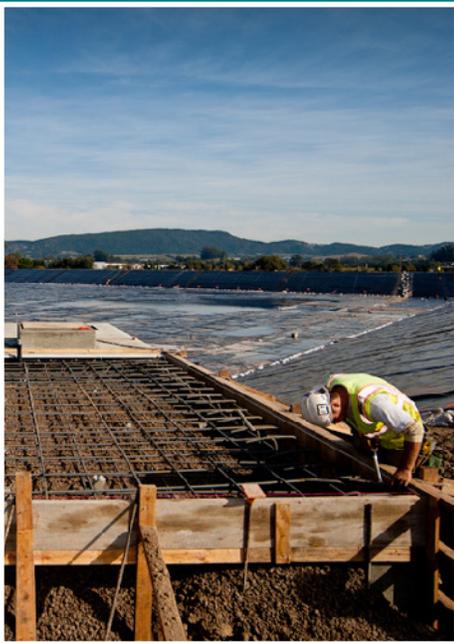


# SECURING OUR FUTURE BY INVESTING IN OUR

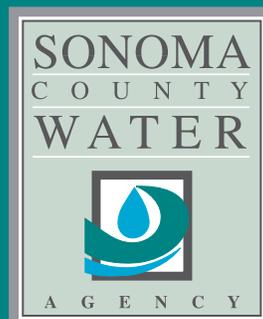
WATER RESOURCES

ENVIRONMENT

COMMUNITY



## 2011 Annual Report



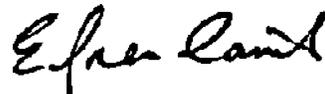
On the cover: our water resources represented by construction of a new reclamation pond at Sonoma Valley County Sanitation District; our environment represented by a threatened Chinook salmon in Dry Creek; and our community by a resident recreating on the Russian River.

## MESSAGE FROM THE CHAIR

Over the past year the Sonoma County Water Agency has continued to secure our future by investing in our water resources, environment and community. It is one of the goals of the Water Agency's Board of Directors to look into the future and prepare for challenges, such as climate change, natural disasters and financial stability. I am proud to report that the Water Agency has continued to take the proactive steps necessary to address these challenges.

By working collaboratively with state, federal and local governments, and non-governmental partners, the Water Agency secured the funding necessary to build crucial recycled water facilities and hazard mitigation projects, developed groundwater resource plans, upgraded sanitation disinfection services, continued meeting Russian River Biological Opinion requirements – and much more, as you will read in this year's annual report.

The bottom line is that by putting shovels in the ground, the Water Agency not only took steps to secure our infrastructure, but invested in our economy through job creation. I expect more of this type of collaboration to continue and become the new way of doing business in Sonoma County. While protecting our natural resources, we can also work to preserve and enhance our local economy with new initiatives and jobs. I look forward to continuing our work in the next year and hope that you become involved in our many community outreach programs – after all, nature and all its glory are right in our backyard.



Efrén Carrillo, 2010/2011 Chair, Sonoma County Water Agency Board of Directors



Board of Directors (left to right): Shirlee Zane, Mike McGuire, Efrén Carrillo, Valerie Brown and David Rabbitt.

## MESSAGE FROM THE GENERAL MANAGER



The Sonoma County Water Agency is honored to continue providing important water supply, flood protection and sanitation services to residents in portions of Sonoma and Marin counties. Our employees take personal responsibility for managing and protecting the vital public resources bestowed upon us by our community. The services our employees provide protect our homegrown natural resources – many of which are in our very backyard like the Russian River. From stream maintenance to habitat restoration to energy efficiency, the Water Agency is your local government. We work every day to make your future more secure. By investing in our infrastructure, our environment and our community, I hope you experience the benefits of this work in your daily life – whether it's drinking clean, reliable tap water, hiking alongside a local stream or lake, or simply flushing your toilet. It is our job to make these daily chores and pleasures take place without a second thought or worry.

I am proud of the work our employees have accomplished this past year. Thank you for your time, your input and your support. I invite you to please contact me and share your ideas on how we can improve our services. Thank you for reading our annual report.



Grant Davis, General Manager, Sonoma County Water Agency

# ABOUT THE SONOMA COUNTY WATER AGENCY

## ORGANIZATION / GOVERNANCE

**Authority** | Act of California Legislature, 1949

**Mission** | To effectively manage the water resources in our care for the benefit of people and the environment through resource and environmental stewardship, technical innovation, and responsible fiscal management.

**Board of Directors** | The Sonoma County Board of Supervisors acts as the Water Agency's Board of Directors

## WHOLESALE WATER SUPPLY

### Main Water Sources

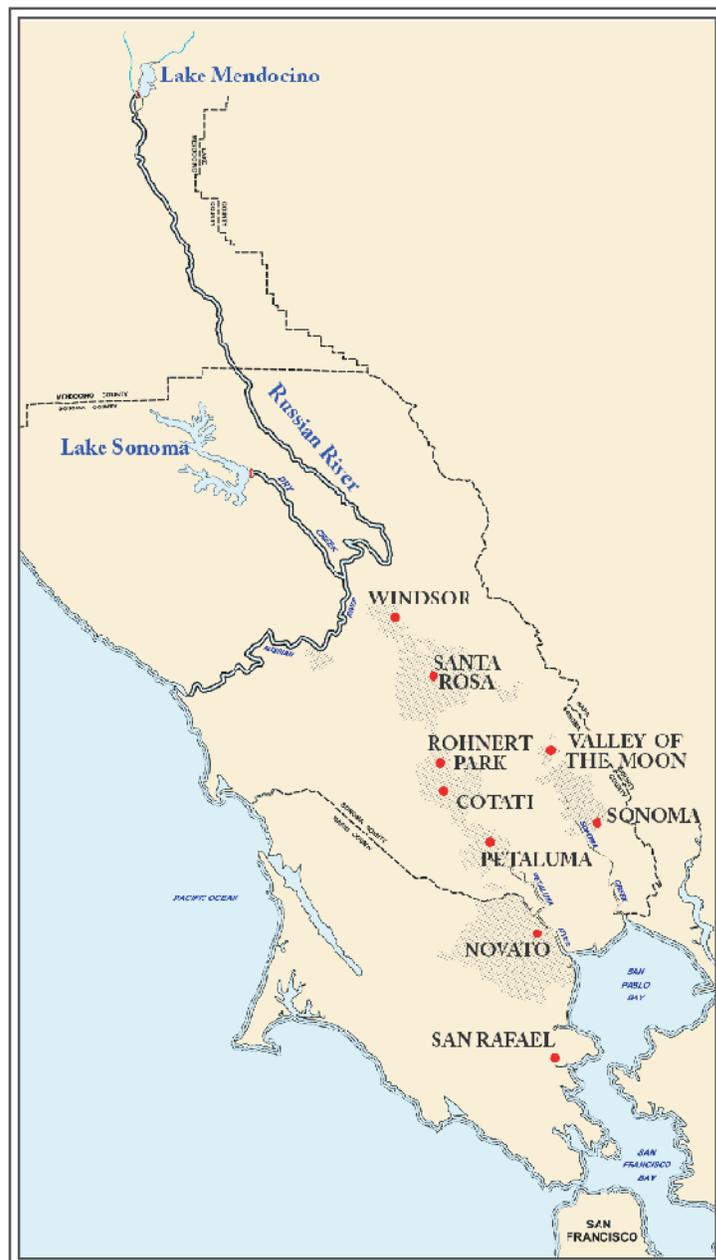
Russian River, Lake Sonoma, and Lake Mendocino

### Population Served

Approximately 600,000 residents in portions of Sonoma and Marin counties

### Primary Wholesale Water Contractors

The Cities of Santa Rosa, Petaluma, Sonoma, Cotati, and Rohnert Park; the Town of Windsor; and the North Marin and Valley of the Moon Water Districts (see map to right).



## FLOOD CONTROL / STREAM MAINTENANCE SERVICES

**Flood Control Works** | Coyote Valley Dam (Lake Mendocino), Warm Springs Dam (Lake Sonoma), Central Sonoma Watershed Project, and Laguna de Santa Rosa

**Central Sonoma Watershed Project Facilities** Santa Rosa Creek Reservoir, Matanzas Creek Reservoir, Piner Creek Reservoir, Brush Creek Middle Fork Reservoir, and Spring Creek Reservoir

**Laguna de Santa Rosa** | Natural tributary to the Russian River that stores approximately 80,000 acre-feet of water during peak floods

**Stream Maintenance** | Approximately 150 miles of flood control channels and creeks maintained



Water Agency crews clear a creek for flood protection.

## SANITATION SERVICES

### Organization

In 1995 the Water Agency assumed responsibility from the County of Sonoma for managing the county sanitation zones and districts, which provide wastewater collection and treatment and recycled-water distribution and disposal services. County sanitation districts are separate legal entities, and sanitation zones are owned by the Water Agency.



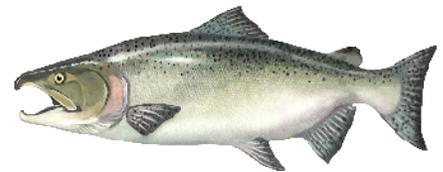
The Airport-Larkfield-Wikiup Sanitation District's recycled water storage reservoir flanked with solar panels.

**Facilities** | Sanitation zones are Airport/Larkfield/Wikiup, Geyserville, Penngrove, and Sea Ranch. Sanitation districts are Occidental, Russian River, Sonoma Valley, and South Park County.

**Population Served** | Approximately 22,000 residences and businesses

## ENDANGERED SPECIES

**Fisheries** | The Russian River is home to three fish that are threatened or endangered: coho salmon (endangered), Chinook salmon (threatened), and steelhead trout (threatened).



Chinook Salmon



Steelhead Trout



Coho Salmon

# WATER RESOURCES

## NEW OPERATIONS AND MAINTENANCE FACILITY

The Water Agency's Operations and Maintenance Divisions moved to 204 Concourse Blvd, Santa Rosa. The Operations and Maintenance Divisions resided at 2150 West College Avenue for just under 30 years.

## INTEGRATED REGIONAL WATER MANAGEMENT FUNDING

The California Department of Water Resources announced final approval for integrated water management implementation funding including \$8.2 million for the North Coast region and \$30.1 million for the Bay Area region. The North Coast plan designated \$1 million for the Water Agency's Copeland Creek project. The Bay Area plan included \$765,000 for local water conservation programs and \$2 million for the North Bay Water Reuse Authority. In addition, the Proposition 84 Planning Grant included \$200,000 for a Sonoma Valley groundwater salt nutrient study.

## WATER SUPPLY ACTION STRATEGIES UPDATE

In 2010 the Water Agency's Board of Directors approved nine Water Supply Strategies developed to increase water supply system reliability, resiliency and efficiency in the face of limited resources, regulatory constraints and climate change uncertainties. The Water Agency expects to update this Action Plan annually.

The 2011 Action Plan lists activities that have been completed, identifies new activities that support the strategies, and reviews activities that are continuing or have been reprioritized. Highlighted projects include:

- Leak detection study. Millions of gallons of water could be saved each year by reducing leaks. Using advanced analytics made possible through work with IBM, the Water Agency will engage in a "proof of concept" study to evaluate the possibility of leak detection in the transmission and distribution systems. IBM is providing about \$2 million of funding for this project.
- Evaluation of collector wells. The oldest collector wells have been operating for four decades and must be analyzed to ensure continued performance. If the analysis demonstrates a need, a plan will be developed to increase reliability of these facilities.
- Emergency Response Plan. An up-to-date emergency response plan is critical to the Water Agency's ability to provide water in an earthquake, fire or other emergency.

Per gallon costs:



\$45



\$16



\$11.35



\$3.55



\$2.49



\$0.002

Our wholesale water: a great bargain for such a great product!

## STREAM MAINTENANCE PROGRAM

This year, crews conducted vegetation maintenance on more than 40 creeks. This work included invasive-species removal, and thinning and pruning of native riparian trees to restore conveyance capacity and maintain proper function of Water Agency flood control channels and retain or enhance appropriate habitat.

Crews completed sediment removal work on three flood control reservoirs and 11 creeks to restore flow conveyance capacity. This includes removing 4,000 cubic yards of accumulated material from Santa Rosa Creek and 5,000 cubic yards of material from the Laguna de Santa Rosa.

## INVESTING IN OUR INFRASTRUCTURE

As a part of the Water Agency's "First of a Kind" collaborative program with IBM Corporation, engineers installed advanced transmission system metering equipment for the water transmission system. The new technology provides near real-time information on water deliveries at more than 172 locations, allowing staff to improve system leak detection, reduce water system losses, accelerate emergency response, and reduce operating costs. The data telemetry system for the new meters will also enable retail water suppliers to implement advanced metering infrastructure at reduced cost.



Clockwise from top left: ① Lake Sonoma, one of two primary reservoirs operated jointly by the U.S. Army Corps of Engineers and the Water Agency. ② New operations and maintenance facilities. ③ One of six groundwater collector wells located near the Russian River that underwent reliability inspections as a part of the Water Supply Action Strategies. ④ Stream maintenance teams work to improve channel flows and restore habitat.



# WATER RESOURCES

## SONOMA-MARIN SAVING WATER PARTNERSHIP

Sonoma Marin Saving Water Partnership was finalized and kicked off with a local Save Our Water campaign.

- An Eco Friendly Garden Tour was a success with 18 gardens featured throughout Sonoma County and more than 240 visitors.
- The 350 Home and Garden Challenge resulted in 1,044 actions to “Grow Food, Save Water, Conserve Energy and Build Community.” Those actions resulted in 234 lawn conversions that removed 91,000 square feet of thirsty lawn in one weekend during May.
- The Qualified Water Efficient Landscape Program, developed locally, trained 373 local landscapers on water efficient landscaping. Interest in this program continues to grow.



Local residents were featured as a part of the Sonoma-Marin Saving Water Partnership’s multi-media public outreach campaign.

## UPGRADING WASTEWATER DISINFECTION

The Russian River County Sanitation District this year began construction on an ultraviolet (UV) disinfection system, coagulation and flocculation facilities, and other improvements to the District's treatment plant. The project will allow the District to discontinue the use of chlorine for disinfection and will reduce the risk of future permit violations for coliform bacteria. The total project cost is \$3.9 million. The project received Clean Water State Revolving Fund financing for both a \$1.94 million loan and an additional \$1.94 million in funding that will not have to be repaid.

## EXPANDING RECYCLED WATER STORAGE

A newly constructed 100-acre foot, 37 million gallon recycled water reservoir and one mile of distribution pipelines were completed this year in the Sonoma Valley County Sanitation District. The project will reduce discharges to tributaries to San Pablo Bay and offset demand on other water sources for agricultural uses providing some reprieve to groundwater basins in Sonoma Valley. Combined, the reservoir and pipelines projects will create 73 jobs by September 2012. Total cost is estimated at \$6.7 million with \$1.7 million funded by the American Recovery and Reinvestment Act.



Above: Ultraviolet disinfection system under construction at the Russian River County Sanitation District.



Above: Recycled water reservoir nearing completion at the Sonoma Valley County Sanitation District.

# ENVIRONMENT

## RUSSIAN RIVER BIOLOGICAL OPINION

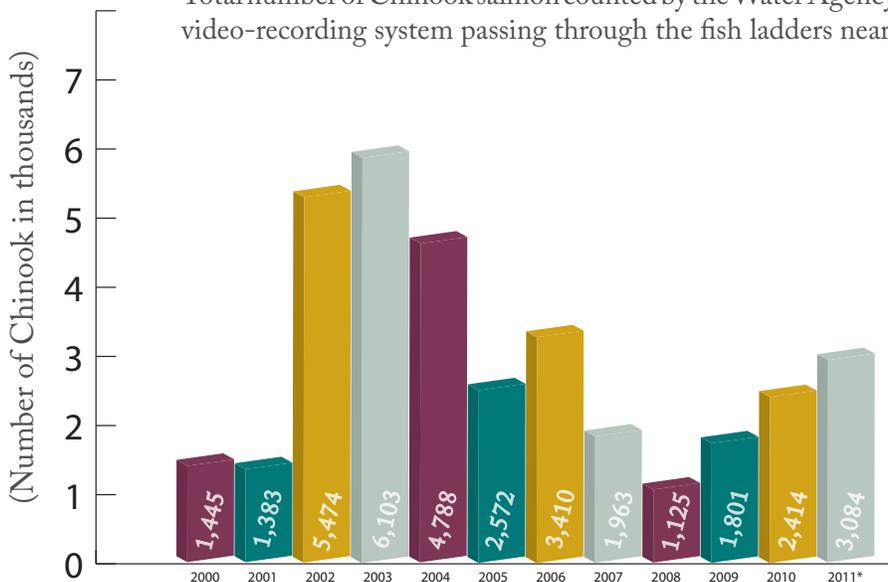
The Water Agency is continually planning and implementing the Russian River Biological Opinion requirements:

- The Estuary Management Project final Environmental Impact Report was certified and the Water Agency’s Board of Directors approved the project.
- The Dry Creek Demonstration Project reached the 90% design level. The Initial Study and Mitigated Negative Declaration environmental document and right-of-way process on the demonstration project was approved by the Water Agency Board of Directors.
- The Dry Creek bypass pipeline study was finalized in October.
- Construction of the Crane Creek and Willow Creek Fish Passage Enhancement Projects were completed in October.
- The Wohler infiltration pond was decommissioned.
- The Water Agency received a \$255,000 California Department of Fish and Game Fishery Restoration Grant for design of the Mirabel Screen and Fish Ladder Replacement Project.

## RUSSIAN RIVER ENDANGERED SPECIES

The Russian River is home to three fish on the endangered species list: coho salmon, Chinook salmon, and steelhead trout. The Water Agency provides environmental services that improve the native fish resources and habitats of the Russian River watershed through a variety of projects. The Water Agency uses an underwater video-recording system to count Chinook salmon passing through two fish ladders.

Total number of Chinook salmon counted by the Water Agency using an underwater video-recording system passing through the fish ladders near Forestville, CA.



\*At the time of publication, more than 3,000 Chinook salmon were counted. For a final count, please go to [www.sonomacountywater.org/chinook](http://www.sonomacountywater.org/chinook).

## CARBON-FREE WATER BY 2015

The Water Agency made strides toward its goal of Carbon-Free Water by 2015:

- Ongoing conservation efforts by local residents and businesses combined have consistently lowered the Water Agency’s energy use each year since 2008.
- Total greenhouse gas emissions from electricity use have dropped 68 percent from 2007 after the Carbon Free Water by 2015 program was instituted.
- Greater than 70% of electricity comes from carbon free sources (hydroelectric, landfill gas, solar PV)
- More than 2,844,000 kilowatt hours of solar power generated at the Water Agency’s 404 Aviation Administration Building, Sonoma Valley County Sanitation District and Airport-Larkfield-Wikiup Sanitation Zone.

## COMMUNITY CHOICE AGGREGATION

Based on a Water Agency commissioned feasibility study, the Board of Directors directed staff to further explore the possibility of creating a new power provider option to local consumers. The “Report on the Feasibility of Community Choice Aggregation in Sonoma County” found that a power provider formed by local governments could provide energy to Sonoma County consumers at rates slightly higher than PG&E, while significantly reducing carbon emissions and creating local jobs.



Water Agency fishery biologists seining in the Russian River estuary near Jenner, CA.



Solar panels at the Sonoma Valley County Sanitation District.

# COMMUNITY

## EDUCATING OUR YOUTH

The Headwaters to Ocean (H2O) watershed education program gained momentum with improvements to the 140-acre Rockpile Road property above Lake Sonoma. Eighty students from JX Wilson Elementary will be piloting the program during the 2011 – 2012 school year. During the 2010-11 school year over 4,000 third and fifth grade students received direct instruction through classroom and field visits; curriculum materials were provided to 14,616 K-12 graders; the Musical Watershed assembly program performed 39 shows at 25 schools with 9,409 students attending; and Kids Scoop News reached another 12,000 students four different times.

## YOUTH WORKING TO RESTORE HABITAT, LEARN JOB SKILLS

For the third year, the Sonoma County Youth Ecology Corps employed youth to clean creeks, restore habitats and learn vital job skills. This year, 200 young people took part in the program and helped remove nearly 1,500 cubic yards of debris from creeks. The 2011 program was funded by federal Workforce Investment Act dollars, with matching funds contributed by the Water Agency, Kaiser Permanente, the Miranda Lux Foundation, Sonoma County Agricultural and Open Space and the Sonoma County Fish and Wildlife Commission also contributed to the program. Friedman's Home Improvement provided deep discounts on the tools used by crew members.



Future site for the Water Agency's Water Education "Headwaters to Ocean Program" at Rockpile Road.



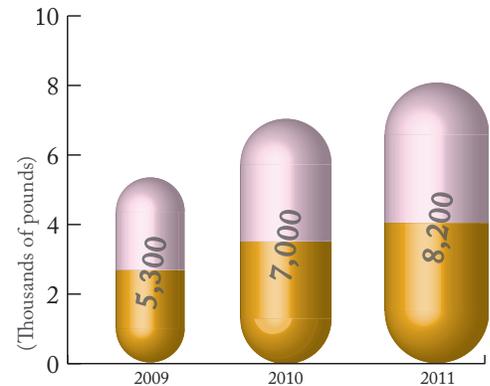
Youth crews working together to clear brush from a stream.

## SAFE MEDICINE DISPOSAL PROGRAM

This year the Safe Medicine Disposal Program collected over four tons of unwanted medical pills by organizing two special collection events and sponsoring permanent drop-off locations throughout Sonoma County. Find drop-off locations online at [www.safemedicinedisposal.org](http://www.safemedicinedisposal.org).



Total unwanted medicine collected in thousands of pounds.



## “OURS TO PROTECT” SIGNS GO UP ON RUSSIAN RIVER

The Water Agency, along with Sonoma County Regional Parks and Russian RiverKeeper, installed signs at various locations along the Russian River to inform kayakers and canoeists about locations with access to restrooms, trash receptacles and other services that aren't visible from beaches. This is the first step in an education campaign to keep trash and waste out of the Russian River.



An “Ours to Protect” sign at Vacation Beach on the Russian River.



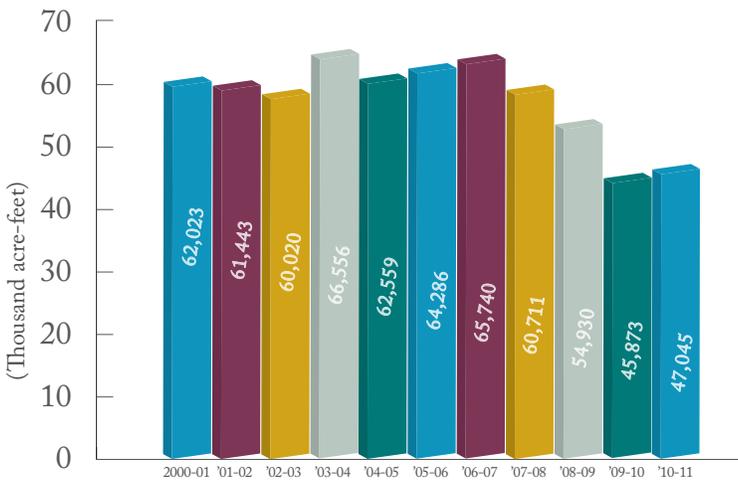
Unwanted medication is collected by Water Agency staff at a drop-off event.

# FINANCES

## APPROVED 2010/2011 WATER TRANSMISSION BUDGET

The Water Agency's total water transmission budget is approximately \$33 million and includes four major categories: Operations and Maintenance, Russian River Biological Opinion and Endangered Species Act compliance, Capital Projects, and Debt Service. The Water Agency has proactively reduced its operations and maintenance costs by 12 percent over the past four years. These cost saving efforts include mandatory time off and salary freezes for Water Agency staff, staff reductions, and reduced power costs.

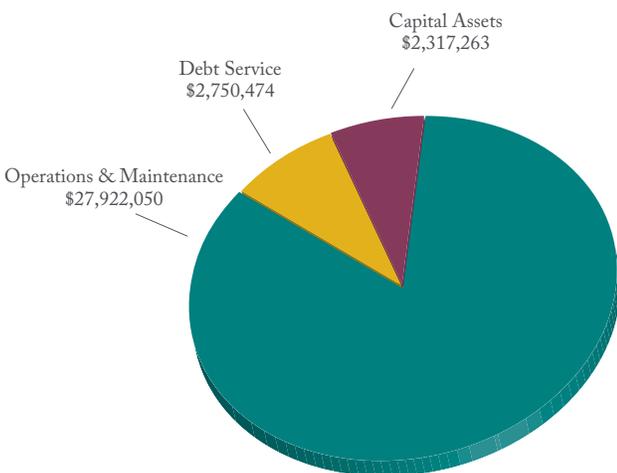
Total Wholesale Water Delivery to Water Agency contractors:



A majority of the Water Agency's revenue comes from the sale of water to its nine contractors. Wholesale water rates are created by using a calculation outlined under a legal binding agreement between the Water Agency and its water contractors. This document, called the Restructured Agreement for Water Supply, requires the Water Agency to set rates based on budgeted operations and maintenance costs and past water sales.

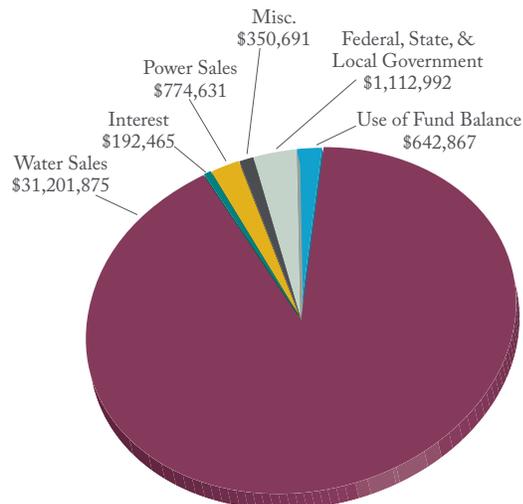
Water Transmission Expenditures

Total \$32,989,786



Sources of Water Transmission Revenue by Category

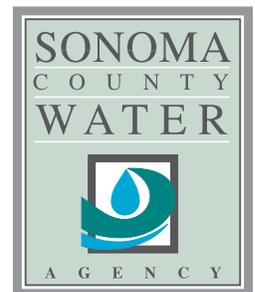
Total \$32,989,786







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