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A Quarterly Update on SRSC Watershed Health Collaborations

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May 2023, Issue 1

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FLOODPLAINS REIMAGINED Goes Live

A Landscape Program for the Colusa, Butte, and Sutter Basins.

Together we are improving floodplain function for multiple purposes through voluntary collaborative partnerships with private landowners, sovereign tribal entities, government, and non-governmental representatives.

Floodplains Reimagined works in concert with efforts underway in Colusa, Butte, and Sutter basins in the Mid-Sacramento River Valley Region to improve the floodplain's functional connectivity to support salmon, birds and agriculture.

For more information go to
www.floodplainsreimagined.org



SRSC Partners Develop Vital Spawning Habitat in Redding

4 acres and 35,000 tons of gravel

Moving with swiftness and efficiency, the Sacramento River Settlement Contractor partnership restores spawning gravel for Chinook salmon on the Sacramento River, one of four habitat projects implemented by the group this winter.

A three-acre span of the Sacramento River beneath the Market Street Bridge in Redding has gotten a makeover, and it's not for curb appeal – unless you are a winter-run Chinook salmon.

The area, located in a stretch of river critical to the early life cycle of endangered winter-run Chinook salmon, now offers an ideal spawning site with easy accessibility and protection from predators. This thanks to a partnership between the Sacramento River Settlement Contractors, led by Reclamation District No. 108 and funded by U.S. Bureau of Reclamation and US Fish and Wildlife Service.

Approximately 8,000 tons of gravel—enough to cover 10 football fields—was laid down by project partners in the upper regions of the Sacramento River, in hopes of kicking off a population rebound for winter-run Chinook Salmon that return to spawn each year in Northern California. The spawning habitat has been reduced over time in this important river section

due to water flows pushing the much-needed gravel downstream.

“This collaborative effort is a testament of the Sacramento River Settlement Contractors’ innovation and dedication to the health and betterment of our watershed,” said Roger Cornwell, Reclamation District No. 108 Board President.

With multiple project partners assisting with planning and implementation, the team’s core strength has been its adaptability and resourcefulness.

“With the varied resources our diverse partnership brings to the table, we can move swiftly,” said Bill Vanderwaal, RD 108 Deputy Manager. “That efficiency allowed us to implement three other projects this winter: the rockwads installation near Bonnyview Bridge in Redding, Keswick Gravel Project, and Salt Creek Gravel Project. We’ve gotten these projects done right, and ahead of schedule.”

creating habitat >>>

Salmon and Steelhead get in-river habitat boost with Rockwad Installation

Chances of survival may improve for young salmon and trout thanks to 20 rockwads – structures made of trees and large boulders – that were placed into the Sacramento River for critical rearing habitat.

Led by the Sacramento River Settlement Contractors via Reclamation District 108, and

the Sacramento Valley Ecological Restoration Foundation (SAVER) and funded by the U.S. Bureau of Reclamation (USBR) and U.S. Fish and Wildlife Service (USFWS), the rockwads project is intended to help provide juvenile salmon and trout with refuge against larger predators, while enticing them to stay in colder waters longer, thus increasing their odds of healthy



maturation for their journey to the Pacific Ocean.

“The boulder and woody debris create an ideal setting for foraging, cover and rest for the small juvenile salmon and trout,” said President of SAVER Roger Cornwell.

“With less debris naturally entering the upper portions of the Sacramento River, we

must provide opportunities that these young fish historically found during their outward migration.”

The rockwads are made up of almond and manzanita trees bolted to large, 2-ton boulders. Using a large crane on a floating platform, the rockwads were lowered into



the river in late February near the South Bonnyview Bridge in Redding.

“Putting the rockwads in this specific section of the river pairs with key times in the juvenile salmon’s early rearing and migratory passage along the Sacramento River,” said Jeff Souza, Biologist with Tehama Environmental Solutions. “We hope the addition of more structures will ultimately mean more salmon fry will grow to a healthier, robust size so they can better overcome challenges downstream.”

Partner Highlight

Phil Cramer,
CDFW



In a state known for its strong environmental protection laws, sometimes projects that are beneficial can be bogged down by the very laws designed to safeguard the environment.

That’s when Philip Cramer, an environmental scientist with California Department of Fish and Wildlife (CDFW), steps in to assist.

“I’m on the front lines of a statewide effort intended specifically to make life easier for restoration practitioners,” Cramer said. “We provide specific tools and help project partners get their permits.”

The success of a project is often tied to the success of team. Phil Cramer has without a doubt been an essential team member in getting beneficial projects permitted and implemented. “I truly believe we would not have completed the projects that we have without Phil. In other processes, we’d still be debating the permitting strategy rather than standing here with 5 implemented projects and 3 more projected for next winter.” Bill Vanderwaal, RD 108.

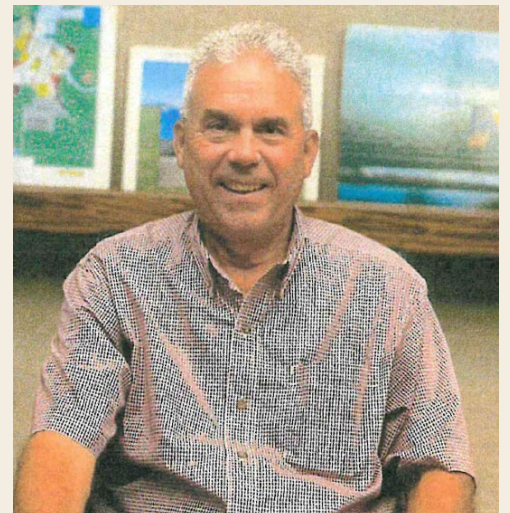
meet a member >>>

Ed Hulbert, Reclamation District No. 1004

Colusa County native and Reclamation District 1004 Chairman Ed Hulbert knows what it’s like to be an early adopter of innovative technologies. As manager of Butte Creek Farms in Colusa County, he oversaw one of the earliest fish screening projects implemented on the upper Sacramento River over twenty years ago.

“We were one of the first companies that did it,” Hulbert said. “We took the initiative to put fish screens on two of our pumps so we could protect the species and get ahead of the curve.”

A multi-generational family farm of 2,600 acres, Butte Creek was well-positioned as a testing ground for fish screens. Bordered by the Sacramento River to the west and Butte Creek to the east, the farm is riparian to, and takes the bulk of its water from the Sacramento River via a contract with Reclamation District 1004.





Being on the forefront of species protection and development wasn't without its challenges, however. Hulbert said the initial installation did not quite go as planned.

"Our first-generation fish screens failed after two years. It was an all-new design, new construction, but the gauge of steel was too light."

Hulbert said the setback was costly, but he remained determined. With help from Family Water Alliance, Hulbert was able to secure funding for replacement pumps featuring stainless steel upgrades, and they have been going strong for over ten years.

For Hulbert, tenacity is all part of the game when it comes to big projects.

"You have to find a way to solve the problem. You've got to come up with a design that's going to work, and every installation is different. There's no cookie cutter. You just have to keep working at it," Hulbert said.

And he does. Hulbert said some of the projects he has implemented have required coordination with eight agency partners at once, but the effort is worth it to see the benefits in the end.

"As farmers, we are environmentalists and we're trying to stay on the front end of anything that protects the resources," Hulbert said. "We flood for waterfowl in the wintertime, and we have a working relationship with UC Davis for their salmon studies on our rice ground. They set the traps in one of our fields next to Butte Creek and raise the salmon, and it shows the growth is phenomenal."

Hulbert said realizing important projects like fish screen implementation and salmon habitat enhancements takes time and a lot of patience. When asked what he has learned over the years on projects at Butte Creek Farms, he said it comes down to dedication.

"You don't give up. You can run into roadblocks, and they're not all financial. Some studies are years long. You just keep pushing, because at the end of the day, we're all just trying to keep in business."

You can reach Ed Hulbert at ehulbert@cipcorp.com



How can I participate?

We are looking to expand our participation by our members' staff, boards, and landowners. As the River restoration works shows, many hands lighten the work. To help protect your water rights and make a difference contact: rcornwell@sutterbasinwater.com

Food for Fish

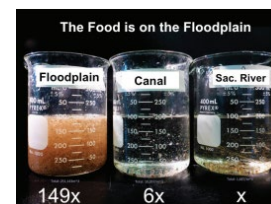
Rearing fish faster with more idealized releases

The Sacramento River is the only river in the world that hosts four runs of Chinook, or "king," salmon due to its diverse ecosystem. The river's near year-round cold water from snow melt, its food supply, water velocity, water depth and riverbed gravel all contribute to a one-of-a-kind environment.

ask the expert >>>

Q: Why are winter-run salmon in greater decline than the summer, fall or spring runs?

A: The two key issues are temperature and habitat. All four runs of Chinook salmon need cold water to survive and successfully spawn, but winter-run salmon evolved to survive best in colder waters because they once spawned in streams above Shasta and Keswick dams (winter-run Chinook need between 42.5 and 57.5 degrees throughout the winter to thrive). Today, the lack of access to these cooler ancestral spawning grounds coupled with warming temperatures and drought, means winter-run Chinook have been hardest hit.



All runs are showing concerning population declines, especially the endangered winter-run. SRSC partners are engaged in an effort to get more food to channelized fish as a way to improve fish health and condition. Floodplains are a historic feed ground for young fish headed to the ocean. Stay tuned as we follow Food for Fish for exciting outcomes.

final connections

SRSC experts and partners engage future scientists in the battle for the increased health of the watershed.

Keith Marine, SRSC fisheries expert and Tehama County Fish and Game commissioner, engaged 6th, 7th, and 8th grade students in discussions about salmon recovery last month. The students participated in the Salmon in the Classroom Program watching as 30 Chinook Salmon eggs hatched. Of the 30 eggs, only 3 made it to the release date in the Sacramento River, a shocking statistic for the students as they thought about addressing salmon recovery at a watershed scale. Tehama Colusa Canal Authority, SRSC watershed partner also participated in the educational day, illustrating the first phase of the salmon recovery program, implementing fish screens on Sacramento River diversions.



coming soon >>>

In The Next Issue

Sacramento River TAC Update

Remember our history: a historical look at floodplain management on the Sacramento River.

Meet a Member: Natomas Central Mutual Water Company

Leading with Science: Vitamins for Fish

Pioneers in Water: Jack Baber



Calendar of Events

- May 9 – 11, 2023: ACWA Spring Conference
- May 11, 2023: ACID Board Mtg
- May 15, 2023: SMWC Board Mtg
- May 18, 2023: GCID Board Mtg
- May 18, 2023: RD 108 Board Mtg
- May 25, 2023: SRSC Board Meeting
- June 1, 2023: Water Smart Grant Due



SRSC Board

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