wastewater from South Park County Sanitation District is treated and disposed of by the City of Santa Rosa at the Laguna Sub-regional Treatment Plant on Llano Road. Since 1996, the City of Santa Rosa has performed the operations

and routine maintenance of the collection system.

On November, 2016, the City of Santa Rosa approved a Roseland Pre-Annexation Agreement and directed staff to file an application to annex certain lands in southwest Santa Rosa that include portions of the South Park County Sanitation District's serve area. Because the City did not annex the entirety of the service area, the South Park County Sanitation District was not dissolved. The South Park County Sanitation District and the City amended an agreement titled "Transfer of Operations from South Park County Sanitation District to City of Santa Rosa" in 2017 to define a process for the transfer of all South Park County Sanitation District management functions to the City. The South Park County Sanitation District is implementing a 5-year rate restructuring in order to implement a volumetric rate structure that is similar to that in effect within the City. When the South Park rates have been restructured, the District and the City will work cooperatively to transfer all billing accounts to the City. Prior to or concurrent with the transition, the South Park County Sanitation District will transfer control of the full operation and function of the system to the City. The South Park County Sanitation District will seek a termination of the management agreement with Sonoma Water and approval of a new agreement with the City to document transfer of control. After full operation and function of the South Park County Sanitation District is transferred to the City, a new Board of Directors will be created to manage the operation of the South Park County Sanitation District.

#### Administration and General

These funds include the General Fund, the Spring Lake Park Fund, and the Sustainability-Renewable Energy Fund. The Spring Lake

Park Fund provides for occasional construction projects in Spring Lake Park. Spring Lake Park is a public park owned by Sonoma Water and operated under contract by the Sonoma County Regional Parks Department. The Sustainability-Renewable Energy Fund provides for Sonoma Water's Renewable Energy, Efficiency and Sustainability efforts.

#### Internal Service

The Internal Service Funds provide an equitable means for sharing capital, operations and maintenance, and debt service costs for facilities and power expenditures among Sonoma Water's entities that use these services. The capital costs include: (1) building improvements to the Administration building at Sonoma Water's 404 Aviation Boulevard site; (2) building improvements to the Operations and Maintenance facility at 204 Concourse Blvd; (3) building improvements to the Maintenance Center facility located at the Airport Treatment Plant: (4) funding of new building sites and other land purchases; and (5) electric power development, and sales for the various enterprises owned and managed by Sonoma Water.

## Water Transmission System

#### Current Five-Year Plan

This five-year plan includes funding for 42 projects related to the water transmission system. This list of projects also includes construction projects required by the Biological Opinion. The projects identified in this section of the plan support the objectives of Water Supply Goals and Strategies in Sonoma Water's Strategic Plan.

#### Common Facilities

There are 18 projects identified for funding in the Common Facilities Fund. Four new projects consisting of Santa Rosa Plain Wells Drought Resiliency (Occidental Road & Sebastopol Road), Mirabel Wellfield #1 Rehabilitation, Mirabel Wellfield #7 Rehabilitation, and Mirabel Ponds Interconnection, were added to the FY 202-23 through FY 2026-27 capital plan. The formerly identified Mirabel Inflatable Dam Fabric Replacement and 48 Inch Mainline Valve at Vinehill Ranch projects were completed in 2021.

#### Aqueduct Facilities

There are nine projects identified for funding in the Capital Aqueduct Funds. One new project, consisting of Petaluma River Crossing Seismic Hazard Mitigation was added to the FY 2022-23 through FY 2026-27 capital plan. The formerly identified Sonoma Booster Pump Station Upgrade project was completed in 2022.

#### Storage Facilities

There are four projects identified for funding in the Capital Storage Funds. No new projects were added to the FY 2022-23 through FY 2026-27 capital plan.

# Water Transmission Operations & Maintenance (O&M) Fund

There are nine projects identified for funding in the Operations & Maintenance Fund. Three new projects, consisting of Mirabel Collector 5 Reach Rods Replacement, Wohler/Mirabel Chlorine Detector, and Lateral Valve Replacements were added to the FY 2022-23 through FY 2026-27 capital plan.

#### Watershed Planning & Restoration Fund

There are three projects identified for funding in the Watershed Planning & Restoration Fund. No new projects were added to the FY 2022-23 through FY 2026-27 capital plan.

## Water Supply

#### Current Five-Year Plan

This five-year plan includes funding for one project related to water supply and associated with implementation of the Biological Opinion. The projects identified in this section of the plan meet the objectives of Water Supply Goals and Strategies of Sonoma Water's Strategic Plan.

#### Russian River Projects Fund

There are no projects identified for funding in the FY 2022-23 through FY 2026-27 capital plan for the Russian River Projects Fund.

#### Recycled Water Fund

There are no projects identified for funding in the FY 2022-23 through FY 2026-27 capital plan for the Recycled Water Fund.

#### Warm Springs Dam Fund

There is one project identified for funding in the Warm Springs Dam Fund. No new projects were added to the FY 2022-23 through FY 2026-27 capital plan.

## Flood Control Zones

#### Current Five-Year Plan

This five-year plan includes funding for four projects related to the flood control zones. Sonoma Water will not take the lead on all of these projects, but will provide administration services and funding for some of these projects through the flood control zones. Funding provided by partner entities are not included in the project costs presented in this plan. The projects identified in this section of the plan support the objectives of Flood Control Goals and Strategies of Sonoma Water's Strategic Plan.

#### Zone 1A (Laguna-Mark-West Creek)

There are four projects identified for funding in the Zone 1A fund. One new project, consisting of Laguna-Mark West Watershed Restoration (Phase 2) was added to the FY 2022-23 through FY 2026-27 capital plan.

#### Zone 2A (Petaluma)

There is one project identified for funding in the Zone 2A fund. No new projects were added to the FY 2022-23 through FY 2026-27 capital plan.

#### Zone 3A (Valley of the Moon)

There are no projects identified for funding in the FY 2022-23 through FY 2026-27 capital plan for Zone 3A.

#### Zone 5A (Lower Russian River)

There are no projects identified for funding in the FY 2022-23 through FY 2026-27 capital plan for Zone 5A.

## Sanitation Districts/Zones

#### Current Five-Year Plan

This five-year plan includes funding for 35 projects related to the sanitation zones and districts managed by Sonoma Water. The projects in this section of the plan support the objectives in Sanitation Goals and Strategies in Sonoma Water's Strategic Plan.

#### Airport-Larkfield-Wikiup Sanitation Zone

There are seven projects identified for funding in the Airport-Larkfield-Wikiup Sanitation Zone. No new projects were added to the FY 2022-23 through FY 2026-27 capital plan. The formerly identified Treatment Plant Control Improvements project and Chemical Feed Tanks project were completed in 2022.

#### Geyserville Sanitation Zone

There is one project identified for funding in the Geyserville Sanitation Zone. One new project, consisting of Geyserville Force Main Replacement Project was added to the FY 2022-23 through 2026-27 capital plan.

#### Occidental County Sanitation District

There are two project identified for funding in the Occidental County Sanitation District. One new project, consisting of Occidental County Sanitation District Graton Pipeline was added to the FY 2022-23 through FY 2026-27 capital plan.

#### Penngrove Sanitation Zone

There are two projects identified for funding in the Penngrove Sanitation Zone. One new project, consisting of Replace/Upsize Force Main & Lift Station Pumping Capacity was added to the FY 2022-23 through FY 2026-27 capital plan. The formerly identified Lift Station Flood Protection project was completed in 2022.

#### Russian River County Sanitation District

There are seven projects identified for funding in the Russian River County Sanitation District. Two new projects, consisting of the Northern and Western Collection System Raising, and the Recycle Water Truck Fill Station were added to the FY 2022-23 through FY 2026-27 capital plan. The formerly identified Collection System Repair (M31-4/M36-14), and Clarifier Seismic Retrofit projects were completed in 2022.

#### Sea Ranch Sanitation Zone

There are two projects identified for funding in the Sea Ranch Sanitation Zone. No new projects were added to the FY 2022-23 through FY 2026-27 capital plan.

#### Sonoma Valley County Sanitation District

There are 12 projects identified for funding in Sonoma Valley County Sanitation District. Two

new projects, consisting of Re-coat Aeration, Chlorine Contact & Grit Basins, and Hooker Creek Trunk Main Seismic Mitigation were added to the FY 2022-23 through FY 2026-27 capital plan. The formerly identified Wastewater Treatment Plant Roof Replacement project was completed in 2022.

#### South Park County Sanitation District

There are two projects identified for funding in the South Park County Sanitation District. No new projects were added to the FY 2022-23 through FY 2026-2027 capital plan.

## Administration and General Fund

#### Current Five-Year Plan

This five year capital plan includes no General Fund, Spring Lake Park Fund, or Sustainability-Renewable Energy Fund projects.

## Internal Service

#### Current Five-Year Plan

In this five year plan, there are five projects identified for funding in the Internal Services Funds. The projects in this section of the plan meet the objectives in Organizational and Energy Goals and Strategies in Sonoma Water's Strategic Plan.

#### **Facilities Fund**

There are two projects identified for funding in the Facilities Fund. One new project, consisting of Advanced Quantitative Precipitation Information Radar Installation was added to the FY 2022-23 through FY 2026-27 capital plan.

## **Power Resources Fund**

There are three projects identified for funding in the Power Resources Fund. No new projects were added to the FY 2022-23 through FY 2026-27 capital plan. The formerly identified Geyserville Treatment Plant Solar Inverter Replacement project was completed in 2022.

## **Funding Source Report**

Division/Section	Funding Source	Prior FYs	Current FY 2021-22	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future FYs	Cumulative Project Total
Water Transmission System	Common Facilities	1,274	4,778	10,180	3,010	3,240	6,905	18,214	41,549	6,100	53,701
Water Transmission System	Common Facilities, FEMA	10,346	5,674	1,517	0	0	0	0	1,517	0	17,537
Water Transmission System	Storage	927	851	1,050	2,215	5,435	9,897	2,187	20,784	2,670	25,232
Water Transmission System	Petaluma Aqueduct Capital	105	0	0	237	1,485	3,132	1,426	6,280	59,562	65,947
Water Transmission System	Petaluma Aqueduct Capital, FEMA	486	2,539	510	0	0	0	0	510	0	3,535
Water Transmission System	Santa Rosa Aqueduct Capital	0	0	0	0	407	293	0	700	0	700
Water Transmission System	Santa Rosa Aqueduct Capital, FEMA	1,224	814	50	300	9,200	1,400	0	10,950	0	12,988
Water Transmission System	Sonoma Aqueduct Capital	27	364	25	365	75	3,737	4,289	8,491	2,083	10,965
Water Transmission System	Operations & Maintenance	990	6,733	10,054	10,557	12,046	10,483	11,144	54,284	34,850	96,857
Water Transmission System	Watershed Planning and Restoration	11,295	1,027	2,886	2,765	196	42	0	5,889	0	18,211
Water Supply - Warm Springs Dam	Other, ACOE	17,878	609	242	6,830	980	147	0	8,199	0	26,686
Flood Control	Zone 1A	513	284	426	875	0	0	0	1,301	0	2,098
Flood Control	Zone 1A, NRCS	155	150	250	250	250	250	250	1,250	250	1,805
Flood Control	Zone 2A	1	172	126	25	0	0	0	151	0	324
Airport-Larkfield-Wikiup Sanitation Zone	ALWSZ	452	391	189	1,089	2,706	4,149	0	8,133	0	8,976
Geyserville Sanitation Zone	GSZ	0	0	58	82	91	755	0	986	0	986
Occidental County Sanitation District	OCSD	247	650	495	755	6,848	1,532	0	9,630	0	10,527
Penngrove Sanitation Zone	PSZ	0	0	30	430	2,061	30	30	2,581	0	2,581

## **Funding Source Report**

Division/Section	Funding Source	Prior FYs	Current FY 2021-22	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future FYs	Cumulative Project Total
Russian River County Sanitation District	RRCSD	32	205	830	3,136	1,222	4,920	0	10,108	0	10,345
Russian River County Sanitation District	RRCSD, SWRCB	0	0	850	4,700	800	3,000	0	9,350	0	9,350
Sea Ranch Sanitation Zone	SRSZ	0	150	450	75	75	75	75	750	125	1,025
Sonoma Valley County Sanitation District	Other, ACOE	0	0	244	2,167	0	0	0	2,411	0	2,411
Sonoma Valley County Sanitation District	SVCSD	3,083	8,167	4,200	15,801	11,051	2,766	989	34,807	3,203	49,260
Sonoma Valley County Sanitation District	SVCSD, FEMA	837	124	4,255	610	0	0	0	4,865	0	5,826
South Park County Sanitation District	SPCSD	0	0	600	526	459	10,698	1,500	13,783	0	13,783
Internal Services Fund	Facilities	286	2,058	1,314	100	0	0	0	1,414	0	3,758
Internal Services Fund	Power Resources	329	164	149	1,197	807	35	0	2,188	0	2,681
TOTAL		50,487	35,904	40,980	58,097	59,434	64,246	40,104	262,861	108,843	458,095

## **Dry Creek Habitat Enhancement Project (Phase 4)**

Function Area: Request: WA20012

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Watershed Planning & Restoration

#### **Project Description**



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.

Project Cost							
Acquisition:	2,088						
Design/PM:	2,816						
Construction:	2,764						
Furniture/Reloc:	0						
Other:	150						
Project Total:	7,818						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Watershed Planning and Restoration Fund	7,065	252	415	86	0	0	0	501	0	7,818
TOTALS:	7,065	252	415	86	0	0	0	501	0	7,818

## **Dry Creek Habitat Enhancement Project (Phase 5)**

Function Area: Request: WA20013

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Watershed Planning & Restoration

#### **Project Description**



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.

Project Cost							
Acquisition:	1,614						
Design/PM:	1,784						
Construction:	483						
Furniture/Reloc:	0						
Other:	137						
Project Total:	4,018						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Watershed Planning and Restoration Fund	2,037	665	660	578	78	0	0	1,316	0	4,018
TOTALS:	2,037	665	660	578	78	0	0	1,316	0	4,018

## **Dry Creek Habitat Enhancement Project (Phase 6)**

Function Area: Request: WA20014

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Watershed Planning & Restoration

#### **Project Description**



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.

Project Cost							
Acquisition:	2,576						
Design/PM:	2,125						
Construction:	1,565						
Furniture/Reloc:	0						
Other:	109						
Project Total:	6,375						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Watershed Planning and Restoration Fund	2,193	110	1,811	2,101	118	42	0	4,072	0	6,375
TOTALS:	2,193	110	1,811	2,101	118	42	0	4,072	0	6,375

#### Upper Copeland & Lichau Creeks Flood Resiliency and Enhancement

Function Area: Request: WA21002

**Development Services** 

**Department/Division:** 

Sonoma Water / Flood Control

#### **Project Description**



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 all Copeland Creek out-of-bank flows during the 100-year event with a secondary objective of reducing peak flows along Roberts Creek as well. Project also incorporates seasonal wetland enhancement. 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.

Project Cost							
Acquisition:	19						
Design/PM:	506						
Construction:	0						
Furniture/Reloc:	0						
Other:	122						
Project Total:	647						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Zone 1A	0	172	126	25	0	0	0	151	0	323
Zone 2A	1	172	126	25	0	0	0	151	0	324
TOTALS:	1	344	252	50	0	0	0	302	0	647

## **Bennett Valley Fault Crossing**

Function Area: Request: WA10106

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System

#### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	1,700					
Construction:	6,403					
Furniture/Reloc:	0					
Other:	96					
Project Total:	8,199					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Aqueduct Capital Fund	27	364	25	365	75	2,827	437	3,729	0	4,120
Storage Fund	24	326	25	365	75	2,827	437	3,729	0	4,079
TOTALS:	51	690	50	730	150	5,654	874	7,458	0	8,199

## **Collector 6 Valves and Vault Replacement**

Function Area: Request: WA15008

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	260						
Construction:	220						
Furniture/Reloc:	0						
Other:	0						
Project Total:	480						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	0	0	0	0	480	0	480	0	480
TOTALS:	0	0	0	0	0	480	0	480	0	480

## **Mirabel - River Road Fiber Optic Line**

Function Area: Request: WA14028

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	26						
Design/PM:	287						
Construction:	575						
Furniture/Reloc:	0						
Other:	72						
Project Total:	960						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	0	0	385	575	0	0	960	0	960
TOTALS:	0	0	0	385	575	0	0	960	0	960

#### **Mirabel Collector 3 Blowoff**

Function Area: Request: WA19007

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	27						
Construction:	262						
Furniture/Reloc:	0						
Other:	0						
Project Total:	289						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
		0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0
Common Facilities Fund	0	0	0	0	0	0	289	289	0	289
TOTALS:	0	0	0	0	0	0	289	289	0	289

## **Mirabel Maintenance Building**

Function Area: Request: WA15012

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost						
Acquisition:	26					
Design/PM:	318					
Construction:	762					
Furniture/Reloc:	0					
Other:	94					
Project Total:	1,200					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	0	1,200	0	0	0	0	1,200	0	1,200
TOTALS:	0	0	1,200	0	0	0	0	1,200	0	1,200

#### **Mirabel Ponds Interconnection**

Function Area: Request: WA22011

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



This project would install four box culverts at Mirabel. Each culvert would connect the Russian River and infiltration Ponds 1 - 4. The project will allow the movement of water between infiltraitons ponds, more effectivley, as the Russian River begins to crest.

Project Cost							
Acquisition:	19						
Design/PM:	251						
Construction:	646						
Furniture/Reloc:	0						
Other:	84						
Project Total:	1,000						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current FY	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FΥ	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	0	0	0	0	500	500	1,000	0	1,000
TOTALS:	0	0	0	0	0	500	500	1,000	0	1,000

#### Mirabel Wellfield #1 Rehabilitation

Function Area: Request: WA22010

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	168						
Construction:	132						
Furniture/Reloc:	0						
Other:	0						
Project Total:	300						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	300	0	0	0	0	300	0	300
TOTALS:	0	0	300	0	0	0	0	300	0	300

#### Mirabel Wellfield #7 Rehabilitation

Function Area: Request: WA22004

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	0						
Construction:	100						
Furniture/Reloc:	0						
Other:	0						
Project Total:	100						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	0	100	0	0	0	0	100	0	100
TOTALS:	0	0	100	0	0	0	0	100	0	100

### River Diversion Structure Motor Control Center, Pump, and Seismic Upgrade

Function Area: Request: WA20015

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	11						
Design/PM:	1,077						
Construction:	1,800						
Furniture/Reloc:	0						
Other:	26						
Project Total:	2,914						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	132	116	367	134	2,165	0	0	2,666	0	2,914
TOTALS:	132	116	367	134	2,165	0	0	2,666	0	2,914

#### **Warm Springs Dam Hydroturbine Retrofit**

Function Area: Request: WA16016

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	6						
Design/PM:	1,986						
Construction:	3,147						
Furniture/Reloc:	0						
Other:	1						
Project Total:	5,140						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	1,100	937	2,720	383	0	0	0	3,103	0	5,140
TOTALS:	1,100	937	2,720	383	0	0	0	3,103	0	5,140

### **Wohler Access Road Retaining Wall**

Function Area: Request: WA18003

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



A portion of the embankment along the primary route to the water production facilities at the Wohler Plant is failing and requires repair. All-weather, continuous access to the Wohler Plant is essential. A retaining wall is proposed to be installed to shore up the embankment The retaining wall is anticipated to be a steel beam and wood lagging retaining wall, approximately 100 feet in length with an exposed height no greater than 10 feet. This wall will provide support in an area of pavement distress and slope failure (creeping landslide) along a 60±-foot section of the access road to the plant.

Project Cost						
Acquisition:	0					
Design/PM:	185					
Construction:	456					
Furniture/Reloc:	0					
Other:	2					
Project Total:	643					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	42	308	293	0	0	0	0	293	0	643
TOTALS:	42	308	293	0	0	0	0	293	0	643

## **Wohler Road Fiber Optic**

Function Area: Request: WA16003

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	400						
Construction:	0						
Furniture/Reloc:	0						
Other:	0						
Project Total:	400						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	150	50	200	0	0	0	250	0	400
TOTALS:	0	150	50	200	0	0	0	250	0	400

## **Wohler-Forestville Pipeline 54 Inch Throttling Valve**

Function Area: Request: WA18002

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	232						
Construction:	193						
Furniture/Reloc:	0						
Other:	0						
Project Total:	425						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	17	300	108	0	0	0	408	0	425
TOTALS:	0	17	300	108	0	0	0	408	0	425

#### Santa Rosa Plain Wells Drought Resiliency (Occidental Road & Sebastopol Road)

Function Area: Request: WA22009

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	166						
Design/PM:	919						
Construction:	6,749						
Furniture/Reloc:	0						
Other:	166						
Project Total:	8,000						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	3,250	4,750	0	0	0	0	4,750	0	8,000
TOTALS:	0	3,250	4,750	0	0	0	0	4,750	0	8,000

#### Seismic Hazard Mitigation at the Mark West Creek Crossing

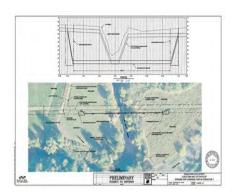
Function Area: Request: WA09051

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



Project will mitigate the risk of pipe failure due to seismic induced ground deformation by installing a new pipeline crossing at greater depth. The primary element of the proposed project is approximately a 750 foot long, 48 inch diameter steel pipeline segment that would be installed beneath the Mark West Creek. The new pipeline segment would be installed parallel to the existing pipeline and approximately 8 feet below the creek bed, 6 feet deeper than the existing pipe's depth. The existing pipeline would be disconnected and abandoned in place. The project is being partially funded with FEMA hazard mitigation funding.

Project Cost						
Acquisition:	279					
Design/PM:	970					
Construction:	5,292					
Furniture/Reloc:	0					
Other:	191					
Project Total:	6,732					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund, FEMA	1,377	4,520	835	0	0	0	0	835	0	6,732
TOTALS:	1,377	4,520	835	0	0	0	0	835	0	6,732

#### Seismic Hazard Mitigation at the Russian River Crossing

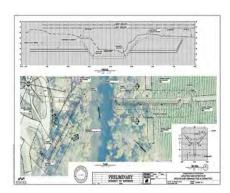
Function Area: Request: WA09055

**Development Services** 

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



The proposed project is located on the Cotati Intertie Pipeline under the Russian River to the South of Caisson 5 on the Mirabel site. The purpose of the Russian River-Cotati Intertie Pipeline Seismic Hazard Mitigation at the Russian River Crossing Project is to reduce potential pipe failure and maintain safe and reliable water service during a seismic event resulting from the permanent ground deformation caused by a moderate or severe earthquake along the Rodger's Creek/Hayward Fault. The proposed project will evaluate environmental constraints and assess subsurface soil conditions for mitigating liquefaction induced lateral spread hazard. The Russian River Crossing project proposes to modify and replace portions of the existing crossing, including approximately 1400 feet of concrete cylinder pipe ranging in size between 36 inch and 48 inch diameter. The project includes trenching within the river banks to replace portions of the pipeline at risk. The project is being partially funded with FEMA hazard mitigation funding.

Project Cost						
Acquisition:	286					
Design/PM:	1,416					
Construction:	9,090					
Furniture/Reloc:	0					
Other:	13					
Project Total:	10,805					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Common Facilities Fund, FEMA	8,969	1,154	682	0	0	0	0	682	0	10,805
TOTALS:	8,969	1,154	682	0	0	0	0	682	0	10,805

#### **Collector 3 & 5 Liquefaction Mitigation**

Function Area: Request: WA04048

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	400					
Construction:	10,800					
Furniture/Reloc:	0					
Other:	200					
Project Total:	11,400					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	0	0	500	100	5,400	5,400	11,400	0	11,400
TOTALS:	0	0	0	500	100	5,400	5,400	11,400	0	11,400

### **Collector 6 Liquefaction Mitigation**

Function Area: Request: WA07046

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

#### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	396					
Construction:	5,106					
Furniture/Reloc:	0					
Other:	248					
Project Total:	5,750					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	450	50	25	25	550	5,200	5,750
TOTALS:	0	0	0	450	50	25	25	550	5,200	5,750

# Mirabel 12kV Seismic, Flood, and Fire Resiliency

Function Area: Request: WA20022

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Common Facilities Fund

## **Project Description**



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.

Project Cost						
Acquisition:	417					
Design/PM:	1,287					
Construction:	12,796					
Furniture/Reloc:	0					
Other:	200					
Project Total:	14,700					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

# Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Common Facilities Fund	0	0	100	850	350	500	12,000	13,800	900	14,700
TOTALS:	0	0	100	850	350	500	12,000	13,800	900	14,700

# Kawana to Sonoma Booster Station Pipeline, Phase 1

Function Area: Request: WA18005

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Storage Fund

#### **Project Description**



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.

Project Cost						
Acquisition:	30					
Design/PM:	706					
Construction:	6,927					
Furniture/Reloc:	0					
Other:	204					
Project Total:	7,867					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Storage Fund	0	62	25	550	160	6,570	500	7,805	0	7,867
TOTALS:	0	62	25	550	160	6,570	500	7,805	0	7,867

# **Ralphine Tanks - Flow Management**

Function Area: Request: WA11072

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Storage Fund

### **Project Description**



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.

Project Cost						
Acquisition:	14					
Design/PM:	1,512					
Construction:	2,414					
Furniture/Reloc:	0					
Other:	26					
Project Total:	3,966					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Storage Fund	903	463	0	0	2,100	500	0	2,600	0	3,966
TOTALS:	903	463	0	0	2,100	500	0	2,600	0	3,966

# Seismic Retrofit of Storage Tanks (Cot1-3, Eld2, Kast, Son2, Ral1-4)

Function Area: Request: WA20021

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Storage Fund

### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	643					
Construction:	8,516					
Furniture/Reloc:	0					
Other:	161					
Project Total:	9,320					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

# Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Storage Fund	0	0	1,000	1,300	3,100	0	1,250	6,650	2,670	9,320
TOTALS:	0	0	1,000	1,300	3,100	0	1,250	6,650	2,670	9,320

# **Ely Booster Station Flood Protection**

Function Area: Request: WA16007

**Development Services** 

Department/Division:

Sonoma Water / Water Transmission System - Petaluma Aqueduct Capital Fund

### **Project Description**



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 pf 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.

Project Cost							
Acquisition:	18						
Design/PM:	1,216						
Construction:	2,300						
Furniture/Reloc:	0						
Other:	1						
Project Total:	3,535						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Petaluma Aqueduct Capital Fund, FEMA	486	2,539	510	0	0	0	0	510	0	3,535
TOTALS:	486	2,539	510	0	0	0	0	510	0	3,535

# **Petaluma River Crossing**

Function Area: Request: WA22008

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Petaluma Aqueduct Capital Fund

### **Project Description**



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.

Project Cost						
Acquisition:	138					
Design/PM:	1,038					
Construction:	5,675					
Furniture/Reloc:	0					
Other:	69					
Project Total:	6,920					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Petaluma Aqueduct Capital Fund	0	0	0	0	0	757	376	1,133	5,787	6,920
TOTALS:	0	0	0	0	0	757	376	1,133	5,787	6,920

#### **Wilfred Booster Station**

Function Area: Request: WA16006

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Petaluma Aqueduct Capital Fund

# **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	338						
Construction:	1,460						
Furniture/Reloc:	0						
Other:	4						
Project Total:	1,802						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Petaluma Aqueduct Capital Fund	105	0	0	237	1,460	0	0	1,697	0	1,802
TOTALS:	105	0	0	237	1,460	0	0	1,697	0	1,802

# **Cotati-Kastania Pipeline (Section 1-Cotati to Ely Booster Station)**

Function Area: Request: WA17008

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Petaluma Aqueduct Capital Fund

### **Project Description**



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.

Project Cost						
Acquisition:	1,150					
Design/PM:	2,875					
Construction:	52,850					
Furniture/Reloc:	0					
Other:	350					
Project Total:	57,225					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Petaluma Aqueduct Capital Fund	0	0	0	0	25	2,375	1,050	3,450	53,775	57,225
TOTALS:	0	0	0	0	25	2,375	1,050	3,450	53,775	57,225

# **Mainline Valve Replacement at Jennings**

Function Area: Request: WA18004

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Santa Rosa Aqueduct Capital Fund

## **Project Description**



Mainline valve replacement at Jennings Avenue. Abandon existing location and acquire new location. The 36 inch mainline valve at Jennings Avenue is within SMART easement and thus Sonoma Water is unable to maintain the valve. The proposed new location will be downstream away from SMART easement and will include a mainline isolation butterfly valve of 36 inch diameter, and associated appurtenances.

Project Cost						
Acquisition:	53					
Design/PM:	260					
Construction:	293					
Furniture/Reloc:	0					
Other:	94					
Project Total:	700					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Santa Rosa Aqueduct Capital Fund	0	0	0	0	407	293	0	700	0	700
TOTALS:	0	0	0	0	407	293	0	700	0	700

# Santa Rosa Creek Crossing

Function Area: Request: WA14003

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Santa Rosa Aqueduct Capital Fund

#### **Project Description**



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.

Project Cost						
Acquisition:	294					
Design/PM:	1,860					
Construction:	10,653					
Furniture/Reloc:	0					
Other:	181					
Project Total:	12,988					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Santa Rosa Aqueduct Capital Fund, FEMA	1,224	814	50	300	9,200	1,400	0	10,950	0	12,988
TOTALS:	1,224	814	50	300	9,200	1,400	0	10,950	0	12,988

# **Calabasas Creek Crossing**

Function Area: Request: WA15002

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Sonoma Aqueduct Capital Fund

### **Project Description**



The 20-inch Sonoma aqueduct crosses Calabasas 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.

Project Cost						
Acquisition:	75					
Design/PM:	813					
Construction:	3,399					
Furniture/Reloc:	0					
Other:	219					
Project Total:	4,506					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Sonoma Aqueduct Capital Fund	0	0	0	0	0	910	3,077	3,987	519	4,506
TOTALS:	0	0	0	0	0	910	3,077	3,987	519	4,506

# **Sonoma Creek Crossings (Lawndale Road)**

Function Area: Request: WA21004

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - Sonoma Aqueduct Capital Fund

### **Project Description**



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.

Project Cost						
Acquisition:	70					
Design/PM:	683					
Construction:	1,359					
Furniture/Reloc:	0					
Other:	227					
Project Total:	2,339					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Sonoma Aqueduct Capital Fund	0	0	0	0	0	0	775	775	1,564	2,339
TOTALS:	0	0	0	0	0	0	775	775	1,564	2,339

# **Lateral Valve Replacements**

Function Area: Request: WA22007

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	785					
Construction:	1,112					
Furniture/Reloc:	0					
Other:	103					
Project Total:	2,000					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations & Maintenance Fund	0	0	0	0	0	888	1,112	2,000	0	2,000
TOTALS:	0	0	0	0	0	888	1,112	2,000	0	2,000

# **Mirabel Collector 5 Reach Rods Replacement**

Function Area: Request: WA22005

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

# **Project Description**



Reach Rods in Collector 5 are used to operate the lateral valves within the collector wells. This project will replace, in-kind, rusted, corroded, and worn out reach rods.

Project Cost						
Acquisition:	0					
Design/PM:	217					
Construction:	83					
Furniture/Reloc:	0					
Other:	0					
Project Total:	300					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations & Maintenance Fund	0	0	0	0	0	300	0	300	0	300
TOTALS:	0	0	0	0	0	300	0	300	0	300

# Mirabel Infiltration Ponds 2 & 3 Rehabilitation

Function Area: Request: WA10058

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

# **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	335					
Construction:	1,212					
Furniture/Reloc:	0					
Other:	105					
Project Total:	1,652					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations & Maintenance Fund	0	0	0	0	0	440	1,212	1,652	0	1,652
TOTALS:	0	0	0	0	0	440	1,212	1,652	0	1,652

## **Mirabel Pump 8 Replacement**

Function Area: Request: WA19004

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

### **Project Description**



Mirabel Pump 8 consists of a 1250 hp 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. This pump is an integral part of the water delivery system and need to be kept in good running condition at all times. The pump is 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. This pump's column set is past its useful life and needs to be replaced.

Project Cost							
Acquisition:	0						
Design/PM:	120						
Construction:	440						
Furniture/Reloc:	0						
Other:	0						
Project Total:	560						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations & Maintenance Fund	0	0	0	0	0	560	0	560	0	560
TOTALS:	0	0	0	0	0	560	0	560	0	560

# Pump Replacements - Mirabel 6, 9 & 10 and Wohler 2 & 4

Function Area: Request: WA21007

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

#### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	1,027						
Construction:	2,789						
Furniture/Reloc:	0						
Other:	0						
Project Total:	3,816						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations &	0	558	558	750	600	0	600	2,508	750	3,816
Maintenance Fund										
TOTALS:	0	558	558	750	600	0	600	2,508	750	3,816

# Santa Rosa Aqueduct & Russian River-Cotati Intertie Cathodic Protection

Function Area: Request: WA08064

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

#### **Project Description**



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 or these two aqueducts to improve corrosion protection of the steel pipelines. The project will be completed in phases.

Project Cost						
Acquisition:	346					
Design/PM:	1,487					
Construction:	4,548					
Furniture/Reloc:	0					
Other:	1,205					
Project Total:	7,586					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations & Maintenance Fund	990	288	3,716	291	2,226	75	0	6,308	0	7,586
TOTALS:	990	288	3,716	291	2,226	75	0	6,308	0	7,586

# **Wohler Pump 11 Replacement**

Function Area: Request: WA19012

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

#### **Project Description**



Wohler Pump 11 consists of a 1250 hp 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. This pump is an integral part of the water delivery system and need to be kept in good running condition at all times. The pump is 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. This pump's column set is past its useful life and needs to be replaced.

Project Cost							
Acquisition:	0						
Design/PM:	120						
Construction:	440						
Furniture/Reloc:	0						
Other:	0						
Project Total:	560						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations & Maintenance Fund	0	0	560	0	0	0	0	560	0	560
TOTALS:	0	0	560	0	0	0	0	560	0	560

#### Wohler/Mirabel Chlorine Detector

Function Area: Request: WA22006

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

## **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	219					
Construction:	77					
Furniture/Reloc:	0					
Other:	0					
Project Total:	296					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations & Maintenance Fund	0	0	0	296	0	0	0	296	0	296
TOTALS:	0	0	0	296	0	0	0	296	0	296

# **Tank Recoating Program**

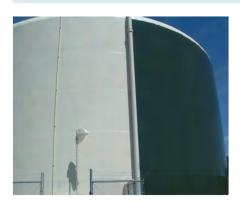
Function Area: Request: WA18008

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Transmission System - O&M Fund

### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	7,510					
Construction:	70,338					
Furniture/Reloc:	0					
Other:	2,239					
Project Total:	80,087					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Operations &	0	5,887	5,220	9,220	9,220	8,220	8,220	40,100	34,100	80,087
Maintenance Fund										
TOTALS:	0	5,887	5,220	9,220	9,220	8,220	8,220	40,100	34,100	80,087

# **Dry Creek Habitat Enhancement Project (Phase 3)**

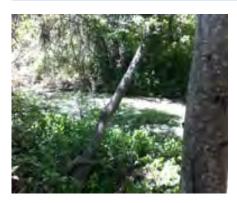
Function Area: Request: WA14023

**Development Services** 

**Department/Division:** 

Sonoma Water / Water Supply - Warm Springs Dam

### **Project Description**



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.

Project Cost						
Acquisition:	2,455					
Design/PM:	3,614					
Construction:	19,612					
Furniture/Reloc:	0					
Other:	1,005					
Project Total:	26,686					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Other, ACOE	17,878	609	242	6,830	980	147	0	8,199	0	26,686
TOTALS:	17,878	609	242	6,830	980	147	0	8,199	0	26,686

# Laguna-Mark West Watershed Restoration Phase 2

Function Area: Request: WA22002

**Development Services** 

**Department/Division:** 

Sonoma Water / Zone 1A Flood Control

#### **Project Description**



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.

Project Cost							
Acquisition:	30						
Design/PM:	40						
Construction:	910						
Furniture/Reloc:	0						
Other:	70						
Project Total:	1,050						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY		FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Zone 1A	0	0	200	850	0	0	0	1,050	0	1,050
TOTALS:	0	0	200	850	0	0	0	1,050	0	1,050

# **Matanzas Reservoir Outlet Improvement**

Function Area: Request: WA19033

**Development Services** 

**Department/Division:** 

Sonoma Water / Zone 1A Flood Control

#### **Project Description**



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 preformed 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.

Project Cost							
Acquisition:	0						
Design/PM:	1,580						
Construction:	0						
Furniture/Reloc:	0						
Other:	225						
Project Total:	1,805						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Zone 1A, NRCS	155	150	250	250	250	250	250	1,250	250	1,805
TOTALS:	155	150	250	250	250	250	250	1,250	250	1,805

# Santa Rosa Creek Fish Passage

Function Area: Request: WA06074

**Development Services** 

**Department/Division:** 

Sonoma Water / Zone 1A Flood Control

#### **Project Description**



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.

Project Cost						
Acquisition:	40					
Design/PM:	630					
Construction:	0					
Furniture/Reloc:	0					
Other:	55					
Project Total:	725					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Zone 1A	513	112	100	0	0	0	0	100	0	725
TOTALS:	513	112	100	0	0	0	0	100	0	725

# **Aerator Replacement**

Function Area: Request: WA17011

**Development Services** 

**Department/Division:** 

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

## **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	433					
Construction:	759					
Furniture/Reloc:	0					
Other:	0					
Project Total:	1,192					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	284	149	0	759	0	0	0	759	0	1,192
TOTALS:	284	149	0	759	0	0	0	759	0	1,192

# Airport Treatment Plant Headworks Meter, Piping, and Chlorine Improvements

Function Area: Request: WA19025

**Development Services** 

**Department/Division:** 

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

### **Project Description**



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 programing 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.

Project Cost						
Acquisition:	0					
Design/PM:	35					
Construction:	200					
Furniture/Reloc:	0					
Other:	0					
Project Total:	235					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	35	200	0	0	235	0	235
TOTALS:	0	0	0	35	200	0	0	235	0	235

# **Equalization Basins**

Function Area: Request: WA21008

**Development Services** 

**Department/Division:** 

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

### **Project Description**



The Airport Treatment Facility does not currently have high flow or upset storage. In order to meet the winter inflow and possible bypass or upset without contaminating the tertiary storage ponds the facility must consider constructing an equalization basin. This may include additional features as the facility goes through a long term analysis.

Project Cost						
Acquisition:	0					
Design/PM:	183					
Construction:	3,610					
Furniture/Reloc:	0					
Other:	17					
Project Total:	3,810					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

# Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	186	34	3,590	0	3,810	0	3,810
TOTALS:	0	0	0	186	34	3,590	0	3,810	0	3,810

# **Filter Modules Replacement**

Function Area: Request: WA14027

**Development Services** 

**Department/Division:** 

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	30						
Construction:	270						
Furniture/Reloc:	0						
Other:	0						
Project Total:	300						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	0	0	300	0	300	0	300
TOTALS:	0	0	0	0	0	300	0	300	0	300

# Main Electrical Breaker and Switchgear Replacement

Function Area: Request: WA19026

**Development Services** 

Department/Division:

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

#### **Project Description**



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.

Project Cost							
Acquisition:	3						
Design/PM:	461						
Construction:	1,722						
Furniture/Reloc:	0						
Other:	10						
Project Total:	2,196						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding Sources	Prior FYs	Current FY		FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	168	242	64	0	1,722	0	0	1,786	0	2,196
TOTALS:	168	242	64	0	1,722	0	0	1,786	0	2,196

# **Recycled Water Pipeline Improvements**

Function Area: Request: WA20016

**Development Services** 

**Department/Division:** 

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

## **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	125					
Construction:	259					
Furniture/Reloc:	0					
Other:	0					
Project Total:	384					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# Service Impact:

Available Funding Sources	Prior FYs	Current FY		FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	125	0	0	259	0	384	0	384
TOTALS:	0	0	125	0	0	259	0	384	0	384

# **Tertiary Backwash Piping Improvements**

Function Area: Request: WA21009

**Development Services** 

**Department/Division:** 

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

## **Project Description**



The existing treatment processes are hampered by the commingling of the tertiary filter plant backwash and the influent to the wastewater facility. In order to improve this process and optimize the treatment and removal of solids, some piping improvements are needed around and in the exiting pond system. This project will isolate the backwash water and allow for the decant to enter the process stream without causing additional loading in the lagoon treatment process.

Project Cost							
Acquisition:	0						
Design/PM:	109						
Construction:	750						
Furniture/Reloc:	0						
Other:	0						
Project Total:	859						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	109	750	0	0	859	0	859
TOTALS:	0	0	0	109	750	0	0	859	0	859

# **Geyserville Force Main Replacement Project**

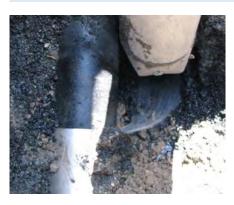
Function Area: Request: WA22013

**Development Services** 

**Department/Division:** 

Sonoma Water / Geyserville Sanitation Zone

### **Project Description**



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.

Project Cost							
Acquisition:	23						
Design/PM:	233						
Construction:	697						
Furniture/Reloc:	0						
Other:	33						
Project Total:	986						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Geyserville Sanitation Zone	0	0	58	82	91	755	0	986	0	986
TOTALS:	0	0	58	82	91	755	0	986	0	986

# **Automation Project**

Function Area: Request: WA18013

**Development Services** 

**Department/Division:** 

Sonoma Water / Occidental County Sanitation District

### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	267					
Construction:	355					
Furniture/Reloc:	0					
Other:	0					
Project Total:	622					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

# Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Occidental County Sanitation District	247	0	20	355	0	0	0	375	0	622
TOTALS:	247	0	20	355	0	0	0	375	0	622

# **Occidental County Sanitation District-Graton Pipeline**

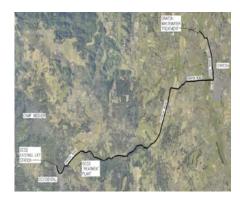
Function Area: Request: WA22015

**Development Services** 

**Department/Division:** 

Sonoma Water / Occidental County Sanitation District

## **Project Description**



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, OCSD and Graton are evaluating the feasibility of constructing a pipe to transport untreated wastewater from OCSD 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 OCSD lift station to Graton's existing sewer system. Implementation is dependent on future grant funding.

Project Cost						
Acquisition:	463					
Design/PM:	1,090					
Construction:	7,960					
Furniture/Reloc:	0					
Other:	392					
Project Total:	9,905					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Occidental County Sanitation District	0	650	475	400	6,848	1,532	0	9,255	0	9,905
TOTALS:	0	650	475	400	6,848	1,532	0	9,255	0	9,905

# **Future Capital Replacements**

Function Area: Request: WA15003

**Development Services** 

**Department/Division:** 

Sonoma Water / Penngrove Sanitation Zone

# **Project Description**



Construct improvements to repair, rehabilitate, or replace portions of the collection and/or pumping system that are determined to be deficient or have insufficient capacity for existing flows.

Project Cost							
Acquisition:	10						
Design/PM:	25						
Construction:	100						
Furniture/Reloc:	0						
Other:	15						
Project Total:	150						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

# **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Penngrove Sanitation Zone	0	0	30	30	30	30	30	150	0	150
TOTALS:	0	0	30	30	30	30	30	150	0	150

# Replace/Upsize Force Main & Lift Station Pumping Capacity

Function Area: Request: WA22014

**Development Services** 

**Department/Division:** 

Sonoma Water / Penngrove Sanitation Zone

## **Project Description**



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 Corona Road. Implementation is dependent on future grant funding.

Project Cost							
Acquisition:	107						
Design/PM:	279						
Construction:	2,031						
Furniture/Reloc:	0						
Other:	14						
Project Total:	2,431						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Penngrove Sanitation Zone	0	0	0	400	2,031	0	0	2,431	0	2,431
TOTALS:	0	0	0	400	2,031	0	0	2,431	0	2,431

# **Electrical Service Replacement (3 Lift Stations)**

Function Area: Request: WA20005

**Development Services** 

**Department/Division:** 

Sonoma Water / Russian River County Sanitation District

### **Project Description**



The purpose of this project is to replace the electrical services at three RRCSD Lift Stations that are currently powered by Sonoma Water's existing Medium Voltage Power feed; Guernewood Park, Guerneville, and Beanwood. The Medium voltage electrical feed has presented numerous challenges related to the maintenance and reliability of the power feeds. Replacing these feeds with new PG&E feeds will mitigate the need to maintain the services.

Project Cost							
Acquisition:	0						
Design/PM:	362						
Construction:	225						
Furniture/Reloc:	0						
Other:	0						
Project Total:	587						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Russian River County Sanitation District	32	205	175	175	0	0	0	350	0	587
TOTALS:	32	205	175	175	0	0	0	350	0	587

## **Northern and Western Collection System Raising**

Function Area: Request: WA22016

**Development Services** 

**Department/Division:** 

Sonoma Water / Russian River County Sanitation District

#### **Project Description**



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.

Project Cost						
Acquisition:	21					
Design/PM:	325					
Construction:	1,230					
Furniture/Reloc:	0					
Other:	22					
Project Total:	1,598					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Russian River County Sanitation District	0	0	0	0	268	1,330	0	1,598	0	1,598
TOTALS:	0	0	0	0	268	1,330	0	1,598	0	1,598

## **Recycle Water Truck Fill Station**

Function Area: Request: WA22017

**Development Services** 

**Department/Division:** 

Sonoma Water / Russian River County Sanitation District

#### **Project Description**



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.

Project Cost							
Acquisition:	43						
Design/PM:	128						
Construction:	529						
Furniture/Reloc:	0						
Other:	0						
Project Total:	700						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Russian River County Sanitation District	0	0	0	700	0	0	0	700	0	700
TOTALS:	0	0	0	700	0	0	0	700	0	700

## Force Main, Headworks, and Lift Station

Function Area: Request: WA19019

**Development Services** 

**Department/Division:** 

Sonoma Water / Russian River County Sanitation District

### **Project Description**



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.

Project Cost						
Acquisition:	75					
Design/PM:	832					
Construction:	8,368					
Furniture/Reloc:	0					
Other:	75					
Project Total:	9,350					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
	0	0	0	0	0	0	0	0	0	0
Russian River County Sanitation District, SWRCB	0	0	850	4,700	800	3,000	0	9,350	0	9,350
TOTALS:	0	0	850	4,700	800	3,000	0	9,350	0	9,350

# **Lift Station Electrical Resiliency Project (Vacation Beach)**

Function Area: Request: WA20006

**Development Services** 

**Department/Division:** 

Sonoma Water / Russian River County Sanitation District

### **Project Description**



Vacation Beach Lift Station currently is powered off of a 5kV underground electrical feed. The splices in the underground electrical feed are vulnerable to failure, resulting in the loss of power to the lift station. The purpose of this project is to replace the existing 5kV feed with an underground 480V feed that will power the Lift Station. The existing platform and controls onsite will be relocated to the Treatment plant so the site can be remote controlled.

Project Cost						
Acquisition:	204					
Design/PM:	1,343					
Construction:	3,200					
Furniture/Reloc:	0					
Other:	341					
Project Total:	5,088					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Russian River County Sanitation District	0	0	0	844	654	3,590	0	5,088	0	5,088
TOTALS:	0	0	0	844	654	3,590	0	5,088	0	5,088

## **Main Lift Diesel Tank Replacement**

Function Area: Request: WA19028

**Development Services** 

Department/Division:

Sonoma Water / Russian River County Sanitation District

### **Project Description**



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.

Project Cost							
Acquisition:	0						
Design/PM:	428						
Construction:	609						
Furniture/Reloc:	0						
Other:	26						
Project Total:	1,063						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
	0	0	0	0	0	0	0	0	0	0
Russian River County Sanitation District	0	0	338	585	140	0	0	1,063	0	1,063
TOTALS:	0	0	338	585	140	0	0	1,063	0	1,063

## **UV System Retrofit**

Function Area: Request: WA21015

**Development Services** 

**Department/Division:** 

Sonoma Water / Russian River County Sanitation District

#### **Project Description**



The ultraviolet (UV) disinfection system was constructed at the Russian River County Sanitation District treatment plant in 2012 and began operation that same year. Since this time many of the electrical and control components have reached end of life and are no longer supported or manufactured. This is not a unique reality as UV systems are a technology that advances along with the larger "computer" industry in general. As such, the UV system is in need of upgrades that while supported by the manufacturer do not have a simple plug and play path for the needed improvements. The project will involve the installation and integration of new components allowing for the UV system to function into the next decade while continuing to meet strict regulatory requirements. Implementation is dependent on future outside funding.

Project Cost							
Acquisition:	0						
Design/PM:	340						
Construction:	952						
Furniture/Reloc:	0						
Other:	17						
Project Total:	1,309						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Russian River County Sanitation District	0	0	317	832	160	0	0	1,309	0	1,309
TOTALS:	0	0	317	832	160	0	0	1,309	0	1,309

# **Future Capital Replacements**

Function Area: Request: WA08025

**Development Services** 

**Department/Division:** 

Sonoma Water / Sea Ranch Sanitation Zone

## **Project Description**



Construction of improvements to repair, rehabilitate, or replace portions of the collection and/or treatment systems that are deteriorated or have insufficient capacity for existing flows.

Project Cost							
Acquisition:	18						
Design/PM:	71						
Construction:	301						
Furniture/Reloc:	0						
Other:	35						
Project Total:	425						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Sea Ranch Sanitation Zone	0	0	0	75	75	75	75	300	125	425
TOTALS:	0	0	0	75	75	75	75	300	125	425

# **Sea Ranch Sanitation Creek Crossing**

Function Area: Request: WA19027

**Development Services** 

**Department/Division:** 

Sonoma Water / Sea Ranch Sanitation Zone

## **Project Description**



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, replacement, or other appropriate approach to mitigate the risk of pipeline failure.

Project Cost							
Acquisition:	72						
Design/PM:	144						
Construction:	302						
Furniture/Reloc:	0						
Other:	82						
Project Total:	600						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

## **Service Impact:**

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Sea Ranch Sanitation Zone	0	150	450	0	0	0	0	450	0	600
TOTALS:	0	150	450	0	0	0	0	450	0	600

# **Chase St Bridge Sewer Pipe Replacement**

Function Area: Request: WA18021

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

## **Project Description**



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 siphon. Project is funded by Federal transportation funding. The District has supported the City with funding and review of plans for the siphon.

Project Cost							
Acquisition:	0						
Design/PM:	85						
Construction:	145						
Furniture/Reloc:	0						
Other:	0						
Project Total:	230						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	191	5	34	0	0	0	0	34	0	230
TOTALS:	191	5	34	0	0	0	0	34	0	230

# **Hooker Creek Trunk Main Seismic Mitigation**

Function Area: Request: WA22012

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

## **Project Description**



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.

Project Cost						
Acquisition:	203					
Design/PM:	877					
Construction:	3,320					
Furniture/Reloc:	0					
Other:	282					
Project Total:	4,682					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

#### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	0	757	380	2,925	620	0	4,682	0	4,682
TOTALS:	0	0	757	380	2,925	620	0	4,682	0	4,682

## Influent/Effluent Pumping and Piping Upgrade

Function Area: Request: WA21019

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

#### **Project Description**



The proposed project is located at the Sonoma Valley County Sanitation District treatment plant. The project includes the following within Influent/Effluent Pumping Building; replacing the piping, pumps, valves, meters, and electrical controls (MCC, VFD's, soft starts, etc.), permanently sealing the inlet from the wet well and other modifications related to changing the former swing pump into dedicated effluent pump #3, and upgrading the crane to increase the range to cover the entire building. This project will modify the existing Influent-Effluent building, constructed in 1965 with significant modifications in 1978, 1990 and 2000.

Project Cost						
Acquisition:	0					
Design/PM:	998					
Construction:	6,707					
Furniture/Reloc:	0					
Other:	12					
Project Total:	7,717					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	90	811	5,946	870	0	0	7,627	0	7,717
TOTALS:	0	90	811	5,946	870	0	0	7,627	0	7,717

# **Local Hazard Mitigation Projects**

Function Area: Request: WA17013

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

## **Project Description**



Implement measures to increase resiliency of collection and treatment systems against natural hazards, such as seismic, wildfire, or flooding events.

Project Cost							
Acquisition:	0						
Design/PM:	267						
Construction:	736						
Furniture/Reloc:	0						
Other:	67						
Project Total:	1,070						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

## **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	150	150	150	150	150	160	760	160	1,070
TOTALS:	0	150	150	150	150	150	160	760	160	1,070

## Re-coat Aeration, Chlorine Contact & Grit Basins

Function Area: Request: WA22003

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

#### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	244					
Construction:	2,167					
Furniture/Reloc:	0					
Other:	0					
Project Total:	2,411					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Other, ACOE	0	0	244	2,167	0	0	0	2,411	0	2,411
TOTALS:	0	0	244	2,167	0	0	0	2,411	0	2,411

## Sonoma Creek Bank Repair

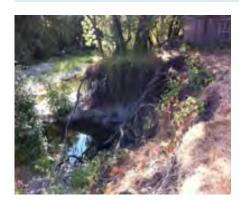
Function Area: Request: WA14021

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

### **Project Description**



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 Kolher Creek.

Project Cost							
Acquisition:	329						
Design/PM:	672						
Construction:	1,309						
Furniture/Reloc:	0						
Other:	107						
Project Total:	2,417						

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

## Service Impact:

Available Funding Sources	Prior FYs	Current FY		FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	618	84	348	1,104	263	0	0	1,715	0	2,417
TOTALS:	618	84	348	1,104	263	0	0	1,715	0	2,417

# **Sonoma Valley Treatment Plant Blower Improvement Project**

Function Area: Request: WA17006

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

### **Project Description**



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.

Project Cost						
Acquisition:	0					
Design/PM:	0					
Construction:	200					
Furniture/Reloc:	0					
Other:	0					
Project Total:	200					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	50	50	50	50	0	0	150	0	200
TOTALS:	0	50	50	50	50	0	0	150	0	200

# **Sonoma Valley Treatment Plant Headworks Rehabilitation**

Function Area: Request: WA17005

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

## **Project Description**



The headworks at Sonoma Valley treatment plant are reaching end of life. The mechanical screening and washing press equipment are requiring significant maintenance. The headworks are important as the first step in the process of treating wastewater and helps to remove large materials before continuing on to other processes. This project includes design, environmental review, and construction to replace the mechanical screening and washing press equipment.

Project Cost						
Acquisition:	0					
Design/PM:	120					
Construction:	3,913					
Furniture/Reloc:	0					
Other:	0					
Project Total:	4,033					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY		FY2	FY3	FY4 2025-26	FY5	5YR Total	Future YRs	Project Total
Sources	113	1 1	2022-23	2023-24	2024-23	2023-20	2020-21	Total	11/2	
Sonoma Valley	0	3,319	714	0	0	0	0	714	0	4,033
County Sanitation										
District										
TOTALS:	0	3,319	714	0	0	0	0	714	0	4,033

## **Trunk Sewer Replacement, Phase 4C**

Function Area: Request: WA20019

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

#### **Project Description**



The proposed project is located in a mixture of public streets and within easements through private property. It will replace the existing 58 year old 21 inch diameter reinforced concrete pipe trunk sewer main from the north end of the Agua Caliente Creek Crossing Project (near the south end of Buena Vida Court) to manhole M90-3 in Happy Lane (north of Thompson Avenue). This project will install approximately 2,700 feet of new 27-inch and 300 feet of new 24-inch diameter trunk sewer, and includes associated manholes, re-attachment of existing connecting sewer lines, and the abandonment in place, or removal of approximately 2,800 feet of the existing 21- inch diameter trunk sewer main.

Project Cost						
Acquisition:	342					
Design/PM:	1,272					
Construction:	4,234					
Furniture/Reloc:	0					
Other:	303					
Project Total:	6,151					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley	1,744				0	0	0	528	0	
County Sanitation District										
TOTALS:	1,744	3,879	528	0	0	0	0	528	0	6,151

#### **Clarifier Seismic Retrofit**

Function Area: Request: WA18020

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

#### **Project Description**



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 predominiantly 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.

Project Cost						
Acquisition:	0					
Design/PM:	1,012					
Construction:	4,788					
Furniture/Reloc:	0					
Other:	26					
Project Total:	5,826					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District, FEMA	837	124	4,255	610	0	0	0	4,865	0	5,826
TOTALS:	837	124	4,255	610	0	0	0	4,865	0	5,826

## **Effluent Recycled Water Line Replacement**

Function Area: Request: WA21018

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

### **Project Description**



The project would consist of a 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.

Project Cost						
Acquisition:	35					
Design/PM:	795					
Construction:	3,042					
Furniture/Reloc:	0					
Other:	0					
Project Total:	3,872					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY		FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	0	0	0	0	0	829	829	3,043	3,872
TOTALS:	0	0	0	0	0	0	829	829	3,043	3,872

## **Trunk Sewer Replacement, Phase 5**

Function Area: Request: WA19023

**Development Services** 

**Department/Division:** 

Sonoma Water / Sonoma Valley County Sanitation District

## **Project Description**



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 SVCSD 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 SVCSD on June 10, 2015 (CDO No.R2-2015-0032).

Project Cost						
Acquisition:	576					
Design/PM:	2,025					
Construction:	16,007					
Furniture/Reloc:	0					
Other:	280					
Project Total:	18,888					

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Sonoma Valley County Sanitation District	530	590	808	8,171	6,793	1,996	0	17,768	0	18,888
TOTALS:	530	590	808	8,171	6,793	1,996	0	17,768	0	18,888

## **Barbara-Winston Collection System Replacement Project**

Function Area: Request: WA21012

**Development Services** 

**Department/Division:** 

Sonoma Water / South Park County Sanitation District

### **Project Description**



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.

Project Cost						
Acquisition:	198					
Design/PM:	513					
Construction:	3,859					
Furniture/Reloc:	0					
Other:	38					
Project Total:	4,608					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
South Park County Sanitation District	0	0	0	350	261	3,397	600	4,608	0	4,608
TOTALS:	0	0	0	350	261	3,397	600	4,608	0	4,608

#### Santa Rosa Ave Sewers - Todd to E. Robles

Function Area: Request: WA21013

**Development Services** 

**Department/Division:** 

Sonoma Water / South Park County Sanitation District

### **Project Description**



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.

Project Cost						
Acquisition:	123					
Design/PM:	887					
Construction:	8,089					
Furniture/Reloc:	0					
Other:	76					
Project Total:	9,175					

Operation and Maintenance Cost							
Utilities:	0						
Maintenance:	0						
Other:	0						
OM Total:	0						

Personnel: 0
Revenue/Refund: 0

#### **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
South Park County Sanitation District	0	0	600	176	198	7,301	900	9,175	0	9,175
TOTALS:	0	0	600	176	198	7,301	900	9,175	0	9,175

#### **404 HVAC Retrofit**

Function Area: Request: WA19032

**Development Services** 

**Department/Division:** 

Sonoma Water / Internal Services Fund

### **Project Description**



Heating Ventilating and Air Conditioning (HVAC) system at 404 Aviation Blvd is at the end of useful life and becoming more expensive to operate and maintain. This project will replace the existing HVAC system with a more energy efficient system, with lower greenhouse gas emission footprint, and with better comfort levels for occupants of the building.

Project Cost							
Acquisition:	15						
Design/PM:	659						
Construction:	1,830						
Furniture/Reloc:	0						
Other:	14						
Project Total:	2,518						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Facilities Fund	286	2,058	174	0	0	0	0	174	0	2,518
TOTALS:	286	2,058	174	0	0	0	0	174	0	2,518

# **Advanced Quantitative Precipitation Information (AQPI) Radar Installations**

Function Area: Request: WA22001

**Development Services** 

**Department/Division:** 

Sonoma Water / Internal Services Fund

### **Project Description**



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.

Project Cost							
Acquisition:	109						
Design/PM:	293						
Construction:	798						
Furniture/Reloc:	0						
Other:	40						
Project Total:	1,240						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
	0	0	0	0	0	0	0	0	0	0
Facilities Fund	0	0	1,140	100	0	0	0	1,240	0	1,240
TOTALS:	0	0	1,140	100	0	0	0	1,240	0	1,240

# **Airport Treatment Plant Solar Inverter Replacement**

Function Area: Request: WA20011

**Development Services** 

**Department/Division:** 

Sonoma Water / Internal Services Fund

### **Project Description**



Sonoma Water owns solar photovoltaic power systems that generate renewable electric power used by Sonoma Water enterprises. Sonoma Water requires a service provider to assess, inspect, test, clean, and perform maintenance on Sonoma Water Systems to ensure functionality at the Airport Treatment Plant facility. Inverters are at the end of their useful life and will be replaced as part of this maintenance work.

Project Cost							
Acquisition:	2						
Design/PM:	313						
Construction:	225						
Furniture/Reloc:	0						
Other:	0						
Project Total:	540						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

## **Service Impact:**

Available Funding Sources	Prior FYs	Current FY	FY1 2022-23	FY2 2023-24	FY3 2024-25	FY4 2025-26	FY5 2026-27	5YR Total	Future YRs	Project Total
Power Resources Fund	46		19	17	401		0	472	0	540
TOTALS:	46	22	19	17	401	35	0	472	0	540

# Solar Photovoltaic Inverter Replacement - 404 Aviation Blvd

Function Area: Request: WA20009

**Development Services** 

**Department/Division:** 

Sonoma Water / Internal Services Fund

### **Project Description**



Sonoma Water owns solar photovoltaic power systems that generate renewable electric power used by Sonoma Water enterprises. Sonoma Water requires a service provider to assess, inspect, test, clean, and perform maintenance on Sonoma Water Systems to ensure functionality at the 404 Aviation Blvd facility. Inverters are at the end of their useful life and will be replaced as part of this maintenance work.

Project Cost							
Acquisition:	2						
Design/PM:	341						
Construction:	250						
Furniture/Reloc:	0						
Other:	0						
Project Total:	593						

Operation and Maintenance Cost								
Utilities:	0							
Maintenance:	0							
Other:	0							
OM Total:	0							

Personnel: 0
Revenue/Refund: 0

### Service Impact:

Available Funding	Prior	Current	FY1	FY2	FY3	FY4	FY5	5YR	Future	Project
Sources	FYs	FY	2022-23	2023-24	2024-25	2025-26	2026-27	Total	YRs	Total
Power Resources Fund	68	28	18	105	374	0	0	497	0	593
TOTALS:	68	28	18	105	374	0	0	497	0	593