



Salmonid Restoration Federation

21st Annual Coho Confab in the Smith River August 24-26, 2018



SRF is coordinating the 21st Annual Coho Confab that will take place August 24-26 along the pristine South Fork Smith River in Del Norte County. The Coho Confab is a field symposium to learn about watershed restoration and techniques to restore and recover coho salmon populations. The Confab provides an ideal opportunity to network with other fish-centric people and to participate in field tours that highlight innovative salmon restoration practices. This year, SRF is collaborating with several groups to produce this educational event including Smith River Alliance, the Yurok Tribe Fisheries Program, and Fiori GeoSciences.

The Coho Confab will open Friday evening, August 24, with a community dinner and inspiring keynote presentations. Geologist Michael Furniss will give a talk, titled, *Geology is Destiny, Why the Smith River is What it Is*. Pioneering engineer and heavy equipment operator, Rocco Fiori, will

discuss habitat restoration in dynamic systems. Marisa Parish of Smith River Alliance will present *Scale, Biology, and Endurance: Using a Long-term Coho Salmon Monitoring Program to Advance Restoration Planning*.

Saturday will feature a full-day tour of stream and valley floor restoration in Lower Klamath tributaries that will be led by Rocco Fiori and Sarah Beesley of the Yurok Tribe Fisheries Program. Concurrent field tours on Saturday will include a fish passage toolbox tour led by Michael Love and Associates of fish crossing projects in various tributaries to the Smith that utilize various geomorphic and hydraulic approaches and solutions used in the California Stream Habitat Manual fish passage chapter. There will also be an afternoon underwater fish identification workshop in the Lower Smith.

When participants return from a day of field tours, there will be a *Research to Restoration Open Forum* to discuss how coho monitoring can inform priority restoration activities. This forum will include Justin Garwood, the scientist who oversees the coho salmon monitoring program in the Smith River; Julie Weeder, SONCC Coho Salmon Recovery Coordinator with NOAA Fisheries; Darren Mierau, North Coast Director of CalTrout; and Patty McCleary of Smith River Alliance.

The Open Forum will be followed by evening festivities including a traditional salmon bake, campfire, and music with river troubadour, Joanne Rand.

The last day of the Confab will include two concurrent field tours including



Rocco Fiori, engineer and heavy equipment operator will co-lead a field tour of Lower Klamath large wood installations and a Beaver Dam Analog workshop and field tour as part of the annual Coho Confab.

Design, Permitting and Monitoring of Beaver Dam Analogues in Lower Klamath tributaries led by the Yurok Tribe Fisheries Program. There will also be a collaborative tour that will include Large Woody Debris (LWD) projects led by Dan Burgess of California State Parks, future fish passage projects with the Tolowa Dee-ni' Nation and consulting engineer Travis James, and recently completed bridge projects by CalTrans.

To register for the Confab or to view the full agenda please visit, www.calsalmon.org.



Salmon in the Lower Smith
Photo by Thomas B. Dunklin

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Cover photo: Eel River Photo by Jason Hartwick

Swimming Upstream

Since the recent California drought, many in the watershed restoration field perceive water scarcity as a primary limiting factor for salmon recovery. Fish passage barriers, water quality, sediment, and lack of instream flows are all physical limiting factors that we assess, mitigate, and plan to overcome through design, innovation, or policy reform. Yet, we are now in a political era where there is another set of limiting factors—environmental deregulation, delisting of endangered species, and a brazen disregard of climate change science and research.

Learning how to navigate this new regulatory regime requires understanding what has changed and how it may impact our collective vision of restoring ecological function, healthy watersheds, and recovering beloved salmon. On a national level, the U.S. has withdrawn from the Paris Climate Accord, rolled back fuel emission standards, and challenged the Endangered Species Act 4d rule (aka—the blanket rule) that affords threatened species the same level of environmental protections as endangered species. This latter environmental challenge could clearly have grave consequences for threatened coho, Chinook, and steelhead in California. Additionally, flood and water quality standards are being dismantled, and funding is being cut for climate change resilience planning.

Fortunately, California is in a better position than most states to adhere to higher environmental standards and fund valued programs that protect our waterways, parks, and aquatic habitat. The Water Bond that will be on the November ballot would invest nearly nine billion dollars in California water infrastructure including safe drinking water, Sustainable Groundwater Management Act (SGMA) implementation, watershed restoration, and fish and wildlife habitat conservation. Please see page 6 for a preview of other watershed bills and recently passed Propositions that will improve watershed restoration efforts in California.

Please support SRF as we promote actions to enhance instream flows, advocate for watershed restoration funding, and protect endangered salmonids. In the coming year, SRF will produce:

- 37th Annual Salmonid Restoration Conference on April 23-26, 2019 in Santa Rosa, CA
- 21st Annual Coho Confab in the Smith River watershed
- Steelhead Summit in Ventura, CA
- Large Wood Technical Field School in Mendocino County
- Increased capacity for community-based water conservation programs

Our valued members receive the following benefits:

- Connection to a network of thousands of scientists and practitioners with an interest in California fisheries and watershed restoration
- Biannual newsletter featuring event updates from SRF and exciting news from California's innovative restoration field
- Monthly e-Newsletter with up-to-date announcements about restoration funding and training opportunities throughout the state
- Discounted admission to the annual Salmonid Restoration Conference

Please join SRF or renew your membership to continue to support our ongoing efforts to provide technical education, training, and advocacy on behalf of the salmonid habitat restoration field.

For Wild Salmon,

Dana Stolzman

Dana Stolzman, Executive Director





Throughout the North Coast of California, rural communities are grappling with water shortages and navigating complex regulatory requirements. California's climate coupled with the State Water Board's efforts to bring all water diverters into compliance with state water law highlights the imperative of community-based water conservation planning to improve streamflow and ensure water reliability.

The Nature Conservancy (TNC) and Salmonid Restoration Federation (SRF) recently produced a technical report that explores collaborative water management and provides tools, resources and guidance to advance flow enhancement efforts. Additionally, the report outlines a communication plan, a framework for cooperative stakeholder-led efforts, and an export strategy and conceptual pilot plan to advance cooperative flow enhancement efforts in the Navarro River as well as other undammed coastal watersheds and tributaries that would benefit from enhanced streamflow for salmonids and residents.

California is one of five major agricultural regions in the world that has a Mediterranean climate, where most of the annual rainfall occurs in the winter with scant precipitation during the long dry summer seasons. California's hydrology is highly altered and increasingly vulnerable to climate change effects including longer dry seasons, reduced snowpack and snowmelt, and extreme weather variability. Sustainably managing freshwater resources has become one of the most pressing issues in the state with debates raging over aging infrastructure, dam removal, groundwater management, water scarcity, and instream flows for beneficial uses.

Since California is the most populated state in the country and produces the lion's share of agriculture for the nation and export, it is increasingly challenging to meet the state's water needs and protect

native species that rely on freshwater resources. The recent extended drought underscores how vulnerable California is to the effects of prolonged dry seasons, and climate change. Ongoing population growth, development, and agriculture will necessitate improved water management strategies as well as vast improvements to aging water infrastructure and delivery systems. While there has been significant attention to these issues in the densely populated or agriculturally intensive areas of the state, these challenges also deeply affect rural, less intensively managed regions that often lack sufficient infrastructure to address water shortages. In northern coastal watersheds, increasing diversions of water from rivers and streams has degraded important habitat for endangered salmonid populations. Collaborative stakeholder-driven water management efforts could improve water reliability for residents and enhance instream flows for salmon and other aquatic species in these areas.

The report is informed by case studies and efforts in areas that have successfully utilized community-based water management approaches including the Mattole River headwaters, Dutch Bill watershed in the Russian River watershed, and Bodega Bay. The report provides

a framework and the key elements for building a successful collaborative effort including a communication outreach strategy, transparently sharing ecological data, engaging stakeholders, and establishing criteria for project selection. The report also explores regulatory obstacles to restoration planning and offers solutions that could streamline permitting and incentivize landowners to work collaboratively. The report includes chapters on existing resources, policy issues, collaborative agreements, water rights, and legal mechanisms to conserve flows as well as helpful templates for forbearance agreements, water management plans, tributary charters, and water planning resources.

This project was partially funded by a Proposition 1 Wildlife Conservation Board grant awarded to the Mendocino County Resource Conservation District under the Streamflow Enhancement Program and The Nature Conservancy. SRF and TNC hope to create a layperson's guidebook from this report that will be made available for landowners and project planners. For now, you can see the report at www.calsalmon.org



Members of the Collaborative Water Management development project team touring projects in the Mattole.

36th Annual Salmonid Restoration Conference

The Art and Science of Watershed Restoration

Salmonid Restoration Federation hosted the 36th Annual Salmonid Restoration Conference on the North Coast where participants had the opportunity to see innovative restoration projects in the Lower Klamath, Eel River estuary, tributaries and tidal wetlands of Humboldt Bay, and the Mattole headwaters. The theme of the conference was the *Art and Science of Watershed Restoration* and the conference explored pressing issues that are pertinent to the restoration field including large wood techniques, effectiveness monitoring, temperature impairments, biological responses, salmon reintroduction to historic habitats, aging infrastructure, streamflow enhancement and streamlined permitting. The conference also highlighted regional issues including Klamath dam removal and Eel River ecology and FERC relicensing.

Workshops topics highlighted watershed restoration techniques and approaches including: Optimization models to select fish passage barrier remediation; Devising instream flow criteria for small coastal streams; Effectiveness monitoring of instream restoration projects; Identifying appropriate site-specific methods and target criteria for instream large wood restoration efforts; and Speaking of Science—an instructive workshop about presentation and facilitation skills.

Concurrent sessions included a physical processes track that featured a *Restoring to Stage Zero* session focused on recent innovations in restoration science, modeling salmonid habitat for restoration, and alluvial fans and salmonid



The 36th Annual Salmonid Restoration Conference included a field tour of Terwer Creek in the Lower Klamath. This tour will also be featured at the Cobo Confab where participants will actually be able to see more of the structures since they will be exposed at lower water. Photo by Brock Dolman

habitat. A biology and streamflow track focused on emerging stream temperature science and biological responses to temperature and flow, and streamflow enhancement planning, science, and strategies. Additionally, a track on policy and ecological issues included an overview of Klamath dam removal efforts and salmon reintroduction planning; adapting aging infrastructure to sustain listed species; Eel River ecology, restoration challenges and opportunities; and streamlined permitting.

The Plenary session focused on the landscape of restoration and how both art and science can inform our thinking about the future of this evolving field. Keynote speakers included renowned geomorphologist Colin Thorne, PhD,

University of California, Berkeley Professor Stephanie Carlson, PhD, fire ecologist and Forest Service planner Frank Lake, PhD, and Wendy Poppy George who is a tribal representative on the Klamath River Renewal Corporation.

The 37th Annual Salmonid Restoration Conference will be April 23-26 in Santa Rosa, CA.



Mid Klamath Watershed Council received the Restorationist of the Year award. This was the first time that this prestigious award was bestowed upon a non-profit group. Shown here are Mitzi and Charles Wickam from the MKWK fisheries team.



Bottom photos by Thomas B. Dunklin



Large Wood Technical Field School on the Mendocino Coast

October 30-31, 2018

Salmonid Restoration Federation and Trout Unlimited are partnering to host a Large Wood Technical Field School October 30-31 on the Mendocino Coast for foresters, engineers, planners, and restoration practitioners. Large wood installations, also called large woody debris (LWD) or engineered log jams (ELJ), are restoration techniques to improve instream salmon habitat and streamflow. Creeks benefit from channel and pool complexity. The science and protocols of utilizing large wood are evolving so this intensive training presents a great opportunity to learn about a range of approaches.

This two-day field school will train forestry and restoration professionals in

both engineered and non-engineered large wood augmentation techniques that have been proven effective in restoring stream habitats on the northern California coast. Participants will learn how to effectively design and implement large wood restoration projects by learning how to identify geomorphic conditions of a treatment stream and select appropriate implementation methods to achieve desired results. Each day will include classroom lectures, hands-on activities, field demonstrations, project site tours, and ample group discussion.

Project tours will likely occur in the Ten Mile River, Big River, Pudding Creek, and Noyo River watersheds. Participants will have the opportunity

to observe on-site demonstrations of accelerated recruitment (direct falling) site construction. Field school contributors may also provide an on-site overview of heavy equipment implementation techniques and the process of anchoring large wood structures with hardware. Hands-on group activities will include buoyancy and other engineering computations and the construction of large wood site scenarios in the classroom. Additional discussion topics during the field school will include project site identification, project layout, and design considerations.

There will be presentations on:

- Accelerated large wood recruitment
- Selecting and sourcing trees
- Restoring wood's essential role in controlling channel grade and stability in small streams
- How to keep wood from floating downstream
- Instream large wood restoration techniques
- Collaborating with heavy equipment operators to implement large wood projects

To learn more about this educational event or to register, please visit www.calsalmon.org



South Fork Ten Mile River in Spring 2017, following implementation of LWD project.
Photo provided by Trout Unlimited

Photo at top: Panoramic of South Fork Ten Mile River Stream Habitat Enhancement Project. Rod Vogel, Anna Halligan, and Elizabeth Mackey (all from TU) are pictured. Photo by Libby Earthman, TU

California Bills and Propositions that Benefit Watershed Restoration

There are several relevant watershed bills working their way through the legislature and recently passed Propositions that salmon restorationists should be aware of.

SB 919: Water Resources - Stream Gages

This bill was introduced by Dodd of the Assembly Water, Parks, and Wildlife Committee and would help watershed groups engaged in flow monitoring and salmonid habitat prioritization activities. Under existing law, the State Water Resources Control Board administers a water rights program pursuant to which the state board grants permits and licenses to appropriate water. Existing law, the Open and Transparent Water Data Act, requires the Department of Water Resources, the Board, and the Department of Fish and Wildlife to coordinate and integrate existing water and ecological data from local, state, and federal agencies.

This bill would require the Department of Water Resources, upon appropriation by the Legislature, to develop a plan to deploy a network of stream gages that includes a determination of funding needs and opportunities for reactivating existing gages. The bill would require the department, in consultation with the



This photo shows the former railroad line and train wreck detritus on the Main Fork of the Eel River.

Photo by Alicia Hamann, Friends of the Eel River

Board, the CDFW, the Central Valley Flood Protection Board, interested stakeholders, and, to the extent they wish to consult, local agencies, to develop a plan to address significant gaps in information necessary for water management. The bill would require the department to give priority in the plan to placing or reactivating stream gages where lack of data contributes to conflicts in water management actions, and to consider specified criteria in developing the plan.

SB 1029: Great Redwood Trail Act

This bill, introduced by Mike McGuire, would dismantle the North Coast Railroad Authority and

transfer the northern portion of the Northwestern Pacific Railroad line, from Willits to Arcata, to the state Dept. of Transportation that would “rail bank” the property by cataloging property easements and advancing environmental work in preparation for creating a world class and non-motorized trail system for the entire length of the former railroad line from San Francisco to Humboldt Bay.

Recently Passed CA Propositions:

Prop 68: CA Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access (aka The Parks Bond)

This bill authorizes nearly \$4 billion in general obligation bonds for the creation and rehabilitation of state and local parks, natural resources protection projects, climate adaptation projects, water quality and supply projects, and flood protection projects. A large portion of this bond will fund parks in underserved communities.

Prop 72: Rainwater Capture Systems Excluded from Property Taxes

This bill defines rainwater capture as to harvest, store, and retain water collected from roofs that will be used for on-site purposes. Excluding the creation of rainwater collection from property taxes will incentivize property owners to invest in rainwater capture as a means to conserve water.



The Great Redwood Trail Act would dismantle the North Coast Railroad Authority and authorize the development of a world-class trail to follow the former rail line through the rugged Eel River canyons.

Photo by Thomas B. Dunklin

Next Steps for Redwood Creek, SF Eel Flow Enhancement Efforts

Salmonid Restoration Federation was recently awarded two planning grants from the Wildlife Conservation Board's Streamflow Enhancement program to conduct feasibility studies to enhance streamflows in Redwood Creek in the South Fork Eel watershed. Under the California Water Action Plan, the South Fork Eel River is considered one of five priority watersheds in the state for flow enhancement projects. This coordinated planning effort stems from years of low flow monitoring and community outreach in a key tributary that suffers from legacy impacts of logging, rural sub-divisions, cannabis cultivation, and hundreds of unregulated water diversions.

Redwood Creek is a critical tributary for juvenile salmonids in the South Fork Eel watershed that once supported coho, steelhead, and Chinook salmon. Since 2013, Salmonid Restoration Federation (SRF) has been conducting low flow monitoring in order to understand the low flow patterns and prioritize water conservation efforts in this impaired watershed that is home to hundreds of residents as well as threatened species like coho salmon.

Stillwater Sciences conducted a feasibility study in a segment of the watershed that helped to identify priority projects that could improve summer flows. This study included conceptual designs for off-channel rainwater catchment ponds that could improve water security for individual parcels but would require wide and coordinated participation in order to measurably improve flows. After much research and reconnaissance, the SRF and Stillwater project team determined that the greatest opportunity to improve streamflows was to work cooperatively with long-term stewards who own and manage one of the largest private parcels in the watershed.

The Marshall Ranch, where the proposed project is located, is a working ranch that is one of the largest, contiguous parcels in the Redwood Creek watershed. The 2,942-acre ranch comprises 34 legal

parcels all under one family ownership, which has been managed sustainably for timber production and livestock since the 1880s while also providing extensive habitat for fish and wildlife as evidenced by the presence of coho, Chinook, and steelhead.

Currently, the Marshall family is spearheading an effort to place a conservation easement on this multi-generational family ranch. The easement will prohibit sub-division and cannabis cultivation, greatly restrict development, and permanently protect land and water resources, including salmon-bearing headwater streams. Traditional uses such as grazing and timber production will continue and the land will remain in private ownership.

This project will include before and after flow monitoring, 100% designs for a large groundwater recharge pond and infiltration galleries, and potentially a permanent instream flow dedication of flows to enhance fisheries resources.

The second WCB grant is for 18 square miles of Redwood Creek and will include three years of additional low flow monitoring, a suite of flow enhancement designs for various projects, and an outreach and education component.

"Salmonid Restoration Federation is excited to be a part of this groundbreaking project that could measurably enhance flows in Redwood Creek and improve watershed conditions for imperiled species," stated Dana Stolzman, long-term resident of Redwood Creek and SRF Executive Director.

The Marshall Ranch property manager and executor, Elizabeth Marshall, expressed their appreciation of this collaborative effort, *"We thank you, our ancestors thank you, and our tribal leaders thank you for your care, concern, and diligent action to restore clean water, clean land, and clean air from inland to the sea. May our endeavors be fruitful and the success be measured in the amount of Coho returning to our streams, the wildlife habitat protected, and view shed in all directions that inspires our awe."*



David Sanchez, property manager of the Marshall Ranch, leading a tour of the Marshall Ranch property in Redwood Creek. This unique property has been in family ownership since the 1880s and the Marshalls (Elizabeth Marshall is in the foreground) and their restoration partners are currently engaged in setting up a conservation easement and a flow enhancement planning project. Photo by Dana Stolzman

Salmonid Restoration Federation

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Steelhead Summit in Ventura, CA Dates TBA Soon



Southern Steelhead Photo by Mark Capelli

Salmonid Restoration Federation with support from California Department of Fish and Wildlife will be offering a Steelhead Summit in Ventura, CA. The Steelhead Summit will include keynote presentations on conservation genetics, field tours of fish passage barrier removal sites and flow enhancement projects, and a technical workshop on water conservation techniques and water rights.

The California Water Action Plan identifies the Ventura River as one of five priority watersheds in California for streamflow enhancement projects. Additionally, holding the Summit in Ventura is particularly relevant in the aftermath of the fires in the foothills of Ventura and Santa Barbara counties that resulted in devastating mudslides.

Cachuma Operations and Maintenance Board and South Coast Habitat Restoration will offer a tour of *Thomas Fire and Flood Impacts on Steelhead* within the Montecito and Carpinteria areas to examine fish passage and debris flow containment issues. Additionally, there will be a field tour of steelhead habitat and completed and proposed fish passage projects of the Goleta Slough complex and Gaviota Coast.

Additionally, Rosi Dagit of Santa Monica Resource Conservation District will offer a *Santa Monica Bay Steelhead Road* trip to restored rodeo grounds and Topanga lagoon, Rindge Dam to Malibu lagoon, and Trancas Creek. Regina Hirsch of Sierra Watershed Progressive will coordinate a tour of integrated water strategies and groundwater recharge projects to improve instream flow in the Ventura Watershed through reduced consumptive use and water efficiency projects including restoration projects in Gobernador and Carpinteria Creeks, as well as the Ojai valley.

The summit will include presentations and panels on steelhead genetics, population monitoring, fire recovery, sediment control, and fish passage planning. The Summit will also include a workshop focused on streamflow enhancement planning, water conservation opportunities, and water rights compliance.

This summit will convene planners, engineers, fisheries biologists, landowners, project partners, and regulators. The dates will be announced soon and SRF will post the agenda and open registration shortly thereafter.

SRF Merchandise



SRF's 2018 Conference t-shirt is the fabulous new SalmonScape design from Ray Troll. Printed on organic grey or slate color. Women's styles are also available.



SRF is now carrying this beautiful new design on a wine-colored hoodie for women. Prices are \$25 plus shipping and handling for the t-shirts and \$45 for the hoodies.

Please visit our website at
www.calsalmon.org
to see our merchandise page.