

# SOTOYOME RESOURCE CONSERVATION DISTRICT

## Sausal Creek Bank Stabilization-EQIP

Four years ago Sotoyome RCD staff met with landowners on Sausal Creek for a tailgate meeting to discuss the RCD's Giant Reed (*Arundo donax*) removal program. The conversation quickly turned to three adjacent landowners voicing their concerns about their failing streambanks that were threatening valuable crop land and winery infrastructure and contributing excessive amounts of sediment into the Steelhead stream below. These concerns are common for landowners throughout the mainstem and tributaries of the Russian River Watershed due in part, to upstream rural residential and agricultural development, and dam releases from Coyote and Warm Springs Dams.

Over the following three years Sotoyome RCD staff worked with the three cooperating landowners, engineering staff on local and state levels from the Natural Resources Conservation Service (NRCS), NOAA National Marine Fisheries Service, Regional Water Quality Control Board, US Army Corps of Engineers, and the Department of Fish and Game, to come up with a comprehensive stream bank repair and re-vegetation plan for all three sites. NRCS engineering staff provided engineered designs for this complicated project through their Environmental Quality Incentives Program (EQIP). Extensive engineering for this project proved to be quite challenging; problems ranging from highly erosive soil types to high volume water flows. In the summer months of 2007, Sotoyome staff submitted permits and filed California Environmental Quality Act (CEQA) documents on behalf of the landowners involved in the project. After permits were obtained in just four months grading and rock placement were completed in October of 2007. Re-vegetative elements consisted of a live willow wall and other native riparian vegetation planted on the graded side slopes of the stream bank.



Participating landowners on Sausal Creek also participated in the *Arundo donax* removal program with all treatment sites close to eradication. Although this important project had an extended timeline that tested everyone's patience, the RCD's continued commitment to the landowners and their concerns remained the top priority. If you are a landowner who needs technical assistance or permit assistance for a failing stream bank contact the Sotoyome RCD for help at 707.569.1448.



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## **Sotoyome Resource Conservation District**

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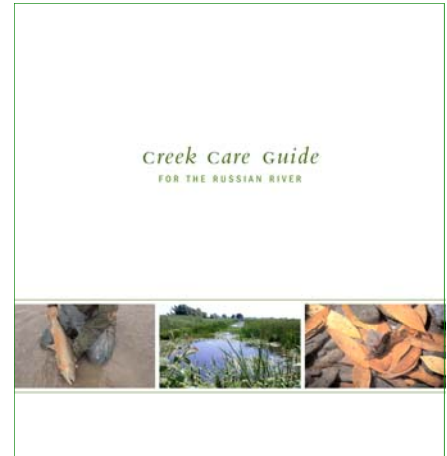
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## **Russian River Creek Care Guide**

The Sotoyome RCD, in partnership with Gold Ridge RCD, Mendocino County RCD, and Prunuske Chatham, Inc., has nearly completed work on the Creek Care Guide for the Russian River Watershed. This guide will serve to educate all watershed residents about a broad variety of riparian resource issues in the Russian River Watershed. The guide includes basic watershed definitions, best practices for property owners on creeks, and includes information about permitting requirements for work in riparian areas. Special care is taken to communicate that actions within a watershed have far-reaching effects, some of which are not readily apparent to those whose daily lives may take them far from creeks and rivers. This illustrated, full color document will be available in print at all of the RCD offices, with electronic versions available through our website, [www.sotoyomercd.org](http://www.sotoyomercd.org), in summer 2008.



## **Sotoyome RCD Welcomes New Staff**

Greg Fisher joined the Sotoyome RCD in October 2007 as Restoration Program Manager. Greg comes to us after working for the last seven years with longtime project partner, Circuit Rider Productions, Inc., in their Restoration Implementation program. At Sotoyome RCD, Greg oversees the successful implementation of a variety of restoration projects across the RCD's jurisdiction, including rural roads restoration, stream bank stabilization, grazing management, and riparian planting projects. Greg has experience designing and managing multiple aspects of restoration projects, monitoring project effectiveness, and monitoring water quality and in-stream processes. He hopes to use his background in Geographical Information Systems (GIS) to enhance Sotoyome RCD's mapping and assessment capacity. Greg graduated from James Madison University in 1996 with B.A.'s in Anthropology and Media Arts and Design. He has pursued considerable additional training in agronomy, wetland botany, and general field botany.



## Russian River First Flush 2007

On the night of October 9, while most people rode out the first major storm of the season snugly tucked in their beds, a small but dedicated group of volunteers braved the torrential downpour to complete the 2007 Russian River First Flush sampling event. Donning rain gear and sampling equipment, 31 participants sampled 11 urban creeks and adjacent storm drain outfalls throughout the Russian River watershed. The sampled sites included Piner, Santa Rosa, Matanzas, Colgan, Calder, Fife, Copeland, Hinebaugh, Pool, Foss Creeks and the Laguna-Cotati Channel and represented storm-water runoff from the Cities of Santa Rosa, Rohnert Park, Cotati, Sebastopol, Healdsburg and the towns of Windsor and Guerneville.

Urban runoff is widely acknowledged to be one of the largest sources of pollutants that impair water quality and aquatic resources. Monitoring stormwater, particularly during the first major rain event of the season helps establish baselines for pollutants, data trends, identify hotspots to follow up on and provides feedback on current and future pollutant control and reduction efforts.

This was the fifth Russian River First Flush sampling event since the effort began in 2002 (no event took place in 2006 due to lack of funding). The First Flush sampling occurs during the first major storm of the season when the landscape is “flushed” with water. Sampling is timed to coincide with the influx of storm water draining into our local creeks. This storm water sheets over impervious surfaces (streets, parking lots, roofs, etc.) and carries with it months of accumulated trash, oil, chemicals and other pollutants that are washed off city streets and flushed through storm drains, making its way directly into the streams and the Russian River. Some pollutants are extremely toxic to aquatic wildlife, even for brief exposure at very small concentrations. First Flush sampling can measure a stream’s health under a worst-case scenario where a cocktail of many pollutants and toxins are entering our creeks from all over the landscape -- the cumulative effects of a landscape’s worth of non-point source pollution.

It is important to note that as with all questions, you can only get answers to the things you ask, and in a monitoring context, you can only get information about the pollutants you choose to measure. Since Russian River First Flush is a largely un-funded event, we rely on donations from local laboratories for the water quality analysis. Due to generous donations from Brelje and Race Laboratories, the City of Santa Rosa’s Laguna Wastewater Treatment Plant lab, Russian Riverkeeper (for nutrients) and the Environmental Protection Agency (EPA) Lab in Richmond, we were able to analyze creek samples for nutrients, metals, bacteria and turbidity. Event participants also sampled for Temperature, pH and Conductivity while on site. By no means, is this an exhaustive list of potential pollutants, but results from these constituents can give us insight into the sources of the pollutants entering our waterways (metals from brake pads, bacteria from pet waste, nutrients from fertilizers applied to lawns and gardens, etc.). By understanding the pollutants of concern, we can propose Best Management Practices (BMPs) to best target the input of these pollutants. The community can adopt these BMPs that can best target the input of these pollutants. The community to improve water quality and aquatic habitat can adopt these BMPs. (*continued, page 4.*)



## First Flush 2007, cont'd

The 2007 event, was coordinated by the Sotoyome Resource Conservation District and the Russian Riverkeeper, and was partially funded by the Sonoma County Water Agency. The sampling event featured an improved sampling design that measured selected pollutants in both storm and receiving waters.

Surface water from each creek was sampled. In addition to sampling the surface water from each creek to characterize the impact of storm water on the creek, storm flows entering creeks through large diameter culvert outlets, just upstream of the creek sampling sites, were sampled to characterize the pollutant levels in the storm water that enters the creeks. In addition, due to an EPA sponsored World Wide Monitoring Day event that occurred hours before the First Flush sampling, baseline samples were collected from creeks that had surface flow prior to the rainfall.

Gathering first flush water quality data throughout a watershed, and building a multi-year data record, gives pertinent information on how the sum of all our activities impacts our waterways to municipal officials, regulatory agencies and citizens. It should also be useful to everyone who lives, works, drives, or hangs out in any of these areas, since we all contribute pollutants to the landscape. The data collected can help us all understand some of the most pressing impacts to our creeks and investigate ways we can modify our behavior to lessen these effects.

In addition to yielding important data, first flush sampling can actually be fun. In the words of Russian River First Flush 2007 volunteer Kate Symonds, "It may sound odd, but it was kind of fun spending a few hours in the pouring rain in the middle of the night by the creek. It was a civic lesson of sorts to see to see what flows down our creeks during the first big rain of the season. I highly recommend it."

The event is not currently funded for 2008. Partners continue to apply for and solicit funding sources for all aspects of the event. Stay tuned for information about a 2007 results roll out event in Spring 2008. For more information contact Sierra Cantor, [scantor@sotoyomercd.org](mailto:scantor@sotoyomercd.org) or Don McEnhill, [don@russianriverkeeper.org](mailto:don@russianriverkeeper.org).



## Austin Creek Watershed Restoration Program

Austin Creek Watershed has a long relationship with Coho salmon, Chinook salmon, and steelhead trout. The last century has been a time of degraded quality of habitat for these neighbors in the wild, and more recently, a time of intense efforts to mitigate the problems created in this vital habitat. Unique partnerships between local residents, gravel mining interests, government and non-government agencies have successes in improving and monitoring the conditions in Austin Creek watershed. However, the funding for these programs will expire after 2008, and much more work still needs to be done if watershed restoration goals are to be realized.

Sotoyome RCD is rigorously seeking funding to expand upon the work already accomplished through their Coastal Tributary Improvement Program funded by a Proposition 13 grant through the State Water Resources Control Board that ended in 2006. Sotoyome RCD recently held a funder's day event to promote future restoration efforts. Austin Creek is one of the key stocking watersheds for the CA Department of Fish and Game's Russian River Coho Salmon Captive Broodstock Program, and the excessive erosion and depositing of sediment from rural roads has impaired the ability of salmon to enter the creek to spawn. Funding would allow a priority ranking of the sites contributing sediment. SRCD has received landowner interest agreements which would include 70 miles of road for assessment. SRCD would coordinate efforts with the Sonoma County Transportation and Public Works Department on the assessment of county roads currently being conducted by Pacific Watershed Associates (PWA) within the watershed, making for a comprehensive first phase of a watershed-wide road assessment. Other work would include installation of large woody debris and boulders to improve migration and rearing habitat. Effectiveness monitoring of the results on habitat would be an important facet of a long term program. Formation of an advisory committee to assist and direct the priorities would make best use of monetary resources. Funding would allow sediment source assessments, lowering of upslope sources of sediment, while increasing important salmonid habitat downstream, and monitoring the results over time.

# Upper Mark West Roads Update

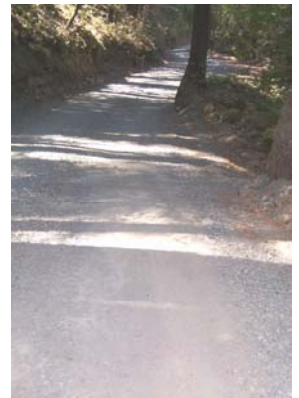
Sotoyome RCD's Rural Road Improvement Program (RRIP) is beginning a second phase of road improvement in the Upper Mark West Watershed to further address fine sediment inputs into nearby streams. Additional road work looks to expand on the 12 miles of road rehabilitation that took place between 2006 and 2007 and the estimated 14,000 cubic yards of fine sediment prevented from entering Mark West Creek that work saved. Thanks to project partners and the participation and in-kind contributions of over 70 local landowners, Sotoyome RCD was able to leverage over \$570,000 dollars in public funds towards this effort. Sotoyome RCD plans on proposing an additional project phase with a similar scope of work to the California State Coastal Conservancy this summer. Pacific Watershed Associates and Charles Hope Construction will continue to partner with the Sotoyome RCD and local landowners to identify, assess, and implement road treatments designed to reduce sediment inputs into the watershed, improve access, reduce maintenance costs, and potentially increase property values.

Sedimentation is one of the largest limiting factors for water quality in the Russian River watershed. These voluntary, non-regulatory projects designed to improve water quality and wildlife habitat depend on willing landowners to move them forward and help contribute towards their success. We are very interested in hearing from landowners with additional unpaved spur roads to inventory and improve. Please contact Greg Fisher, Restoration Program Manager, for more information and the criteria for participation in Phase II of this important project.



The Upper Mark West Creek Sediment Source Reduction Project, as well as other habitat restoration projects implemented in the Upper Mark West Creek watershed, originated through the *Sotoyome RCD Russian River Creek Stewardship and Volunteer Monitoring Program (RRCSP)*. A general watershed overview and summary of monitoring activities conducted in the Mark West Creek watershed through the RRCSP are available in several monitoring reports available on the Sotoyome RCD website at, [www.sotoyomercd.org](http://www.sotoyomercd.org).

*“The delivery of road-related sediment to a stream is analogous to death by a thousand paper cuts. In any watershed, runoff from hundreds of miles of poorly drained, unpaved roads affects both water quality and aquatic habitat by delivering large volumes of fine sediment to the stream system.”*



## Workshop: Livestock Grazing on Vernal Pool Landscape

Over 80 people participated in Sotoyome RCD's recent workshop on grazing in vernal pool landscapes. This workshop was a partnership between the RCD, Joan Schwan, a Sonoma State University Masters candidate, and Kerry Williams, a local sheep rancher. Attendees came from the dairy and cattle industry, academia, regulatory agencies, and the biological consultant field to interact with each other and share information about how well-managed grazing increases productivity of both natural resources and agricultural operations. Cooperation and exchange of information is especially relevant in the Santa Rosa Plain, where rich agricultural traditions of the area can be maintained while habitat for rare and endangered plant and animal species can be enhanced by grazing practices. Funding for this workshop was provided by the Sonoma County Water Agency and a grant from the Western Region Sustainable Agriculture Restoration and Education Program.



# Spring Creek Emergency Repairs

The 2007 restoration season came to an end in October, but not before securing the home and property of the Parker Family who live on an urbanized reach of Spring Creek in Santa Rosa. The New Year's Storm of 2005-06 proved to be a costly one for the Parkers. High water flows from the storm and recent upstream development, combined with confined stream morphology, caused significant scouring and eventual collapse of soils adjacent to the Parker residence. (see 'before' photo below.)

The damage to the Parker's property coincided with disaster declarations on both the State and Federal levels. A damage survey deemed an imminent threat to life and property thus the Parkers were eligible for Emergency Watershed Protection funding from the Natural Resources Conservation Service (NRCS).

NRCS District Conservationist for Sonoma and Marin Counties, Charlette Epifanio, called on Sotoyome Resource Conservation District to act as local sponsor for project management and lead agency on the California Environmental Quality Act (CEQA) and permitting necessary for this complicated project. With engineering assistance from Prunuske Chatham, Inc., and Bauer and Associates, Sotoyome RCD was able to obtain the necessary permits from Department of Fish and Game, Regional Water Quality Control Board, US Army Corps of Engineers, and National Marine Fisheries Service within four months. Sotoyome RCD worked with local contractor, Geodynamics, to implement stream bank construction measures needed to secure the streambank and the Parkers' home. (see 'after' photo below).

Sotoyome RCD faced a number of challenges with creek work in urban Santa Rosa. Time spent obtaining permits proved costly to both the SRCD and the Parkers with final approval given just three weeks before construction season was to end, despite the project being funded by Federal Emergency Assistance Funds. NRCS provided valuable assistance by covering shared costs for construction and engineering and by providing technical assistance. A number of issues came into play through the planning and implementation stages of the project such as soil stability, fish rescue, and complicated stream hydrology. Sotoyome RCD will also receive assistance from the Governor's Office of Emergency Services to help cover staff costs for the project.

If readers are interested in learning more about the Sotoyome RCD, or other restoration projects completed each year on private lands, contact the RCD office at 707-569-1448, or visit our website at [www.sotoyomercd.org](http://www.sotoyomercd.org).



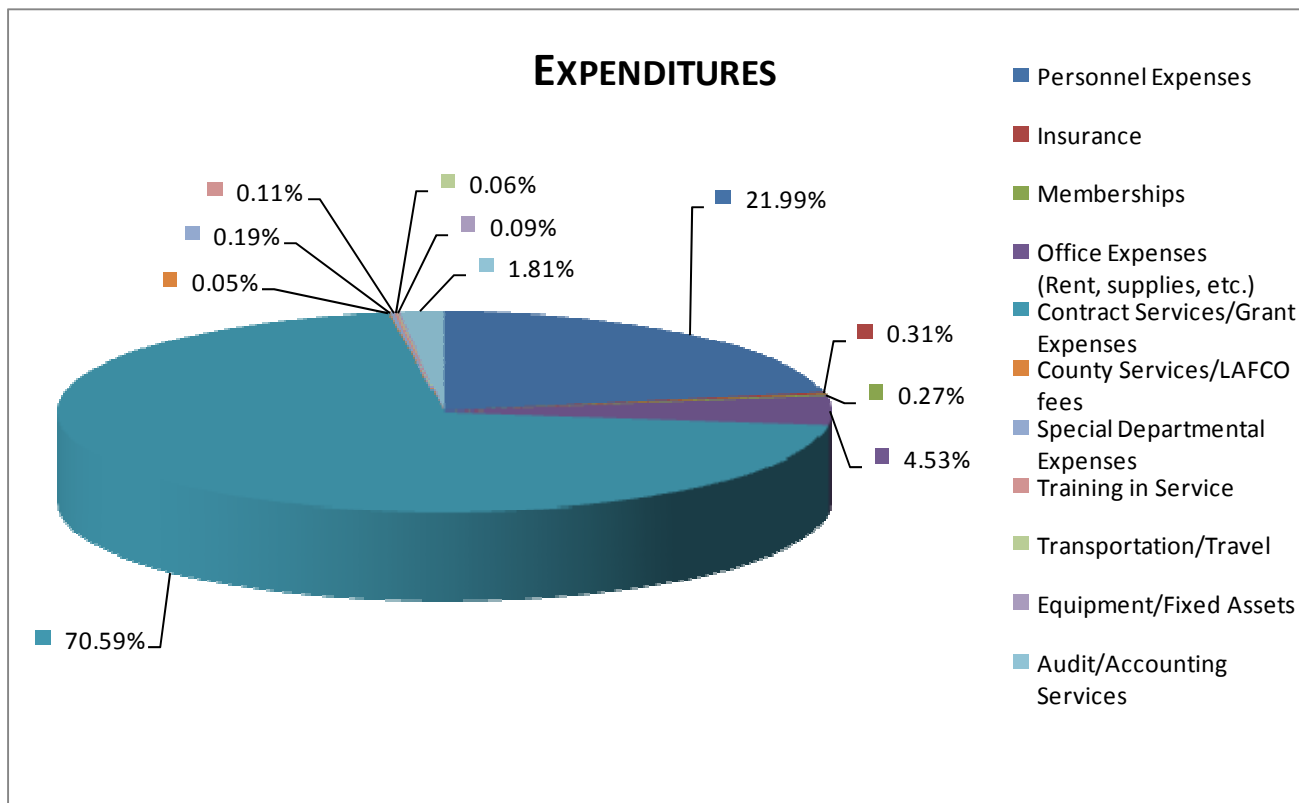
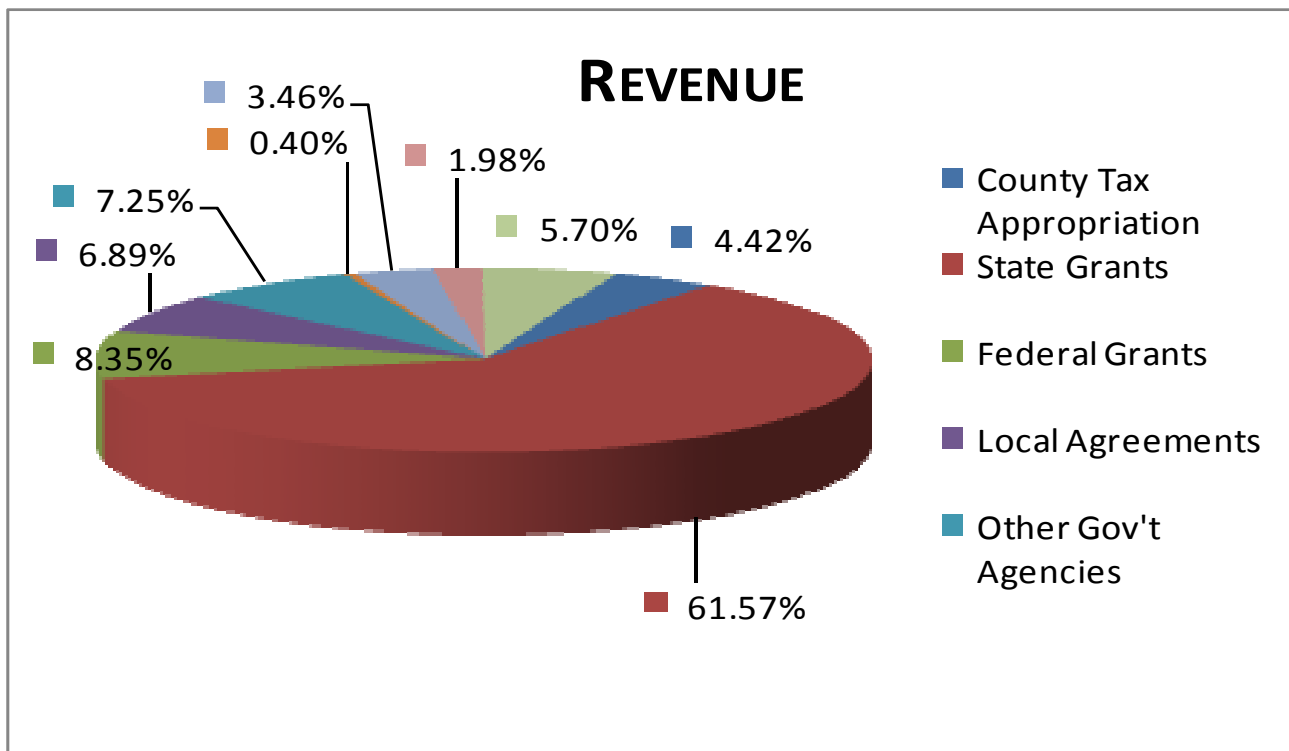
After the New Year's storm January 2006.



Completed stream bank stabilization with willow emergence March 2008.

# SRCD District Annual Financial Report

## Fiscal Year 2006/07



## SOTOYOME RESOURCE CONSERVATION DISTRICT

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Conservation articles, events, reports, and other

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### Services Offered by the District:

The following are Sotoyome RCD services available for a fee:

- Project Permit Preparation
- Restoration Project Management
- Natural Resource Property Management
- Physical, Chemical, and Biological Monitoring Services

For more information on our Fee Schedule and services contact Kara Heckert at:

569.1448 ext. 104

*The Sotoyome Resource Conservation District is committed to improving the sustainability of natural resources by developing leadership, exchanging of information, providing technical assistance, and implementing projects that balance environmental and economic interests.*