

Shasta Valley Resource Conservation District



Stewardship Through Collaboration

**SPECIAL
ITEMS OF
INTEREST**

- > **Introducing our new District Administrator, Edward J. Stanton**
- > **Monitoring for water quality in the Shasta River**
- > **Counting Salmon for juvenile out-migration leads to better predictions for ocean fishing**
- > **A big thank you to Karen Mallory**

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Shasta River TMDL Agricultural Waiver Extended

The Conditional Agricultural Waiver for the Shasta River TMDL is extended for five more years.

This is good news for local ranchers and farmers who are working diligently to improve water quality.

The North Coast Water Quality Control Board held an important meeting in Weed, CA on April 19, to discuss the next steps for the Shasta River TMDL. At this meeting, Eli Scott, Environmental Scientist for the Shasta River TMDL presented a new report highlighting years of work by local landowners and ranchers in the Shasta Valley. Called the Shasta River Stewardship Report, the report is a compendi-

um of success stories and data collection to support TMDL progress. TMDL stands for Total Maximum Daily Load. The Shasta River is listed by the EPA for temperature and dissolved oxygen. "To be eligible for coverage under the Shasta River Waiver, dischargers are required to employ land stewardship practices and activi-

ties that minimize, control, and prevent discharges of fine sediment, nutrients (including animal waste), other oxygen consuming materials, and elevated solar radiation loads (including loss of riparian vegetation and tailwater discharges) from affecting waters of the Shasta River and tributaries. "



Eli Scott, WB Staff, presents at the hearing in Weed. He recommended extension of the waiver.

The Shasta River Stewardship Report and the overall Shasta River TMDL efforts have been lead collaboratively for 10 years by Water Board Staff and Board and past RCD Staff.



Pictured at the Shasta River TMDL Conditional Waiver hearing are left to right: David Noren, NCWQCB Chair; Eli Scott, Environmental Scientist WB, Adriane Garayalde, past SVRCD ED, Clayton Creager, WB Staff, and Dave Webb, retired SVRCD Project Manager. Missing Andy Baker, WB, and Karen Mallory, AD, retired and many others.

ANNUAL MONITORING REPORT FOR THE SHASTA RIVER—2017 MIKE RINEY MONITORING SPECIALIST



Thanks to continued support and cooperation from Shasta Valley landowners, projects implemented by the SVRCD and collaborators continued to improve water quality on the Shasta River in 2017. The Shasta River currently does not meet temperature (too high) and dissolved oxygen also known as “DO” (too low) requirements listed in the Total Maximum Daily Load (TMDL) limits for the Klamath River and its tributaries. Maintaining cold temperatures and high dissolved oxygen levels are key to providing healthy habitat for threatened and endangered species.

Examples of projects that the Shasta Valley RCD implements with the goal of improving water quality on the Shasta River include livestock fencing in riparian zones, riparian tree planting and irrigation efficiency projects. Impacts of these projects are determined by measuring temperature and DO upstream and downstream of project locations, and at 33 long-term monitoring locations spanning approximately 40 “river miles” on the Shasta River.

Natural resources monitoring means scientifically and repeatedly measuring important physical elements called constituents. Their quantities, distribution and qualities can be analyzed to assess overall condition and trend changes.

In 2017, Shasta Valley landowners continued to respond to the need for action in addressing water quality deficiencies. An excellent example of this was the completion of the Spring Connection Pipeline in the upper reaches of the Shasta River below Lake Shastina. The Shasta Valley is known for its complex geology



CHERYL FOSTER SHOWS SVRCD STAFF GRASS SPECIES ON HER RANCH IN BOGUS CREEK.

(con’t pg 4)

Meet our newest staff member, Gillies Robertson. Originally from Scotland, Gillies recently moved with his family to Siskiyou County from the Capay Valley in Yolo County. Gillies brings with him a diverse background in natural resource and conservation management, as well as several hundred chickens and a flock of almost 200 sheep! Having most recently worked as a Project Manager with Yolo County RCD, Gillies is very familiar with the goals and structure of RCD's. His project work in Yolo was varied and involved managing the County's Weed Management Area, developing watershed vegetation management plans, and coordinating various riparian and grassland restoration projects.

Gillies is looking forward to getting to know the County, the landscape, and it's community. His mixed knowledge of natural resource management and agriculture along with his long-held passion for both sound environmental stewardship and maintaining viable ranching communities brought him back into the RCD world. He will initially be working on a riparian restoration project along the Shasta River and it's tributaries along with helping out other RCD project function activities. That is, when he's not out gathering eggs, feeding pigs, or playing his bagpipes to his seemingly unappreciative sheep!



Gillies and Alexis Robertson

COUNTING OUT-MIGRATING SALMON IN THE SPRING MAGGIE MASSIE, ENVIRONMENTAL SCIENTIST, CDFW

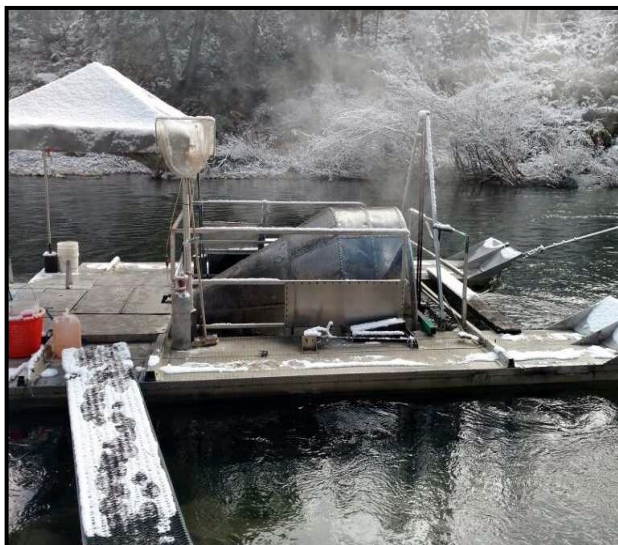
Preliminary Summary Report

The SVRCD is partnering again in salmon out-migrant fisheries sampling for the Scott and Shasta Rivers. During the winter and spring of 2018, seven SVRCD employees worked with CDFW staff to install and maintain two rotary screw traps and meet the goals of the project. The 2018 Rotary Screw Trap (RST) season marked the 18th year of trap operation on the Shasta and Scott rivers. Monitoring salmonid out migration is imperative to assess the population status of Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), and steelhead trout (*Oncorhynchus mykiss*).

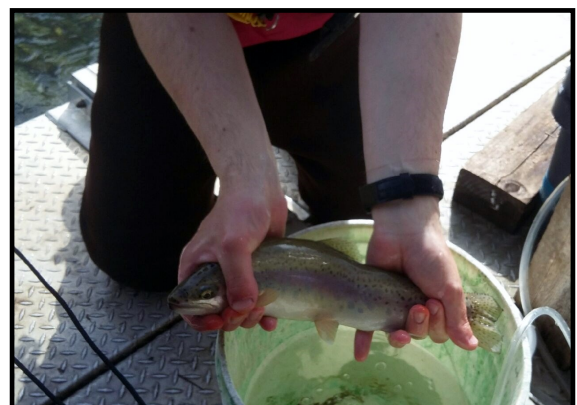
The goals of the 2018 out migration monitoring are: (1) to determine abundance and timing of all age classes of juvenile salmonids between late January and early July, (2) estimate weekly mean fork lengths and age of salmonids from a measured sub-sample, (3) estimate trap efficiencies for the target species and extrapolate weekly production estimates, and (4) to monitor stream flow and temperature at the trap locations. The summary provides preliminary weekly catch and expanded estimates, flow, and temperature data on the Shasta and Scott rivers for the sampling period. The report will detail juvenile salmon and steelhead counts and compare them to previous years. A Yearly Report will be available on our website later this year.



...goals ...are to determine abundance and timing of all age classes of juvenile salmonids...



ROTARY SCREW TRAP PLATFORM ON THE SCOTT RIVER



MEET DISTRICT ADMINISTRATOR, ED STANTON

“I have been a fan and supporter of RCDs since serving as an Associate Board member of the Temecula-Elsinore-Anza-Murrieta RCD in Riverside County. “

Shasta Valley Resource Conservation District is pleased to welcome Edward Stanton as our new District Administrator. Mr. Stanton comes to us with 20 years of experience with land trusts as an ecologist and conservation practitioner. Working with landowners to conserve and manage ecological resources for multiple benefits, Mr. Stanton has an understanding and appreciation for our working landscapes and the people and communities who depend on them. His success as a grant writer, having raised more than \$15,000,000 in grant funds for conservation

activities, will be invaluable for continuing the success of the RCD. Equally important to the RCD will be his experience with strategic planning and program development, which will be helpful as the RCD assist’s Siskiyou County and Shasta Valley’s water users with meeting regulatory requirements. Mr. Stanton has a M.S. in Ecology from the State University of New York in Syracuse. Ed worked throughout the United States, before settling in western Riverside County, California. “Each RCD has its own local flavor and priorities determined



Edward J. Stanton

by the community. This is an exciting opportunity for me to help extend Shasta Valley RCD’s long history of commitment to compatible use of shared resources, but to do so in one of the most beautiful landscapes in the state, where traditions have not been forgotten, is more than I could ask for. This is a great responsibility, and I look forward to working with the community to keep this area beautiful and productive.”

Monitoring Report con’t from page 3

which provides prime conditions for an abundance of naturally occurring cold, nutrient rich springs. Historically, these springs fed the Shasta River, and many still do, but some are diverted for agricultural uses.

The Spring Connection Pipeline helped to return several cubic feet per second of cold spring water to the Shasta River, which created an immediate positive impact on temperatures and DO that could be detected more than 1.5 miles downstream of the spring discharge into the

Shasta. In return, the project was engineered so the landowner was able to maintain their irrigation demand by substituting the diverted spring water with warmer river water. Hence, a positive outcome for all! These positive results as well as the results from all of our monitoring activities

throughout the Shasta River are documented in the 2017 Annual Monitoring Report compiled for and funded by the Shasta River Irrigation Water Management and Watershed Stewardship Project. This report is available on our website. Under the Water Quality Monitoring tab.

Monthly Board Meeting - Paying the Bills with Rich Klug, Bill Hirt, Chris Robertson, Ryan Walker, Beth Sandahl (absent)



Brandy Caporaso, Finance Manager, keeps us all on the straight and narrow. Thanks Brandy! Stop by and say hi.

GROUNDWATER NEWS - ETHAN BROWN, MONITORING TECHNICIAN

Thirsty? Have a drink of groundwater! In the Shasta Valley, groundwater provides water to over 6,000 town and county dwellers with domestic wells. Groundwater serves as vital base flow of the Shasta River, which is home to several anadromous fish species, and all manner of birds, reptiles, amphibians, and insects. Groundwater is also used to irrigate over 10,000 acres of pasture throughout the Shasta Valley and provides water for many thirsty cows and other livestock.

Just how much groundwater is used in the Shasta Valley you ask? Well it's hard to know because the complex geology of the Shasta Valley has confound-

ed geologists for decades. Due to the unique geology of Siskiyou County, there are very rough estimates of how much water runs into the aquifer from snow and rain on our mountains. Additionally, while estimates can be made for domestic water users, estimates of water use, water loss, and groundwater recharge from agriculture is much harder to

get at. A loss of this vital resource would be devastating to all the inhabitants that call the Shasta Valley home and put the agribusiness industry that serves as the economic backbone of the Shasta Valley at great risk. SVRCD has been diligently working to address and identify workable solutions for water users. In addition SVRCD has been evaluating data and plans to

How many acres are irrigated with groundwater in the Shasta Valley?

become part of the California Irrigation Management Information System (CIMIS) program. Participating in the CIMIS program will provide irrigators in the Shasta Valley more information needed to irrigate more efficiently and provide estimates of water loss from the Shasta Valley system due to evaporation and transpiration(ET).

DWR Land Use Survey	Acres	% Irrigated Acres
Total Irrigated Acres	56,002.41	100
Total Surface Water Irrigated Acres	44,510.84	79.48
Total Groundwater Irrigated Acres	10,190.34	18.20
Total Mixed Water Irrigated Acres	1,232.81	2.20

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Stewardship Through Collaboration



We're on the web at: svrkd.org

EDWARD STANTON AND KAREN MALLORY SHARE A MOMENT DURING OUR TRANSITION TO A NEW ADMINISTRATIVE DIRECTOR.. THANK YOU KAREN , FOR ALL YOUR WORK AND DEDICATION TO SISKIYOU COUNTY NATURAL RESOURCE CONSERVATION OVER THE PAST 10 YEARS.

