

**CAPITAL PROJECTS PLAN**  
FY 2016/2017 - 2020/2021

## Overview

### **Our Mission:**

The Sonoma County Water Agency (Water Agency), a special district, was created in 1949 by an act of the California State Legislature. The Water Agency 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 the Water Agency actively engaged in natural resource (e.g., fisheries, wetlands, etc.) protection, recovery, and enhancement. The Water Agency 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:**

*Securing our future by investing in our Water Resources, Environment and Community.*

This mission statement and the Water Agency's values are reflected in its Strategic Plan – a five year plan of goals and strategies to address the Water Agency's most pressing needs in the areas of Organizational Operations, Sanitation, Water Supply, Energy and Flood Control. This plan guides the Water Agency as it addresses the challenges it faces in pursuing its mission. The projects in this Capital Projects Plan are derived from the objectives in the Water Agency's Strategic Plan ([www.scwa.ca.gov/strategicplan/](http://www.scwa.ca.gov/strategicplan/)) and from its Water Supply Strategies Action Plan, which is updated regularly ([www.scwa.ca.gov/water-supply-strategy](http://www.scwa.ca.gov/water-supply-strategy)).

## Agency Objectives

### **Water Transmission and Supply Systems:**

The Water Agency provides high quality drinking water to more than 600,000 people in Sonoma and northern Marin counties. From its large collector wells near the Russian River, the Water Agency 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.

The Water Agency's transmission and supply goals as outlined in the 2013 strategic plan include: (1) work with water contractors to retain and improve the reliability of the water supply production and distribution systems, including short-term emergencies, such as earthquakes, and during long-term challenges caused by extended droughts and global climate change; (2) protect the Agency's existing water rights and our clean, high-quality water supply and improve system resiliency by continuing to develop alternative supplies; and (3) maintain stable water supply revenue source and improve operational efficiencies.

### **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. The Water Agency maintains these flood protection facilities in a manner that balances public safety and environmental needs.

The Water Agency's flood control goal as outlined in the 2013 strategic plan requires maintaining, operating, and modifying flood protection facilities to meet current and future public needs.

### **Sanitation Systems:**

The Water Agency 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.

The Agency's sanitation goals as outlined in the 2013 strategic plan include: (1) meet or exceed environmental regulations and public health standards; and (2) provide adequate rate-based revenues, while pursuing new income and cost-cutting opportunities.

## **Purpose and Background of Funds**

The Water Agency's Capital Projects Plan identifies projects to be constructed over the next five years and designed to meet the Water Agency's mission and strategic objectives.

### **Water Transmission:**

In order to reliably, safely, and efficiently supply potable water to its eight water contractors, the Water Agency plans, performs environmental reviews, designs, and constructs capital improvement projects. The expansion and improvement of the water transmission system is included in the terms and conditions of the Restructured Agreement for Water Supply (Agreement) between the Water Agency and its water contractors. The water contractors' Water Advisory Committee (WAC) and/or Technical Advisory Committee (TAC) meets regularly (WAC quarterly and TAC monthly) with the Water Agency 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 Pipeline Facilities Funds, 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 the Water Agency for the construction of the Coyote Valley Dam Project and Warm Springs Dam Project; (2) to pay the costs incurred by the Water Agency 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 the Water Agency 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.

### **Special Revenue Funds–Flood Control Zones:**

The Special Revenue Funds described below 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 the Water Agency'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:**

The Water Agency owns and operates four sanitation zones, which include Airport-Larkfield-Wikiup, Geyserville, Penngrove, and Sea Ranch. The Water Agency 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 the Water Agency'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 (Airport S.Z.) 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 ("m.g.d."). The Water Agency has initiated a study to update its sewer master plan and collection system modeling for the Airport S.Z.

**Geyserville Sanitation Zone:**

The Geyserville Sanitation Zone (Geyserville S.Z.) 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 S.Z. facilities.

**Occidental County Sanitation District:**

The Occidental County Sanitation District (OCSD) treatment plant first became operational in 1950 and was upgraded in 1970 and 1975. The plant is designed to treat an average daily dry weather flow of up to 50,000 gallons per day to secondary treatment standards. Each year, between October 1 and May 14, treated wastewater from the OCSD is discharged into Dutch Bill Creek under a permit from the North Coast Regional Water Quality Control Board (NCRWQCB). During the balance of the year, treated wastewater is used for irrigation.

The OCSD 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. The Water Agency annually subsidizes from its General Fund the OCSD. In addition, the OCSD is under a cease and desist order from the NCRWQCB to end discharges of secondary treated wastewater into Dutch Bill Creek by 2018. A process is underway to identify alternatives. 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:**

Water Agency operations in the Penngrove Sanitation Zone (Penngrove S.Z.) are limited to administrative services and operation/maintenance of the collection system and pumping station. The wastewater collected by the Penngrove S.Z. 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.

**Russian River County Sanitation District:**

The Russian River County Sanitation District (RRCSD) treatment plant was completed in September of 1980 and began operating in 1982. The RRCSD treatment plant is designed to treat an average dry weather flow (ADWF) of up to 0.71 mgd to advanced (tertiary) wastewater treatment standards. The RRCSD 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 the Water Agency 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 RRCSD treatment plant.

The NCRWQCB adopted a series of enforcement orders for the RRCSD in response to violations associated with flood events. In response, the RRCSD 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, RRCSD has initiated a study to update its sewer master plan and collection system modeling and conducted a multi-hazard reliability assessment of the RRCSD's collection, treatment, and recycled water systems.

**Sea Ranch Sanitation Zone:**

The Sea Ranch Sanitation Zone (Sea Ranch S.Z.) consists of two wastewater collection and treatment systems located in Central and North Sea Ranch. The Central and North treatment facilities both 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 (GCSD) wastewater treatment facility where it is combined with GCSD influent and treated to tertiary standards. The combined effluent of North and GCSD'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 SRSZ facilities for the Water Agency.

The Water Agency and The Sea Ranch Association, owner of the Sea Ranch Water Company, continue to investigate options for the continued operation of the Sea Ranch S.Z. Options being considered include executing an agreement between the Water Agency 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 (SVCSD) provides sewage collection, tertiary level treatment of wastewater, and disposal service for the Sonoma Valley area. Wastewater is collected by a gravity system and flows to the SVCSD 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 SVCSD 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 SVCSD completed a wet weather overflow prevention study (a study that complied with a San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) issuance of a Notice of Violation for sewer system overflows in April of 1999). This study identified areas within the SVCSD collection system where repair and/or replacement projects were most needed, including numerous trunk main and collection system projects. The SVCSD 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 2,400 foot 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 2015, the SFBRWQCB issued a cease and desist order to SVCSD for wet weather discharges from its collection system between 2010 and 2015. The order requires SVCSD to complete certain capital improvements by 2024 to address capacity deficiencies in the collection system. This Capital Projects Plan includes substantial investment in trunk main replacement/rehabilitation projects to comply with this order.

In addition, SVCSD has initiated a study to update its sewer master plan and collection system modeling and conducted a multi-hazard reliability assessment of the SVCSD's collection, treatment, and recycled water systems.

**South Park County Sanitation District:**

The South Park County Sanitation District (SPCSD) 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 SPCSD 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 SPCSD, was finalized on February of 1996. The agreement has been amended several times in the subsequent years. Under this agreement the SPCSD 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 SPCSD 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.

On December 22, 1998, the NCRWQCB released a draft Cleanup and Abatement Order (CAO) for halogenated volatile organic compounds (HVOCs) found in soil and groundwater in the vicinity of Sebastopol Road and West Avenue in the SPCSD service area. The draft CAO specified that HVOCs found in the soil and groundwater are the result of a release from the SPCSD collection system. Potential costs for investigation, remediation, and legal work related to HVOCs in soil and groundwater are substantial (\$2-10 million) and have not been included in this capital plan. Rather than finalize the draft CAO, the SPCSD, County of Sonoma, and the NCRWQCB entered into a cooperative agreement in July of 1999 referred to as the “Plan of Action for HVOC Investigation and Mitigation in the Roseland Area” (Plan of Action). As part of the Plan of Action, SPCSD has performed an investigation of the extent of HVOCs in groundwater in the vicinity of West Avenue and Sebastopol Road. A final report summarizing the results of this investigation was submitted to the NCRWQCB in February of 2002. The SPCSD and the County of Sonoma have been working with the NCRWQCB 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 SPCSD, County of Sonoma, NCRWQCB, and other parties associated with these groundwater issues.

At present, SPCSD is continuing capital improvement efforts required under a 2007 Cleanup and Abatement Order issued by the NCRWQCB to replace/rehabilitate deteriorated and sub-standard portions of the collection system that threaten to cause unpermitted discharges of wastewater. These collection system improvements are

required to be complete by 2019.

### **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 the Water Agency 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) building improvements to the former Administration, Service Center, and Operations and Maintenance facilities at the Water Agency’s West College Avenue site; (5) funding of new building sites and other land purchases; and (6) electric power development and sales for the various enterprises owned and managed by the Water Agency.

## Funding Source Report (Amounts rounded to 000's)

Division/Section	Funding Source	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future Yrs	Project Total
<b>Water Transmission System - Common Facilities Fund</b>		<b>4,312</b>	<b>5,718</b>	<b>17,061</b>	<b>5,069</b>	<b>10,972</b>	<b>12,966</b>	<b>1,356</b>	<b>47,425</b>	<b>4,000</b>	<b>61,455</b>
	Water Transmission	2,164	553	5,529	4,026	10,972	12,966	1,356	34,850	4,000	41,567
	Water Transmission, FEMA PDM	2,148	5,165	11,532	1,043	0	0	0	12,575	0	19,888
<b>Water Transmission System - Pipeline Fund</b>		<b>395</b>	<b>405</b>	<b>1,122</b>	<b>6,853</b>	<b>4,833</b>	<b>4,500</b>	<b>1,275</b>	<b>18,583</b>	<b>10,050</b>	<b>29,433</b>
	Water Transmission	395	405	1,122	6,853	4,833	4,500	1,275	18,583	10,050	29,433
<b>Water Transmission System - Storage Fund</b>		<b>1,269</b>	<b>311</b>	<b>1,392</b>	<b>2,003</b>	<b>2,600</b>	<b>225</b>	<b>200</b>	<b>6,420</b>	<b>51,150</b>	<b>59,150</b>
	Water Transmission	626	261	1,370	1,960	2,600	225	200	6,355	51,150	58,392
	Water Transmission, CalTrans	643	50	22	43	0	0	0	65	0	758
<b>Water Transmission System - Watershed Planning and Restoration Fund</b>		<b>171</b>	<b>4,770</b>	<b>660</b>	<b>10,740</b>	<b>15,428</b>	<b>1,259</b>	<b>0</b>	<b>28,087</b>	<b>0</b>	<b>33,028</b>
	Water Transmission, ACOE	171	4,770	660	10,740	15,428	1,259	0	28,087	0	33,028
<b>Water Transmission System - O&amp;M Fund</b>		<b>797</b>	<b>1,189</b>	<b>2,230</b>	<b>3,565</b>	<b>2,140</b>	<b>2,030</b>	<b>200</b>	<b>10,165</b>	<b>3,600</b>	<b>15,751</b>
	Water Transmission	797	1,189	2,230	3,565	2,140	2,030	200	10,165	3,600	15,751
<b>Water Supply - Warm Springs Dam</b>		<b>3,788</b>	<b>8,518</b>	<b>16,630</b>	<b>2,136</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18,766</b>	<b>0</b>	<b>31,072</b>
	Other, ACOE	3,788	8,518	16,630	2,136	0	0	0	18,766	0	31,072
<b>Zone 1A Flood Control</b>		<b>828</b>	<b>72</b>	<b>413</b>	<b>461</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>874</b>	<b>0</b>	<b>1,774</b>
	Zone 1A	115	22	66	261	0	0	0	327	0	464
	Zone 1A, DWR	713	50	347	200	0	0	0	547	0	1,310
<b>Zone 2A Flood Control</b>		<b>943</b>	<b>10</b>	<b>506</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>506</b>	<b>0</b>	<b>1,459</b>
	Zone 2A	176	6	501	0	0	0	0	501	0	683
	Zone 2A, DWR	767	4	5	0	0	0	0	5	0	776

Division/Section	Funding Source	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future Yrs	Project Total
<b>Zone 3A Flood Control</b>		<b>890</b>	<b>202</b>	<b>958</b>	<b>200</b>	<b>3,000</b>	<b>0</b>	<b>0</b>	<b>4,158</b>	<b>0</b>	<b>5,250</b>
	Zone 3A	290	2	387	0	0	0	0	387	0	679
	Zone 3A, DWR	600	200	571	200	3,000	0	0	3,771	0	4,571
<b>Airport-Larkfield-Wikiup Sanitation Zone</b>		<b>217</b>	<b>97</b>	<b>1,274</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>1,474</b>	<b>200</b>	<b>1,988</b>
	ALWSZ	217	97	1,274	0	200	0	0	1,474	200	1,988
<b>Geyserville Sanitation Zone</b>		<b>0</b>	<b>0</b>	<b>36</b>	<b>246</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>282</b>	<b>0</b>	<b>282</b>
	GSZ	0	0	36	246	0	0	0	282	0	282
<b>Occidental County Sanitation Dist.</b>		<b>309</b>	<b>130</b>	<b>690</b>	<b>95</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>785</b>	<b>0</b>	<b>1,224</b>
	OCSD	309	130	690	95	0	0	0	785	0	1,224
<b>Penngrove Sanitation Zone</b>		<b>0</b>	<b>153</b>	<b>256</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>376</b>	<b>90</b>	<b>619</b>
	PSZ	0	153	256	30	30	30	30	376	90	619
<b>Russian River County Sanitation Dist.</b>		<b>682</b>	<b>150</b>	<b>640</b>	<b>240</b>	<b>205</b>	<b>205</b>	<b>500</b>	<b>1,790</b>	<b>12,200</b>	<b>14,822</b>
	RRCSD	682	150	640	240	205	205	500	1,790	12,200	14,822
<b>Sea Ranch Sanitation Zone</b>		<b>0</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>200</b>	<b>120</b>	<b>360</b>
	SRSZ	0	40	40	40	40	40	40	200	120	360
<b>Sonoma Valley County Sanitation Dist.</b>		<b>3,696</b>	<b>6,527</b>	<b>10,295</b>	<b>11,757</b>	<b>4,715</b>	<b>3,003</b>	<b>3,003</b>	<b>32,773</b>	<b>6,000</b>	<b>48,996</b>
	SVCSD	2,568	3,527	7,935	11,757	4,715	3,003	3,003	30,413	6,000	42,508
	SVCSD, BOR	668	300	2,155	0	0	0	0	2,155	0	3,123
	SVCSD, DWR	460	2,700	205	0	0	0	0	205	0	3,365
<b>South Park County Sanitation Dist.</b>		<b>383</b>	<b>723</b>	<b>1,766</b>	<b>3,544</b>	<b>165</b>	<b>0</b>	<b>0</b>	<b>5,475</b>	<b>0</b>	<b>6,581</b>
	SPCSD	383	723	1,766	3,544	165	0	0	5,475	0	6,581
<b>Internal Services Fund</b>		<b>0</b>	<b>114</b>	<b>427</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>452</b>	<b>0</b>	<b>566</b>
	Power Resources	0	114	427	25	0	0	0	452	0	566
<b>Grand Total:</b>		<b>18,680</b>	<b>29,129</b>	<b>56,396</b>	<b>47,004</b>	<b>44,328</b>	<b>24,258</b>	<b>6,604</b>	<b>178,591</b>	<b>87,410</b>	<b>313,810</b>

## **Water Transmission System**

### **Current Five-Year Plan:**

This five-year plan includes funding for 49 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 meet the objectives in Water Supply Goals and Strategies of the Water Agency's Strategic Plan.

### **Common Facilities:**

There are 25 projects identified for funding in the Common Facilities Fund. Four new projects, consisting of the Mirabel Dam Bladder Replacement, Wohler Road Fiber Optic, RDS MCC Replacement, and PDS 1 & 2 (Wohler Substations) Rollup Doors and Switcher Replacements, were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Common Facilities. The formerly identified Mirabel Fish Screen and Fish Ladder Replacement will be completed in 2016 and the Westside Facility project was completed in 2015.

### **Pipeline Facilities:**

There are 10 projects identified for funding in the Pipeline Facilities Fund. One new project, consisting of the Ely Booster Station Flood Protection project, was added to the F.Y. 2016-2017 through F.Y. 2020-21 capital plan for Pipeline Facilities.

### **Storage Facilities:**

There are 3 projects identified for funding in the Storage Facilities Fund. No new projects were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Storage Facilities.

### **Agency (O&M) Fund:**

There are 10 projects identified for funding in the Agency (O&M) Fund. Two new projects, consisting of Wilfred Booster Station and Tank Fall Restraints, were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for the Agency (O&M) Fund.

## **Watershed Planning & Restoration Fund:**

There is 1 project identified for funding in the Watershed Planning & Restoration Fund. One new project, consisting of Dry Creek Habitat Enhancement (Miles 4-6), was added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Watershed Planning & Restoration Fund. This project was formerly identified for funding under the Common Facilities Fund.

### Collector 3 & 5 Liquefaction Mitigation

**Request #: WA04048**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2010
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2021



**Description:**

The project will address potential for structural failure by mitigating the potential for liquefaction induced lateral spread by ground improvements, structural upgrades, or through a combination of approaches. This project increases the factor of safety for future seismic events.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	10,983	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	1,240		
<b>Other:</b>	286		
<b>Project Total:</b>	12,509	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	459	1	400	400	5,267	5,582	400	12,049	0	12,509
<b>TOTALS:</b>		459	1	400	400	5,267	5,582	400	12,049	0	12,509

All Values are presented in Thousands (1 x 1000)

### Collector 3, 4, 5 Pump Discharge Valves

**Request #: WA15009**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2017



**Description:**

The hydraulic pump discharge valves are coming to the end of their useful life. The hydraulic valves are oil driven valves and need to be replaced with water actuated Cla-Val type, pump discharge valves. The hydraulic valves use electricity for the compressors that provide the air over fluid pressure and hydraulic fluid to drive the pistons that open and close the pump discharge valves. By eliminating the compressors and hydraulic fluid, we will save money on electricity and decrease the chance of contamination to the water system, with hydraulic fluid.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	110	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	90		
<b>Other:</b>	0		
<b>Project Total:</b>	200	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	200	0	0	0	0	200	0	200
<b>TOTALS:</b>		0	0	200	0	0	0	0	200	0	200

All Values are presented in Thousands (1 x 1000)

## Collector 5 Motor & Discharge Head Replacements

**Request #: WA15006**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2017



**Description:**

Two motors and discharge heads in Collector #5 are coming to the end of their useful life. The motors are 30 years old and are a different brand and base size than the rest of the motors at Mirabel. The motors also weigh 60% more than other motors which makes it more difficult to change them out in an emergency (requiring specific rigging and tools). Since the present motors have a different base size and configuration to them, installation of an adapter plate between the motor and discharge head is necessary in order to use any other type of motor.

The project will change out the discharge heads to the standard configurations that are used in the other collector wells and purchase new high efficiency motors that are the same configuration as the motors, used in the other Collectors.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	480	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	20		
<b>Other:</b>	0		
<b>Project Total:</b>	500	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	500	0	0	0	0	500	0	500
<b>TOTALS:</b>		0	0	500	0	0	0	0	500	0	500

**All Values are presented in Thousands (1 x 1000)**

### Collector 6 Liquefaction Mitigation

**Request #: WA07046**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2015
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2021



**Description:**

The project will address potential for structural failure by mitigating the potential for liquefaction induced lateral spread by ground improvements, structural upgrades, or through a combination of approaches. The goal of this project is to increase the Factor of safety for seismic events.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	5,513	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	686		
<b>Other:</b>	287		
<b>Project Total:</b>	6,486	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	5	300	300	287	4,971	623	6,481	0	6,486
<b>TOTALS:</b>		0	5	300	300	287	4,971	623	6,481	0	6,486

All Values are presented in Thousands (1 x 1000)

## Collector 6 Valves Vault

**Request #: WA15008**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2017
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**

The Collector 6 valve vault project will install a new vault around two existing shutoff valves located along the 20” and 24” discharge pipes at Collector 6. The new vault is required to facilitate needed repairs and maintenance on the valves.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	193	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	112		
<b>Other:</b>	0		
<b>Project Total:</b>	305	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	0	305	0	0	0	305	0	305
<b>TOTALS:</b>		0	0	0	305	0	0	0	305	0	305

All Values are presented in Thousands (1 x 1000)

## Emergency Wells (Hazard Reliability Water Supply)

**Request #: WA14001**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2018
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2022



**Description:**

The purpose of this project is to construct emergency water supply wells in close proximity to the Water Agency’s transmission system that could be activated in response to a natural hazard event that has isolated portions of the Water Agency’s service area from the Russian River diversion facilities. The cost estimate preliminarily assumes the installation of two to three wells at locations that are not currently known.

Project Cost		O and M Cost	
<b>Acquisition:</b>	250	<b>Utilities:</b>	0
<b>Construction:</b>	3,750	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	750		
<b>Other:</b>	250		
<b>Project Total:</b>	5,000	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	0	0	333	333	333	1,000	4,000	5,000
<b>TOTALS:</b>		0	0	0	0	333	333	333	1,000	4,000	5,000

All Values are presented in Thousands (1 x 1000)

## Mirabel - River Road Fiber Optic Line

**Request #: WA14028**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2017



**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		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	200	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	50		
<b>Other:</b>	0		
<b>Project Total:</b>	250	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	250	0	0	0	0	250	0	250
<b>TOTALS:</b>		0	0	250	0	0	0	0	250	0	250

All Values are presented in Thousands (1 x 1000)

### Mirabel Chlorine Building Water Line

**Request #: WA15010**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**  
Construct new waterline for Collector well No. 3 to service the Mirabel Chlorination Building.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	118	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	119		
<b>Other:</b>	13		
<b>Project Total:</b>	250	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	143	107	0	0	0	250	0	250
<b>TOTALS:</b>		0	0	143	107	0	0	0	250	0	250

All Values are presented in Thousands (1 x 1000)

## Mirabel Chlorine Lines Replacement

**Request #: WA15011**

**Status: Funded**

**Function:** Development Services      **Status:** Active  
**Department:** Water Agency      **Start Date:** 07/01/2015  
**Division/Section:** Water Transmission System - Common Facilities Fund      **End Date:** 06/30/2017

**Description:**

Replace the existing chlorine solution pipelines that have reached the end of their useful life at the Mirabel Production Facility.



Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	229	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	100		
<b>Other:</b>	26		
<b>Project Total:</b>	355	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	190	165	0	0	0	0	165	0	355
<b>TOTALS:</b>		0	190	165	0	0	0	0	165	0	355

All Values are presented in Thousands (1 x 1000)

## Mirabel Dam Bladder Replacement

**Request #: WA16001**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	7/1/2015
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	6/30/2019



**Description:**

Replace the Mirabel Dam's 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.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	2,000	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	450		
<b>Other:</b>	100		
<b>Project Total:</b>	2,550	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	50	400	100	2,000	0	0	2,500	0	2,550
<b>TOTALS:</b>		0	50	400	100	2,000	0	0	2,500	0	2,550

All Values are presented in Thousands (1 x 1000)

## Mirabel Maintenance Building

**Request #: WA15012**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**  
Provide a pre-engineered metal storage building at the Mirabel site for maintenance related operations.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	417	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	99		
<b>Other:</b>	22		
<b>Project Total:</b>	538	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	121	417	0	0	0	538	0	538
<b>TOTALS:</b>		0	0	121	417	0	0	0	538	0	538

All Values are presented in Thousands (1 x 1000)

## Mirabel Surge Tanks

**Request #: WA08053**

**Status: Funded**

<b>Function:</b> Development Services	<b>Status:</b> Active
<b>Department:</b> Water Agency	<b>Start Date:</b> 07/01/2012
<b>Division/Section:</b> Water Transmission System - Common Facilities Fund	<b>End Date:</b> 06/30/2020



**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.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	1,770	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	352		
<b>Other:</b>	195		
<b>Project Total:</b>	2,317	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	17	0	0	0	300	2,000	0	2,300	0	2,317
<b>TOTALS:</b>		17	0	0	0	300	2,000	0	2,300	0	2,317

All Values are presented in Thousands (1 x 1000)



## pH Pump Replacement

**Request #: WA15013**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**

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

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	233	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	72		
<b>Other:</b>	0		
<b>Project Total:</b>	305	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	152	153	0	0	0	305	0	305
<b>TOTALS:</b>		0	0	152	153	0	0	0	305	0	305

All Values are presented in Thousands (1 x 1000)

## RDS MCC Replacement

**Request #: WA16004**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - Common Facilities Fund

**Status:** Request  
**Start Date:** 7/1/2016  
**End Date:** 6/30/2018



**Description:**  
 Replace Motor Control Center for pumps at the River Diversion Structure.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	366	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	83		
<b>Other:</b>	0		
<b>Project Total:</b>	449	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	83	366	0	0	0	449	0	449
<b>TOTALS:</b>		0	0	83	366	0	0	0	449	0	449

All Values are presented in Thousands (1 x 1000)

## RDS Pumps Replacement

**Request #: WA15014**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2015
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2017



**Description:**

Replace the three pumps, and associated pump column piping, with new high efficient pumps to ensure reliability in the RDS building. These pumps are used to pump water to the settling and infiltration ponds.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	450	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	50		
<b>Other:</b>	0		
<b>Project Total:</b>	500	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	160	340	0	0	0	0	340	0	500
<b>TOTALS:</b>		0	160	340	0	0	0	0	340	0	500

All Values are presented in Thousands (1 x 1000)

## System-wide Meter Replacements

**Request #: WA08056**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2012
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**

To comply with regulations limiting material constituents contained within infrastructure that is in direct contact with drinking water, replace 150-175 flow meters throughout the water transmission system.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	2,177	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	11		
<b>Other:</b>	0		
<b>Project Total:</b>	2,188	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	1,688	42	358	100	0	0	0	458	0	2,188
<b>TOTALS:</b>		1,688	42	358	100	0	0	0	458	0	2,188

All Values are presented in Thousands (1 x 1000)

## Wohler Motor Replacements

**Request #: WA15015**

**Status: Funded**

<b>Function:</b> Development Services	<b>Status:</b> Request
<b>Department:</b> Water Agency	<b>Start Date:</b> 07/01/2016
<b>Division/Section:</b> Water Transmission System - Common Facilities Fund	<b>End Date:</b> 06/30/2018



**Description:**  
Purchase new replacement, high efficiency electric motors for existing Collectors 1 & 2 pumps.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	645	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	100		
<b>Other:</b>	0		
<b>Project Total:</b>	745	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	375	370	0	0	0	745	0	745
<b>TOTALS:</b>		0	0	375	370	0	0	0	745	0	745

All Values are presented in Thousands (1 x 1000)

## Wohler Road Fiber Optic

**Request #: WA16003**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	7/1/2015
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	6/30/2017



**Description:**

Sonoma County Transportation & Public Works is rehabilitating the Wohler Bridge crossing the Russian River, which affects existing fiber optic cables. SCWA will either re-string across the bridge or bury new fiber optic cables under the Russian River.

Project Cost		O and M Cost	
<b>Acquisition:</b>	34	<b>Utilities:</b>	0
<b>Construction:</b>	350	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	100		
<b>Other:</b>	26		
<b>Project Total:</b>	510	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	105	405	0	0	0	0	405	0	510
<b>TOTALS:</b>		0	105	405	0	0	0	0	405	0	510

All Values are presented in Thousands (1 x 1000)

## Isolation Valve Seismic Hazard Mitigation

**Request #: WA09052**

**Status: Funded/Funded by Others**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2009
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**

Install additional isolation valves at strategic locations throughout the water supply transmission system to enhance system reliability following a seismic event. The project will facilitate repairs in the event of a rupture.

Project Cost		O and M Cost	
<b>Acquisition:</b>	116	<b>Utilities:</b>	0
<b>Construction:</b>	4,246	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	873		
<b>Other:</b>	120		
<b>Project Total:</b>	5,355	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission, FEMA PDM	33043200	584	4,109	512	150	0	0	0	662	0	5,355
<b>TOTALS:</b>		584	4,109	512	150	0	0	0	662	0	5,355

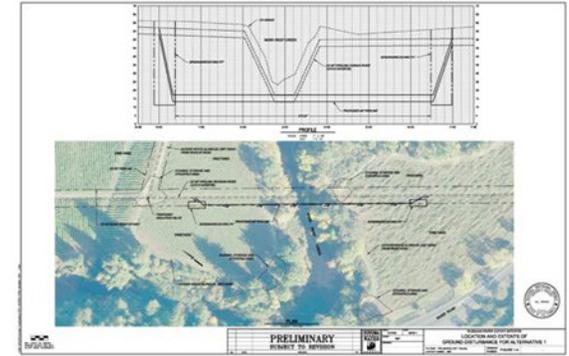
All Values are presented in Thousands (1 x 1000)

## Seismic Hazard Mitigation at the Mark West Creek Crossing

**Request #: WA09051**

**Status: Funded/Funded by Others**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2012
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**

Project will mitigate pipe failure due to seismic induced ground deformation by installing a new pipeline crossing below vulnerable soil layers. 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		O and M Cost	
<b>Acquisition:</b>	423	<b>Utilities:</b>	0
<b>Construction:</b>	4,958	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	1,150		
<b>Other:</b>	226		
<b>Project Total:</b>	6,757	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission, FEMA PDM	33043200	820	526	4,833	578	0	0	0	5,411	0	6,757
<b>TOTALS:</b>		820	526	4,833	578	0	0	0	5,411	0	6,757

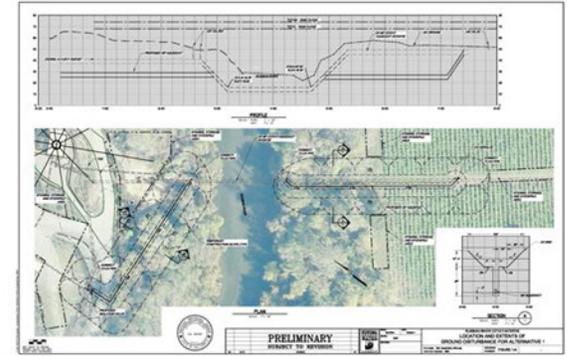
All Values are presented in Thousands (1 x 1000)

## Seismic Hazard Mitigation at the Russian River Crossing

**Request #: WA09055**

**Status: Funded/Funded by Others**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	04/01/2011
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**

The purpose of the Russian River-Cotati Intertie Pipeline Seismic Hazard Mitigation at the Russian River Crossing Project is to reduce potential pipe failure resulting from the permanent ground deformation caused by a moderate or severe earthquake along the Rodger's Creek/Hayward Fault. To maintain safe and reliable water service during a seismic event, the proposed project would modify the Russian River-Cotati Intertie to improve its ability to withstand the effects of ground deformation, liquefaction, and lateral spread hazards.

Project Cost		O and M Cost	
<b>Acquisition:</b>	336	<b>Utilities:</b>	0
<b>Construction:</b>	6,080	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	1,125		
<b>Other:</b>	235		
<b>Project Total:</b>	7,776	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission, FEMA PDM	33043200	744	530	6,187	315	0	0	0	6,502	0	7,776
<b>TOTALS:</b>		744	530	6,187	315	0	0	0	6,502	0	7,776

All Values are presented in Thousands (1 x 1000)

## SCADA Software and Hardware

**Request #: WA15007**

**Status: Partially Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - Common Facilities Fund	<b>End Date:</b>	06/30/2018



**Description:**

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

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	0	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	0		
<b>Other:</b>	750		
<b>Project Total:</b>	750	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	375	375	0	0	0	750	0	750
<b>TOTALS:</b>		0	0	375	375	0	0	0	750	0	750

All Values are presented in Thousands (1 x 1000)

## SCADA Upgrade

**Request #: WA15005**

**Status: Partially Funded**

<b>Function:</b> Development Services	<b>Status:</b> Request
<b>Department:</b> Water Agency	<b>Start Date:</b> 07/01/2016
<b>Division/Section:</b> Water Transmission System - Common Facilities Fund	<b>End Date:</b> 06/30/2018



**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		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	0	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	0		
<b>Other:</b>	1,250		
<b>Project Total:</b>	1,250	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043200	0	0	625	625	0	0	0	1,250	0	1,250
<b>TOTALS:</b>		0	0	625	625	0	0	0	1,250	0	1,250

All Values are presented in Thousands (1 x 1000)



## Ely Booster Station Flood Protection

**Request #: WA16007**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - Pipeline Fund

**Status:** Request  
**Start Date:** 7/1/2016  
**End Date:** 6/30/2018



**Description:**

The Ely Booster Station has the potential to flood. This project includes constructing a wall around the facility to protect it from a 100-year flood.

Project Cost		O and M Cost	
<b>Acquisition:</b>	6	<b>Utilities:</b>	0
<b>Construction:</b>	175	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	89		
<b>Other:</b>	25		
<b>Project Total:</b>	295	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	0	0	120	175	0	0	0	295	0	295
<b>TOTALS:</b>		0	0	120	175	0	0	0	295	0	295

All Values are presented in Thousands (1 x 1000)

**MSN C2 - Hwy 101 HOV Lane (Lakeville to Old Redwood Hwy)**

**Request #: WA14026**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - Pipeline Fund

**Status:** Active  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2021



**Description:**

Relocate existing 33” Petaluma Aqueduct crossing under Highway 101 (at Railroad crossing) to accommodate Caltrans HOV lane project.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	426	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	184		
<b>Other:</b>	0		
<b>Project Total:</b>	610	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	0	50	20	0	115	0	425	560	0	610
<b>TOTALS:</b>		0	50	20	0	115	0	425	560	0	610

All Values are presented in Thousands (1 x 1000)

## SBS Maintenance Building

**Request #: WA14008**

**Status: Funded**

<b>Function:</b> Development Services	<b>Status:</b> Active
<b>Department:</b> Water Agency	<b>Start Date:</b> 07/01/2013
<b>Division/Section:</b> Water Transmission System - Pipeline Fund	<b>End Date:</b> 06/30/2017



**Description:**

Maintenance needs building at SBS to store equipment. This project will allow O&M to store equipment, thereby reducing the amount of time it takes to get to other facilities with needed equipment.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	331	<b>Maintenance</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	71		
<b>Other:</b>	28		
<b>Project Total:</b>	430	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	9	55	366	0	0	0	0	366	0	430
<b>TOTALS:</b>		9	55	366	0	0	0	0	366	0	430

All Values are presented in Thousands (1 x 1000)

## Sonoma Booster Pump Station Upgrade

**Request #: WA08062**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2012
<b>Division/Section:</b>	Water Transmission System - Pipeline Fund	<b>End Date:</b>	06/30/2019



**Description:**

This project will improve the reliability and improve the operability of the existing Sonoma Booster Pump Station. Reliability of the booster station will be increased by adding standby electrical power, 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		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	6,212	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	870		
<b>Other:</b>	16		
<b>Project Total:</b>	7,098	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	386	200	166	6,178	168	0	0	6,512	0	7,098
<b>TOTALS:</b>		386	200	166	6,178	168	0	0	6,512	0	7,098

All Values are presented in Thousands (1 x 1000)

## Bennett Valley Fault Crossing

**Request #: WA10106**

**Status: Partially Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - Pipeline Fund

**Status:** Active  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2020



**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 in Rincon Valley.

Project Cost		O and M Cost	
<b>Acquisition:</b>	80	<b>Utilities:</b>	0
<b>Construction:</b>	3,200	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	680		
<b>Other:</b>	40		
<b>Project Total:</b>	4,000	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	0	100	50	300	350	3,200	0	3,900	0	4,000
<b>TOTALS:</b>		0	100	50	300	350	3,200	0	3,900	0	4,000

All Values are presented in Thousands (1 x 1000)

## Calabasas Creek Crossing

**Request #: WA15002**

**Status: Partially Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - Pipeline Fund

**Status:** Request  
**Start Date:** 07/01/2020  
**End Date:** 06/30/2024



**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 high with approximately 3 feet of lateral spread 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		O and M Cost	
<b>Acquisition:</b>	50	<b>Utilities:</b>	0
<b>Construction:</b>	2,000	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	400		
<b>Other:</b>	50		
<b>Project Total:</b>	2,500	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	0	0	0	0	0	0	150	150	2,350	2,500
<b>TOTALS:</b>		0	0	0	0	0	0	150	150	2,350	2,500

All Values are presented in Thousands (1 x 1000)

**Petaluma River Crossing (Petaluma Aqueduct)**

**Request #: WA14006**

**Status: Partially Funded**

**Function:** Development Services      **Status:** Request  
**Department:** Water Agency      **Start Date:** 07/01/2018  
**Division/Section:** Water Transmission System - Pipeline Fund      **End Date:** 06/30/2022



**Description:**

The 33-inch Petaluma aqueduct crosses the Petaluma River close to Highway 101. This crossing has a high susceptibility for liquefaction and lateral spread hazard with expected lateral spread displacements on the order of 3 feet. As a result, the existing pipeline has a high risk of failure. The new 33-inch diameter pipeline, with length to be determined, is a natural hazard reliability project that will be designed to withstand a major seismic event.

Project Cost		O and M Cost	
<b>Acquisition:</b>	250	<b>Utilities:</b>	0
<b>Construction:</b>	4,350	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	650		
<b>Other:</b>	250		
<b>Project Total:</b>	5,500	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	0	0	0	0	100	600	300	1,000	4,500	5,500
<b>TOTALS:</b>		0	0	0	0	100	600	300	1,000	4,500	5,500

All Values are presented in Thousands (1 x 1000)

## Santa Rosa Creek Crossing

**Request #: WA14003**

**Status: Partially Funded**

<b>Function:</b> Development Services	<b>Status:</b> Request
<b>Department:</b> Water Agency	<b>Start Date:</b> 07/01/2016
<b>Division/Section:</b> Water Transmission System - Pipeline Fund	<b>End Date:</b> 06/30/2020



**Description:**

The 36-inch Santa Rosa aqueduct crosses the 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 locally been 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 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.

Project Cost		O and M Cost	
<b>Acquisition:</b>	80	<b>Utilities:</b>	0
<b>Construction:</b>	4,000	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	720		
<b>Other:</b>	200		
<b>Project Total:</b>	5,000	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	0	0	400	200	4,000	400	0	5,000	0	5,000
<b>TOTALS:</b>		0	0	400	200	4,000	400	0	5,000	0	5,000

All Values are presented in Thousands (1 x 1000)

## Sonoma Creek Crossing (Lawndale/Madrone)

**Request #: WA14004**

**Status: Partially Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - Pipeline Fund

**Status:** Request  
**Start Date:** 07/01/2018  
**End Date:** 06/30/2022



**Description:**

The Sonoma Aqueduct crosses Sonoma Creek both at Lawndale Road (20-inch diameter) and Madrone Road (16-inch diameter) off Sonoma Highway utilizing overhead spans (pedestrian bridge/steel truss) with structural connections that make the pipeline susceptible to failure during a major seismic event. Liquefaction and lateral spread displacements will likely cause the pipeline to fail due to minor differential movement or settlement. The proposed project is a natural hazard reliability project that will provide structural modifications to the support structures and pipeline in order to withstand a major seismic event.

Project Cost		O and M Cost	
<b>Acquisition:</b>	60	<b>Utilities:</b>	0
<b>Construction:</b>	1,200	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	180		
<b>Other:</b>	60		
<b>Project Total:</b>	1,500	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043100	0	0	0	0	100	150	200	450	1,050	1,500
<b>TOTALS:</b>		0	0	0	0	100	150	200	450	1,050	1,500

All Values are presented in Thousands (1 x 1000)



### Ralphine Tanks - Flow Thru Conversion

**Request #: WA11072**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2013
<b>Division/Section:</b>	Water Transmission System - Storage Fund	<b>End Date:</b>	06/30/2017



**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 and provide surge protection.

Project Cost		O and M Cost	
<b>Acquisition:</b>	4	<b>Utilities:</b>	0
<b>Construction:</b>	1,160	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	314		
<b>Other:</b>	19		
<b>Project Total:</b>	1,497	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043000	66	211	1,220	0	0	0	0	1,220	0	1,497
<b>TOTALS:</b>		66	211	1,220	0	0	0	0	1,220	0	1,497

All Values are presented in Thousands (1 x 1000)

**Petaluma Aqueduct (Kastania Pipeline) Relocation**

**Request #: WA05070**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - Storage Fund

**Status:** Active  
**Start Date:** 07/01/2010  
**End Date:** 06/30/2018



**Description:**

Relocate approximately 3000 feet of the existing Petaluma Aqueduct in the vicinity of South Petaluma Blvd. and Kastania Rd. to facilitate Caltrans construction of a new freeway interchange.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	692	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	66		
<b>Other:</b>	0		
<b>Project Total:</b>	758	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel:</b> 0
<b>Revenue/Refund:</b> 0

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission, CalTrans	33043000	643	50	22	43	0	0	0	65	0	758
<b>TOTALS:</b>		643	50	22	43	0	0	0	65	0	758

All Values are presented in Thousands (1 x 1000)

## Kawana to SBS Pipeline

**Request #: WA96089**

**Status: Partially Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2002
<b>Division/Section:</b>	Water Transmission System - Storage Fund	<b>End Date:</b>	06/30/2026



**Description:**

Pre-design engineering, gradient study and environmental impact assessment. Construction of approximately 3 miles of water transmission pipeline, between the Kawana Tanks, Ralphine design and tanks, and the Sonoma Booster Pump Station. The pipeline will provide 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.

Project Cost		O and M Cost	
<b>Acquisition:</b>	2,610	<b>Utilities:</b>	0
<b>Construction:</b>	51,245	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	2,630		
<b>Other:</b>	410		
<b>Project Total:</b>	56,895	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043000	560	50	150	1,960	2,600	225	200	5,135	51,150	56,895
<b>TOTALS:</b>		560	50	150	1,960	2,600	225	200	5,135	51,150	56,895

All Values are presented in Thousands (1 x 1000)

**Dry Creek Habitat Enhancement (Miles 4 - 6)**

**Request #: WA14025**

**Status: Partially Funded/Funded by Others**

**Function:** Development Services **Status:** Active  
**Department:** Water Agency **Start Date:** 07/01/2015  
**Division/Section:** Water Transmission System - Watershed Planning and Restorat **End Date:** 06/30/2020



**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 while accommodating stream flows necessary to support water supply.

Project Cost		O and M Cost	
<b>Acquisition:</b>	3,215	<b>Utilities:</b>	0
<b>Construction:</b>	22,750	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	6,354		
<b>Other:</b>	709		
<b>Project Total:</b>	33,028	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission, ACOE	33043200	171	4,770	660	10,740	15,428	1,259	0	28,087	0	33,028
<b>TOTALS:</b>		171	4,770	660	10,740	15,428	1,259	0	28,087	0	33,028

All Values are presented in Thousands (1 x 1000)

### Collector 6 Chlorine Solution Lines

**Request #: WA08050**

**Status: Funded**

**Function:** Development Services

**Status:** Active

**Department:** Water Agency

**Start Date:** 07/01/2012

**Division/Section:** Water Transmission System - O&M Fund

**End Date:** 06/30/2017

**Description:**

Replace the existing chlorine solution pipelines between the Wohler plant and Collector 6 with a pipe material more resistant against corrosive degradation.



Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	72	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	66		
<b>Other:</b>	0		
<b>Project Total:</b>	138	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	4	77	57	0	0	0	0	57	0	138
<b>TOTALS:</b>		4	77	57	0	0	0	0	57	0	138

All Values are presented in Thousands (1 x 1000)

**Cotati 3 Tank Coating Recoat**

**Request #: WA08061**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - O&M Fund

**Status:** Active  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2021



**Description:**

To prevent corrosion, recoat interior and exterior surfaces of an 18 MG water reservoir (above ground welded steel tank) and replace cathodic protection system.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	3,830	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	330		
<b>Other:</b>	30		
<b>Project Total:</b>	4,190	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	0	300	90	0	0	0	200	290	3,600	4,190
<b>TOTALS:</b>		0	300	90	0	0	0	200	290	3,600	4,190

All Values are presented in Thousands (1 x 1000)

## Forestville Tanks Recoat

**Request #: WA14010**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - O&M Fund

**Status:** Request  
**Start Date:** 07/01/2016  
**End Date:** 06/30/2019



**Description:**

This project will remove the interior and exterior coatings to reline and recoat the existing 1MG and 0.3MG Forestville Tanks with new epoxy coatings. The project will also include replacement of the cathodic protection system.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	675	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	155		
<b>Other:</b>	10		
<b>Project Total:</b>	840	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33043000	0	0	100	60	680	0	0	840	0	840
<b>TOTALS:</b>		0	0	100	60	680	0	0	840	0	840

All Values are presented in Thousands (1 x 1000)

### Kastania Tank Recoat

**Request #: WA09059**

**Status: Funded**

**Function:** Development Services      **Status:** Active  
**Department:** Water Agency      **Start Date:** 07/01/2014  
**Division/Section:** Water Transmission System - O&M Fund      **End Date:** 06/30/2019



**Description:**

To prevent corrosion, recoat interior and exterior surfaces of a 12 MG water reservoir (above ground welded steel tank) and replace cathodic protection system, including removal of coal-tar interior coating.

Project Cost		O and M Cost	
<b>Acquisition:</b>	25	<b>Utilities:</b>	0
<b>Construction:</b>	3,200	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	250		
<b>Other:</b>	25		
<b>Project Total:</b>	3,500	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	19	481	300	1,300	1,400	0	0	3,000	0	3,500
<b>TOTALS:</b>		19	481	300	1,300	1,400	0	0	3,000	0	3,500

All Values are presented in Thousands (1 x 1000)

### Mirabel Infiltration Ponds 2 & 3 Rehabilitation

**Request #: WA10058**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2016
<b>Division/Section:</b>	Water Transmission System - O&M Fund	<b>End Date:</b>	06/30/2018



**Description:**

Rehabilitate the infiltration ground surface of Infiltration Ponds 2 & 3 at the Mirabel water production facility to remove silt and restore infiltration capacity.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	1,350	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	100		
<b>Other:</b>	15		
<b>Project Total:</b>	1,465	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	0	0	242	1,223	0	0	0	1,465	0	1,465
<b>TOTALS:</b>		0	0	242	1,223	0	0	0	1,465	0	1,465

All Values are presented in Thousands (1 x 1000)

## Petaluma Aqueduct Cathodic Protection

**Request #: WA05066**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Transmission System - O&M Fund

**Status:** Active  
**Start Date:** 07/01/2009  
**End Date:** 06/30/2017



**Description:**

The Sonoma County Water Agency owns and operates the Petaluma Aqueduct. It was installed in 1963 to provide naturally filtered drinking water from the Russian River to residents in Rohnert Park, Cotati, Petaluma, Penngrove, and northern Marin County. The Petaluma Aqueduct consists of approximately 86,000 feet (16 miles) of 24-inch and 33-inch diameter cement mortar lined and coated steel pipe. It runs from Wilson Street in Santa Rosa along the SMART right-of-way to McNear Ave. on Petaluma Blvd. The Water Agency is proposing to install 8 centralized anode wells, rectifiers, and 16 test stations to help bring corrosion protection levels back up to NACE standards.

Project Cost		O and M Cost	
<b>Acquisition:</b>	72	<b>Utilities:</b>	0
<b>Construction:</b>	955	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	250		
<b>Other:</b>	6		
<b>Project Total:</b>	1,283	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	247	65	971	0	0	0	0	971	0	1,283
<b>TOTALS:</b>		247	65	971	0	0	0	0	971	0	1,283

All Values are presented in Thousands (1 x 1000)

## Russian River - Cotati Intertie Cathodic Protection

**Request #: WA09065**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2013
<b>Division/Section:</b>	Water Transmission System - O&M Fund	<b>End Date:</b>	06/30/2020



**Description:**

The Sonoma County Water Agency owns and operates the Cotati Aqueduct. It was installed from 1982 to 1987 to provide naturally filtered drinking water from the Russian River to residents between River Road in Forestville to West Sierra in Cotati. The Cotati Aqueduct consists of approximately 94,000 feet (18 miles) of 30- inch and 48-inch diameter cement mortar lined and coated steel pipe. The Water Agency is proposing to install 8 to 10 centralized anode wells and rectifiers; and approximately 16 test stations to help bring corrosion protection levels back up to NACE standards.

Project Cost		O and M Cost	
<b>Acquisition:</b>	50	<b>Utilities:</b>	0
<b>Construction:</b>	1,009	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	350		
<b>Other:</b>	25		
<b>Project Total:</b>	1,434	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	236	74	75	12	27	1,010	0	1,124	0	1,434
<b>TOTALS:</b>		236	74	75	12	27	1,010	0	1,124	0	1,434

All Values are presented in Thousands (1 x 1000)

## Santa Rosa Aqueduct Cathodic Protection

**Request #: WA08064**

**Status: Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2012
<b>Division/Section:</b>	Water Transmission System - O&M Fund	<b>End Date:</b>	06/30/2020



**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 Water Agency is proposing to install 8-10 centralized anode wells and rectifiers and about 16 test stations to help bring corrosion protection levels back up to NACE standards.

Project Cost		O and M Cost	
<b>Acquisition:</b>	50	<b>Utilities:</b>	0
<b>Construction:</b>	1,021	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	444		
<b>Other:</b>	25		
<b>Project Total:</b>	1,540	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	291	92	92	12	33	1,020	0	1,157	0	1,540
<b>TOTALS:</b>		291	92	92	12	33	1,020	0	1,157	0	1,540

All Values are presented in Thousands (1 x 1000)

## Tank Fall Restraints

**Request #: WA16008**

**Status: Funded**

<b>Function:</b> Development Services	<b>Status:</b> Active
<b>Department:</b> Water Agency	<b>Start Date:</b> 7/1/2015
<b>Division/Section:</b> Water Transmission System - O&M Fund	<b>End Date:</b> 6/30/2018



**Description:**

The Sonoma County Water Agency requested review of their existing water storage tank roofs to determine whether existing tank vents, or other roof elements, can support fall restraints for personnel servicing the tanks. The tank vents were analyzed using the OSHA fall restraint force of 3000 lbs. The various tanks sites that were investigated are as follows: 1. Annadel 1 2. Annadel 2 (Glen Ellen) 3. Cotati 4. Eldridge 5. Forestville 6. Kastania 7. Ralphine 8. Sonoma. The Sonoma County Water Agency will install fall restraint systems based on OSHA standards, for the safety of those servicing the tanks.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	494	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	160		
<b>Other:</b>	32		
<b>Project Total:</b>	686	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	0	100	92	494	0	0	0	586	0	686
<b>TOTALS:</b>		0	100	92	494	0	0	0	586	0	686

All Values are presented in Thousands (1 x 1000)

## Wilfred Booster Station

**Request #: WA16006**

**Status: Funded**

**Function:** Development Services

**Status:** Request

**Department:** Water Agency

**Start Date:** 7/1/2016

**Division/Section:** Water Transmission System - O&M Fund

**End Date:** 6/30/2018

**Description:**

Replace Wilfred Booster Station's electrical building, motor, and other critical electrical components.



Project Cost		O and M Cost	
<b>Acquisition:</b>	6	<b>Utilities:</b>	0
<b>Construction:</b>	464	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	173		
<b>Other:</b>	32		
<b>Project Total:</b>	675	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Water Transmission	33040100	0	0	211	464	0	0	0	675	0	675
<b>TOTALS:</b>		0	0	211	464	0	0	0	675	0	675

All Values are presented in Thousands (1 x 1000)

## **Water Supply**

### **Current Five-Year Plan:**

This five-year plan includes funding for 3 projects related to water supply, including 2 projects associated with implementation of the Biological Opinion. The projects identified in this section of the plan meet the objectives of Water Supply, Flood Control, and Energy Goals and Strategies of the Agency's Strategic Plan.

### **Russian River Projects Fund:**

There are no projects identified for funding in the F.Y. 2016-17 through F.Y. 2020-21 capital plan for the Russian River Projects Fund.

### **Recycled Water Fund:**

There are no projects identified for funding in the F.Y. 2016-17 through F.Y. 2020-21 capital plan for the Recycled Water Fund.

### **Warm Springs Dam Fund:**

There are 3 projects identified for funding in the Warm Springs Dam Fund. One new project, consisting of the Warm Springs Dam Hydro-turbine Retrofit was added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Warm Springs Dam Fund.

## Warm Springs Dam Hydroturbine Retrofit

**Request #: WA16016**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Supply - Warm Springs Dam

**Status:** Active  
**Start Date:** 7/1/2015  
**End Date:** 6/30/2018



**Description:**

The Warm Springs Dam hydroturbine has reached the end of its useful life. This project will retrofit the turbine to adapt to changing flow.

Project Cost		O and M Cost	
<b>Acquisition:</b>	1	<b>Utilities:</b>	0
<b>Construction:</b>	1,205	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	263		
<b>Other:</b>	4		
<b>Project Total:</b>	1,473	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Other, ACOE	33030100	0	26	120	1,327	0	0	0	1,447	0	1,473
<b>TOTALS:</b>		0	26	120	1,327	0	0	0	1,447	0	1,473

All Values are presented in Thousands (1 x 1000)

## Dry Creek Habitat Enhancement Project (Phase 2)

**Request #: WA08043**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Water Supply - Warm Springs Dam

**Status:** Active  
**Start Date:** 07/01/2012  
**End Date:** 12/30/2018



**Description:**

As identified in the Russian River Biological Opinion (NMFS, 2008), the Dry Creek Habitat Enhancement Project -MILE 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		O and M Cost	
<b>Acquisition:</b>	1,332	<b>Utilities:</b>	0
<b>Construction:</b>	10,531	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	1,753		
<b>Other:</b>	790		
<b>Project Total:</b>	14,406	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Other, ACOE	33030100	2,093	5,233	6,652	428	0	0	0	7,080	0	14,406
<b>TOTALS:</b>		2,093	5,233	6,652	428	0	0	0	7,080	0	14,406

**All Values are presented in Thousands (1 x 1000)**

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

**Request #: WA14023**

**Status: Funded/Funded by Others**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2012
<b>Division/Section:</b>	Water Supply - Warm Springs Dam	<b>End Date:</b>	12/30/2018



**Description:**

As identified in the Russian River Biological Opinion (NMFS, 2008), the Dry Creek Habitat Enhancement Project -MILE 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		O and M Cost	
<b>Acquisition:</b>	545	<b>Utilities:</b>	0
<b>Construction:</b>	12,359	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	1,807		
<b>Other:</b>	482		
<b>Project Total:</b>	15,193	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Other, ACOE	33030100	1,695	3,259	9,858	381	0	0	0	10,239	0	15,193
<b>TOTALS:</b>		1,695	3,259	9,858	381	0	0	0	10,239	0	15,193

All Values are presented in Thousands (1 x 1000)

## **Flood Control Zones**

### **Current Five-Year Plan:**

This five-year plan includes funding for 11 projects related to the flood control zones. The Water Agency will not take the lead on all of these projects, but will provide administration services and funding for many 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 meet the Objectives of Flood Control Goals and Strategies of the Agency's Strategic Plan.

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

There are 2 projects identified for funding in the Zone 1A fund. No new projects were added to the list of projects for Zone 1A in the F.Y. 2016-17 through F.Y. 2020-21 capital plan.

### **Zone 2A (Petaluma)**

There are 7 projects identified for funding in the Zone 2A fund. No new projects were added to the list of projects for Zone 2A in the F.Y. 2016-17 through F.Y. 2020-21 capital plan. The formerly identified Petaluma River Flood Control Project was completed in 2015.

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

There are 2 projects identified for funding in the Zone 3A fund. No new projects were added to the list of projects for Zone 3A in the F.Y. 2016-17 through F.Y. 2020-21 capital plan.

**Copeland Creek Detention-Recharge & Habitat Restoration - Phase 1**

**Request #: WA07073**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 1A Flood Control

**Status:** Active  
**Start Date:** 07/01/2011  
**End Date:** 06/30/2018



**Description:**

An integrated multi-benefit flood control & groundwater recharge project, including construction of detention-recharge elements adjacent Copeland Creek, upstream of Petaluma Hill Road, and habitat restoration downstream to Hwy 101. Phase 1 will implement instream restoration and perform the majority of design and CEQA for the project.

Project Cost		O and M Cost	
<b>Acquisition:</b>	25	<b>Utilities:</b>	0
<b>Construction:</b>	600	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	610		
<b>Other:</b>	75		
<b>Project Total:</b>	1,310	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 1A, DWR	33020100	713	50	347	200	0	0	0	547	0	1,310
<b>TOTALS:</b>		713	50	347	200	0	0	0	547	0	1,310

All Values are presented in Thousands (1 x 1000)



## Adobe Creek Sediment Basin Design

**Request #: WA08079**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 2A Flood Control

**Status:** Active  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2017



**Description:**

Funding agreement with Sonoma Resource Conservation District to design a sediment detention feature along Adobe Creek, upstream of the Casa Grande double box culvert.

Project Cost		O and M Cost	
Acquisition:	0	Utilities:	0
Construction:	0	Maintenance:	0
Furniture/Reloc:	0	Other:	0
Design/PM:	108		
Other:	0		
<b>Project Total:</b>	<b>108</b>	<b>OM Total:</b>	<b>0</b>

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 2A	33020200	0	3	105	0	0	0	0	105	0	108
<b>TOTALS:</b>		<b>0</b>	<b>3</b>	<b>105</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>105</b>	<b>0</b>	<b>108</b>

All Values are presented in Thousands (1 x 1000)

### Kelly Creek @Sunnyslope Avenue Pre-Design

**Request #: WA08083**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 2A Flood Control

**Status:** Request  
**Start Date:** 07/01/2016  
**End Date:** 06/30/2017



**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.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	0	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	62		
<b>Other:</b>	0		
<b>Project Total:</b>	62	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 2A	33020200	0	0	62	0	0	0	0	62	0	62
<b>TOTALS:</b>		0	0	62	0	0	0	0	62	0	62

All Values are presented in Thousands (1 x 1000)

**Petaluma River (Corona Reach) Overflow Chl FS**

**Request #: WA08081**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 2A Flood Control

**Status:** Request  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2017



**Description:**

Funding Agreement with City of Petaluma to conduct feasibility analysis and model run for 1) a linear detention channel along the west side of Highway 101 from Corona Road overpass south along the old railroad right-of-way, and 2) modification of the Capri Creek confluence with Petaluma River to reduce flow obstructions

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	0	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	122		
<b>Other:</b>	0		
<b>Project Total:</b>	122	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 2A	33020200	0	3	119	0	0	0	0	119	0	122
<b>TOTALS:</b>		0	3	119	0	0	0	0	119	0	122

All Values are presented in Thousands (1 x 1000)

## Petaluma River Watershed Stream Gauges

**Request #: WA15016**

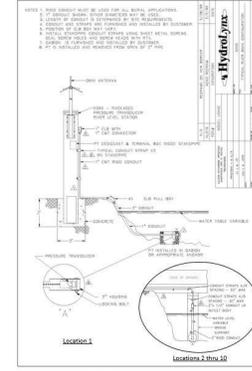
**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 2A Flood Control

**Status:** Active  
**Start Date:** 07/01/2014  
**End Date:** 06/30/2017

**Description:**

Install new Steam Gauges along Petaluma River and its tributaries within the city of Petaluma.



Stream Gauge Installation Diagram

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	195	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	16		
<b>Other:</b>	0		
<b>Project Total:</b>	211	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 2A	33020200	176	0	35	0	0	0	0	35	0	211
<b>TOTALS:</b>		176	0	35	0	0	0	0	35	0	211

All Values are presented in Thousands (1 x 1000)

## Washington Creek Repair & Enhancement

**Request #: WA08076**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 2A Flood Control

**Status:** Request  
**Start Date:** 07/01/2016  
**End Date:** 06/30/2017



**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		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	129	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	33		
<b>Other:</b>	18		
<b>Project Total:</b>	180	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 2A	33020200	0	0	180	0	0	0	0	180	0	180
<b>TOTALS:</b>		0	0	180	0	0	0	0	180	0	180

All Values are presented in Thousands (1 x 1000)

## Capri Creek Flood Capacity & Habitat Enhancement

**Request #: WA08080**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 2A Flood Control

**Status:** Active  
**Start Date:** 07/01/2013  
**End Date:** 12/30/2017



**Description:**

Funding Agreement with City of Petaluma to conduct design, CEQA, permitting, and grant administration activities for a multi-benefit flood reduction and habitat enhancement project in the Capri Creek sub-basin of the Petaluma watershed. The Zone 2A funding provides for local match services for a Department of Water Resources (DWR), proposition 84 Grant that will fund construction of the project.

The Capri Creek Project will reduce out-of-bank flooding to adjacent and downstream residential neighborhoods, improve ability to conduct routine maintenance, introduce a more natural habitat within this reach and encourage environmental stewardship.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	0	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	227		
<b>Other:</b>	0		
<b>Project Total:</b>	227	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 2A, DWR	33020200	223	2	2	0	0	0	0	2	0	227
<b>TOTALS:</b>		223	2	2	0	0	0	0	2	0	227

All Values are presented in Thousands (1 x 1000)

## Denman Reach Flood Terrace

**Request #: WA08077**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 2A Flood Control

**Status:** Active  
**Start Date:** 07/01/2013  
**End Date:** 06/30/2017



**Description:**

Funding Agreement with City of Petaluma to provide match funding to implement a floodplain modification project to reduce flooding along the Petaluma River. The Zone 2A funding provides for local match services for a department of Department of Water Resources (DWR) Urban Streams Restoration Grant that will help fund construction of the project.

The Denman Reach Project will continue the implementation of the city's River Access and Enhancement and General Plan 2015 programs to increase storm water capacity of the Petaluma River and reduce the severity of localized flooding while improving riparian habitat and providing public access.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	410	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	139		
<b>Other:</b>	0		
<b>Project Total:</b>	549	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 2A, DWR	33020200	544	2	3	0	0	0	0	3	0	549
<b>TOTALS:</b>		544	2	3	0	0	0	0	3	0	549

All Values are presented in Thousands (1 x 1000)

**City Watersheds of Sonoma Valley - Phase 1**

**Request #: WA13101**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Zone 3A Flood Control

**Status:** Active  
**Start Date:** 07/01/2013  
**End Date:** 06/30/2019



**Description:**

This project will alleviate flooding within the upper portion of the east Fryer Creek watershed and provide ecosystem benefits through habitat restoration/enhancement of the main stem of Fryer Creek. The objectives of the project include: 1. Flood hazard reduction, including containment up to at least the 25-year storm event and reduced flooding in the 100 year event. 2. Reduction in emergency maintenance requirements. 3. Increased safety for the public and the city maintenance staff. 4. Riparian and aquatic habitat improvements. 5. Improved management of stormwater at the Veteran's Memorial site. 6. Increased public education of stormwater management practices. This project includes two primary elements to reduce flooding in Fryer Creek along 1st Street West and one habitat enhancement element on Fryer Creek. The flood reduction elements include an underground storage basin and drainage improvements along the 1st Street West channel.

Project Cost		O and M Cost	
<b>Acquisition:</b>	20	<b>Utilities:</b>	0
<b>Construction:</b>	3,200	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	701		
<b>Other:</b>	650		
<b>Project Total:</b>	4,571	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 3A, DWR	33020300	600	200	571	200	3,000	0	0	3,771	0	4,571
<b>TOTALS:</b>		600	200	571	200	3,000	0	0	3,771	0	4,571

**All Values are presented in Thousands (1 x 1000)**

## Upper Sonoma Creek (Kenwood-Adobe) Project

**Request #: WA04087**

**Status: Partially Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Active
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2008
<b>Division/Section:</b>	Zone 3A Flood Control	<b>End Date:</b>	06/30/2017



**Description:**

Funding agreement with Sonoma Ecology Center for design of an integrated multi-benefit demonstration project to address flooding along Sonoma Creek from the Hwy 12 bridge in Kenwood to 0.5 miles downstream and the larger study area consisting of the entire contributing area (Adobe Canyon’s alluvial fan). This project will provide a demonstration for future integrated water management projects regarding the integration of flood protection and groundwater recharge. It helps to fulfill the objectives of the Sonoma Creek and Tributaries Sediment TMDL, the Sonoma Valley Groundwater Management Plan, and the Sonoma Creek Watershed Enhancement Plan.

The funding agreement also provides some funds to support the vegetation management in the lower channel.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	20	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	659		
<b>Other:</b>	0		
<b>Project Total:</b>	679	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Zone 3A	33020300	290	2	387	0	0	0	0	387	0	679
<b>TOTALS:</b>		290	2	387	0	0	0	0	387	0	679

All Values are presented in Thousands (1 x 1000)

## **Sanitation Districts/Zones**

### **Current Five-Year Plan:**

This five-year plan includes funding for 25 projects related to the sanitation zones and districts managed by the Water Agency. The projects in this section of the plan meet the objectives in Sanitation Goals and Strategies in the Water Agency's Strategic Plan.

#### **Airport-Larkfield-Wikiup Sanitation Zone**

There are 2 projects identified for funding in the Airport-Larkfield-Wikiup Sanitation Zone. No new projects were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Airport-Larkfield-Wikiup Sanitation Zone.

#### **Geyserville Sanitation Zone**

There is 1 project identified for funding in the Geyserville Sanitation Zone. No new projects were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Geyserville Sanitation Zone.

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

There are 3 projects identified for funding in the Occidental County Sanitation District. One new project, consisting of the OCSD Truck Fill Station, was added to the F.Y. 2016-2017 through F.Y. 2020-21 capital plan for Occidental County Sanitation District.

#### **Penngrove Sanitation Zone**

There are 3 projects identified for funding in the Penngrove Sanitation Zone. One new project, consisting of the Lift Station Pumps Replacement, was added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Penngrove Sanitation Zone.

#### **Russian River County Sanitation District**

There are 3 projects identified for funding in the Russian River County Sanitation District. One new project, consisting of the Septage Receiving Station, was added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Russian River County Sanitation District.

#### **Sea Ranch Sanitation Zone**

There is 1 project identified for funding in the Sea Ranch Sanitation Zone. No new projects were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Sea Ranch Sanitation Zone.

**Sonoma Valley County Sanitation District**

There are 9 projects identified for funding in the Sonoma Valley County Sanitation District. One new project, consisting of the Wastewater Treatment Plant Roof Replacement, was added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan.

**South Park County Sanitation District**

There are 3 projects identified for funding in the South Park County Sanitation District. No new projects were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for South Park County Sanitation District.

## ALWSZ Treatment Plant - TertiarySupply/Effluent Pipelines and Pump Station

**Request #: WA11005**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Airport-Larkfield-Wikiup Sanitation Zone

**Status:** Active  
**Start Date:** 07/01/2013  
**End Date:** 06/30/2017



**Description:**

This project (formerly known as South Pond Recirculation Pipeline) includes several aspects to improve both secondary and tertiary treatment processes. New pipelines, appurtenances, and a pump station will allow the plant to operate continuously in either secondary or tertiary mode without shutting down some tertiary and/or irrigation systems. Replacement of the transfer pumps and separating the secondary from tertiary electrical and programming systems will allow for efficiencies for operations, maintenance, and electrical usage. Rerouting of the tertiary filters to run efficiently and allow backwash to run through the entire treatment process, improving removal of particles. The backwash rerouting was formerly a CPP under the heading of Drain improvements for Microfiltration Building but was incorporated into this project for cost savings and construction timing.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	1,244	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	338		
<b>Other:</b>	6		
<b>Project Total:</b>	1,588	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
ALWSZ	33100200	217	97	1,274	0	0	0	0	1,274	0	1,588
<b>TOTALS:</b>		217	97	1,274	0	0	0	0	1,274	0	1,588

All Values are presented in Thousands (1 x 1000)

## Filter Modules Replacement

**Request #: WA14027**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Airport-Larkfield-Wikiup Sanitation Zone  
**Description:**  
 Replace microfiltration filter modules at end of useful life.

**Status:** Request  
**Start Date:** 07/01/2018  
**End Date:** 06/30/2023



Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	350	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	50		
<b>Other:</b>	0		
<b>Project Total:</b>	400	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
ALWSZ	33100100	0	0	0	0	200	0	0	200	200	400
<b>TOTALS:</b>		0	0	0	0	200	0	0	200	200	400

All Values are presented in Thousands (1 x 1000)

**Force Main Improvement (Lift Station to Treatment Plant)**

**Request #: WA15018**

**Status: Partially Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Geyserville Sanitation Zone

**Status:** Request  
**Start Date:** 07/01/2016  
**End Date:** 06/30/2018



**Description:**

The project will replace 1600 linear feet of existing 6" force main between the lift station and the treatment plant. The asbestos cement pipe (ACP) force main was installed in 1979 and has experienced emergency repairs. This project will replace the old ACP line with HDPE pipeline to reduce costs, improve reliability and reduce potential sewer overflows.

Project Cost		O and M Cost	
Acquisition:	0	Utilities:	0
Construction:	210	Maintenance:	0
Furniture/Reloc:	0	Other:	0
Design/PM:	62		
Other:	10		
<b>Project Total:</b>	<b>282</b>	<b>OM Total:</b>	<b>0</b>

**Net Impact On Operating Budget:**

<b>Personnel: 0</b> <b>Revenue/Refund: 0</b>
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Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
GSZ	33110200	0	0	36	246	0	0	0	282	0	282
<b>TOTALS:</b>		<b>0</b>	<b>0</b>	<b>36</b>	<b>246</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>282</b>	<b>0</b>	<b>282</b>

All Values are presented in Thousands (1 x 1000)

## Lateral Replacement Project

**Request #: WA12015**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Occidental County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2009  
**End Date:** 06/30/2017



**Description:**

A program to replace leaking laterals on private property to reduce inflow into the treatment plant.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	258	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	147		
<b>Other:</b>	0		
<b>Project Total:</b>	405	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
OCSD	33060100	205	100	100	0	0	0	0	100	0	405
<b>TOTALS:</b>		205	100	100	0	0	0	0	100	0	405

All Values are presented in Thousands (1 x 1000)

## Lift Station Upgrade

**Request #: WA12016**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Occidental County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2012  
**End Date:** 06/30/2017



**Description:**

Construction of improvements to repair or replace deteriorated portions of the existing wastewater lift station - primarily electrical system components.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	134	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	0		
<b>Other:</b>	0		
<b>Project Total:</b>	134	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
OCSD	33060200	104	10	20	0	0	0	0	20	0	134
<b>TOTALS:</b>		104	10	20	0	0	0	0	20	0	134

All Values are presented in Thousands (1 x 1000)

**OCSD Truck Fill Station**

**Request #: WA16009**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Occidental County Sanitation Dist.

**Status:** Active  
**Start Date:** 7/1/2015  
**End Date:** 6/30/2018



**Description:**

Construct a truck fill station at Occidental County Sanitation District for filling waste hauler trucks with septage for treatment at an alternate location.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	520	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	92		
<b>Other:</b>	73		
<b>Project Total:</b>	685	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
OCSD	33060200	0	20	570	95	0	0	0	665	0	685
<b>TOTALS:</b>		0	20	570	95	0	0	0	665	0	685

All Values are presented in Thousands (1 x 1000)

## Future Capital Replacements

**Request #: WA15003**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Penngrove Sanitation Zone

**Status:** Request  
**Start Date:** 7/1/2017  
**End Date:** 06/30/2024



**Description:**

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

Project Cost		O and M Cost	
<b>Acquisition:</b>	10	<b>Utilities:</b>	0
<b>Construction:</b>	140	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	45		
<b>Other:</b>	15		
<b>Project Total:</b>	210	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
PSZ	33120200	0	0	0	30	30	30	30	120	90	210
<b>TOTALS:</b>		0	0	0	30	30	30	30	120	90	210

All Values are presented in Thousands (1 x 1000)

## Lift Station Motor Control Center Upgrade

**Request #: WA12018**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Penngrove Sanitation Zone

**Status:** Active  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2017



**Description:**

Replacement of Motor Control Center Cabinets in the Lift Station. To facilitate future pump upgrades safeguard against flooding. Replace lift station pumps

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	206	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	145		
<b>Other:</b>	8		
<b>Project Total:</b>	359	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
PSZ	33120100	0	153	206	0	0	0	0	206	0	359
<b>TOTALS:</b>		0	153	206	0	0	0	0	206	0	359

All Values are presented in Thousands (1 x 1000)

## Replace Lift Station Pumps

**Request #: WA12019**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Penngrove Sanitation Zone

**Status:** Active  
**Start Date:** 07/01/2016  
**End Date:** 06/30/2017

**Description:**

Construction of improvements to replace existing wastewater pumps that are inadequate to pump existing inflow quantities.



Project Cost		O and M Cost	
Acquisition:	0	Utilities:	0
Construction:	50	Maintenance:	0
Furniture/Reloc:	0	Other:	0
Design/PM:	0		
Other:	0		
<b>Project Total:</b>	<b>50</b>	<b>OM Total:</b>	<b>0</b>

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
PSZ	680306	0	0	50	0	0	0	0	50	0	50
<b>TOTALS:</b>		<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>50</b>

All Values are presented in Thousands (1 x 1000)

## RRCSD Septage Receiving Station

**Request #: WA16012**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Russian River County Sanitation Dist.

**Status:** Active  
**Start Date:** 1/19/2015  
**End Date:** 6/30/2018



**Description:**

Design and construct a septage receiving station at Russian River County Sanitation District Lift Station. The septage receiving station will receive flow from Occidental County Sanitation District

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	550	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	85		
<b>Other:</b>	5		
<b>Project Total:</b>	640	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
RRCSD	33070200	0	20	535	85	0	0	0	620	0	640
<b>TOTALS:</b>		0	20	535	85	0	0	0	620	0	640

All Values are presented in Thousands (1 x 1000)

### Capital Improvement Projects

**Request #: WA15020**

**Status: Partially Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Russian River County Sanitation Dist.

**Status:** Request  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2026



**Description:**

Construction of improvements to repair, rehabilitate, upgrade and or replace portions of existing collection system and treatment plant infrastructure, including but not limited to: 1. force main between lift station and the treatment plant, or portions thereof; 2. Various lift stations; and 3. treatment elements including clarifiers, headworks and tertiary filters.

Project Cost		O and M Cost	
<b>Acquisition:</b>	100	<b>Utilities:</b>	0
<b>Construction:</b>	3,775	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	750		
<b>Other:</b>	250		
<b>Project Total:</b>	4,875	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
RRCSD	33070200	0	125	100	150	200	200	250	900	3,850	4,875
<b>TOTALS:</b>		0	125	100	150	200	200	250	900	3,850	4,875

All Values are presented in Thousands (1 x 1000)

## Irrigation Reliability and Beneficial Reuse

**Request #: WA18023**

**Status: Partially Funded**

<b>Function:</b>	Development Services	<b>Status:</b>	Request
<b>Department:</b>	Water Agency	<b>Start Date:</b>	07/01/2006
<b>Division/Section:</b>	Russian River County Sanitation Dist.	<b>End Date:</b>	06/30/2025



**Description:**

Construct pumping, piping, and storage improvements to the wastewater reclamation system and increase beneficial reuse of recycled water.

Project Cost		O and M Cost	
<b>Acquisition:</b>	400	<b>Utilities:</b>	0
<b>Construction:</b>	7,307	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	950		
<b>Other:</b>	650		
<b>Project Total:</b>	9,307	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
RRCSD	33070200	682	5	5	5	5	5	250	270	8,350	9,307
<b>TOTALS:</b>		682	5	5	5	5	5	250	270	8,350	9,307

All Values are presented in Thousands (1 x 1000)

## Future Capital Replacements

**Request #: WA08025**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Sea Ranch Sanitation Zone

**Status:** Request  
**Start Date:** 07/01/2015  
**End Date:** 06/30/2024



**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		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	285	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	75		
<b>Other:</b>	0		
<b>Project Total:</b>	360	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SRSZ	33130200	0	40	40	40	40	40	40	200	120	360
<b>TOTALS:</b>		0	40	40	40	40	40	40	200	120	360

All Values are presented in Thousands (1 x 1000)

### Chlorine Contact Chamber Coating

**Request #: WA08027**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Sonoma Valley County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2012  
**End Date:** 06/30/2018



**Description:**

Provide a protective interior coating for the concrete chlorine contact basin at the wastewater treatment plant to seal the basin and inhibit the degradation of the concrete and reinforcing steel.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	405	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	150		
<b>Other:</b>	20		
<b>Project Total:</b>	575	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD	33080100	75	25	450	25	0	0	0	475	0	575
<b>TOTALS:</b>		75	25	450	25	0	0	0	475	0	575

All Values are presented in Thousands (1 x 1000)

### Collection System Creek Crossings

**Request #: WA11026**

**Status: Funded**

**Function:** Development Services      **Status:** Active  
**Department:** Water Agency      **Start Date:** 07/01/2011  
**Division/Section:** Sonoma Valley County Sanitation Dist.      **End Date:** 06/30/2021



**Description:**  
 Upgrade collection system pipe crossings at waterways to prevent damage during high stream flow events.

Project Cost		O and M Cost	
<b>Acquisition:</b>	21	<b>Utilities:</b>	0
<b>Construction:</b>	356	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	311		
<b>Other:</b>	37		
<b>Project Total:</b>	725	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD	33080100	223	50	440	3	3	3	3	452	0	725
<b>TOTALS:</b>		223	50	440	3	3	3	3	452	0	725

All Values are presented in Thousands (1 x 1000)

### Future Collection System Replacements/Rehabilitation

**Request #: WA15021**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Sonoma Valley County Sanitation Dist.

**Status:** Request  
**Start Date:** 07/01/2016  
**End Date:** 06/30/2023



**Description:**

Replace and/or Rehabilitate collection system, pipe and related infrastructure to reduce inflows and infiltration into the system, and accomodate existing peak flows.

Project Cost		O and M Cost	
<b>Acquisition:</b>	625	<b>Utilities:</b>	0
<b>Construction:</b>	11,250	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	2,500		
<b>Other:</b>	625		
<b>Project Total:</b>	15,000	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD	33080200	0	0	500	2,500	0	3,000	3,000	9,000	6,000	15,000
<b>TOTALS:</b>		0	0	500	2,500	0	3,000	3,000	9,000	6,000	15,000

All Values are presented in Thousands (1 x 1000)

## Reline Equalization Ponds

**Request #: WA08032**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Sonoma Valley County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2012  
**End Date:** 06/30/2018



**Description:**

Replace the impermeable liners for the existing equalization basins at the wastewater treatment plant to prevent seepage out of the basins. Flow Equalization Basins 1, 2, 3 & 4 were lined with impermeable liner materials. Replace the impermeable liners for the existing equalization basins to prevent seepage out of the basins. All of the flow equalization basins were lined in the late 1990's. Basins 1 & 2 were lined with a fluid applied material that is beyond its useful and repairable life. Basins 3 & 4 have remaining life, as determined by the manufacturer, but reparability of the membrane will decrease with time. This project will install new flexible, impermeable, membrane liners in EQ basins 1, 2, 3, & 4 with a 20 year life.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	2,730	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	196		
<b>Other:</b>	7		
<b>Project Total:</b>	2,933	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD	33080200	46	107	50	2,730	0	0	0	2,780	0	2,933
<b>TOTALS:</b>		46	107	50	2,730	0	0	0	2,780	0	2,933

All Values are presented in Thousands (1 x 1000)

## Sonoma Creek Bank Repair

**Request #: WA14021**

**Status: Funded**

<b>Function:</b> Development Services	<b>Status:</b> Active
<b>Department:</b> Water Agency	<b>Start Date:</b> 07/01/2012
<b>Division/Section:</b> Sonoma Valley County Sanitation Dist.	<b>End Date:</b> 06/30/2018



**Description:**

Implement measures to stabilize a failing stream bank and protect existing sewer pipes located along Sonoma Creek in Glen Ellen area, south of Kohler Creek confluence.

Project Cost		O and M Cost	
<b>Acquisition:</b>	45	<b>Utilities:</b>	0
<b>Construction:</b>	480	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	131		
<b>Other:</b>	50		
<b>Project Total:</b>	706	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD	33080100	71	65	110	460	0	0	0	570	0	706
<b>TOTALS:</b>		71	65	110	460	0	0	0	570	0	706

All Values are presented in Thousands (1 x 1000)

## WWTP Roof Replacement Project

**Request #: WA16013**

**Status: Funded**

<b>Function:</b> Development Services	<b>Status:</b> Request
<b>Department:</b> Water Agency	<b>Start Date:</b> 7/1/2016
<b>Division/Section:</b> Sonoma Valley County Sanitation Dist.	<b>End Date:</b> 6/30/2018

**Description:**

This project is for the replacement of the roofs on the following buildings at WWTP: 1. Administration 2. Maintenance 3. Influent



Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	265	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	30		
<b>Other:</b>	5		
<b>Project Total:</b>	300	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD	33080200	0	0	35	265	0	0	0	300	0	300
<b>TOTALS:</b>		0	0	35	265	0	0	0	300	0	300

All Values are presented in Thousands (1 x 1000)

**Sonoma Valley Recycled Water Project (5th St. E - Denmark St.)**

**Request #: WA12103**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Sonoma Valley County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2013  
**End Date:** 06/30/2017



**Description:**

Construct new recycled water distribution piping along Fifth Street East and connecting portions of Watmaugh Road and Denmark Street. Pipeline will provide urban reuse to 3 schools and one city park, as well as agricultural and rural residential irrigation.

Project Cost		O and M Cost	
<b>Acquisition:</b>	60	<b>Utilities:</b>	0
<b>Construction:</b>	2,630	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	325		
<b>Other:</b>	350		
<b>Project Total:</b>	3,365	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD, DWR	33080200	460	2,700	205	0	0	0	0	205	0	3,365
<b>TOTALS:</b>		460	2,700	205	0	0	0	0	205	0	3,365

All Values are presented in Thousands (1 x 1000)

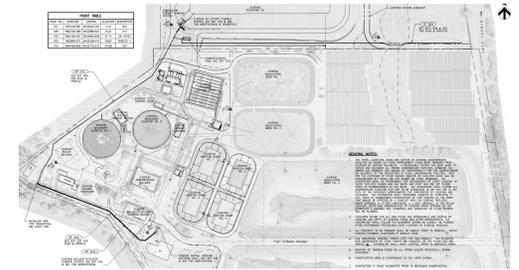
## WWTP Pump and Piping Upgrade

**Request #: WA11034**

**Status: Funded/Funded by Others**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Sonoma Valley County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2010  
**End Date:** 06/30/2017



**Description:**

Construct pumping and piping upgrades at the wastewater treatment plant in order to increase quantity and flexibility for pumping recycled water to storage reservoirs, existing recycled water users, the Napa Salt Marsh, and new recycled water users located north of the treatment plant.

Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	2,153	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	948		
<b>Other:</b>	22		
<b>Project Total:</b>	3,123	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD, BOR	33080200	668	300	2,155	0	0	0	0	2,155	0	3,123
<b>TOTALS:</b>		668	300	2,155	0	0	0	0	2,155	0	3,123

All Values are presented in Thousands (1 x 1000)

**Trunk Sewer Replacement MH90-3 to MH 136-5**

**Request #: WA09030**

**Status: Partially Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Sonoma Valley County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2008  
**End Date:** 06/30/2019



**Description:**

The existing 21-inch Reinforced Concrete Pipe trunk sewer, and its appurtenant manholes, was constructed around 1958. This project will replace approximately 9,100 feet of the sewer trunk and appurtenance manholes with new 27-inch diameter sewer trunk from the intersection of 6th St. West at Studley St. to Happy Lane, including a double siphon crossing of Agua Caliente Creek. The overall project has been split into 3 segments of roughly the same size, in addition to a separate segment for the crossing of Agua Caliente Creek. The 2001 Sonoma Valley County Sanitation District wet Weather Sewer Analysis of the existing trunk system found that much of the existing sewer trunk is inadequately sized to carry the discharge for future District buildout plus the inflow and infiltration from a 20-year frequency design storm. Additionally, the original RCP trunk sewer is reaching the end of its service life.

Project Cost		O and M Cost	
<b>Acquisition:</b>	1,300	<b>Utilities:</b>	0
<b>Construction:</b>	17,618	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	2,700		
<b>Other:</b>	651		
<b>Project Total:</b>	22,269	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SVCSD	33080200	2,153	3,280	6,350	5,774	4,712	0	0	16,836	0	22,269
<b>TOTALS:</b>		2,153	3,280	6,350	5,774	4,712	0	0	16,836	0	22,269

**All Values are presented in Thousands (1 x 1000)**

## Blackwell Tract Collection System Replacement

**Request #: WA05040**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** South Park County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2009  
**End Date:** 06/30/2019



**Description:**

Replace approximately 5600 feet of existing 6-inch Vitrified Clay Pipe (VCP) and Asbestos Cement Pipe (ACP) sewer mains and appurtenant laterals, manholes, and main line cleanouts with new 8-inch plastic sewer pipe, laterals, mainline cleanouts, and precast concrete manholes. Additionally, approximately 580 feet of existing 4-inch water main and appurtenance will be replaced with 8-inch plastic water through an agreement with the City of Santa Rosa. The existing sewer facilities were originally constructed in approximately the mid-1950's.

Project Cost		O and M Cost	
<b>Acquisition:</b>	84	<b>Utilities:</b>	0
<b>Construction:</b>	3,585	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	434		
<b>Other:</b>	10		
<b>Project Total:</b>	4,113	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

**Personnel: 0**  
**Revenue/Refund: 0**

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SPCSD	33090200	168	25	335	3,420	165	0	0	3,920	0	4,113
<b>TOTALS:</b>		168	25	335	3,420	165	0	0	3,920	0	4,113

All Values are presented in Thousands (1 x 1000)

## East Robles Collection System Replacement

**Request #: WA11037**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** South Park County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2013  
**End Date:** 06/30/2018



**Description:**

This project will replace approximately 3000 feet of deteriorated and sub-standard sewer collection system piping and appurtenances in the vicinity of E. Robles Ave.

Project Cost		O and M Cost	
<b>Acquisition:</b>	25	<b>Utilities:</b>	0
<b>Construction:</b>	1,438	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	288		
<b>Other:</b>	25		
<b>Project Total:</b>	1,776	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SPCSD	33090200	38	208	1,406	124	0	0	0	1,530	0	1,776
<b>TOTALS:</b>		38	208	1,406	124	0	0	0	1,530	0	1,776

All Values are presented in Thousands (1 x 1000)

## West Robles Collection System Replacement

**Request #: WA11038**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** South Park County Sanitation Dist.

**Status:** Active  
**Start Date:** 07/01/2012  
**End Date:** 06/30/2017



**Description:**

Replace existing collection system pipelines and appurtenances that are deteriorated along an approximate 500 foot length of West Robles Drive, east of Moorland Avenue.

Project Cost		O and M Cost	
<b>Acquisition:</b>	25	<b>Utilities:</b>	0
<b>Construction:</b>	370	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	286		
<b>Other:</b>	11		
<b>Project Total:</b>	692	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
SPCSD	33090200	177	490	25	0	0	0	0	25	0	692
<b>TOTALS:</b>		177	490	25	0	0	0	0	25	0	692

All Values are presented in Thousands (1 x 1000)

## **Administration and General**

### **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 3 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 the Water Agency's Strategic Plan

### **Facilities Fund**

There are no projects identified for funding in the F.Y. 2016-17 through F.Y. 2020-21 capital plan for the Facilities Fund. The formerly identified 404 Aviation Blvd. Roof Replacement project was completed in 2015 and the Service Center Parking Lot project will be completed in 2016.

### **Power Resources Fund**

There are 3 projects identified for funding in the Power Resources Fund. Two new projects, consisting of Electric Vehicle Charging Stations and SVTP PV Upgrade, were added to the F.Y. 2016-17 through F.Y. 2020-21 capital plan for Internal Services Fund.

## Electric Vehicle Charging Stations

**Request #: WA16014**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Internal Services Fund

**Status:** Active  
**Start Date:** 7/1/2015  
**End Date:** 6/30/2017



**Description:**

Install grant funded charging stations (5) for charging agency electric vehicles

Project Cost		O and M Cost	
<b>Acquisition:</b>	1	<b>Utilities:</b>	0
<b>Construction:</b>	138	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	100		
<b>Other:</b>	4		
<b>Project Total:</b>	243	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Power Resources	33050300	0	57	186	0	0	0	0	186	0	243
<b>TOTALS:</b>		0	57	186	0	0	0	0	186	0	243

All Values are presented in Thousands (1 x 1000)

## Energy Storage

**Request #: WA15022**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Internal Services Fund

**Status:** Request  
**Start Date:** 07/01/2017  
**End Date:** 06/30/2018

**Description:**

Evaluate energy storage adequate for optimizing intermittent source generation.



Project Cost		O and M Cost	
<b>Acquisition:</b>	0	<b>Utilities:</b>	0
<b>Construction:</b>	0	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	0		
<b>Other:</b>	25		
<b>Project Total:</b>	25	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Power Resources	33050300	0	0	0	25	0	0	0	25	0	25
<b>TOTALS:</b>		0	0	0	25	0	0	0	25	0	25

All Values are presented in Thousands (1 x 1000)

## SVTP PV Upgrade

**Request #: WA16015**

**Status: Funded**

**Function:** Development Services  
**Department:** Water Agency  
**Division/Section:** Internal Services Fund

**Status:** Active  
**Start Date:** 7/1/2015  
**End Date:** 6/30/2017



**Description:**

Replace DC leads and inverters and related equipment that have reached the end of their useful life associated with the 1 MW photovoltaic array at the SVCSD wastewater treatment plant.

Project Cost		O and M Cost	
<b>Acquisition:</b>	1	<b>Utilities:</b>	0
<b>Construction:</b>	193	<b>Maintenance:</b>	0
<b>Furniture/Reloc:</b>	0	<b>Other:</b>	0
<b>Design/PM:</b>	100		
<b>Other:</b>	4		
<b>Project Total:</b>	298	<b>OM Total:</b>	0

**Net Impact On Operating Budget:**

<b>Personnel: 0</b>
<b>Revenue/Refund: 0</b>

Funding Source	Dept ID	Prior FYs	Current FY	FY1 2016-17	FY2 2017-18	FY3 2018-19	FY4 2019-20	FY5 2020-21	5YR Total	Future YRs	Project Total
Power Resources	33050300	0	57	241	0	0	0	0	241	0	298
<b>TOTALS:</b>		0	57	241	0	0	0	0	241	0	298

All Values are presented in Thousands (1 x 1000)