



Shasta Valley RCD NEWS

December 2019

Special points of interest:

- Shasta Valley Ranchers Fencing Project
- Monitoring for Water Quality always a Priority
- Parks Creek Project Contract Awarded
- Groundwater Update
- Forestry Projects in 2020

SVRCD Staff

Brandy Caporaso,
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Shasta River Ranchers—Doing Their Part

for salmon and riparian habitat along the river and its tributaries in Northern Siskiyou County. **RCD Project Manager, Gillies Robertson** has been working with several ranchers in the area to plan and prepare for the installation of new fences, water troughs and native riparian vegetation along the Shasta River, Oregon Slough, and a smaller unnamed tributary.

This month saw the end of the planning stage of the project, and the air around Montague was alive with the sound of shovels hitting the ground! Over the coming weeks, the RCD will oversee the installation of over 4000' of high-tensile electric



Above: Willow planting maintenance by Mike Riney and Ethan Brown

fence, 7000' of barbed wire fence, 4 new water troughs, and 800' of willow plantings. RCD staff have also been seen repairing and removing beaver exclusion cages from trees on over 4000' of healthy riparian habitat. The RCD continues to rely on willing partnerships with landowners throughout the Shasta River watershed who are keen to improve riparian and in-stream habitat with projects which also improve efficiencies and infrastructure on their land. For more information, or if you have a potential project on your property, please contact RCD staff.



Above: Stockwater under construction

Parks Creek Fish Passage Project Awarded



Mike Riney, Senior Project Manager

The Shasta Valley RCD conducted a competitive bid process and awarded a contract to North Rivers Construction, Inc. from Etna, California for the Parks Creek Fish Passage Project near Edgewood. We are happy to announce that this project will go to construction in 2020 after several years of fund raising, developing project designs by Cascade Stream Solutions, Inc., and completing a lengthy environmental compliance process. Special thanks go out to US Fish and Wildlife Service, Cal Trans, National Oceanic Atmospheric Administration, California Department of Fish and Wildlife and the National Fish and Wildlife Foundation for project funding and technical assistance. Signed land access agreements from willing landowners make this possible. This project will remove a fish passage barrier by installing a new roughened channel that will provide passage for endangered coho salmon and other species to critical spawning and rearing habitat. This project, along with several other projects that the SVRCD and willing landowners are participating in will increase access to quality habitat all along Parks Creek during the next few years. The development of these projects are continued ex-

amples of landowners, agencies and the SVRCD coming together to implement projects that benefit the watershed as a whole.



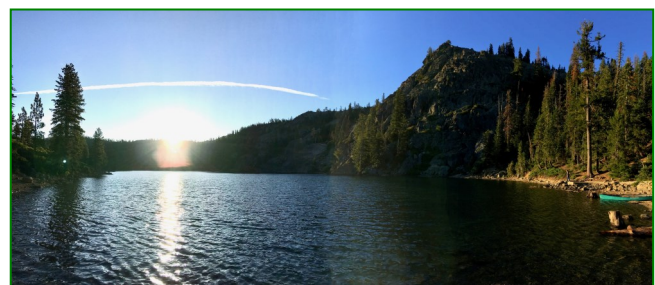
Above: Sheri Hagwood, USFWS conducting a botany survey at the Parks Creek I-5 Bridge.

Forestry Plans for 2020

Dan Blessing, Forester

Forestry Projects have always been part of the SVRCD toolkit. SVRCD wrote and was funded for the first Fire Safe Grant in Siskiyou County in the 1990's.

Forestry work has come to the forefront more and more as large fires in California flood the news and grants become more available. SVRCD has been strengthening our partnerships with Cal-Fire, Ore-Cal RC&D and the Klamath National Forest (KNF) to weave together strategic projects that make sense for SVRCD and contribute to the overall landscape scale fire management plan in our district.



Above: Kangaroo Lake, Klamath National Forest

Monitoring Update

December 2019

Mike Riney, Senior Project Manager

The Shasta Valley RCD completed another successful year of water quality monitoring in the Shasta Valley. This year's work included monitoring at 26 sites that included eight dissolved oxygen measurement locations and 18 temperature measurement locations. We also monitored flow in two separate conveyance ditches as part of pre-project assessments for upcoming irrigation efficiency projects at a couple of our favorite local ranches. Moreover, we will have installed 12 groundwater monitoring wells and two CIMIS stations with voluntary participation from landowners. We are very grateful for their willingness to participate in acquiring data that will help build a Groundwater Sustainability Model for the Shasta Valley, required under the Sustainable Groundwater Management Act.

The SVRCD has managed to keep the Shasta River long-term Water Quality Monitoring Program afloat, but not without challenges. With no long-term funding for the program, but a long term need for data that drive numerous water quality and conservation projects in our valley, the monitoring program is in peril of being discontinued. Initial funding to establish the Moni-

toring Program on the Shasta River came from the State Water Resources Control Board (SWRCB). Unfortunately, grants that fund monitoring programs are no longer offered by the SWRCB, and are difficult to find through any agency or NGO. This means **key areas of the Shasta River may not be monitored by SVRCD in 2020** unless we find additional funding.

That being said, we appreciate past support (financial and otherwise) from entities such as the State Water Resources Control Board, the US Fish and Wildlife Service, The Nature Conservancy, California Trout, California Department of Fish and Wildlife, National Fish and Wildlife Foundation, local landowners and irrigation districts. We ask the agencies, organizations and landowners that rely on these data for a continued commitment to a locally run monitoring program that allows us to assess project effectiveness, deliver valuable information to our local constituents and help to conserve our natural resources.

The SVRCD has worked hard to establish relationships and earn the trust of the many local landowners involved in the Monitoring Program. We also have the

technical expertise, familiarity and quality control protocols to manage and maintain it properly and efficiently. By keeping the program's base of operations at the Shasta Valley RCD, we're keeping hard earned tax dollars here in Siskiyou County and contributing to the local economy.



Left: Ethan Brown taking flow measurements in the Shasta River

Groundwater Update

Ethan Brown, Project Manager

The Shasta Valley RCD has been helping to make progress towards California's goals outlined in the Sustainable Groundwater Management Act by installing equipment and implementing a groundwater monitoring network throughout the Shasta Valley groundwater basin.

As part of this monitoring network, the Shasta Valley RCD has been installing groundwater elevation loggers in existing wells across the Shasta Valley groundwater basin. Last month, the RCD installed the basin's twelfth groundwater elevation logger. The groundwater elevation loggers are simple devices that collect measurements of the depth to the water table from the ground surface. These data will help the Groundwater Sustainability Agency assess changes and trends in the groundwater level and ensure that this vital resource is being managed sustainably for future generations of Siskiyou County residents and farmers.

In order to help understand what sustainable groundwater use looks like in the Shasta Valley groundwater basin, a groundwater model is being developed. The model will account for all of the water that moves in and out of the Shasta River Watershed. The input is primarily precipitation and the outputs are primarily stream flow out to the Klamath River, and evaporation and transpiration (ET) of crops, plants, and forests. The RCD has been working for the past year with the DWR's California Irrigation Management Information System, or CIMIS, in order to measure the amount of



Above: Gillies Robertson and a DWR employee reviewing CIMIS Station protocols.

water lost through the process of ET. The Shasta Valley is now home to two CIMIS stations that measure precipitation, wind, temperature, humidity, and solar radiation and calculate rates of ET. The CIMIS stations are located on irrigated pastures to get the most representative measurement of ET across the basin. The benefit of CIMIS to agriculture is that these data can help inform irrigation scheduling, which can lead to conserving cash and water at the pump or at the headgate. Because the Shasta Valley has many microclimates, it is recommended that each stakeholder install a rain gauge at their own residence or field and compare with what is being recorded by the nearest CIMIS station to obtain the most accurate ET data.

In order to better constrain the basin's water inputs the Shasta Valley RCD will be soliciting bids for con-

Groundwater Update continued

tractors to build foundations and erect towers on the north flank of Mt. Shasta, and the Goosenest. These towers will form the basis of the DWR's Hydrologic Data Acquisition System (HyDAS) stations, and meteorological sensors will be affixed to the towers to record precipitation and temperature, similar to the CIMIS stations. However, the HyDAS stations also have the ability to measure the amount of water contained in the snowpack, or snow-water equivalence. The HyDAS stations will provide accurate measurements of water coming into the Shasta River Watershed.

The Shasta Valley RCD is also working with stakeholders and the GSA to install shallow monitoring wells in key areas along surface waterways to better

understand the possible interactions between surface water and groundwater. By identifying reaches of surface water that are increasing or decreasing in flow due to a change in groundwater levels, we will help refine the model and begin to identify management opportunities like Managed Aquifer Recharge (MAR) that will be vital to stakeholders and resource managers. Irrigators may play an important role in sustaining late season in-stream flows and cooler temperatures by exploiting these connections with targeted irrigation practices.

CIMIS Station News Flash

Register to get unlimited data access for CIMIS station data for Montague Station ID 260 and Gazelle Station ID 261 at:

<https://cimis.water.ca.gov/Stations.aspx>

Opportunity to Serve Our Community

As mentioned in our summer newsletter, SVRCD board is in need of a new board member. The candidate has to reside in our district which resembles a loped off Z. It extends from the Scott River watershed boundary to the Oregon state line on the west and north down through the I5 corridor and then continues east of McCloud to the southern county boundary. The candidate should also have a knowledge of any number of areas that SVRCD participates in such as ranching, farming, natural resources, forestry, conservation, ecology, etc. Two of our current board mem-

bers have ranches, one is a biologist and the other a geologist. SVRCD works with interested landowners on a voluntary basis to enhance the management and sustainable use of natural resources in order to ensure the long-term economic viability of the community. If you are interested in helping with resource conservation in our district, please contact Brandy at bcaporaso@svrcd.org. For a map of the SVRCD boundary, please visit our website at www.svrcd.org.

Shasta Valley Resource Conservation District

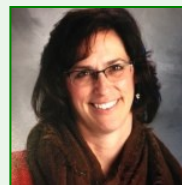
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We would like to thank Beth Sandahl for serving as a board member and wish her luck with her future endeavors.

Thank You to Our Grantors, Funders and Partners



Funding for the above projects have been provided in full or in part by the USEPA and the State Water Board under the Federal Nonpoint Source Pollution Control Program (CWA Section 319).

District Manager Musings

Brandy Caporaso, District Manager

There are over 3000 conservation districts throughout the United States that perform a wide variety of conservation services that uniquely fit their district's needs. Some conservation districts receive tax funding and some do not. SVRCD does not receive tax funding.

I like to say that we function like a non-profit and have all the benefits of a local government without a tax base. What does this mean. It means our funding is solely through grants and contracts, and yet we need to adhere to all state governmental agency regulations. This is important to know because these regulations cost our organization money that often times cannot be recouped from grants.

With ever-increasing competitiveness of grants and more competition within the Shasta Valley to perform complex yet key projects that are remaining, we've had a challenging year in 2019 securing grant funding for projects that focus on the Shasta River. The Shasta River focus for the past couple of decades has allowed us to help create better habitat for Coho and Chinook Salmon.

The lack of recent grant awards has not deterred us as there are new opportunities on the horizon. These opportunities are not something new to us as past staff have structured the SVRCD for resilience.

With the recent attention by state officials to mitigate catastrophic fires in woodland/forested communities, the SVRCD has been enhancing our relationships as described in Dan's article "Forestry Plans for 2020" and others in order to help bring organizations and agencies together to work cohesively to get projects completed. Many of the projects have been in our sights for a while, and now that funding is becoming more readily available, we are looking to get them implemented.

We are also developing our contract services to balance the need for competitive grant funded services. Two of our main strengths are our ability to manage complex grants and contracts and our staff having extensive water quality monitoring experience. SVRCD is able to assist private landowners, government agencies and non-profit organizations, meet their natural resource goals as described in Mike's article "2019 Shasta Valley RCD Monitoring Program Update".

We're optimistic about the future and look forward to bringing needed services to the district by being flexible, developing partnerships with local, state and federal agencies, non-profits and landowners and having a knowledgeable capable staff.