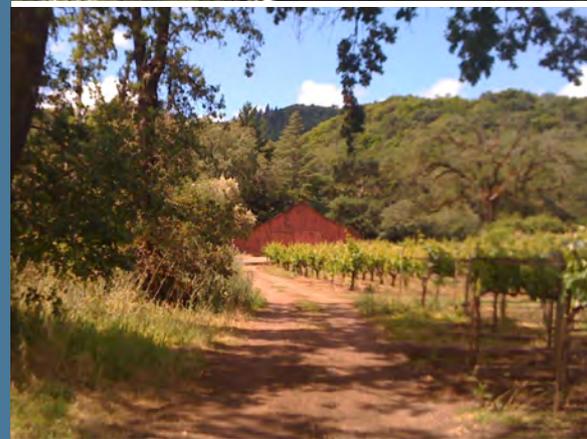


**S O N O M A**  
RESOURCE CONSERVATION DISTRICT



## Biennial Report 2014-2015

*Supporting landowners  
to conserve and restore  
Sonoma County's soil and water*



## 2014-2015 Accomplishments at a Glance

The mission of the Sonoma RCD is to help agricultural and rural landowners protect, conserve, and restore natural resources through information, education, and technical assistance programs.



### Executive Director Message

## Seventy Years and Still Counting!

As we embark on our 70th year delivering innovative conservation programs in Sonoma County, the Sonoma RCD has long understood that real solutions come from working together. We work with ranchers, farmers, government agencies, non-profits, scientists, local contractors and consultants, schools, and others to improve conservation outcomes for nature and our communities. We strive to use the best information and experience available to achieve the greatest collective impact on the ground and in our watersheds.

Since our merger of two districts in 2013 we have created a more financially sustainable organization that is able to provide a higher level of conservation programming to our local landowners and partners. After a lot of hard work streamlining our operations we have hit our stride.

A core area of our work is creating quality conservation programs that suit the needs of the agricultural and rural community. Faced with declining water supplies and an unprecedented drought, a changing climate, and challenges to fish and wildlife species, the RCD needs to be able to respond quickly to affect positive change by providing the best educational and technical services possible

Looking forward to our 70th year and beyond we have four major goals for our district:

- Deliver high quality, innovative conservation programs to our rural and agricultural landowners that address the most critical natural resource concerns and are based on sound science.
- Continue to work at a watershed scale to achieve natural resource management goals with our communities.
- Advocate for increased collaboration, a middle of the road approach, and local solutions to resource conservation in Sonoma County and regionally.
- Provide educational opportunities for the next generation of farmers and conservationists.

We could not achieve what we do without all of you. We thank you for your partnership, commitment, and forward thinking that helps makes Sonoma County such a great place to live and work.

*Kara Hackett*



# Leadership for Local and Regional Collaboration

The RCD utilizes our many partnerships to capitalize on our collective strengths to create the best, most effective programs. Whether it be regionally in the North Coast or Bay Area, on county-wide conservation efforts, or locally in a particular watershed, working collaboratively is how we see the greatest work achieved.



Launching of our LandSmart® program and brand regionally, in collaboration with the Napa County, Gold Ridge, and Mendocino County RCDs was a major milestone. Components of the program include conservation planning on farm and ranches, technical assistance and training, on the ground conservation projects, and youth stewardship and education. Working together regionally on this program is already providing consistency across district and county lines, and better use of our limited resources.

At the local watershed scale the RCD has continued to be a key partner in the Russian River Coho Water Resources Partnership, in place since 2009. A diverse partnership formed to develop a systematic approach to improve streamflow and water supply reliability in five Russian River tributaries critical to coho salmon survival, the work of the Partnership has proven to be vital with the recent onset of new state regulations and prolonged drought conditions. In 2015 two Integrated Watershed Management Plans were completed by the RCD in the same watersheds, complimenting these long term efforts.

In the Southern part of our District, in partnership with the San Francisco Estuary Institute, we initiated and procured funding for a Petaluma Watershed Historical Hydrology Study. This exciting endeavor is aimed at gaining more knowledge about the natural resources in the watershed and bringing together partners to work more collaboratively toward shared goals.

Looking forward, the RCD is part of the newly-formed Sonoma County Venture Conservation Initiative. This initiative will build and support a partnership among over 30 local, state, and federal organizations committed to improving water quality, water conservation, wildlife habitat, soil health, and protecting farmland. This effort will establish and maintain a shared vision for community, ecosystem and agricultural health to ensure long term resiliency to climate change and severe drought.

Additionally, the RCD is embarking on a North Coast Durable Collaboration among 11 RCDs that make up the North Coast Region of the state, extending from Marin County to the Oregon border. Together this group of RCDs will work on strategies and goals as a region to tackle complex natural resource issues.

“SFEI is excited to be working with the RCD on a long anticipated effort to develop comprehensive historical hydrology information for the Petaluma Watershed. The RCD possesses a thoughtful, talented, and engaging leadership (and staff) who are continually enhancing their effectiveness and capacity to improve the health of Sonoma County watersheds.”

– Chuck Striplen, SFEI Associate Environmental Scientist



# Conserving Soil: Going Back to Our Roots

International Year of Soils (IYS) 2015, declared by the 68th United Nations General Assembly in December 2014, sheds an important spot light on the importance of soil health on an international level.

In November 2015, the Sonoma RCD, Gold Ridge RCD, and NRCS received a Gold Resolution from the Sonoma County Board of Supervisors in recognition of educational and technical assistance programs focused on soil conservation and soil health to landowners and farmers throughout Sonoma County for the last 80 years.

Collectively in this span of time these three organizations have brought over \$160 million dollars in state and federal funding for soil, water, and habitat conservation practices and projects to Sonoma County's rural and agricultural lands.



## Planning for the Future Through a New, Award-Winning Program

**Working in partnership with agricultural landowners, the RCD addresses critical natural resource concerns for fish, wildlife, soil, and water.**

In 2014, the RCD achieved a major strategic plan goal by launching our LandSmart Planning program. Working with agricultural landowners to plan and prioritize management practices to protect water quality, improve wildlife habitat, and conserve water, the RCD has completed plans on 48 vineyard, livestock, and rangeland properties totaling more than 8,000 acres. In total, these plans identify more than 500 conservation practices which landowners can implement.

As part of the planning process in the Sonoma Creek watershed, we launched a certification program for vineyards that have completed LandSmart Plans. To become certified, an RCD certification team reviews the accuracy of the Plan, and appropriateness of the practices identified in an effort to assist landowners with compliance of future water quality regulations. In November 2015 the planning program was honored with the Natural Resource Conservation Service's "Excellence in Conservation" Partner Award.

### Carbon Farming

In 2016, LandSmart Plans will feature a chapter on Carbon Sequestration and Soil Health. The RCD is part of an innovative, regional effort aimed at bringing "Carbon Farming" to diverse agricultural land uses throughout the North Bay Area and parts of the North Coast.

Carbon Farming involves implementing practices that are known to improve the rate at which CO<sub>2</sub> is removed from the atmosphere and converted to plant material and/or soil organic matter. Potential practices will include compost application, changes in tillage, hedgerows, riparian planting and more. In addition to carbon sequestration, these practices can provide multiple benefits, including increased soil water holding capacity and pasture productivity, improved water quality and wildlife habitat, and increase resiliency to the impacts of climate change.



"The RCD's sensitivity to the many challenges we face with our property is greatly appreciated! The maps and planning tools will prove invaluable to our family and for future generations."

— Jack Rasmason, Ranch Owner in Mark West Creek Watershed



The RCD's approach to land stewardship is proactive, practical, and they are always able to work with me to find affordable, simple solutions for my projects."

— Sue Smith, Vineyard and Ranch Owner in Sonoma Creek Watershed

# Securing Water, Fish, and Wildlife on Working and Rural Lands

**The RCD works hand in hand with farmers, ranchers, foresters, and conservation agencies to advance fish and wildlife habitat, water quality, and improve water security on crop, grazing, timber, and rural residential lands in Sonoma County.**

Fish and wildlife are an integral component of any ecosystem and can be vital indicators of the functionality and well-being of our local watersheds. In the last two years we completed 15 diverse conservation projects with 24 landowners and a variety of partners, with an additional 22 projects in development. These projects benefitted our local creeks, soil and water resources, by enhancing riparian and instream habitat for endangered species such as coho salmon and California tiger salamander throughout our district.

In recent times of prolonged drought conditions the RCD offered landowners and managers valuable tools and resources to best manage our finite water supply and to “Slow It, Spread It, Sink It and Store It!” We conducted irrigation evaluations to help over 30 vineyards conserve water and expanded our long term program to restore instream flows to Russian River streams by increased outreach and development of over 20 new rainwater catchment projects. Acting in a lead role for landowner outreach and project identification, the RCD is forging trusting relationships with landowners to protect these streams and the fish and wildlife that depend on them.



*“As the design for our large wood structures in Grape Creek transformed from a sketch to a plan, and finally into the sturdy roots, rock and redwood together in the stream, I felt a huge appreciation for all of the thoughtful work that went into arriving at this outcome! Also, it was wonderful that the redwood was sustainably harvested from the immediate area, and the rocks were sourced in-county also. I can’t wait to see how the coho and steelhead use the new habitat structures this winter.”*

*—Sally Weed, Vineyard Owner in Grape Creek Watershed*

## In 2014/15 the RCD worked in partnership with over 365 landowners

In our Coastal Watersheds of Austin Creek, Sheephouse Creek and Russian Gulch, in partnership with Pacific Watershed Associates, we completed our work to reduce erosion and sediment discharges and storm water flow velocity on over 21 miles of rural forest and ranch roads. Upgrading and decommissioning these roadways saved approximately 21, 270 cubic yards of sediment from entering nearby waterways.

This important on the ground work would not be possible without the dedicated landowners and partners who collaborate with the RCD to support the conservation of our natural resources on rural and working lands.



*“We have a more reliable water system and we’ve reduced our impact on summer water levels in Mill Creek.”*

*—Jean Zbinden, Rural Landowner in Mill Creek Watershed*



## Groundwater Management: Establishing Existing Conditions, Reaching New Communities

Groundwater is an essential component to the health and function of our watersheds, including ecosystems and agricultural, rural and urban communities who depend on its supply. In Sonoma County, the State has designated three of the county's 14 basins and sub-basins as medium-priority for groundwater management. The RCD is a key player in providing practical, local solutions to groundwater management on rural and agricultural lands throughout these basins and actively participated in technical committees and basin advisory panels.

To better understand our water resources, well monitoring has been a key tool in effective and sustainable management. As part of a long term strategic plan goal around water resource management, we have been monitoring ten wells in the Russian River Watershed

through the state's groundwater management program (CASGEM), in partnership with the Sonoma County Water Agency, and 154 wells in the Southern Laguna Watershed in partnership with the Federated Indians of Graton Rancheria. These well monitoring programs have been invaluable to local residents to better understand groundwater resources. Reaching these new communities has been a remarkable opportunity for the RCD to create new and positive alliances with a new community of landowners and provide information on their water supply.

The RCD, based on mission alone, sees the importance of understanding the relationship between groundwater and surface water as part of effective water resource management and aims to expand our existing program in years to come.

*"Being a part of the monitoring is essential to understand this valuable resource in our semi-arid state facing prolonged years of drought, in order to plan sustainably for our future. Water is necessary for all life."*

*—Cassandra Lista, Rural Landowner in the Laguna de Santa Rosa Watershed*

## Leading the Creation of Innovative Markets to Improve Water Quality

October 2015 marked the end of a three-year stakeholder process to develop a Water Quality Credit Trading Market in the Laguna de Santa Rosa watershed. The RCD, in partnership with the Gold Ridge RCD, Kieser & Associates, the Willamette Partnership, and the Texas Institute for Applied Environmental Research brought together local, state and federal stakeholders to develop the first market of its kind in California. The concept, allows point source dischargers, such as wastewater treatment plants, to meet their water quality compliance requirements by paying for projects that reduce the potential for nonpoint source pollution, such as erosion, on rural and agricultural lands. In a complex watershed such as the Laguna de Santa Rosa, Water Quality Credit Trading is one tool in the "watershed approach" toolbox to achieve water quality goals efficiently and facilitate additional benefits to the watershed (such as habitat enhancement).

This stakeholder process builds upon projects implemented by the RCD, in partnership with the City of Santa Rosa, to generate water quality offsets/credits. These projects, including road-related erosion control and dairy manure and pasture management, provided an initial view into how water quality credits could be generated, and opportunities to streamline this process. The final product of the stakeholder process is a recommended framework for Water Quality Credit Trading in the Laguna. These recommendations, if adopted by the Regional Water Quality Control Board, will streamline administrative processes associated with generating credits, allowing funds that would have been spent on complex administrative processes to be focused on water quality improvement instead.



# Inspiring Conservation, Preparing Tomorrow's Leaders

## FARMS is Farming, Agriculture, and Resource Management for Sustainability

The RCD's longest standing youth education program FARMS Leadership, a chapter of the state wide run program founded by the Center for Land-Based Learning, provides hands-on experiences to urban, suburban and rural high school youth at working farms, agri- businesses and universities. The 2014-2015 academic year marked the 17th anniversary of the program in Sonoma County. A total of 30 students from five different high schools are selected annually to participate after applying through a competitive process within their school. Participants develop leadership skills and learn about agricultural practices that contribute to a healthier ecosystem, while connecting with agricultural, natural resource, conservation, and food system career opportunities. Monthly through the academic year, the group explores a number of local farms, ranches and community gardens representing the diversity of our region. Connecting students to our local working landscapes and the diversity of food system careers provide a unique learning opportunity for our young leaders throughout the county.



**"92% said that the FARMS Program changed their attitudes about food and agriculture. 56% have a career involving agricultural or environmental sciences."**

*—Center for Land-Based Learning*

## TEAM (Teaching Environmental and Agricultural Memories) Conservation Education

In October of 2015, the Sonoma RCD announced and launched the TEAM Conservation program in partnership with Gold Ridge RCD and the Sonoma County Agricultural Preservation and Open Space District; adding a fourth learning site to the existing program for elementary students across the county. The TEAM program utilizes local conservation easement protected farms as an outdoor classroom allowing students to discover the value of the soil beneath their feet, how and where our food is grown, while immersing K-4th graders in Sonoma County's agricultural history and local environmental stewardship efforts. The Sonoma RCD served 135 fourth grade students over five field trips in its first season, inspiring an appreciation and connection with land conservation. TEAM field trips also emphasize the importance of partnership among diverse stakeholders in protecting our natural resources and the renowned agricultural lands of Sonoma County.



**"We feel it is so important to teach children where their food comes from, especially the food that is grown here in Sonoma County. We believe this opportunity was beneficial for the children to see firsthand a working farm and what it produces. Hopefully, the public will learn how important our agricultural land and identity is in Sonoma County."**

*—Rick and Cindy Crane, Farm Owners in the Laguna de Santa Rosa Watershed*

**"FARMS Leadership has helped me see who I truly am as a person. I've realized through this program that my passion is for plants. It's pushed me to want to learn more and more about plants and go on my own after the program, furthering my education with hands on experience in a nursery in West Sonoma County."**

*— Alex Wilson, Windsor Oaks Academy  
FARMS Leadership Program 2013*



## On the Land Connections



850 landowners and community members reached through our LandSmart® workshop, watershed clean ups, and public outings series.

The RCD provides an indispensable opportunity to agricultural producers and industry professionals to engage with cutting edge natural resource conservation through technical workshops. These workshops have focused on topics including: soil organic matter and carbon sequestration, vineyard planning, irrigation efficiency and water conservation techniques, pasture management, rural road enhancement, bank stabilization using bioengineering methods, and composting on equine facilities. Furthering conversations between producers about natural resource management is essential to sustain these operations for future generations.

Connecting the public to local working lands and the role they play in the health of our economy and community is equally as vital. Our Agricultural Heritage public outing series fosters a special relationship with people, place and our local food system. Inviting members of the public onto private agricultural operations ranging from dairies to vineyards, forest land and row crop farms, offering a unique and distinct experience. In partnership with the Sonoma County Agricultural Preservation and Open Space District, we led over 250 members of the public in 2014-2015 on conservation easement protected working lands. We see these lands and the people who steward them as our most valued resource.



“It was fascinating to see the contrast between the managed forest and the “natural” one where the managed clearly grew faster and seemed healthier.”

—Nils Michael Langenberg,  
Agricultural Heritage Series and  
Workshop Participant

## A Huge Thank You to Our Landowners, Partners, and Funders That Helped us Achieve Our Work in 2014-2015

**367 local landowners** engaged in RCD planning, on the ground, and/or water resource programs.

**850 local landowners and community members** attended a RCD workshop or outing

**Over 190 high school and elementary youth** experienced Sonoma County's diverse agricultural landscape and were exposed to the importance of our local food system through our education programs.

### Partner List

Abraham Lincoln Elementary School  
Advanced Viticulture, Inc.  
Analy High School  
Bioengineering Associates, Inc.  
California Association of RCDs  
\*California Coastal Conservancy  
\*California Department of Conservation  
\*California Department of Fish and Wildlife  
\*California Department of Water Resources  
\*California State Water Resources Control Board  
Carbon Cycle Institute  
Casa Grande High School  
Center for Ecosystem Management and Restoration

City of Petaluma  
\*City of Santa Rosa  
Community Alliance of Family Farmers  
Conservation Corps North Bay  
\*County of Sonoma  
\*Federated Indians of Graton Rancheria  
Friends of Mark West Watershed  
Friends of Petaluma River  
Gold Ridge RCD  
Kieser and Associates  
Laguna High School  
Marin RCD  
McKinley Elementary School  
Mendocino County RCD  
Napa County RCD  
\*National Fish and Wildlife Foundation  
\*National Marine Fisheries Service  
North Bay Agricultural Alliance  
\*North Bay Watershed Association  
North Coast and Bay Area Regional Water Quality Control Boards  
Occidental Arts and Ecology Center  
O'Connor Environmental  
Orchard View School  
Pepperwood Preserve  
Pivot Charter School – North Bay  
Prunuske Chatham, Inc.  
Pt. Blue Conservation Science  
STRAW project

Pacific Watershed Associates  
Regional Climate Protection Authority  
Russian River Watershed Association  
Russian Riverkeeper  
San Francisco Estuary Institute  
Santa Rosa Junior College  
Sebastopol Charter  
\*Sonoma County Agricultural Preservation and Open Space District  
Sonoma County Farm Bureau  
\*Sonoma County Water Agency  
Sonoma County Winegrowers  
\*Sonoma Land Trust  
Sonoma State University  
Sonoma Valley High School  
Streamline Engineering  
Texas Institute for Applied Science  
The Center for Land-Based Learning  
Trout Unlimited  
University of California Cooperative Extension  
US Army Corps of Engineers  
\*US Environmental Protection Agency  
US Fish & Wildlife Service  
\*USDA Natural Resources Conservation Service  
Western United Dairyman  
Wilamette Partnership  
Windsor Oaks Academy  
\*RCD Program Funder 2014-2015



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Ginny Laughlin/Athena Design

# Ways you can get involved



## Participate

in developing a conservation plan or on the ground project to protect soil, water, and wildlife habitat.

## Join us

for a free public outing to explore the agricultural heritage of Sonoma County or attend a technical workshop to gain the latest information on resource conservation.

## Invest

in your local RCD with a tax deductible donation to support conservation programming. The RCD is more than 95% funded by competitive grants and fee for service contracts.

## Sign up

to receive our monthly e-newsletter to get the latest updates on RCD programs, funding opportunities, and events. Visit our website at [www.sonomarcd.org](http://www.sonomarcd.org).





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**S O N O M A**  
RESOURCE CONSERVATION DISTRICT



*Your trusted resource for rural and  
agricultural soil and water conservation.*