2020-2025 Capital Improvement Plan

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.

Sonoma Water's transmission and supply goals as outlined in the 2017 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.

Sonoma Water's flood control goal as outlined in the 2017 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.

Sonoma Water's sanitation goals as outlined in the 2017 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 Projects 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 plans, performs environmental reviews, designs, and constructs capital improvement projects. Water transmission system 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 Coyote 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

The 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 treatment facility was originally designed as a zero discharge facility with the ability to treat

wastewater to secondary wastewater treatment standards. The treatment facility was initially constructed in 1983 and has been expanded twice since then (1989 and 1997). Tertiary filters were installed at the treatment facility in 2005 allowing expanded use of the recycled water produced by the Airport Sanitation Zone. The treatment facility currently has a dry weather capacity of 0.9 million gallons per day. Sonoma Water has completed a sewer master plan, developed a computer model of the collection system, and recently conducted a multi-hazard vulnerability assessment of the Airport-Larkfield-Wikiup Sanitation Zone infrastructure.

Geyserville Sanitation Zone

The Geyserville Sanitation Zone treatment facility became operational in 1981, and 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 has recently conducted multi-hazard vulnerability assessment of the Geyserville Sanitation Zone infrastructure.

Occidental County Sanitation District

The Occidental County Sanitation District treatment plant first became operational in 1950, and was upgraded in 1970 and 1975. The plant was designed to treat an average daily dry weather flow of up to 50,000 gallons per day to secondary treatment standards. In 2018, the District commenced trucking of its wastewater to the Airport-Larkfield-Wikiup 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.

Penngrove Sanitation Zone

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 has recently conducted multi-hazard vulnerability assessment of the Penngrove Sanitation Zone infrastructure.

Russian River County Sanitation District

The Russian River County Sanitation District treatment plant was completed in September of 1980, and began operating in 1982. The Russian River County Sanitation District treatment plant is designed to treat an average dry weather flow of up to 0.71 million gallons per day to advanced (tertiary) wastewater treatment standards. The Russian River County Sanitation District has an easement on approximately 77 acres of forest area adjacent to the treatment plant (referred to as the Burch property). Seventeen acres of the easement are best suited for irrigation purposes and are currently used for spray irrigation. In addition, approximately 43 acres of turf at

the Northwood Golf Course are irrigated with tertiary treated wastewater. Expansion of the dry weather disposal area is necessary in order to ensure adequate disposal of dry weather inflow.

The treatment plant has historically experienced operational difficulties associated with major flooding on the Russian River. Soon after Sonoma Water assumed operations of the facility in 1996, engineering and environmental documentation began to address operational problems associated with Russian River flood events, the irrigation system, and obsolete equipment at the Russian River County Sanitation District treatment plant.

The North Coast Regional Water Quality Control Board adopted a series of enforcement orders for the Russian River County Sanitation District in response to violations associated with flood events. In response, the Russian River County Sanitation District began implementation of a series of short and long-term projects aimed at bringing the facility into compliance. The facility was brought into compliance with the completion of the Third Unit Process project in early 2005. This project, along with modifications to the lift station operations during flooding events in the Guerneville area, allows the treatment plant to pass all influent through the full treatment process. This was not possible during flood events prior to completion of the Third Unit Process Project.

In an effort to eliminate the discharge of treated wastewater containing chlorine-based disinfection by-products into the Russian River, the District, in 2012, upgraded its treatment facility to utilize ultraviolet disinfection technology. In 2014, the treatment facilities were further enhanced to reduce nitrogen and phosphorus based nutrient discharges to the Russian River.

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

Sea Ranch Sanitation Zone

The Sea Ranch Sanitation Zone consists of two wastewater collection and treatment systems located in Central and North Sea Ranch. The Central and North treatment facilities are both designed to provide treatment to secondary wastewater treatment standards.

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. Treated wastewater from the Central treatment facility is disposed of through irrigation on land that is adjacent to the treatment facility. Currently, the 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. The combined effluent of North and Gualala Community Services District's treatment facility is disposed of through irrigation 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. Options being considered include executing an agreement between Sonoma Water and

the Sea Ranch Association for the continued operation of the sewer facilities and/or the transfer of all assets, liabilities, and management responsibilities to the Association.

Sonoma Valley County Sanitation District

The Sonoma Valley County Sanitation District provides wastewater collection, tertiary level treatment, and reuse and disposal service for the Sonoma Valley area. Wastewater is collected by a gravity system, and flows to the Sonoma Valley County Sanitation District wastewater treatment facility for processing. Recycled water is used to irrigate local crops 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.

In April 2002, the Sonoma Valley County Sanitation District completed a wet weather overflow prevention study (a study that complied with a San Francisco Bay Regional Water Quality Control Board issuance of a Notice of Violation for sewer system overflows in April of 1999). This study identified areas within the Sonoma Valley County Sanitation District collection system where repair and/or replacement projects were most needed, including numerous trunk main and collection system projects. The Sonoma Valley County Sanitation District has implemented a capital replacement program with the long-term intent of replacing these pipeline sections.

In 2012, construction was completed on a new 100 acre-foot storage pond for recycled water. This pond, which was funded by a combination federal Bureau of Reclamation and district funds, allows recycled water to be used for increased agricultural irrigation, restoration of the Napa-Sonoma salt marsh, and urban uses. In addition, in 2013, construction was completed on the Napa Sonoma Salt Marsh pipeline, which allowed delivery of 1,700 acre feet annually of recycled water to help restore a 640-acre former salt pond. In 2014, construction was completed on a new sludge dewatering facility that reduces the District's expenses for disposing of biosolids. In 2017, the Sonoma Valley County Sanitation District completed a new pipeline that allows the District to also provide recycled water for urban reuse purposes, including school and park facilities. In 2018, pumping and piping improvements within the treatment plant were completed to enhance the District's operational flexibility to manage the storage and distribution of recycled water.

A cease and desist order was issued to the 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 the District to complete certain capital improvements by 2024 to address capacity deficiencies in the collection system. This Capital Improvement Plan includes substantial investment in trunk main replacement/rehabilitation projects to comply with this order.

In addition, the Sonoma Valley County Sanitation District has recently completed a master plan and computer model of its collection system. Sonoma Valley County Sanitation District has also conducted a multi-hazard vulnerability assessment and prepared a Local Hazard Mitigation Plan, approved by Federal Emergency Management Agency in 2016, for its collection, treatment, and recycled water systems.

South Park County Sanitation District

The South Park County Sanitation District provides service to the South Park area using

a gravity collection system that discharges to the City of Santa Rosa's collection system. Wastewater from the 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. In July of 1996, the City of Santa Rosa accepted responsibility for the operation and routine maintenance of the collection system.

An agreement for transfer of responsibility to the City of Santa Rosa of collection system operation and maintenance, and subsequent dissolution of the South Park County Sanitation District, was finalized on February of 1996. The agreement has been amended several times in the subsequent years. Under this agreement, the South Park County Sanitation District was to be dissolved and transferred to the City of Santa Rosa, subject to certain conditions that included the replacement, slip-line, or repair of 41,610 feet of the collection system, and upgrade of the Todd Road lift station before transfer of the South Park County Sanitation District to the City of Santa Rosa.

In 2012, an amended and restated agreement recognized that dissolution of the District and transfer to the City of Santa Rosa could not occur without annexation by the City, and therefore, a specific schedule for dissolution was removed from the agreement, along with specific targets for collection system improvements. Nonetheless, the District and City are continuing to work collaboratively in addressing needed collection system upgrades with the understanding that dissolution and transfer to the City will ultimately occur. A 2017 amendment to the 2012 amended and restated agreement further set forth specific measures to allow the eventual transfer of all District operation and function to the City.

On December 22, 1998, the North Coast Regional Water Quality Control Board released a draft Cleanup and Abatement Order for halogenated volatile organic compounds found in soil and groundwater in the vicinity of Sebastopol Road and West Avenue in the South Park County Sanitation District service area. The draft Cleanup and Abatement Order specified that halogenated volatile organic compounds found in the soil and groundwater are the result of a release from the South Park County Sanitation District collection system. Potential costs for investigation, remediation, and legal work related to halogenated volatile organic compounds in soil and groundwater are substantial ($2-10 million in 1999 dollars) and have not been included in this capital plan. Rather than finalize the draft Cleanup and Abatement Order, the South Park County Sanitation District, County of Sonoma, and the North Coast Regional Water Quality Control Board entered into a cooperative agreement in July of 1999 referred to as the "Plan of Action for Halogenated Volatile Organic Compounds Investigation and Mitigation in the Roseland Area" (Plan of Action). As part of the Plan of Action, South Park County Sanitation District has performed an investigation of the extent of halogenated volatile organic compounds in groundwater in the vicinity of West Avenue and Sebastopol Road. A final report summarizing the results of this investigation was submitted to the North Coast Regional Water Quality Control Board in February of 2002. The South Park County Sanitation District and the County of Sonoma have been working with the North Coast Regional Water Quality Control Board to coordinate groundwater studies by other parties for related groundwater contamination issues in the Roseland area. Upon completion of these studies, it is anticipated that remediation strategies will be developed by the South Park County Sanitation District, County of Sonoma, North Coast Regional Water Quality Control Board, and other parties associated with these groundwater issues.

In recent years, South Park County Sanitation District had been continuing capital improvement efforts required under a 2007 Cleanup and Abatement Order issued by the North Coast Regional Water Quality Control Board to replace/rehabilitate deteriorated and sub-standard portions of the collection system that threaten to cause unpermitted discharges of wastewater. These collection system improvements were completed in 2018.

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 the Agency's Renewable Energy, Efficiency and Sustainability efforts.

Internal Service

The Internal Service Fund provides for: (1) building improvements to the Administration building at the Agency'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 50 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 in Water Supply Goals and Strategies of Sonoma Water's Strategic Plan.

Common Facilities

There are 30 projects identified for funding in the Common Facilities Fund. Three new projects, consisting of Pump Replacements for Mirabel 10 and Wohler 12, Mirabel 12kv Seismic and Fire Resiliency, and Throttling Valves were added to the FY 2020-21 through FY 2024-25 capital plan for Common Facilities. The formerly identified Mirabel Collector 4 Discharge Valves, Mirabel Collector 4 Reach Rod Replacement, and Water Transmission Equipment Storage Building projects were completed in 2019.

Aqueduct Facilities

There are seven projects identified for funding in the Capital Aqueduct Funds. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan. The formerly identified Marin Sonoma Narrows segment C-2 highway 101 High Occupancy Vehicle Project was completed in 2020.

Storage Facilities

There are four projects identified for funding in the Capital Storage Funds. One new project Seismic Retrofit of Storage Tanks was added to the FY 2020-21 through FY 2024-25 capital plan.

Water Transmission Operations & Maintenance (O&M) Fund

There are six projects identified for funding in the Operations & Maintenance Fund. Two new projects, consisting of Occidental Well Rehabilitation and Tank Level Emergency Backup Power were added to the FY 2020-21 through FY 2024-25 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 2020-21 through FY 2024-25 capital plan. The formerly identified Dry Creek Habitat Enhancement Project (Phase 4-6) was broken out by phase into three projects.

Water Supply

Current Five-Year Plan

This five-year plan includes funding for two projects 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 and Flood Control Goals and Strategies of Sonoma Water's Strategic Plan.

Russian River Projects Fund

There are no projects identified for funding in the FY 2020-21 through FY 2024-25 capital plan for the Russian River Projects Fund.

Recycled Water Fund

There are no projects identified for funding in the FY 2020-21 through FY 2024-25 capital plan for the Recycled Water Fund.

Warm Springs Dam Fund

There are 2 projects identified for funding in the Warm Springs Dam Fund. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan.

Flood Control Zones

Current Five-Year Plan

This five-year plan includes funding for seven 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 three projects identified for funding in the Zone 1A fund. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan. The formerly identified OneRain Gage Network project was completed in 2019.

Zone 2A (Petaluma)

There are three projects identified for funding in the Zone 2A fund. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan. The formerly identified Petaluma River Flood Management & Enhancement-Denman Reach project was completed in 2020.

Zone 3A (Valley of the Moon)

There are no projects identified for funding in the FY 2020-21 through FY 2024-25 capital plan for Zone 3A.

Zone 5A (Lower Russian River)

There is one project identified for funding in the Zone 5A fund. No new projects were added

to the FY 2020-21 through FY 2024-25 capital plan.

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 nine projects identified for funding in the Airport-Larkfield-Wikiup Sanitation Zone. Three new projects, consisting of Recycled Water Pipeline Improvements, Treatment Plant Control Improvements, and Future Collection System Replacements were added to the FY 2020-21 through FY 2024-25 capital plan.

Geyserville Sanitation Zone

There are no projects identified for funding in the FY 2020-21 through 2024-25 capital plan the Geyserville Sanitation Zone. Formerly identified Geyserville Sanitation Zone Aerator Replacement project was completed in 2020.

Occidental County Sanitation District

There is one project identified for funding in the Occidental County Sanitation District. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan.

Penngrove Sanitation Zone

There are 2 projects identified for funding in the Penngrove Sanitation Zone. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan.

Russian River County Sanitation District

There are six projects identified for funding in the Russian River County Sanitation District. Three new projects, consisting of the Mays Canyon Road Slide, Electrical Service Replacement, and Lift Station Electrical Resiliency Project were added to the FY 2020-21 through FY 2024-25 capital plan.

Sea Ranch Sanitation Zone

There are 3 projects identified for funding in the Sea Ranch Sanitation Zone. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan.

Sonoma Valley County Sanitation District

There are 13 projects identified for funding in Sonoma Valley County Sanitation District. One new project, consisting of Future Collection System Replacements, was added to the FY 2020-21 through FY 2024-25 capital plan. The formerly identified Equalization Ponds Relining Project was completed in 2019.

South Park County Sanitation District

There is 1 project identified for funding in the South Park County Sanitation District. No new projects were added to the FY 2020-21 through FY 2024-2025 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 Fund. 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 is one project identified for funding in the FY 2020-21 through FY 2024-25 capital plan for the Facilities Fund. No new projects were added to the FY 2020-21 through FY 2024-25 capital plan.

Power Resources Fund

There are four projects identified for funding for the FY 2020-21 through FY 2024-25 capital plan for the Power Resources Fund. One new project, consisting of Backup Power 404 Aviation and 204 Concourse (Office Resiliency), was added to the FY 2020-21 through FY 2024-25 capital plan.

Funding Source Report

Division/Section	Funding Source	Prior FYs	Current FY 2017-18	FY1 2018-19	FY2 2019-20	FY3 2020-21	FY4 2021-22	FY5 2022-23	5YR Total	Future FYs	Cumulative Project Total
Water Transmission System	Sonoma Aqueduct Capital Fund and Storage Fund	0	300	100	500	200	200	5,000	6,000	0	6,300
Water Transmission System	Common Facilities Fund, FEMA PDM	4,594	4,034	14,873	8,413	3,657	7,190	15,440	49,573	5,500	63,701
Water Transmission System	Petaluma Aqueduct Capital Fund	55	479	65	2,425	80	2,375	1,050	5,995	53,775	60,302
Water Transmission System	Santa Rosa Aqueduct Capital Fund	772	365	9,545	788	0	242	0	10,575	0	11,712
Water Transmission System	Sonoma Aqueduct Capital Fund	1,233	4,263	577	0	0	0	470	1,047	2,895	9,438
Water Transmission System	Storage Fund	847	247	215	1,500	296	486	2,875	5,372	7,070	13,536
Water Transmission System	O&M Fund	292	4,421	4,134	7,459	4,066	6,316	3,800	25,775	15,200	45,688
Water Transmission System	Watershed Planning & Restoration Fund, ACOE	6,168	3,018	6,614	9,384	468	4,158	61	20,685	0	29,871
Water Supply - Warm Springs Dam	Other, ACOE	28,509	5,805	381	46	0	0	0	427	0	34,741
Zone 1A Flood Control	Zone 1A, NRCS	152	705	2,184	507	692	390	250	4,023	0	4,880
Zone 2A Flood Control	Zone 2A, DWR	0	0	364	0	0	0	0	364	0	364
Zone 5A Flood Control	Zone 5A, FEMA	0	16	363	50	2,801	160	0	3,374	0	3,390
Airport-Larkfield-Wikiup Sanitation Zone	ALWSZ	951	5,471	500	100	625	475	300	2,000	2,900	11,322
Occidental County Sanitation District	OCSD	23	223	457	0	0	0	0	457	0	703
Penngrove Sanitation Zone	PSZ, FEMA	128	984	144	30	30	30	30	264	0	1,376
Russian River County Sanitation District	RRCSD	54	1,048	5,199	2,318	5,070	600	3,400	16,587	0	17,689
Sea Ranch Sanitation Zone	SRSZ	0	40	235	505	100	100	100	1,040	100	1,180
Sonoma Valley County Sanitation District	SVCSD	2,199	8,654	10,644	12,762	7,744	4,775	4,800	40,725	5,060	56,638
South Park County Sanitation District	SPCSD	0	375	375	2,500	750	2,500	750	6,875	0	7,250
Internal Services Fund	Power Resources	285	254	1,859	4,291	996	0	0	7,146	0	7,685

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" diameter Sonoma Aqueduct and 24" diameter Oakmont Pipeline traverse the Bennett Valley Fault system in Rincon Valley.

Project Cost	
Acquisition:	85
Design/PM:	1,015
Construction:	5,000
Furniture/Reloc:	0
Other:	200
Project Total:	6,300

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Aqueduct Capital Fund	0	150	50	250	100	100	2,500	3,000	0	3,150
Storage Fund	0	150	50	250	100	100	2,500	3,000	0	3,150
TOTALS:	**0**	**300**	**100**	**500**	**200**	**200**	**5,000**	**6,000**	**0**	**6,300**

All Values are presented in Thousands (1 x 1000)

48 Inch Mainline Valve at Vinehill Ranch

Function Area: **Request: WA18001**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

Install mainline valve at Vinehill Ranch at location where AQ was hit by pipe driller in 2013. This will be a 48 inch butterfly valce and be utilized as an isolation valve.

Project Cost	
Acquisition:	0
Design/PM:	65
Construction:	275
Furniture/Reloc:	0
Other:	0
Project Total:	340

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 2019-20	FY2 2020-21	FY3 2021-22	FY4 2022-23	FY5 2023-24	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	340	0	0	340	0	340
TOTALS:	**0**	**0**	**0**	**0**	**340**	**0**	**0**	**340**	**0**	**340**

All Values are presented in Thousands (1 x 1000)

Chlorine Line Replacement for Collectors 1 and 2

Function Area: **Request: WA19003**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

The proposed project is located at the Sonoma County Water Agency`s Wohler Facility, and proposes to upgrade the existing chlorine lines from the Wohler Chlorine Building to Collectors 1 and 2. The project consists of installing approximately 2,500 linear feet of 4 inch PVC casing pipe, 6 access structures, and 1,250 linear feet of 1.5 inch HDPE carrier pipe along the existing gravel access roads from Wohler Chlorine Buildings to Collector 1 and 2.This project also includes replacing 4 existing access structures with new, larger structures that will provide improved access.

Project Cost	
Acquisition:	0
Design/PM:	177
Construction:	797
Furniture/Reloc:	0
Other:	5
Project Total:	979

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	55	1	126	797	0	0	0	923	0	979
TOTALS:	**55**	**1**	**126**	**797**	**0**	**0**	**0**	**923**	**0**	**979**

All Values are presented in Thousands (1 x 1000)

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 regrading in the vicinity of the caissons, structural improvements, and structural retrofit of the caissons.

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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	0	600	5,400	6,000	5,400	11,400
TOTALS:	**0**	**0**	**0**	**0**	**0**	**600**	**5,400**	**6,000**	**5,400**	**11,400**

All Values are presented in Thousands (1 x 1000)

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.

Project Cost	
Acquisition:	0
Design/PM:	400
Construction:	5,150
Furniture/Reloc:	0
Other:	250
Project Total:	5,800

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	0	650	5,150	5,800	0	5,800
TOTALS:	**0**	**0**	**0**	**0**	**0**	**650**	**5,150**	**5,800**	**0**	**5,800**

All Values are presented in Thousands (1 x 1000)

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:	166
Construction:	209
Furniture/Reloc:	0
Other:	0
Project Total:	375

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	0	375	0	375	0	375
TOTALS:	**0**	**0**	**0**	**0**	**0**	**375**	**0**	**375**	**0**	**375**

All Values are presented in Thousands (1 x 1000)

Mirabel 12kV Seismic 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 and fire hazards. This project proposes to mitigate that vulnerability by implementing relocation, undergrounding, and/or retrofit measures.

Project Cost	
Acquisition:	150
Design/PM:	350
Construction:	2,800
Furniture/Reloc:	0
Other:	200
Project Total:	3,500

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	350	150	3,000	0	3,500	0	3,500
TOTALS:	**0**	**0**	**0**	**350**	**150**	**3,000**	**0**	**3,500**	**0**	**3,500**

All Values are presented in Thousands (1 x 1000)

Mirabel Chlorine Building Water Line

Function Area: **Request: WA15010**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

Construct new waterline from Collector well No. 3 to service the Mirabel Chlorination Building. The project will replace the existing water line which has reached the end of its useful life.

Project Cost	
Acquisition:	0
Design/PM:	153
Construction:	165
Furniture/Reloc:	0
Other:	35
Project Total:	353

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
	0	0	0	0	0	0	0	0	0	0
Common Facilities Fund	0	0	0	188	165	0	0	353	0	353
TOTALS:	**0**	**0**	**0**	**188**	**165**	**0**	**0**	**353**	**0**	**353**

All Values are presented in Thousands (1 x 1000)

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:	168
Construction:	23
Furniture/Reloc:	0
Other:	0
Project Total:	191

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project 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	191	0	0	191	0	191
TOTALS:	**0**	**0**	**0**	**0**	**191**	**0**	**0**	**191**	**0**	**191**

All Values are presented in Thousands (1 x 1000)

Mirabel Collector 4 Blowoff

Function Area: **Request: WA19008**

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:	168
Construction:	23
Furniture/Reloc:	0
Other:	0
Project Total:	191

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	191	0	0	191	0	191
TOTALS:	**0**	**0**	**0**	**0**	**191**	**0**	**0**	**191**	**0**	**191**

All Values are presented in Thousands (1 x 1000)

Mirabel Inflatable Dam Fabric Replacement

Function Area: **Request: WA16001**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

Replace the Mirabel Dam's inflatable rubber bladder, which is reaching the end of its 25-30 year useful life. The rubber dam is an essential element of the Wohler/Mirabel water production facilities, controlling diversion flows and enhancing groundwater recharge in the area.

Project Cost	
Acquisition:	0
Design/PM:	403
Construction:	1,971
Furniture/Reloc:	0
Other:	147
Project Total:	2,521

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	396	1,804	321	0	0	0	0	321	0	2,521
TOTALS:	**396**	**1,804**	**321**	**0**	**0**	**0**	**0**	**321**	**0**	**2,521**

All Values are presented in Thousands (1 x 1000)

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 at the Mirabel site for water transmission/supply maintenance related operations.

Project Cost	
Acquisition:	0
Design/PM:	80
Construction:	875
Furniture/Reloc:	0
Other:	5
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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	60	900	0	0	0	960	0	960
TOTALS:	**0**	**0**	**60**	**900**	**0**	**0**	**0**	**960**	**0**	**960**

All Values are presented in Thousands (1 x 1000)

Mirabel Pump 8 Replacement

Function Area: **Request: WA19004**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities 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:	84
Construction:	437
Furniture/Reloc:	0
Other:	0
Project Total:	521

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	521	0	0	0	521	0	521
TOTALS:	**0**	**0**	**0**	**521**	**0**	**0**	**0**	**521**	**0**	**521**

All Values are presented in Thousands (1 x 1000)

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:	12
Design/PM:	113
Construction:	470
Furniture/Reloc:	0
Other:	0
Project Total:	595

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	125	470	0	0	0	595	0	595
TOTALS:	**0**	**0**	**125**	**470**	**0**	**0**	**0**	**595**	**0**	**595**

All Values are presented in Thousands (1 x 1000)

Mirabel Surge Tanks

Function Area: **Request: WA08053**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

To reduce the risks of pipeline ruptures/leaks due to transient pressures in the water transmission system following power failures, construct surge control system at the Mirabel production facilities, including three 8,000 gallon surge tanks and appurtenant equipment and controls-one each at collectors 3, 4 & 5.

Project Cost	
Acquisition:	0
Design/PM:	317
Construction:	2,166
Furniture/Reloc:	0
Other:	97
Project Total:	2,580

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	200	0	230	2,150	0	2,580	0	2,580
TOTALS:	**0**	**0**	**200**	**0**	**230**	**2,150**	**0**	**2,580**	**0**	**2,580**

All Values are presented in Thousands (1 x 1000)

pH Systems Upgrade

Function Area: **Request: WA15013**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

Upgrade the pumps and programmable logic controls in both Wohler and Mirabel caustic soda (pH) buildings, to make them more efficient and program-compatible with forthcoming electronic and supervisory control and data acquisition (SCADA) master plans. The pumps and programmable logic controls will replace existing equipment.

Project Cost	
Acquisition:	0
Design/PM:	167
Construction:	500
Furniture/Reloc:	0
Other:	0
Project Total:	667

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	167	500	0	0	0	667	0	667
TOTALS:	**0**	**0**	**167**	**500**	**0**	**0**	**0**	**667**	**0**	**667**

All Values are presented in Thousands (1 x 1000)

Pump Replacements for Wohler 2 and Mirabel 6

Function Area: **Request: WA19017**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

Wohler Pump 2 and Mirabel Pump 6 consist of a 1000 horsepower 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:	75
Construction:	1,100
Furniture/Reloc:	0
Other:	25
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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	1,200	0	0	1,200	0	1,200
TOTALS:	**0**	**0**	**0**	**0**	**1,200**	**0**	**0**	**1,200**	**0**	**1,200**

All Values are presented in Thousands (1 x 1000)

Pump Replacements: Mirabel 10 & Wohler 12

Function Area: **Request: WA20020**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

Mirabel Pump 10 and Wohler Pump 12 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:	190
Construction:	1,010
Furniture/Reloc:	0
Other:	0
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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	0	0	1,200	1,200	0	1,200
TOTALS:	**0**	**0**	**0**	**0**	**0**	**0**	**1,200**	**1,200**	**0**	**1,200**

All Values are presented in Thousands (1 x 1000)

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 fix the issues listed above.

Project Cost	
Acquisition:	10
Design/PM:	363
Construction:	1,500
Furniture/Reloc:	0
Other:	105
Project Total:	1,978

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	156	121	1,661	40	0	0	1,822	0	1,978
TOTALS:	**0**	**156**	**121**	**1,661**	**40**	**0**	**0**	**1,822**	**0**	**1,978**

All Values are presented in Thousands (1 x 1000)

Russian River Wellfield Optimization Upgrade

Function Area: **Request: WA19016**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

This project will include hydrogeologic and engineering analyses to maximize the water supply benefit of the existing Russian River Well Field, located at the Mirabel Facility. The project is preliminarily assumed to include the retrofit of four existing wells (1 stand-by), as high-head, winterized wells to provide combined capacity of 7 mgd.

Project Cost	
Acquisition:	0
Design/PM:	334
Construction:	2,713
Furniture/Reloc:	0
Other:	223
Project Total:	3,270

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	0	340	2,830	3,170	100	3,270
TOTALS:	**0**	**0**	**0**	**0**	**0**	**340**	**2,830**	**3,170**	**100**	**3,270**

All Values are presented in Thousands (1 x 1000)

Seismic Hazard Mitigation at the Mark West Creek Crossing

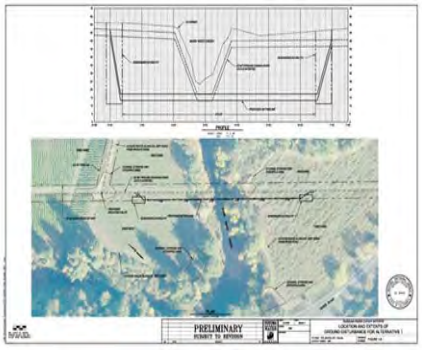
Function Area: **Request: WA09051**

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.

Project Cost	
Acquisition:	279
Design/PM:	1,008
Construction:	4,348
Furniture/Reloc:	0
Other:	128
Project Total:	5,763

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund, FEMA	1,228	187	3,698	650	0	0	0	4,348	0	5,763
TOTALS:	**1,228**	**187**	**3,698**	**650**	**0**	**0**	**0**	**4,348**	**0**	**5,763**

All Values are presented in Thousands (1 x 1000)

Seismic Hazard Mitigation at the Russian River Crossing

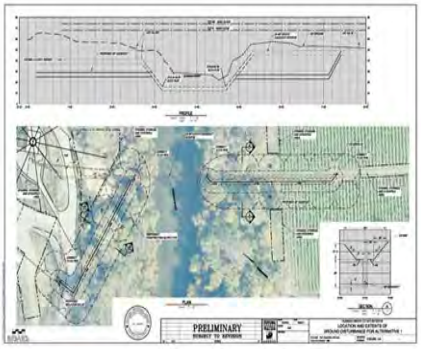
Function Area: **Request: WA09055**

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” and 48” diameter. The project includes trenching within the river banks to replace portions of the pipeline at risk.

Project Cost	
Acquisition:	286
Design/PM:	1,233
Construction:	6,444
Furniture/Reloc:	0
Other:	138
Project Total:	8,101

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund, FEMA	1,522	135	5,926	518	0	0	0	6,444	0	8,101
TOTALS:	**1,522**	**135**	**5,926**	**518**	**0**	**0**	**0**	**6,444**	**0**	**8,101**

All Values are presented in Thousands (1 x 1000)

Supervisory Control and Data Acquisition (SCADA) Software and Hardware

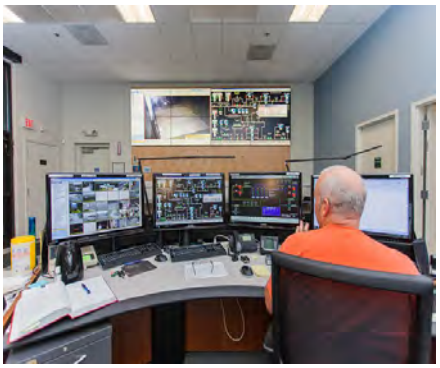
Function Area: **Request: WA15007**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description



The scope of the project is to upgrade Supervisory Control and Data Acquisition (SCADA) workstations and software to current supported versions. Other objectives include upgrades to field components such as Programmable Logic Controllers and Remote Telemetry devices.

Project Cost	
Acquisition:	0
Design/PM:	1,270
Construction:	630
Furniture/Reloc:	0
Other:	0
Project Total:	1,900

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	475	475	475	475	0	0	1,425	0	1,900
TOTALS:	**0**	**475**	**475**	**475**	**475**	**0**	**0**	**1,425**	**0**	**1,900**

All Values are presented in Thousands (1 x 1000)

Supervisory Control and Data Acquisition (SCADA) Upgrade

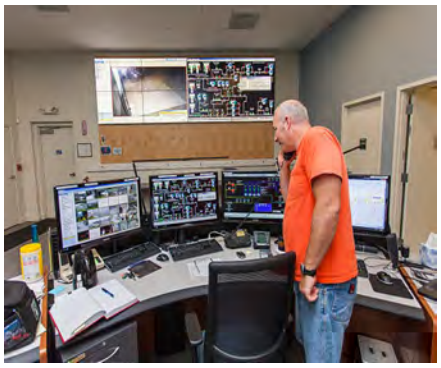
Function Area: **Request: WA15005**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description



The scope of this project is to reassess and revamp programming standards to accommodate current technologies as well as implement these new standards to streamline maintenance and operations.

Project Cost	
Acquisition:	0
Design/PM:	2,484
Construction:	0
Furniture/Reloc:	0
Other:	0
Project Total:	2,484

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	621	621	621	621	0	0	1,863	0	2,484
TOTALS:	**0**	**621**	**621**	**621**	**621**	**0**	**0**	**1,863**	**0**	**2,484**

All Values are presented in Thousands (1 x 1000)

Throttling Valves (SR AQ & RR-Cot Int.)

Function Area: **Request: WA20023**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

To provide increased operational flexibility to pump and/or divert water supply from the Wohler-Mirabel production facility to the portion of the service area where most needed during or following a major disaster (earthquake, fire, etc.) or emergency repair, this project proposes to install a 48-inch and a 36”-inch diameter throttling valve on the Russian River-Cotati Intertie and Santa Rosa Aqueduct, respectively.

Project Cost	
Acquisition:	0
Design/PM:	150
Construction:	500
Furniture/Reloc:	0
Other:	50
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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	25	75	600	700	0	700
TOTALS:	**0**	**0**	**0**	**0**	**25**	**75**	**600**	**700**	**0**	**700**

All Values are presented in Thousands (1 x 1000)

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:	13
Design/PM:	162
Construction:	2,003
Furniture/Reloc:	0
Other:	1,654
Project Total:	3,832

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	1,369	141	2,162	160	0	0	0	2,322	0	3,832
TOTALS:	**1,369**	**141**	**2,162**	**160**	**0**	**0**	**0**	**2,322**	**0**	**3,832**

All Values are presented in Thousands (1 x 1000)

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:	146
Construction:	174
Furniture/Reloc:	0
Other:	9
Project Total:	329

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	24	84	221	0	0	0	0	221	0	329
TOTALS:	**24**	**84**	**221**	**0**	**0**	**0**	**0**	**221**	**0**	**329**

All Values are presented in Thousands (1 x 1000)

Wohler-Forestville Pipeline Throttling Valve

Function Area: **Request: WA18002**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

The motor operated valve located along the 54" Wohler-Forestville pipeline operates either fully open or fully closed, however it has been determined that a throttling valve would allow additional operational flexibility.

Project Cost	
Acquisition:	0
Design/PM:	67
Construction:	193
Furniture/Reloc:	0
Other:	0
Project Total:	260

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	0	0	0	260	260	0	260
TOTALS:	**0**	**0**	**0**	**0**	**0**	**0**	**260**	**260**	**0**	**260**

All Values are presented in Thousands (1 x 1000)

Wohler Pump 4 Replacement

Function Area: **Request: WA19011**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities Fund

Project Description

Wohler Pump 4 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:	84
Construction:	518
Furniture/Reloc:	0
Other:	0
Project Total:	602

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	0	602	0	0	0	602	0	602
TOTALS:	**0**	**0**	**0**	**602**	**0**	**0**	**0**	**602**	**0**	**602**

All Values are presented in Thousands (1 x 1000)

Wohler Pump 11 Replacement

Function Area: **Request: WA19012**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Common Facilities 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:	84
Construction:	446
Furniture/Reloc:	0
Other:	0
Project Total:	530

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	430	100	0	0	0	0	100	0	530
TOTALS:	**0**	**430**	**100**	**0**	**0**	**0**	**0**	**100**	**0**	**530**

All Values are presented in Thousands (1 x 1000)

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:	0
Construction:	0
Furniture/Reloc:	0
Other:	550
Project Total:	550

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Common Facilities Fund	0	0	550	0	0	0	0	550	0	550
TOTALS:	**0**	**0**	**550**	**0**	**0**	**0**	**0**	**550**	**0**	**550**

All Values are presented in Thousands (1 x 1000)

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.

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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project 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**

All Values are presented in Thousands (1 x 1000)

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 implementation relies on FEMA funding, which is currently pending.

Project Cost	
Acquisition:	10
Design/PM:	576
Construction:	2,315
Furniture/Reloc:	0
Other:	176
Project Total:	3,077

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Petaluma Aqueduct Capital Fund, FEMA	53	479	65	2,425	55	0	0	2,545	0	3,077
TOTALS:	**53**	**479**	**65**	**2,425**	**55**	**0**	**0**	**2,545**	**0**	**3,077**

All Values are presented in Thousands (1 x 1000)

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 for 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:	0
Design/PM:	104
Construction:	138
Furniture/Reloc:	0
Other:	0
Project Total:	242

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Santa Rosa Aqueduct Capital Fund	0	0	0	0	0	242	0	242	0	242
TOTALS:	**0**	**0**	**0**	**0**	**0**	**242**	**0**	**242**	**0**	**242**

All Values are presented in Thousands (1 x 1000)

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 relocate the existing pipeline away from the open stream channel with an alignment that remains within the public roadway, including a trenchless crossing beneath the Santa Rosa Creek culvert. Hazard Mitigation Grant Funds from the Federal Emergency Management Agency (FEMA) will provide partial funding in the amount of $3 million.

Project Cost	
Acquisition:	166
Design/PM:	757
Construction:	10,308
Furniture/Reloc:	0
Other:	239
Project Total:	11,470

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Santa Rosa Aqueduct Capital Fund, FEMA	772	365	9,545	788	0	0	0	10,333	0	11,470
TOTALS:	**772**	**365**	**9,545**	**788**	**0**	**0**	**0**	**10,333**	**0**	**11,470**

All Values are presented in Thousands (1 x 1000)

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.

Project Cost	
Acquisition:	130
Design/PM:	475
Construction:	2,630
Furniture/Reloc:	0
Other:	130
Project Total:	3,365

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Aqueduct Capital Fund	0	0	0	0	0	0	470	470	2,895	3,365
TOTALS:	**0**	**0**	**0**	**0**	**0**	**0**	**470**	**470**	**2,895**	**3,365**

All Values are presented in Thousands (1 x 1000)

Sonoma Booster Pump Station Upgrade

Function Area: **Request: WA08062**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Sonoma Aqueduct Capital Fund

Project Description

This project will improve the reliability and operability of the existing Sonoma Booster Pump Station. Reliability of the booster station will be increased by enhancing standby electrical power capacity, increasing pumping redundancy, modifying the electrical system and mitigating the seismic risks associated with the nearby Bennett Valley Fault. The operability of the Booster Station will be improved by developing a more robust and reliable surge protection system.

Project Cost	
Acquisition:	15
Design/PM:	1,203
Construction:	4,841
Furniture/Reloc:	0
Other:	14
Project Total:	6,073

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Aqueduct Capital Fund	1,233	4,263	577	0	0	0	0	577	0	6,073
TOTALS:	**1,233**	**4,263**	**577**	**0**	**0**	**0**	**0**	**577**	**0**	**6,073**

All Values are presented in Thousands (1 x 1000)

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:	710
Construction:	7,025
Furniture/Reloc:	0
Other:	205
Project Total:	7,970

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Storage Fund	0	189	0	0	0	336	375	711	7,070	7,970
TOTALS:	**0**	**189**	**0**	**0**	**0**	**336**	**375**	**711**	**7,070**	**7,970**

All Values are presented in Thousands (1 x 1000)

Ralphine Tanks - Flow Thru Conversion

Function Area: **Request: WA11072**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - Storage Fund

Project Description

Reconfigure piping connecting the four above ground steel water reservoirs at the Ralphine Tank farm to improve water circulation/turnover for enhanced water quality, provide surge protection, and address over constrained structural conditions to reduce the risk of damage during a seismic event.

Project Cost	
Acquisition:	110
Design/PM:	903
Construction:	1,630
Furniture/Reloc:	0
Other:	23
Project Total:	2,666

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Storage Fund	847	58	215	1,500	46	0	0	1,761	0	2,666
TOTALS:	**847**	**58**	**215**	**1,500**	**46**	**0**	**0**	**1,761**	**0**	**2,666**

All Values are presented in Thousands (1 x 1000)

Seismic Retrofit of Storage Tanks

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:	200
Construction:	2,650
Furniture/Reloc:	0
Other:	50
Project Total:	2,900

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Storage Fund	0	0	0	0	250	150	2,500	2,900	0	2,900
TOTALS:	**0**	**0**	**0**	**0**	**250**	**150**	**2,500**	**2,900**	**0**	**2,900**

All Values are presented in Thousands (1 x 1000)

Forestville Tanks Recoating

Function Area: **Request: WA14010**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - O&M Fund

Project Description

This project will remove the interior and exterior coatings to reline and recoat the existing 1 Million Gallon (MG) and 0.3 Million Gallon (MG) Forestville Tanks with new epoxy coatings. The project will also include replacement of the cathodic protection system and minor modification of appurtenant piping.

Project Cost	
Acquisition:	0
Design/PM:	358
Construction:	1,407
Furniture/Reloc:	0
Other:	6
Project Total:	1,771

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Operations & Maintenance Fund	292	1,334	145	0	0	0	0	145	0	1,771
TOTALS:	**292**	**1,334**	**145**	**0**	**0**	**0**	**0**	**145**	**0**	**1,771**

All Values are presented in Thousands (1 x 1000)

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:	94
Construction:	23
Furniture/Reloc:	0
Other:	0
Project Total:	117

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Operations & Maintenance Fund	0	0	0	0	117	0	0	117	0	117
TOTALS:	**0**	**0**	**0**	**0**	**117**	**0**	**0**	**117**	**0**	**117**

All Values are presented in Thousands (1 x 1000)

Occidental Well Rehabilitation

Function Area: **Request: WA20002**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - O&M Fund

Project Description

Occidental Plain Well pump no longer works and was removed. When that occurred, it was found that the Aquastream unit had broken and fallen to the bottom of the well. The aquastream is necessary for sand removal and the well needs rehabilitation prior to installation of a new pump.

Project Cost	
Acquisition:	0
Design/PM:	31
Construction:	229
Furniture/Reloc:	0
Other:	0
Project Total:	260

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Operations & Maintenance Fund	0	0	0	260	0	0	0	260	0	260
TOTALS:	**0**	**0**	**0**	**260**	**0**	**0**	**0**	**260**	**0**	**260**

All Values are presented in Thousands (1 x 1000)

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 to provide a reliable supply of naturally filtered drinking water from the Russian River to residents in Santa Rosa. The Santa Rosa Aqueduct 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 Santa Rosa AQ will have a total of 15 test stations and 8 rectifiers installed along the Aqueduct to help bring corrosion protection levels back up to National Association of Corrosion Engineers (NACE) standards. Sonoma Water is also planning to provide improvements to upgrade/rehabilitate the cathodic protection system along the existing Russian River-Cotati Intertie. 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. The project includes extending the useful life of the pipeline's corrosion protection system by installing deep anode wells in strategic locations, anode test stations and possible new electrical service to the wells and acquiring right-of-way and easements for construction and maintenance. The Russian River/Cotati AQ will have a total of 18 test stations and 9 rectifiers installed along the length of the Aqueduct. Due to the magnitude of the work, the project will be completed in phases.

Project Cost	
Acquisition:	72
Design/PM:	290
Construction:	3,955
Furniture/Reloc:	0
Other:	379
Project Total:	4,696

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Operations & Maintenance Fund	0	87	105	2,658	73	1,773	0	4,609	0	4,696
TOTALS:	**0**	**87**	**105**	**2,658**	**73**	**1,773**	**0**	**4,609**	**0**	**4,696**

All Values are presented in Thousands (1 x 1000)

Tank Level Emergency Backup Power

Function Area: **Request: WA20003**

Development Services

Department/Division:

Sonoma Water / Water Transmission System - O&M Fund

Project Description

The purpose of this project is to design and construct standalone solar powered monitoring/transmitting stations that have battery backup for our sensitive sites. These standalone system will be installed to provide backup power to level, pressure, and flow transducers (or other monitoring and transmitting communication equipment) to enable us to have system visibility when we lose power onsite.

Project Cost	
Acquisition:	4
Design/PM:	189
Construction:	1,300
Furniture/Reloc:	0
Other:	151
Project Total:	1,644

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Operations & Maintenance Fund	0	0	84	741	76	743	0	1,644	0	1,644
TOTALS:	**0**	**0**	**84**	**741**	**76**	**743**	**0**	**1,644**	**0**	**1,644**

All Values are presented in Thousands (1 x 1000)

Tank Maintenance 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.

Project Cost	
Acquisition:	0
Design/PM:	0
Construction:	0
Furniture/Reloc:	0
Other:	37,200
Project Total:	37,200

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Operations & Maintenance Fund	0	3,000	3,800	3,800	3,800	3,800	3,800	19,000	15,200	37,200
TOTALS:	**0**	**3,000**	**3,800**	**3,800**	**3,800**	**3,800**	**3,800**	**19,000**	**15,200**	**37,200**

All Values are presented in Thousands (1 x 1000)

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:	2,167
Design/PM:	2,591
Construction:	3,884
Furniture/Reloc:	0
Other:	218
Project Total:	8,860

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Watershed Planning and Restoration Fund	2,242	1,288	4,974	291	55	10	0	5,330	0	8,860
TOTALS:	**2,242**	**1,288**	**4,974**	**291**	**55**	**10**	**0**	**5,330**	**0**	**8,860**

All Values are presented in Thousands (1 x 1000)

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:	1,660
Design/PM:	1,773
Construction:	9,021
Furniture/Reloc:	0
Other:	126
Project Total:	12,580

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Watershed Planning and Restoration Fund	1,909	740	570	9,013	303	45	0	9,931	0	12,580
TOTALS:	**1,909**	**740**	**570**	**9,013**	**303**	**45**	**0**	**9,931**	**0**	**12,580**

All Values are presented in Thousands (1 x 1000)

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:	2,253
Design/PM:	2,004
Construction:	4,018
Furniture/Reloc:	0
Other:	156
Project Total:	8,431

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Watershed Planning and Restoration Fund	2,017	990	1,070	80	110	4,103	61	5,424	0	8,431
TOTALS:	**2,017**	**990**	**1,070**	**80**	**110**	**4,103**	**61**	**5,424**	**0**	**8,431**

All Values are presented in Thousands (1 x 1000)

Dry Creek Habitat Enhancement Project (Phase 2)

Function Area: **Request: WA08043**

Development Services

Department/Division:

Sonoma Water / Water Supply - Warm Springs Dam

Project Description

As identified in the Russian River Biological Opinion (National Marine Fisheries Service, 2008), the Dry Creek Habitat Enhancement Project -phase 2 (Project) is the second phase of a 3-6 mile enhancement project within the main stem of Dry Creek. 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:	1,658
Design/PM:	2,911
Construction:	10,733
Furniture/Reloc:	0
Other:	1,134
Project Total:	16,436

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Other	16,046	338	52	0	0	0	0	52	0	16,436
TOTALS:	**16,046**	**338**	**52**	**0**	**0**	**0**	**0**	**52**	**0**	**16,436**

All Values are presented in Thousands (1 x 1000)

Dry Creek Habitat Enhancement Project (Phase 3)

Function Area: **Request: WA14023**

Development Services

Department/Division:

Sonoma Water / Water Supply - Warm Springs Dam

Project Description

As identified in the Russian River Biological Opinion (National Marine Fisheries Service, 2008), the Dry Creek Habitat Enhancement Project -phase 3 (Project) is the third phase of a 3-6 mile enhancement project within the main stem of Dry Creek. 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:	2,222
Design/PM:	2,537
Construction:	12,815
Furniture/Reloc:	0
Other:	731
Project Total:	18,305

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Other, ACOE	12,463	5,467	329	46	0	0	0	375	0	18,305
TOTALS:	**12,463**	**5,467**	**329**	**46**	**0**	**0**	**0**	**375**	**0**	**18,305**

All Values are presented in Thousands (1 x 1000)

Matanzas Reservoir Outlet Improvement

Function Area:
Development Services

Request: WA19033

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:	0
Construction:	0
Furniture/Reloc:	0
Other:	1,141
Project Total:	1,141

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Zone 1A, NRCS	51	40	50	250	250	250	250	1,050	0	1,141
TOTALS:	**51**	**40**	**50**	**250**	**250**	**250**	**250**	**1,050**	**0**	**1,141**

All Values are presented in Thousands (1 x 1000)

Santa Rosa Creek Fish Passage

Function Area:
Development Services

Request: WA06074

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 partial funding from the Wildlife Conservation Board, which is pending.

Project Cost	
Acquisition:	36
Design/PM:	408
Construction:	520
Furniture/Reloc:	0
Other:	37
Project Total:	1,001

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Zone 1A	8	20	334	57	442	140	0	973	0	1,001
TOTALS:	**8**	**20**	**334**	**57**	**442**	**140**	**0**	**973**	**0**	**1,001**

All Values are presented in Thousands (1 x 1000)

Santa Rosa Creek Vortex Tube

Function Area:
Development Services

Request: WA17015

Department/Division:
Sonoma Water / Zone 1A Flood Control

Project Description

This project will rehabilitate or replace the deteriorated 96-inch diameter Santa Rosa Creek vortex tube, which is a critical element of the Santa Rosa Creek diversion facilities and detention reservoir at Spring Lake, constructed in the 1960's. The project also includes the trenchless installation of a 36-inch diameter by-pass pipeline to facilitate future inspections and maintenance of the vortex tube.

Project Cost	
Acquisition:	0
Design/PM:	763
Construction:	1,796
Furniture/Reloc:	0
Other:	179
Project Total:	2,738

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Zone 1A	93	645	1,800	200	0	0	0	2,000	0	2,738
TOTALS:	**93**	**645**	**1,800**	**200**	**0**	**0**	**0**	**2,000**	**0**	**2,738**

All Values are presented in Thousands (1 x 1000)

Kelly Creek at Sunnyslope Avenue

Function Area:
Development Services

Request: WA08083

Department/Division:
Sonoma Water / Zone 2A Flood Control

Project Description

Funding Agreement with City of Petaluma to commence design of a project to reduce localized flooding adversely affecting residential properties and structures adjacent to Kelly Creek downstream of Sunnyslope Avenue by reconnecting the natural, open stream portion of Kelly Creek flows and diverting the piped collection system to an appropriate facility; Improve water quality in the open channel of Kelly Creek by reconnecting the upstream flows from the open channel of Kelly Creek and diverting the contained culvert to the existing culverted system. Initial funding will provide for pre design activities.

Project Cost	
Acquisition:	0
Design/PM:	62
Construction:	0
Furniture/Reloc:	0
Other:	0
Project Total:	62

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Zone 2A	0	0	62	0	0	0	0	62	0	62
TOTALS:	**0**	**0**	**62**	**0**	**0**	**0**	**0**	**62**	**0**	**62**

All Values are presented in Thousands (1 x 1000)

Petaluma River (Corona Reach) Overflow Channel

Function Area: **Request: WA08081**

Development Services

Department/Division:

Sonoma Water / Zone 2A Flood Control

Project Description

Funding Agreement with City of Petaluma for a linear detention channel along the west side of Highway 101 from Corona Road overpass south along the old railroad right of way, and modification of the Capri Creek confluence with Petaluma River to reduce flow obstructions. Initial funding will provide for pre design evaluation activities.

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

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Zone 2A	0	0	122	0	0	0	0	122	0	122
TOTALS:	**0**	**0**	**122**	**0**	**0**	**0**	**0**	**122**	**0**	**122**

All Values are presented in Thousands (1 x 1000)

Washington Creek Repair & Enhancement

Function Area:
Development Services

Request: WA08076

Department/Division:
Sonoma Water / Zone 2A Flood Control

Project Description

Funding Agreement with City of Petaluma to implement structural repairs and cross-sectional modifications to the Washington Creek corridor to conserve, and where possible, increase flow capacity.

Project Cost	
Acquisition:	0
Design/PM:	33
Construction:	129
Furniture/Reloc:	0
Other:	18
Project Total:	180

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Zone 2A	0	0	180	0	0	0	0	180	0	180
TOTALS:	**0**	**0**	**180**	**0**	**0**	**0**	**0**	**180**	**0**	**180**

All Values are presented in Thousands (1 x 1000)

Green Valley Creek Flood Resiliency and Restoration

Function Area: **Request: WA19034**

Development Services

Department/Division:

Sonoma Water / Zone 5A Flood Control

Project Description

The proposed project is a Floodplain and Stream Restoration (FSR) project, and will reestablish the structure and function of the creek ecosystem, while simultaneously mitigating flood risks. The project will install a two-stage channel or pool habitat features to provide improved aquatic habitat and sediment transport capacity and relief channels will be restored to original configuration to provide habitat benefits. This project includes reducing peak flood stages, protecting Green Valley Road crossing and bridge, restoring ecological habitat for plants and aquatic species, and improving water quality through reduced farmland (vineyard) erosion. The project will be pursued in phases, with the first phase completing design. Implementation is reliant upon securing grant funding in partnership with Sonoma County Transportation and Public Works. Project scope may be reduced to align with available funding.

Project Cost	
Acquisition:	262
Design/PM:	400
Construction:	2,610
Furniture/Reloc:	0
Other:	118
Project Total:	3,390

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Zone 5A, FEMA	0	16	363	50	2,801	160	0	3,374	0	3,390
TOTALS:	**0**	**16**	**363**	**50**	**2,801**	**160**	**0**	**3,374**	**0**	**3,390**

All Values are presented in Thousands (1 x 1000)

Aerator Replacement

Function Area:
Development Services

Request: WA17011

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.

Project Cost	
Acquisition:	0
Design/PM:	0
Construction:	175
Furniture/Reloc:	0
Other:	0
Project Total:	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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	125	50	0	0	0	0	50	0	175
TOTALS:	**0**	**125**	**50**	**0**	**0**	**0**	**0**	**50**	**0**	**175**

All Values are presented in Thousands (1 x 1000)

Airport Treatment Plant Headworks Meter

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.

Project Cost	
Acquisition:	0
Design/PM:	33
Construction:	67
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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	50	50	0	0	0	0	50	0	100
TOTALS:	**0**	**50**	**50**	**0**	**0**	**0**	**0**	**50**	**0**	**100**

All Values are presented in Thousands (1 x 1000)

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	0	300	0	0	300	0	300
TOTALS:	**0**	**0**	**0**	**0**	**300**	**0**	**0**	**300**	**0**	**300**

All Values are presented in Thousands (1 x 1000)

Future Collection System Replacements

Function Area: **Request: WA20025**

Development Services

Department/Division:

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

Project Description

This project proposes to repair, rehabilitate, and construct portions of the collection system that are determined to be deficient.

Project Cost	
Acquisition:	72
Design/PM:	434
Construction:	2,897
Furniture/Reloc:	0
Other:	97
Project Total:	3,500

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	0	0	300	300	600	2,900	3,500
TOTALS:	**0**	**0**	**0**	**0**	**0**	**300**	**300**	**600**	**2,900**	**3,500**

All Values are presented in Thousands (1 x 1000)

Larkfield Estates Sewer Main

Function Area: **Request: WA19022**

Development Services

Department/Division:

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

Project Description

The Sonoma Complex Fires, a series of fires that swept Sonoma County beginning on October, 8 2017, caused widespread damage. The County Administrator/ Director of Emergency Services issued a Proclamation of Existence of Local Emergency in the Sonoma County Operational Area. In the Airport Larkfield-Wikiup Sanitation Zone entire neighborhoods, including Larkfield Estates, were destroyed by the Tubbs Fire. Many homes in the Larkfield area were connected to septic systems. This project will construct sewer collection systems in Larkfield Estates and in Dover Court, and offer low interest financing options for property owners. This project will include proximately 10,000 feet of sewer main, 70 manholes, and public laterals from the main to the property line of participating residences.

Project Cost	
Acquisition:	150
Design/PM:	952
Construction:	4,827
Furniture/Reloc:	0
Other:	18
Project Total:	5,947

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	945	4,852	150	0	0	0	0	150	0	5,947
TOTALS:	**945**	**4,852**	**150**	**0**	**0**	**0**	**0**	**150**	**0**	**5,947**

All Values are presented in Thousands (1 x 1000)

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:	0
Design/PM:	75
Construction:	425
Furniture/Reloc:	0
Other:	0
Project Total:	500

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	100	100	100	200	0	0	400	0	500
TOTALS:	**0**	**100**	**100**	**100**	**200**	**0**	**0**	**400**	**0**	**500**

All Values are presented in Thousands (1 x 1000)

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:	38
Construction:	62
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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	0	100	0	0	100	0	100
TOTALS:	**0**	**0**	**0**	**0**	**100**	**0**	**0**	**100**	**0**	**100**

All Values are presented in Thousands (1 x 1000)

Sludge Drying Bed

Function Area:
Development Services

Request: WA18012

Department/Division:
Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

Project Description

Construction of a concrete sludge drying bed to facilitate and improve drying process for transport and best management practices.

Project Cost	
Acquisition:	0
Design/PM:	50
Construction:	150
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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	0	0	0	0	25	175	0	200	0	200
TOTALS:	**0**	**0**	**0**	**0**	**25**	**175**	**0**	**200**	**0**	**200**

All Values are presented in Thousands (1 x 1000)

Treatment Plant Control Improvements

Function Area: **Request: WA20024**

Development Services

Department/Division:

Sonoma Water / Airport-Larkfield-Wikiup Sanitation Zone

Project Description

Sonoma Water owns, operates, and maintains a control system (System) at Sonoma Water's Airport-Larkfield-Wikiup Sanitation Treatment Plant (Treatment Plant). The existing Treatment Plant was constructed in several phases beginning in the early 1980s on the site used for wastewater treatment by the Sonoma County Department of Transportation and Public works, which began in the 1940s. The fourth phase, completed in 2002, added a microfiltration process involving membrane technology with a capacity of up to three million gallons per day. The technology and electronics used for the microfiltration process have become obsolete and must be replaced with a modernized System that meets Sonoma Water's and industry standards and can comply with current State and Regional Water Quality Control Board regulatory requirements.

Project Cost	
Acquisition:	0
Design/PM:	0
Construction:	373
Furniture/Reloc:	0
Other:	127
Project Total:	500

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Airport Larkfield Wikiup Sanitation Zone	6	344	150	0	0	0	0	150	0	500
TOTALS:	**6**	**344**	**150**	**0**	**0**	**0**	**0**	**150**	**0**	**500**

All Values are presented in Thousands (1 x 1000)

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:	229
Construction:	474
Furniture/Reloc:	0
Other:	0
Project Total:	703

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Occidental County Sanitation District	23	223	457	0	0	0	0	457	0	703
TOTALS:	**23**	**223**	**457**	**0**	**0**	**0**	**0**	**457**	**0**	**703**

All Values are presented in Thousands (1 x 1000)

Future Capital Replacements

Function Area:

Development Services

Request: WA15003

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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project 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**

All Values are presented in Thousands (1 x 1000)

Lift Station Flood Protection Project

Function Area: **Request: WA18014**

Development Services

Department/Division:

Sonoma Water / Penngrove Sanitation Zone

Project Description

The Penngrove Lift Station serves the Penngrove Sanitation Zone, 475 acres and 500 Equivalent Single Family Dwellings, and pumps wastewater from the Penngrove collection system to the City of Petaluma for treatment and disposal. In December 2014, a rain event occurred that flooded the Penngrove Lift Station and the Ely Booster Station. The Penngrove Lift Station was shut down to avoid electrical failure and permanent damage. Sonoma Water is proposing to implement the Penngrove Lift Station Flood Protection Project to counteract the effects of possible future rain events similar to the December 2014 incident. Electrical equipment will be elevated above the 500-year flood plain and housed on a platform outside the lift station to allow adequate working space. These platforms will meet the requirements set by the National Electrical Code (NEC)for electrical systems.

Project Cost	
Acquisition:	9
Design/PM:	124
Construction:	820
Furniture/Reloc:	0
Other:	273
Project Total:	1,226

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Penngrove Sanitation Zone, FEMA	128	984	114	0	0	0	0	114	0	1,226
TOTALS:	**128**	**984**	**114**	**0**	**0**	**0**	**0**	**114**	**0**	**1,226**

All Values are presented in Thousands (1 x 1000)

Clarifier Seismic Retrofit

Function Area:

Development Services

Request: WA18015

Department/Division:

Sonoma Water / Russian River County Sanitation District

Project Description

The project entails replacement of the interior mechanical components of three clarifier tanks at the Russian River CSD WWTP to meet current seismic design requirements. Two existing clarifiers measure 40- feet in diameter, while the third clarifier measures 60 feet in diameter. Construction will predominantly entail removal and replacement of mechanical components within the concrete tanks. Following removal of all interior mechanical components, existing grout on the floor within the clarifiers will be removed, any cracks filled, and new concrete grout will be applied on the floors of the clarifiers. Following surface preparation, the new mechanical components will be installed within the clarifiers.

Project Cost	
Acquisition:	0
Design/PM:	544
Construction:	2,937
Furniture/Reloc:	0
Other:	10
Project Total:	3,491

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Russian River County Sanitation District, FEMA	54	500	2,745	192	0	0	0	2,937	0	3,491
TOTALS:	**54**	**500**	**2,745**	**192**	**0**	**0**	**0**	**2,937**	**0**	**3,491**

All Values are presented in Thousands (1 x 1000)

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. 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:	33
Design/PM:	180
Construction:	285
Furniture/Reloc:	0
Other:	210
Project Total:	708

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Russian River County Sanitation District	0	0	300	408	0	0	0	708	0	708
TOTALS:	**0**	**0**	**300**	**408**	**0**	**0**	**0**	**708**	**0**	**708**

All Values are presented in Thousands (1 x 1000)

Force Main, Headworks, and Lift Station

Function Area:

Development Services

Request: WA19019

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:	80
Design/PM:	890
Construction:	8,950
Furniture/Reloc:	0
Other:	80
Project Total:	10,000

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
	0	0	0	0	0	0	0	0	0	0
Russian River County Sanitation District, SWRCB	0	303	347	850	5,000	500	3,000	9,697	0	10,000
TOTALS:	**0**	**303**	**347**	**850**	**5,000**	**500**	**3,000**	**9,697**	**0**	**10,000**

All Values are presented in Thousands (1 x 1000)

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:	55
Design/PM:	210
Construction:	427
Furniture/Reloc:	0
Other:	303
Project Total:	995

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Russian River County Sanitation District	0	0	267	658	70	0	0	995	0	995
TOTALS:	**0**	**0**	**267**	**658**	**70**	**0**	**0**	**995**	**0**	**995**

All Values are presented in Thousands (1 x 1000)

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 tank at Russian River main lift station provides fuel for the back up power supply generator. This project proposes to replace the underground diesel tank by 2025 to meet current health and safety code requirements.

Project Cost	
Acquisition:	0
Design/PM:	80
Construction:	420
Furniture/Reloc:	0
Other:	0
Project Total:	500

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
	0	0	0	0	0	0	0	0	0	0
Russian River County Sanitation District	0	0	0	0	0	100	400	500	0	500
TOTALS:	**0**	**0**	**0**	**0**	**0**	**100**	**400**	**500**	**0**	**500**

All Values are presented in Thousands (1 x 1000)

Mays Canyon Road Slide

Function Area: **Request: WA20004**

Development Services

Department/Division:

Sonoma Water / Russian River County Sanitation District

Project Description

The 2019 winter storms caused a slope failure/landslide that has taken out the secondary access road to the District's wastewater treatment plant near Guerneville. Given the susceptibility of Neeley Road, the primary access road into the plant, to flooding or other potential disaster events like fire or earthquakes, restoration of the secondary access road is needed for contingency purposes. This project will repair the slope failure/landslide to restore the secondary access route to the treatment plant. Implementation of project is reliant on FEMA grant funding which is pending.

Project Cost	
Acquisition:	185
Design/PM:	245
Construction:	1,415
Furniture/Reloc:	0
Other:	150
Project Total:	1,995

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Russian River County Sanitation District/FEMA	0	245	1,540	210	0	0	0	1,750	0	1,995
TOTALS:	**0**	**245**	**1,540**	**210**	**0**	**0**	**0**	**1,750**	**0**	**1,995**

All Values are presented in Thousands (1 x 1000)

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:	25
Design/PM:	100
Construction:	425
Furniture/Reloc:	0
Other:	50
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 Sources	Prior FYs	Current FY	FY1 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sea Ranch Sanitation Zone	0	0	100	100	100	100	100	500	100	600
TOTALS:	**0**	**0**	**100**	**100**	**100**	**100**	**100**	**500**	**100**	**600**

All Values are presented in Thousands (1 x 1000)

Helm Lift Station Control Panel Replacement

Function Area:
Development Services

Request: WA17012

Department/Division:
Sonoma Water / Sea Ranch Sanitation Zone

Project Description

The Helm lift station control panel is near the end of expected life and is necessary for operation of the Helm lift station. This project will include the replacement of the Helm lift station control panel and other electrical components.

Project Cost	
Acquisition:	0
Design/PM:	38
Construction:	82
Furniture/Reloc:	0
Other:	5
Project Total:	125

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sea Ranch Sanitation Zone	0	40	85	0	0	0	0	85	0	125
TOTALS:	**0**	**40**	**85**	**0**	**0**	**0**	**0**	**85**	**0**	**125**

All Values are presented in Thousands (1 x 1000)

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 has reached the end of its useful life. This project will include the replacement of the 8-inch carrier pipe and the 14 inch casing pipe as it crosses the creek adjacent to the treatment plant.

Project Cost	
Acquisition:	55
Design/PM:	109
Construction:	229
Furniture/Reloc:	0
Other:	62
Project Total:	455

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sea Ranch Sanitation Zone	0	0	50	405	0	0	0	455	0	455
TOTALS:	**0**	**0**	**50**	**405**	**0**	**0**	**0**	**455**	**0**	**455**

All Values are presented in Thousands (1 x 1000)

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:	59
Construction:	130
Furniture/Reloc:	0
Other:	0
Project Total:	189

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	161	2	2	3	21	0	0	26	0	189
TOTALS:	**161**	**2**	**2**	**3**	**21**	**0**	**0**	**26**	**0**	**189**

All Values are presented in Thousands (1 x 1000)

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 limited to work within the concrete tanks for removal of existing, interior mechanical components. Following removal of all interior mechanical components, existing grout on the floor within the clarifiers will be removed, any cracks filled, and new concrete grout will be applied on the floors of the clarifiers. Following surface preparation, the new mechanical components will be installed within the clarifiers. Project is partially funded with a FEMA grant.

Project Cost	
Acquisition:	0
Design/PM:	465
Construction:	3,385
Furniture/Reloc:	0
Other:	10
Project Total:	3,860

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District, FEMA	0	300	175	3,385	0	0	0	3,560	0	3,860
TOTALS:	**0**	**300**	**175**	**3,385**	**0**	**0**	**0**	**3,560**	**0**	**3,860**

All Values are presented in Thousands (1 x 1000)

Creek Bank Protection at Agua Caliente Creek Siphon

Function Area: **Request: WA18019**

Development Services

Department/Division:

Sonoma Water / Sonoma Valley County Sanitation District

Project Description

A permit condition for installing the siphon under Agua Caliente Creek is to re-arrange the previously-placed rip-rap to make it flush with the banks on either side. Currently the rip-rap protrudes into the channel and adversely affects local hydraulics, potentially causing bed or bank erosion. This project involves designing the modified rip-rap configuration, permitting, obtaining ROW, and installing the rip-rap with Sonoma Water maintenance crews.

Project Cost	
Acquisition:	26
Design/PM:	101
Construction:	48
Furniture/Reloc:	0
Other:	51
Project Total:	226

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	79	50	36	61	0	0	0	97	0	226
TOTALS:	**79**	**50**	**36**	**61**	**0**	**0**	**0**	**97**	**0**	**226**

All Values are presented in Thousands (1 x 1000)

Future Collection System Replacements

Function Area: **Request: WA20008**

Development Services

Department/Division:

Sonoma Water / Sonoma Valley County Sanitation District

Project Description

This project proposes to repair, rehabilitate, and/or replace portions of the collection system that are determined to be deficient.

Project Cost	
Acquisition:	280
Design/PM:	1,676
Construction:	11,172
Furniture/Reloc:	0
Other:	372
Project Total:	13,500

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	0	0	0	0	4,250	4,500	8,750	4,750	13,500
TOTALS:	**0**	**0**	**0**	**0**	**0**	**4,250**	**4,500**	**8,750**	**4,750**	**13,500**

All Values are presented in Thousands (1 x 1000)

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 or flooding events.

Project Cost	
Acquisition:	0
Design/PM:	448
Construction:	1,400
Furniture/Reloc:	0
Other:	112
Project Total:	1,960

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	250	260	270	280	290	300	1,400	310	1,960
TOTALS:	**0**	**250**	**260**	**270**	**280**	**290**	**300**	**1,400**	**310**	**1,960**

All Values are presented in Thousands (1 x 1000)

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:	314
Design/PM:	378
Construction:	1,248
Furniture/Reloc:	0
Other:	107
Project Total:	2,047

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	272	105	100	1,440	130	0	0	1,670	0	2,047
TOTALS:	**272**	**105**	**100**	**1,440**	**130**	**0**	**0**	**1,670**	**0**	**2,047**

All Values are presented in Thousands (1 x 1000)

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	100	100	0	0	0	0	100	0	200
TOTALS:	**0**	**100**	**100**	**0**	**0**	**0**	**0**	**100**	**0**	**200**

All Values are presented in Thousands (1 x 1000)

Sonoma Valley Treatment Plant Electrical Resiliency Project

Function Area: **Request: WA17002**

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. The project consists of removing a transformer, medium voltage switch, equipment pad, transfer switch controller, transfer switches, switchboards and appurtenances; and installing pull boxes, raceways, conduit and cables, trenching, reconfiguring or replacing existing transfer switches, installing switchboards, power monitors, and electrical equipment as necessary; updating Arc Flash Hazard Assessment and other documents required to provide a complete, working system.

Project Cost	
Acquisition:	0
Design/PM:	385
Construction:	1,541
Furniture/Reloc:	0
Other:	14
Project Total:	1,940

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	70	1,835	35	0	0	0	0	35	0	1,940
TOTALS:	**70**	**1,835**	**35**	**0**	**0**	**0**	**0**	**35**	**0**	**1,940**

All Values are presented in Thousands (1 x 1000)

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 and are requiring significant maintenance. The headworks are important as the first step in the process of treating wastewater and helps to remove large material before continuing on to other treatment processes.

Project Cost	
Acquisition:	0
Design/PM:	676
Construction:	2,445
Furniture/Reloc:	0
Other:	12
Project Total:	3,133

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	0	538	2,575	20	0	0	0	2,595	0	3,133
TOTALS:	**0**	**538**	**2,575**	**20**	**0**	**0**	**0**	**2,595**	**0**	**3,133**

All Values are presented in Thousands (1 x 1000)

Trunk Sewer Replacement, Phase 4B.2

Function Area: **Request: WA20018**

Development Services

Department/Division:

Sonoma Water / Sonoma Valley County Sanitation District

Project Description

Phase 4B.2 will replace the existing 58 year old 21 inch diameter reinforced concrete pipe trunk sewer main from Highway 12 at Ramon Street to just north of Verano Avenue, traversing the Rancho De Sonoma Mobile Home Park and Maxwell Park. This project will install approximately 2,162 feet of new 27" diameter trunk sewer, and includes the associated manholes, re-attachment/re-routing of 4 and 8 inch connecting sewer lines, and the abandonment in place of the existing 21" diameter trunk sewer main.

Project Cost	
Acquisition:	23
Design/PM:	637
Construction:	4,030
Furniture/Reloc:	0
Other:	281
Project Total:	4,971

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	648	3,918	405	0	0	0	0	405	0	4,971
TOTALS:	**648**	**3,918**	**405**	**0**	**0**	**0**	**0**	**405**	**0**	**4,971**

All Values are presented in Thousands (1 x 1000)

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" and 300 feet of new 24" 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"diameter trunk sewer main.

Project Cost	
Acquisition:	368
Design/PM:	959
Construction:	5,593
Furniture/Reloc:	0
Other:	322
Project Total:	7,242

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	724	569	5,679	270	0	0	0	5,949	0	7,242
TOTALS:	**724**	**569**	**5,679**	**270**	**0**	**0**	**0**	**5,949**	**0**	**7,242**

All Values are presented in Thousands (1 x 1000)

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:	371
Design/PM:	1,769
Construction:	13,866
Furniture/Reloc:	0
Other:	435
Project Total:	16,441

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	218	760	602	7,313	7,313	235	0	15,463	0	16,441
TOTALS:	**218**	**760**	**602**	**7,313**	**7,313**	**235**	**0**	**15,463**	**0**	**16,441**

All Values are presented in Thousands (1 x 1000)

Wastewater Treatment Plant Roof Replacement Project

Function Area: **Request: WA16013**

Development Services

Department/Division:

Sonoma Water / Sonoma Valley County Sanitation District

Project Description

This project is for roof replacements on the following buildings at the Wastewater Treatment Plant: 1. Administration 2. Maintenance 3. Influent

Project Cost	
Acquisition:	0
Design/PM:	254
Construction:	675
Furniture/Reloc:	0
Other:	0
Project Total:	929

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Sonoma Valley County Sanitation District	27	227	675	0	0	0	0	675	0	929
TOTALS:	**27**	**227**	**675**	**0**	**0**	**0**	**0**	**675**	**0**	**929**

All Values are presented in Thousands (1 x 1000)

Future Collection System Replacements

Function Area: **Request: WA19024**

Development Services

Department/Division:

Sonoma Water / South Park County Sanitation District

Project Description

This project proposes to repair, rehabilitate, and construct portions of the collection system that are determined to be deficient.

Project Cost	
Acquisition:	150
Design/PM:	900
Construction:	6,000
Furniture/Reloc:	0
Other:	200
Project Total:	7,250

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
South Park County Sanitation District	0	375	375	2,500	750	2,500	750	6,875	0	7,250
TOTALS:	**0**	**375**	**375**	**2,500**	**750**	**2,500**	**750**	**6,875**	**0**	**7,250**

All Values are presented in Thousands (1 x 1000)

404 HVAC Retrofit

Function Area:
Development Services

Request: WA19032

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:	8
Design/PM:	215
Construction:	860
Furniture/Reloc:	0
Other:	349
Project Total:	1,432

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Facilities Fund	161	161	948	162	0	0	0	1,110	0	1,432
TOTALS:	**161**	**161**	**948**	**162**	**0**	**0**	**0**	**1,110**	**0**	**1,432**

All Values are presented in Thousands (1 x 1000)

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 Water Agency Systems to ensure functionality at the Airport Treatment Plant facility.

Project Cost	
Acquisition:	11
Design/PM:	130
Construction:	234
Furniture/Reloc:	0
Other:	162
Project Total:	537

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Power Resources Fund	85	0	54	398	0	0	0	452	0	537
TOTALS:	**85**	**0**	**54**	**398**	**0**	**0**	**0**	**452**	**0**	**537**

All Values are presented in Thousands (1 x 1000)

Backup Power 404 Aviation & 204 Concourse (Office Resiliency)

Function Area: **Request: WA20001**

Development Services

Department/Division:

Sonoma Water / Internal Services Fund

Project Description

The purpose of this project is to design and construct a battery storage system for our 404 Aviation Boulevard and 204 Concourse Boulevard facilities. This will add redundancy to our power systems onsite so that we can continue to work when power is shut off.

Project Cost	
Acquisition:	9
Design/PM:	522
Construction:	3,470
Furniture/Reloc:	0
Other:	157
Project Total:	4,158

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Power Resources Fund	0	47	434	3,677	0	0	0	4,111	0	4,158
TOTALS:	**0**	**47**	**434**	**3,677**	**0**	**0**	**0**	**4,111**	**0**	**4,158**

All Values are presented in Thousands (1 x 1000)

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 Water Agency 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:	11
Design/PM:	130
Construction:	260
Furniture/Reloc:	0
Other:	103
Project Total:	504

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Power Resources Fund	35	46	423	0	0	0	0	423	0	504
TOTALS:	**35**	**46**	**423**	**0**	**0**	**0**	**0**	**423**	**0**	**504**

All Values are presented in Thousands (1 x 1000)

Sonoma Valley Treatment Plant Solar Inverter Replacement

Function Area: **Request: WA20010**

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 Water Agency Systems to ensure functionality at the Sonoma Valley 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:	11
Design/PM:	130
Construction:	832
Furniture/Reloc:	0
Other:	81
Project Total:	1,054

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 2020-21	FY2 2021-22	FY3 2022-23	FY4 2023-24	FY5 2024-25	5YR Total	Future YRs	Project Total
Power Resources Fund	4	0	0	54	996	0	0	1,050	0	1,054
TOTALS:	**4**	**0**	**0**	**54**	**996**	**0**	**0**	**1,050**	**0**	**1,054**

All Values are presented in Thousands (1 x 1000)