

**37<sup>th</sup> Annual**



# Salmonid Restoration Conference

## April 23-26, 2019 in Santa Rosa, CA

*Drought, Fire, and Floods—Can Salmon and the Restoration Field Adapt?*

### Conference Co-sponsors

Balance Hydrologics, Inc., Bear River Band of the Rohnerville Rancheria, Cachuma Operation and Maintenance Board, California American Water, California Conservation Corps, California Department of Fish and Wildlife, California Department of Water Resources, California Trout - North Coast, CalTrans, Cardno, City of Santa Rosa, Creeks Division, East Bay Municipal Utility District, ESA, GHD, Green Diamond Resource Company – CA Timberlands Division, Guadalupe-Coyote Resource Conservation District, Humboldt Redwood Company, ICF International, Inter-Fluve, Inc., Marin Municipal Water District, McBain & Associates, Mendocino County Resource Conservation District, Michael Love and Associates, Northern California Council – Fly Fishers International, Northern California Water Association, Pacific States Marine Fisheries Commission, Pacific Watershed Associates, Prunuske Chatham, Inc., Restoration Design Group, Santa Clara Valley Water District, SHN Consulting Engineers and Geologists, Inc., Solano County Water Agency, Sonoma County Agricultural Preservation and Open Space District, Sonoma County Water Agency, Stillwater Sciences, The Nature Conservancy, The Watershed Fund, Trinity River Restoration Program, Trout Unlimited, Wildlife Conservation Board



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# A Watershed Year

*Carr fire* Photo Credit:  
Mark Ralston/AFP/Getty

*This has been a year of cataclysmic events from the deadliest fire in California history to the government shutdown that has immobilized federal agencies mandated to conserve endangered species, protect our coasts, and maintain our beloved national parks. SRF's strength as a non-profit organization is based on our working relationship with our many restoration partners. In this unchartered time, I have had ample time to reflect on the meaning of "essential." Who is essential to conserve natural resources and uphold environmental standards? How do we champion these values in these dark days of environmental deregulation with federal workers who have dedicated a lifetime of service being locked out of the daily discourse of their important work?*

Those engaged in the salmon restoration field are in it for the long haul. Listing a threatened or endangered species takes years, recovery if possible, decades. The work of dam removal to create fish passage is also work that takes decades and when a large dam is eventually dismantled it is regarded as a watershed event that we rarely witness in our lifetimes. Milestones are far and few between so the daily work of policy, regulation, monitoring, research, education, and cultivating ecological literacy are essential. When the incremental steps of our life's work are unexpectedly halted through drought, fire, and floods—we have to recalibrate what is needed to build climate resilience for dwindling salmon species. When the scope of our work is stopped abruptly through policy rollbacks and a federal shutdown it literally shuts down the pulse and momentum of work that requires daily vigilance. To be part of this field is to daily believe in something greater than your self and to work tirelessly to protect our totem salmon species against insurmountable odds.

SRF values the work that our members and partners do on a daily basis. We believe this work to be essential to the recovery of wild salmon populations. Our mission is to recover wild salmon populations through education, advocacy, and collaboration and the Annual Meeting brings together our far-flung constituents to learn about restoration techniques, strategies, and scientific methodologies to advance recovery.

**SRF's contributing members are the backbone of our organization.** You have enabled our small organization to accomplish big goals over the past year including the 36<sup>th</sup> Annual Salmonid Restoration Conference in Fortuna, CA, the 21<sup>st</sup> Annual Coho Confab on the Smith River, a Large Wood Technical field school on the Mendocino Coast and the 3<sup>rd</sup> Steelhead Summit in Ventura.

**California's salmon species are more vulnerable than ever, and the laws that protect our environment, water quality, and wild rivers are at risk.** Your contribution to SRF will help empower citizens and restoration professionals in the coming year by making the following actions possible:

- The 37<sup>th</sup> Annual Salmonid Restoration Conference in Santa Rosa, California, with an expected attendance of over 600 professionals
- Several statewide technical education events, including the 22<sup>nd</sup> Annual Coho Confab, and a groundwater recharge symposium on the North Coast
- Develop flow enhancement projects in the South Fork of the Eel River.

As an advocate of native salmon species and their habitat, we hope you'll contribute to efforts that will help make California's restoration community stronger.

**Salmonid Restoration Federation**



**Design & Layout by**  
**Trees Foundation**



## 37<sup>th</sup> Annual Salmonid Restoration Conference April 23-26, 2019 in Santa Rosa

### ***Drought, Fire, and Floods—Can Salmon and the Restoration Field Adapt?***

Salmonid Restoration Federation (SRF) will host the 37<sup>th</sup> Annual Salmonid Restoration Conference in Santa Rosa in Sonoma County—a place where post-fire recovery and drought resilience efforts affect each resident and species in tangible ways. The last two years have seen unprecedented climatic conditions and fire catastrophes that have fundamentally altered the way we think about restoration planning and water management. It is our hope that the Annual Salmonid Restoration Conference can shed some light on these pressing issues so we can continue the upstream work of restoring habitat and recovering wild salmon populations.

This year participants will have the opportunity to visit floodplain and fish passage projects in Lagunitas Creek, tour flow enhancement projects in Dutch Bill watershed, wade in a Stage 0 watershed in Willow Creek, and visit fire-scarred watersheds that are both being actively restored and are in the process of naturally regenerating. Additionally, participants can learn about an array of PIT tag technology applications in the Russian River watershed or tour integrated floodplain management projects in the Napa River.

Conference workshops will include a Stage 0 design, applications and permitting workshop; assessing ecological risks from streamflow diversions, and growing impacts of cannabis and instream flows workshop. Additionally, an Urban Creek workshop will feature innovative, “outside the

channel” techniques with an afternoon trolley tour of on-the-ground restoration projects in Santa Rosa.

The conference agenda will explore a range of issues including foodscapes, floodplains, and freshwater-estuarine habitats; monitoring, modeling and strategies to address summertime flows; salmon-habitat relationships, Spring-run Chinook genetic and recovery issues as well as Klamath River basin planning. Concurrent sessions will also focus on planning and strategies for fire resilience.

The Plenary session will focus on the landscape of salmon recovery in a time of climatic extremes and include author Langdon Cook of *Upstream* who will

share *Fish Tales: A Writer’s Journey into the Salmon Connection*, Scientist Gordon Reeves, Congressman Jared Huffman, and Ellen Hanak, Senior Policy Scientist with Public Policy Institute of California.

Other conference events will include the SRF Annual Meeting and membership dinner on Wednesday evening with a special screening of the film *The Breach*, a mentor-mentee lunch, the annual poster session and reception on Thursday night, and a cabaret and banquet with a wild salmon dinner and live dance band on Friday evening. For more information about the conference, please visit [www.calsalmon.org](http://www.calsalmon.org).



*Side channel constructed in 2016 on Dry Creek at the Truett-Hurst tasting room which is where the Dry Creek tour will culminate.*

Photo credit: SCWA

# SRF 2019 Conference Registration

37<sup>th</sup> Annual Salmonid Restoration Conference, April 23-26, 2019

Name: \_\_\_\_\_ Phone ( work ): \_\_\_\_\_

Address: \_\_\_\_\_ (cell): \_\_\_\_\_

\_\_\_\_\_ Email: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Advanced Registration Closes March 22, 2019

## Workshops and Field Tours

### Tuesday, April 23

	Advanced Registration	Late Registration	Fee
1. Restoring to Stage 0, Recent Advances and Applications in Process-Based Habitat Restoration Workshop	\$70	\$80	_____
2. Assessing Ecological Risks from Streamflow Diversions by Applying Riffle Crest Thalweg Rating Curves Workshop	\$70	\$80	_____
3. Integrating Flood Management, Steelhead and Wildlife Restoration in the Napa River Watershed Field Tour	\$70	\$80	_____
4. Burned Watersheds, Natural Regeneration, and Active Restoration Field Tour	\$70	\$80	_____
5. PIT Antenna Technology: An Array of Applications in the Russian River Watershed Tour	\$70	\$80	_____

### Wednesday, April 24

6. Growing Impacts: Cannabis and Instream Flows Workshop	\$70	\$80	_____
7. Thinking Outside the Channel: Innovative Approaches to Urban Stream Restoration Workshop and Field Tour	\$70	\$80	_____
8. Exploring a Stage 0 Valley—Willow Creek, Western Russian River Field Tour	\$70	\$80	_____
9. Dry Creek Field Tour: Partnerships in Habitat Enhancement and Monitoring for Salmonid Recovery Field Tour	\$70	\$80	_____
10. Dutch Bill Watershed Streamflow Improvement and Coho Recovery Tour	\$70	\$80	_____
11. Winter Habitat, Floodplains, and Fish Passage in Lagunitas Creek Tour	\$70	\$80	_____
<b>SRF Membership Dinner and Film Screening</b>	<b>\$20</b>	<b>\$25</b>	_____

## Conference

### Thursday and Friday, April 25 & 26

SRF Member	\$170	\$200	_____
Non-member	\$220	\$250	_____
Student (with ID)	\$100	\$110	_____
<b>Friday Evening Banquet</b>	<b>\$50</b>	<b>\$60</b>	_____

## SRF Membership

\$35 Alevin    \$50 Fry    \$100 Smolt    \$250 Jack    \$500 Spawner   **Membership:** \_\_\_\_\_

**Method of Payment:**  Check    Money Order    Purchase Order    Credit Card   **Payment Total:** \_\_\_\_\_

Purchase Orders will only be accepted for 5 or more people. Each registrant is required to fill out an individual registration form.

VISA    MasterCard   Credit Card# \_\_\_\_\_ Exp. Date \_\_\_\_\_

Mail form and payment to: SRF Conference, 425 Snug Alley, Unit D, Eureka, California 95501 • Make checks payable to SRF.

Phone: (707) 923-7501 • Fax: (707) 923-3135 • [info@calsalmon.org](mailto:info@calsalmon.org)

Please Note: We do not give refunds • Receipts are emailed, so print legibly • This form is available at [www.calsalmon.org](http://www.calsalmon.org)

# Workshops & Tours



*Yellow Creek in Tasman Kojam Valley with Mt. Lassen in the background.*  
Photo Credit: Brian Cluer

**Tuesday, April 23**

## **Restoring to Stage 0, Recent Advances and Applications in Process-Based Habitat Restoration**

**Workshop Coordinators:** Brian Cluer, Ph.D., and Michael Pollock, Ph.D., NOAA Fisheries

This workshop will cover the most up-to-date theory and practice of Stage 0 restoration throughout the life cycle of a project, including the supporting science, planning where and under what conditions Stage 0 is relevant, existing methods of design and construction including examples ranging from nudging deposition processes to wholesale grading of valley surfaces, with examples from diverse eco-regions. How to permit Stage 0 restoration projects will be an emphasis of the workshop.

**The Scientific Basis for Restoring Whole Valley Floors Rather Than Stream Channels,** Brian Cluer, Ph.D., NOAA Fisheries

**Delineating the Stream Evolution Corridor for Planning and Communicating Whole Valley Floor Restoration,** Damion Ciotti, U.S. Fish and Wildlife Service Partners in Restoration Program

**Identifying Necessary Geomorphic and Landscape Conditions for Stage 0 Restoration Projects,** Conor Shea, Ph.D., P.E., U.S., Fish and Wildlife Service Partners in Restoration Program

**The Range and Setting of Restored Depositional Valley Types to Stage 0 in the Pacific Northwest,** Cari Press, Deschutes National Forest

**The Geomorphic Grade Line Method, a Quantitative Design Tool for Valley Floor Restoration,** Matt Helstab, Deschutes National Forest

**Complementary Use of Wood Jams, Contour Grading, and Beaver Dam Analogues—Case Examples and Overview of the BDA Design Tool,** Rocco Fiori, Fiori GeoSciences

2019 Conference Agenda Packet

**Monitoring Large-Scale Stage 0 Projects—an Example from Eastern Oregon,** Mathias Perle, Upper Deschutes Watershed Council

**A Framework for Understanding How to Permit Stage 0 Restoration Projects in California,** Carrie Lukacic, Prunuske Chatham Inc., Betsy Stapleton, Scott River Watershed Council, and Sarah Beesley, Yurok Tribal Fisheries Program

**Synthesis: Why Whole Valley Floor Restoration is the Future of “Stream” Restoration,** Michael M. Pollock, Ph.D., NOAA Fisheries

## **Assessing Ecological Risks from Streamflow Diversions by Applying Riffle Crest Thalweg Rating Curves Workshop**

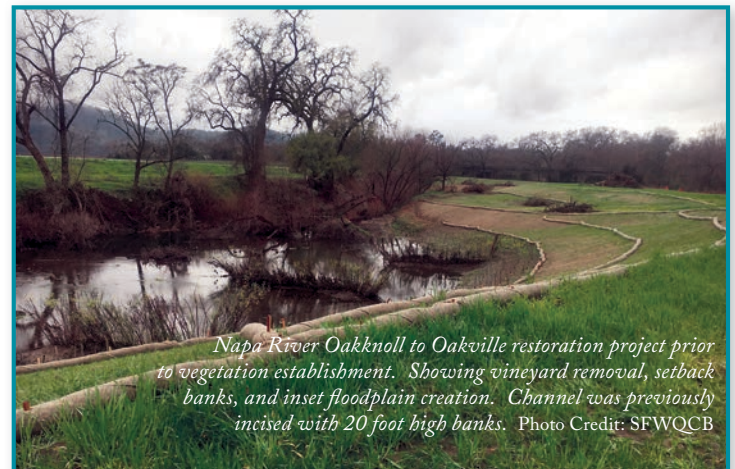
**Workshop Coordinators:** Bill Trush, Ph.D., and Emily Cooper, River Institute, Humboldt State University

Workshop participants will be shown how to quantitatively link basic concepts in stream hydraulics with stream ecosystem processes. By restricting streamflow diversions to a prescribed percentage change in ambient riffle crest thalweg (RCT) depth, the magnitude, duration, frequency, and timing of unregulated streamflows (Q) that sustain ecological processes will remain protected. The afternoon session will guide participants through several step-by-step risk analyses for aquatic species in the South Fork Eel River, followed by a discussion on top-down versus bottom-up diversion strategies as instream flow policies in California.

## **Integrating Flood Management, Steelhead, Beaver, and Wildlife Habitat Restoration in the Napa River Watershed Field Tour**

**Tour Coordinators:** Ann Riley, San Francisco Regional Water Quality Control Board and Leslie Ferguson, San Francisco Regional Water Quality Control Board

This Napa River restoration tour will feature an environmentally sensitive flood control project with biotechnical elements, in the heart of urban downtown Napa. Additionally, we will tour river restoration



*Napa River Oakknoll to Oakville restoration project prior to vegetation establishment. Showing vineyard removal, setback banks, and inset floodplain creation. Channel was previously incised with 20 foot high banks. Photo Credit: SFWQCB*

reaches in the mid-valley where vines and roads have been voluntarily setback and numerous environmental features created including: inset floodplains, secondary channels, instream structural elements, and riparian zone revegetation. Beavers have colonized sections of these restoration sites, increasing the ecological diversity of the projects.

### **Living in a Fire Adapted Landscape: Burn Zone Recovery, Natural Regeneration and Active Restoration in Sonoma County Watersheds**

**Tour Coordinators:** Karen Gaffney and Sheri Emerson,  
Sonoma County Ag + Open Space

This full day tour will visit the watersheds and stream systems affected by the 2017 fires in Sonoma County, with an emphasis on targeting recovery actions, long-term forest health and resiliency, and the protection and enhancement of stream systems in wildlands, agricultural areas and within the wildland-urban interface. Tour sites will highlight collaborations in Sonoma County to collect and apply science and data to achieve multiple benefits, including sensitive fuel load management, public safety, and resiliency to climate, drought, and flood impacts. The tour will visit burned salmonid bearing watersheds including Mark West, Calabazas, and Dry Creek.



*Calabazas Creek Open Space Preserve*  
Photo Credit: Sonoma County Ag + Open Space

### **PIT Antenna Technology: An Array of Applications in the Russian River Watershed**

**Tour Coordinators:** Gregg Horton, Sonoma County Water Agency, and William Boucher, CA Sea Grant

Passive integrated transponder (PIT) antennas have become important tools for informing salmonid habitat and demographic questions. This tour will provide an overview of advancements in PIT technology that have expanded our capabilities for answering questions that up until now could not readily be addressed with traditional monitoring methods. The tour will demonstrate examples of using PIT antennas for life cycle monitoring, movement, survival, habitat validation, habitat connectivity, and growth in a variety of habitats.



*Dual PIT antenna array on Porter Creek*  
Photo Credit: California Sea Grant

## **Wednesday, April 24**

### **Growing Impacts: Cannabis and Instream Flows Workshop**

**Workshop Coordinators:** Elijah Portugal, MS, Cannabis and Instream Flow Unit, Fisheries Branch, CDFW, and Eli Asarian, Riverbend Sciences

This workshop will explore the impacts of large-scale cannabis agriculture on rivers and streams, with a focus on hydrology. Specific topics will include: 1) quantifying the recent expansion of cannabis production, 2) hydrological and ecological effects of cannabis production, 3) diverse perspectives on California's system for regulating the environmental impacts of cannabis production, and 4) opportunities and challenges for improving farming practices.

**The Green Rush is Real: Quantifying the Rapid Expansion of Cannabis Cultivation in Northern California, 2012-2016,** Jennifer Carah, The Nature Conservancy

**Connecting Cannabis Landscapes to Aquatic Habitats,** Phoebe Parker-Shames, UC Berkeley

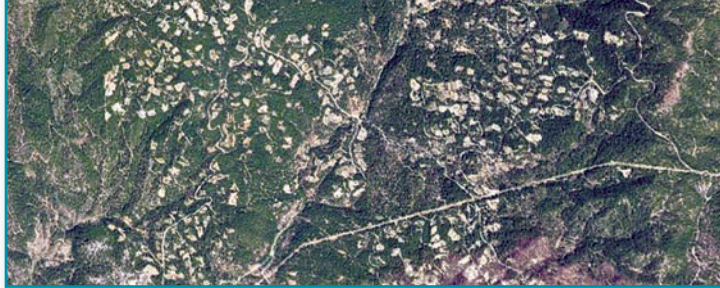
**Application of Ecologically-Based Flow Metrics for Northern California Impaired Streams,** Noelle Patterson, UC Davis

**University of California On-Line Grower Survey Characterizes Cannabis Water Use and Cultivation Practices in California,** Ted Grantham, UC Berkeley

**Water Storage and Cultivation Practices Affect Seasonal Patterns of Water Demand of Cannabis Production in Northern California,** Chris Dillis, North Coast Regional Water Quality Control Board

**Water Quality Impacts of Illegal Marijuana Cultivation on Public Lands, with an Emphasis on Anadromous Fish,** Nathan Cullen, Regional Water Quality Board

**Estimation of Cannabis-Related Water Use and Comparison to Measured Instream Flows in Select Trinity County Streams,** Bryan McFadin, North Coast Regional Water Quality Control Board



Trinity Pines in 2016 Photo Credit: CDFW

**Cannabis Cultivation Policy and the Continuing Development of Minimum Instream Flows,** Peter Barnes, State Water Resources Control Board  
**Is the Regulatory Process of Water Working?,** Anna Birkas, Village Ecosystems

**Fish-Friendly Cannabis Farming Practices: Methods, Opportunities and Challenges,** Hollie Hall, Compliant Farms Certified

**Coho Salmon: Gauging Cannabis Production Impacts to Summer Rearing Habitat,** Corinne Gray, CA Department of Fish and Wildlife (Bay Delta Region)

**Panel discussion: Facilitated by Adona White,** North Coast Regional Water Quality Control Board

**Thinking Outside the Channel: Innovative Approaches to Urban Stream Restoration Workshop and Tour**

**Workshop Coordinator:** Tom Hesseldenz, Ecological Landscape Architecture, Tom Hesseldenz & Associates

**Field Tour Coordinators:** Steve Brady, City of Santa Rosa

This workshop will go beyond urban stream restoration focused on channels and streambanks to also include floodplain restoration, flood hazard reduction, water quality improvements, and trails and other recreational facilities in urban settings. Morning presentations will focus on various design methodologies utilized and ways to work with landowners, municipalities, regulators, local residents, and conservation organizations to accomplish large comprehensive urban stream projects.

In the afternoon, participants will ride Rosie the Trolley to visit City of Santa Rosa project sites including Lower Colgan Creek and the Prince Memorial Greenway on Santa Rosa Creek. The Colgan Creek project acquired additional right-of-way to allow for the expansion of the floodplain, increased channel sinuosity, instream habitat features, native riparian planting, and flood resiliency within a previously channelized creek. The Prince Greenway is an urban creek restoration in downtown Santa Rosa that enhanced a grouted rock flood control channel to allow for the installation of habitat features and native plantings within a limited right-of-way. The tour will highlight project development, land acquisition, flood control requirements, funding, challenges, and lessons learned.

**Navigating Dynamic Stakeholder, Contractor and Regulatory Landscape to Improve Urban Streams: A Case Study of the City of Fortuna's Rohner Creek Project,** Steve Allen and Brett Vivyan, GHD

**Ecological Re-Tooling of a Small Town: Comprehensive Urban Stream Restoration in the City of Yreka, CA,** Thomas F. Hesseldenz, Tom Hesseldenz and Associates



"Breakthrough" mural on Railroad Street bridge over Santa Rosa Creek in the Prince Memorial Greenway. Photo Credit: City of Santa Rosa.

**Roughened Channel-Chute Construction Techniques, Random Versus Planned Boulder Placements,** Travis James, Michael Love & Associates

**How to Engage Local Communities in Order to Promote Urban Watershed Health and Understanding Around Salmonid Habitat Needs,** Sarah Phillips, Marin County Resource Conservation District

**Partnering with Land Conservation Organizations for Long-Term Protection,** Jen Kuszmar, Sonoma County Ag + Open Space

**Exploring a Stage 0 Valley—Willow Creek, Western Russian River Field Tour**

**Tour Coordinators:** Brian Cluer, Ph.D., NOAA Fisheries, and Lauren Hammack, Prunuske Chatham, Inc.

The lower two miles of Willow Creek evolved passively—within three decades—from channelized, drained agricultural fields to an ecologically rich, dynamic Stage 0 valley wetland complex. Coho and steelhead immediately returned to the watershed after removal of a passage barrier at the downstream end of the valley in 2011. Fish numbers and movement patterns have been monitored annually. The field tour will begin with a presentation on the valley's geomorphic evolution and the salmon utilization data, and will end with a long tromp through the wetland complex. Bring your waders! This field tour will complement the Stage 0 workshop.



Explore a Stage 0 valley wetland complex. This tour will require waders. Photo Credit: Brian Cluer

## Dry Creek: Partnerships in Habitat Enhancement and Monitoring for Salmonid Recovery Field Tour

**Field Tour Coordinators:** Dave Cuneo and Gregory Guensch, Sonoma County Water Agency

This all day tour features salmonid habitat enhancement projects and monitoring programs on both private and public lands that demonstrate long-term partnerships that strategically implement conservation practices within the Dry Creek Basin. We will highlight conservation strategies that address issues related to salmonid recovery and that provide long-term solutions for communities and the environment. Tour projects will highlight collaborative efforts guided by the Russian River Biological Opinion, and the Russian River Coho Salmon Captive Broodstock Program and that are implemented by agencies and landowners. Project sites are located on the mainstem of Dry Creek and includes engineered log jams and off-channel and in-channel habitat enhancements.



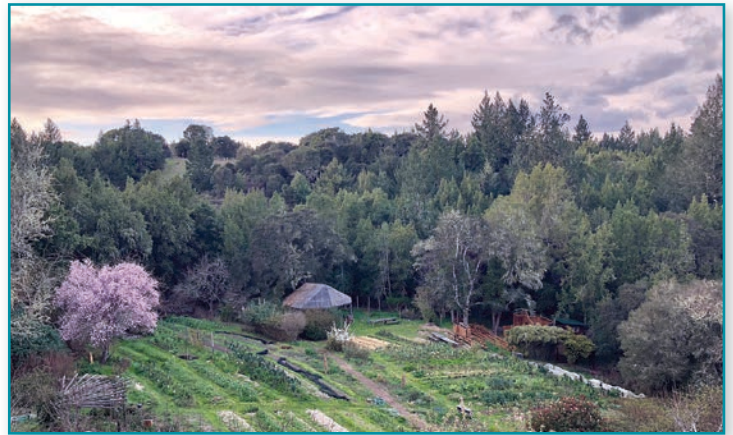
*Newly constructed side channel in the upper reaches of Dry Creek which was fully completed in late 2018. Photo Credit: SCWA*

## Dutch Bill Watershed Streamflow Improvement and Coho Recovery Tour

**Field Tour Coordinators:** Kate Lundquist and Brock Dolman, Occidental Arts and Ecology Center

**Tour Leaders:** John Green, Gold Ridge Resource Conservation District, Mary Ann King and Mia Van Docto, Trout Unlimited

This full-day field tour will focus on the Dutch Bill Creek Watershed, considered to be one of the most critical watersheds for the recovery of endangered coho salmon and steelhead in the lower Russian River basin. The tour will begin with looking at projects in and along the creek and end up in the headwaters at the Occidental Arts and Ecology Center's 80-acre demonstration site. Participants will learn about the Coho Broodstock Program, fish monitoring, water quality and quantity enhancement techniques, water rights, and fish friendly upland restoration strategies such as headcut and fuel load management, graywater, composting toilets, community education and organizing, and much more.



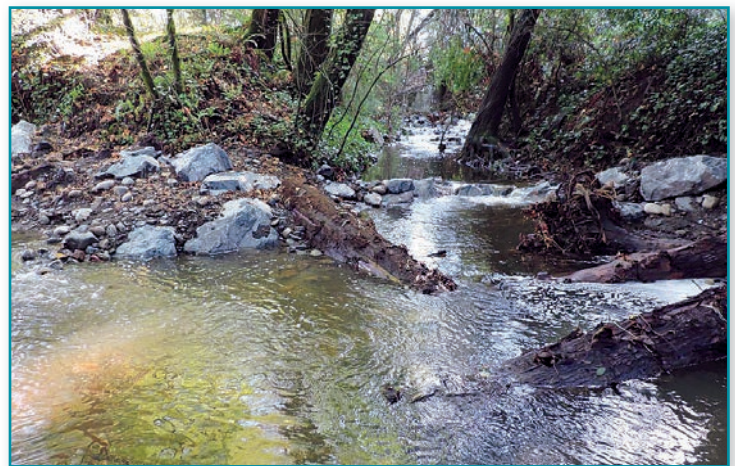
*The idyllic Occidental Arts and Ecology Center is a research demonstration center in the Dutch Bill watershed in Western Sonoma County that teaches permaculture and watershed restoration practices. Photo Credit: Katherine Harris*

## Winter Habitat, Floodplains, and Fish Passage in Lagunitas Creek Field Tour

**Field Tour Coordinators:** Greg Andrew, Marin Municipal Water District, Preston Brown, SPAWN

**Tour Leaders:** Erik Young, Trout Unlimited, and Joanna Dixon, Marin County Public Works

This tour will visit four recently-implemented habitat enhancement projects implemented in Lagunitas Creek, to improve habitat for coho and steelhead. The projects include: two projects designed to reconnect Lagunitas Creek to its floodplain, for winter habitat enhancement; a large woody debris instream enhancement project in the Devils Gulch tributary; and a fish passage improvement project in the San Geronimo Creek tributary. The tour presenters will demonstrate design goals, implementation techniques, and effectiveness monitoring methods.



*Log and rock step pools for fish passage improvement in San Geronimo Creek. Photo Credit: Greg Andrew, Marin Municipal Water District*



# 2019 Conference Logistics & Events

## Conference Location

Finley Community Center  
2060 West College Avenue,  
Santa Rosa, California 95401

Thursday morning registration  
and Plenary Session will be at  
the Flamingo Hotel

## Conference Events and Schedule

Tuesday and Wednesday Workshops  
and Field Tours are 9am to 5pm on April  
23 and 24. Field Tours depart promptly  
at 9am so please come to the facility  
early to pick up your registration packet  
and pack a lunch for the day. Vans are  
provided for field tours.

The **SRF Annual Membership Meeting** will  
be at 5:30pm on Wednesday, April  
24 followed by a networking social,  
membership dinner, and film screening.

The **Plenary Session** will be held the  
morning of Thursday, April 25 in the  
Ballroom of the Flamingo Resort Hotel  
at 2777 Fourth Street, Santa Rosa,  
California 95405

The **Mentor-Mentee Lunch** will be held  
at the Senior Person Wing at the Finley  
Center after the Plenary session and is  
limited to 60 mentees.

The **Conference Poster Session** is on  
Thursday from 7-10pm.

Friday's evening features the **Annual  
Conference Banquet and Cabaret**, starting  
at 6pm.

## Poster Session

The Poster Session on Thursday evening  
is free to attend for all conference  
participants and is an excellent  
networking opportunity. For information  
about how to present at the poster  
session, please email [info@calsalmon.org](mailto:info@calsalmon.org)  
or refer to the Events or FAQ section  
of the conference website.

## Awards Nomination

Please submit nominations of 200  
words or more to [srf@calsalmon.org](mailto:srf@calsalmon.org)  
by February 20, to nominate candidates  
for the illustrious Restorationist of the  
Year Award, the Golden Pipe Award for  
Innovation, the Lifetime Achievement  
Award, and the Gordon Becker Memorial  
River Advocate Award.

*The Breach sings the wild salmon like Whitman once  
sang the folk life and burgeoning streets of America's  
cities. The Breach roars the truth that when our  
thousand rivers and rills are stripped of their salmon,  
we are all bankrupted—tribes, towns, animals, trees,  
flowers, all facing a horrendous desolation and dearth  
and theft of the shared sacred.... I find the silence of  
salmonless rivers very hard to bear.*

*So, as The Breach so beautifully suggests,  
let us find the loss unbearable, stand up together, and  
stop those who would steal away this great gift.  
This film shows us the way to keep the Gift coming.*

## Conference Host Hotels

### The Flamingo Resort Hotel,

[www.flamingoresort.com](http://www.flamingoresort.com)

Located at 2777 4th St, Santa Rosa, CA  
95405, this is where the Plenary session  
will take place on Thursday morning,  
April 25. SRF has set-up a group block  
with the legendary Flamingo, which will  
offer Superior King or Double rooms  
for \$139 for Monday - Thursday nights  
and \$199 on Friday night, or \$159 for  
Executive King rooms for Monday -  
Thursday nights and \$229 on Friday  
night. These rates include breakfast,  
parking, and wifi. To make a reservation  
at the discounted rate, please call  
(800) 848-8300 or email  
[groupres@flamingoresort.com](mailto:groupres@flamingoresort.com).

### The Sandman Hotel,

[www.sandmansantarosa.com](http://www.sandmansantarosa.com)

Located at 3421 Cleveland Avenue, Santa  
Rosa, CA 95403, the renovated Sandman  
Hotel is offering double or king rooms for  
\$129 on Monday - Thursday and \$179 on  
Friday, April 26. To book the group rate  
Monday - Thursday, please use group  
code G-SRF2019 on their website. For  
extending your stay through Friday night,  
please contact the hotel front office  
directly at (707) 293-2100 and refer to  
the SRF group block. This hotel includes  
a continental breakfast, free parking and  
wi-fi, a gym, and other amenities.

*Casey Neill and the Norway Rats will play at the  
Conference Banquet. "(Casey Neill's) songs mask  
their complexities beneath a simple, singalong-  
worthy surface... these swimming waters have  
serious depth." Rolling Stone magazine*



### Santa Rosa North Motel 6,

[www.motel6.com](http://www.motel6.com)

Located at 3145 Cleveland Ave, Santa  
Rosa, CA 95403, this Motel 6 is offering  
single occupancy rooms at \$72 and  
double rooms at \$80 Monday - Thursday.  
Friday night rates will be \$90 for a single  
and \$100 for a double. This hotel does  
not offer breakfast but you can't beat  
this rate and it is a 10 minute drive to the  
Finley Center. To make a reservation, call  
(800) 544-4866 and ask for SRF block.

## Banquet, Cabaret, and Dance!

The banquet includes a wild Copper  
River salmon dinner, local wine and  
beer, an awards ceremony, a fun-filled  
Cabaret, and a lively band. Because the  
SRF banquet usually sells out, please  
purchase your tickets in advance.



# Conference Sessions

## Plenary Session

**Master of Ceremonies:** Thomas Williams, Ph.D., NOAA Fisheries, Southwest Fisheries Science Center

**Championing Northwest California Wilderness, Recreation, and Working Forests,** Congressman Jared Huffman

**Fish Tales: A Writer's Journey into the Salmon Connection,** Langdon Cook, author of *Upstream: Searching for Wild Salmon From River to Table*

**How Climate Extremes Affect Salmonid Recovery,** Gordon Reeves, Emeritus Scientist, U.S. Forest Service and Oregon State University

**Managing California's Water in a Time of Drought and Climate Change,** Ellen Hanak, Director, Public Policy Institute of California's Water Policy Center

## Thursday Afternoon Concurrent Sessions

### Stage 0 Restoration, Design, and Implementation

**Session Coordinator:** Brian Cluer, Ph.D., NOAA Fisheries

**Stage 0 Restoration at Whychus Canyon Preserve, Central Oregon—Monitoring and Lessons Learned,** Mathias Perle, Upper Deschutes Watershed Council

**A Survey of Forest Service Stage Zero Restoration Projects, and an Introduction to the Geomorphic Grade Line Design Approach,** Matt Helstab, U.S. Forest Service, Willamette National Forest

**Restoration Construction: Bridging Muddy Waters—Lessons Learned from the Pacific Northwest,** Matt Koozer, Biohabitats

**Attaining Stage 0 Ecologic Benefits with the Complementary Use of Contour Grading, Simple Roughness Elements, Wood Jams, Beaver Dam Analogues, and Time,** Rocco Fiori, Fiori GeoSciences

**Process-Based Design Criteria for the Scoping and Design of Stage 0 Restoration Projects,** Jared McKee, U.S. Fish and Wildlife Service

**How to Permit Stage 0 Restoration Projects in California,** Carrie Lukacic, Prunuske Chatham, Inc.

**Salmonid Foodscapes in River Networks—Synthesizing the Phenology of Habitat Suitability and Food Availability Across a River Network**

**Session Coordinator:** Gabe Rossi, UC Berkeley

**A Foodscape Model to Approach Salmonid Ecology and Management,** Gabe Rossi, UC Berkeley

**Algae and Cyanobacteria in “Salmonid Foodscapes” Along River Networks,** Mary E. Power, UC Berkeley

**Linking Spatial Patterns of Stream Metabolism, Ecosystem Processes, and Juvenile Salmonids in a River Network,** Matthew Kaylor, Oregon State University

**Floodplains in the Foodscape: Physical Process to Productivity,** Carson Jeffres, UC Davis

**“Counting Calories” Juvenile Steelhead Feeding Ecology in an Intermittently Closed Estuary—Russian River,** Erin Seghesio, NOAA Fisheries

**Incorporating Foodwebs into Salmon Habitat Monitoring in the Columbia River Basin,** Seth White, Columbia River Inter-Tribal Fish Commission

**Innovations in the Science and Management of Dry Season Water Supply for Salmonid Recovery in California**

**Session Coordinator:** Tim Bailey, Humboldt State University

**The Salmonid and the Subsurface: The Importance Of Rock Type for Understanding and Sustaining Northern California Aquatic Ecosystem,** David Dralle, UC Berkeley

**Predicting the Spatial and Temporal Distribution of Wetted Habitats in Intermittent Streams and its Implications for Long-Term Drought Impacts,** Hana Moidu, UC Berkeley

**Lessons from Low Flow Monitoring and the Impacts of Drought on Streamflow Conditions in Small Coastal Watersheds,** Mia van Docto, Conservation Hydrologist, Trout Unlimited

**Quantifying Ecological Risk from Diversion Rates During the Hydrograph Recession in the South Fork Eel River,** Emily Cooper, Humboldt State University

**Benefits of Agricultural Water Conservation Strategies to Improved Summer Low Flows, Navarro River Watershed, California,** Christopher Woltemade, Shippersburg University

**Roll Your Own Data Logger: Use the Mayfly Solar Powered Computer Board to Automate Collection of Low Flow Physical Stream Conditions,** Neil Hancock, Independent Software Developer



Stage 0 valley of the Humboldt River in Nevada.

Photo: Brian Cluer

## Data, Planning, and Actions for Watershed Resiliency: Fires, Floods, and Climate Change

**Session Coordinator:** Karen Gaffney, Sonoma County Ag + Open Space

**Mapping Riparian Areas for Long-Term Riparian Corridor Conservation & Resiliency to Extreme Events,** Karen Gaffney and Allison Schichtel, Sonoma County Ag + Open Space

**Effects of the Thomas Fire on *Oncorhynchus mykiss* and Stream Communities of the Los Padres National Forest,** Kristie Klose, Ph.D., Forest Fisheries Biologist, Los Padres National Forest

**Report From A Russian River Field Station In The Heart Of The 2017 Wildfire Zone: Pepperwood's Integrated Approach To Evaluating And Advancing Watershed Resilience,** Lisa Micheli, Ph.D., and Toshe Comendante, Ph.D., Pepperwood Preserve

**Spatial Analysis and Forest Canopy Damage Modeling—The 2017 North Bay Fires,** Mark Tukman, Tukman Geospatial

**After the Planning Ends: Advancing Objectives of the Fire and Flow Strategic Planning,** Stacie Fejtek Smith, D. Env, NOAA Restoration Center

**Fisheries Restoration in the Era of Megafires: How Can Fish Habitat Restoration Account for the Fire Next Time?,** Will Harling, Director, Mid Klamath Watershed Council



*Fire threatening a vineyard*  
Photo Credit: Karen Gaffney

## Friday Morning Concurrent Sessions

### Floodplains and Functions: From Concept to Creation

**Session Coordinators:** Eric Ginney, Environmental Science Associates and Lauren Hammack, Prunuske Chatham, Inc.

**Getting Food Delivered: The Influence of Flows and Floodplains on Coho Salmon Survival and Growth,** Eric Ettlinger, Marin Municipal Water District

**Floodplain Geomorphology of Green Valley Creek: Legacy Effects of Settlement and Management,** Matt O' Connor, Ph.D., CEG, O'Connor Environmental, Inc.

**Planning for Recovery—Filling the Rearing Habitat Deficit on the Lower American River,** Chris Hammersmark, Ph.D., PE, cbec, inc. eco engineering

**Creating Floodplain Habitat in Incised Streams in the North Bay Region, California,** Jason White, ESA

**Planning, Implementation, and Monitoring of Off-Channel Habitat Enhancement and Floodplain Reconnection in the Dry Creek Habitat Enhancement Project,** Neil Lassetre, Sonoma County Water Agency

**Floodplains Across Time And Space: One Size Does Not Fit All (Especially On The Yuba River),** Eric Ginney, ESA



*Newly constructed flooded wetland feature on South Fork Ten Mile River.*  
Photo Credit: The Nature Conservancy.

### Summertime Blues: Salmonid Survival and Ecosystem Response at the Base of the Hydrograph

**Session Coordinators:** Sarah Nossaman Pierce and Mariska Obedzinski, CA Sea Grant, Russian River Salmon & Steelhead Monitoring Program

**Impacts of Low Summer Streamflow on Salmonids Rearing in Russian River Tributaries,** Mariska Obedzinski, CA Sea Grant

**Effects of Extreme Drought on Juvenile Coho Salmon Survival in the Russian River,** Ross Vander Vorste, Ph.D., UC Berkeley

**Effects of Flow Augmentation on Invertebrate Drift, Salmonid Foraging Behavior and Inter-Pool Movement in a Mediterranean Stream,** Wes Slaughter and Keane Flynn, UC Berkeley

**Flows That Support Coho Smolt Outmigration: Hydraulic Controls on Downstream Movement in the Russian River Watershed, CA,** Brian Kastl, UC Berkeley

**Beyond Flow Regimes: Dissolved Oxygen Controls on Juvenile Salmonid Health and Persistence,** Cleo Woelfle-Erskine, Ph.D., University of WA



Photo Credit:  
Thomas B. Dunklin

Dynamics That Influence Dissolved Oxygen Concentrations in Salmonid Rearing Pools and Possible Implications for Management, Sarah Nossaman Pierce, CA Sea Grant, and Bryan McFadin, North Coast Regional Water Quality Control Board

### **The Freshwater-Estuarine Transition Zone Part 1: Salmon Life Histories and Habitat Use**

**Session Coordinators:** Abel Brumo and Jay Stallman, Stillwater Sciences

**Critical Connections: Freshwater-Estuary Habitat for Salmon and Marine Fishes,** Rebecca Flitcroft, USDA Forest Service, PNW Research Station

**Juvenile Coho Salmon Life History Variants in Humboldt Bay Tributaries,** Grace Ghrist and Maddie Halloran, Humboldt State University

**A Novel Approach to Estimate Winter Movement and Survival of Juvenile Coho Salmon,** Nicholas Van Vleet, Humboldt State University

**Barred from the Ocean: Consequences of a Unique Estuary Phenomenon on Juvenile Growth and Population Recruitment of Chinook Salmon in Redwood Creek,** Emily Chen, Humboldt State University and U.S. Geological Survey California Cooperative Fish and Wildlife Research Unit

**Influence of Environmental Variability on Juvenile Steelhead Abundance, Growth, and Movement in a Seasonally Closed California Estuary,** Rosealea Bond, UC Santa Cruz and NMFS Southwest Fisheries Science Center

**What Shapes Anadromy? Genetic, Phenotypic, and Environmental Contributions to Migration in Steelhead,** Katie Kobayashi, UC Santa Cruz



*Floodplain, tidal estuary, bay, and nearshore marine environments within the freshwater-estuarine transition zone of Elk River, tributary to Humboldt Bay.*

Photo Credit: Brad Finney

### **Let the River Run: Insights into Understanding the Klamath Basin**

**Session Coordinators:** Mike Belchik, Yurok Tribe and Cynthia Le Doux-Bloom, Ph.D., Humboldt State University, Department of Fisheries Biology

**Overview of the Klamath River Renewal Project,** Mark Bransom, Klamath River Renewal Corporation

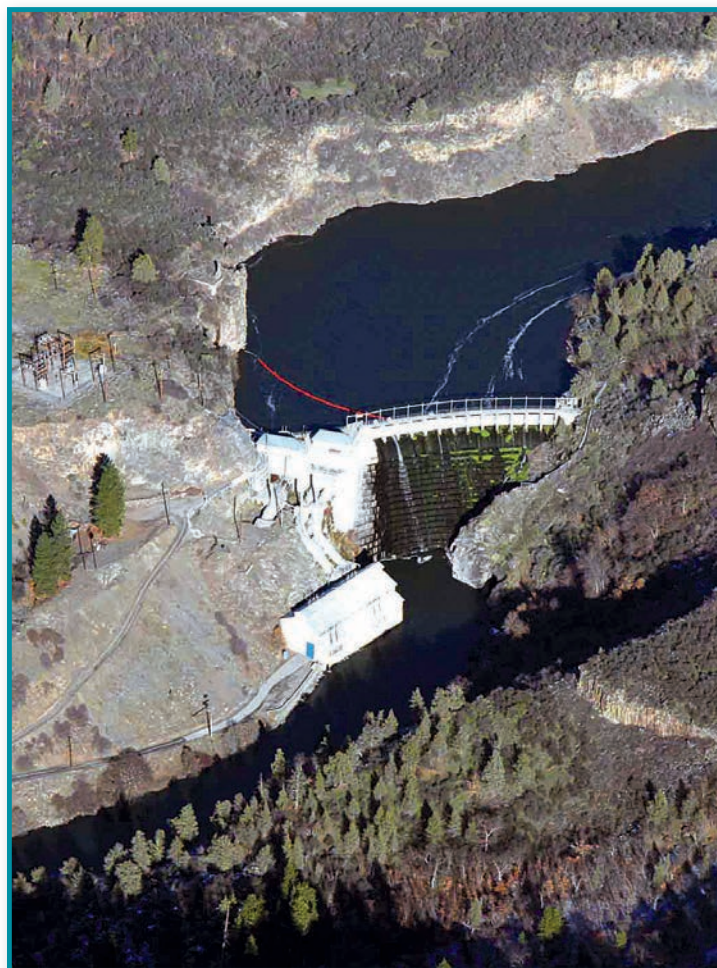
**Analyses of Ancient and Contemporary Klamath Basin Spring Chinook Provide Insights for the Future,** Tasha Thompson, UC Davis, Animal Science Department

**Applying Genetic Markers for Spring and Fall Chinook to Questions in the Klamath Basin,** Michael Miller, UC Davis, Animal Science Department

**Recolonization Potential for Coho Salmon in California Tributaries to the Klamath River Above Iron Gate Dam,** Max Ramos, Humboldt State University, Department of Fisheries Biology

**Evidence for the Genetic Basis and Inheritance of Ocean and River-Maturing Ecotypes of Pacific Lamprey in the Klamath Basin,** Keith Parker, Yurok Tribe, Fisheries Department

**Developing a Comprehensive Restoration Plan for the Scott River—Klamath Basin,** Erich Yokel, Scott River Watershed Council



*Klamath Dam Copco 1* Photo Credit: Thomas B. Dunklin

## Friday Afternoon Concurrent Sessions

### **New Approaches to Investigate Salmon-Habitat Relationships in Hydrologically Altered River Basins**

**Session Coordinator:** Eli Asarian, Riverbend Sciences

Every Fish that Dies Gets Eaten, JD Wikert,  
U.S. Fish and Wildlife Service

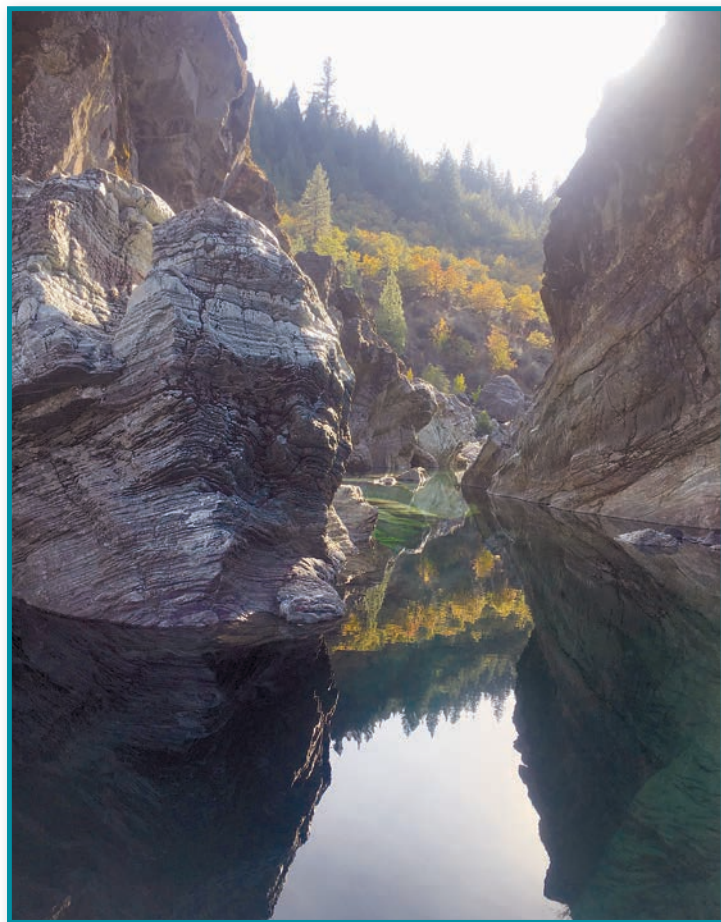
A New Metric for Measuring Downstream Effects of Dams on Floodplain Inundation, Alison Willy,  
U.S. Fish and Wildlife Service

Using Genetics to Investigate the Ecology and Distribution of Summer Steelhead in the Eel River Basin, Samantha Kannry, University of California Davis, Ecology Graduate Group

Predicting Salmonid Spawning Habitat Using Geospatially Constructed Stream Morphology Derived from High-resolution LiDAR-derived DEMs and Field Survey Data in the Indian Creek Watershed, Mendocino County, CA, Justin Bissell, GIS Manager, Pacific Watershed Associates

Modeling Flows in Northwest California Watersheds with VELMA-2.0, Melissa Collin and Sean Fleming, Humboldt State University

Rates of Whole River Primary Production Influence Water Quality and Basal Food Web Resources in the Klamath River, Laurel Genzoli, University of Montana



*Middle Fork Eel River summer steelhead holding habitat.*

Photo Credit: Ethan Bertz

### **The Freshwater-Estuarine Transition Zone Part 2: Habitat Restoration Planning, Design, and Implementation**

**Session Coordinators:** Jay Stallman and Abel Brumo, Stillwater Sciences

Using Coho Salmon Monitoring in the Smith River to Advance Restoration Planning, Marisa Parish Hanson, Smith River Alliance

Design of Tide Gates to Maintain Estuarine Function in Muted Tidal Systems, Rachel Shea, Michael Love & Associates

Martin Slough Enhancement Project—Landscape Scale Restoration in Humboldt Bay, Bob Pagliuco, NOAA Restoration Center

Recreating Extended-Duration Flooded Wetlands and Habitat Complexity in the Lower Ten Mile and Garcia Rivers, Lauren Hammack, Prunuske Chatham

A Vision for Freshwater-Estuarine Transition Zone Restoration in San Francisco Bay, Scott Dusterhoff, San Francisco Estuary Institute

Butano Marsh Channel Reconnection and Resilience Project, Jai Singh, cbec eco engineering



*Tide gate replacement, slough channel restoration, and tidal wetland construction in Martin Slough, Eureka, CA.*

Photo credit: Bob Pagliuco

### **Strategies for Improving Streamflow**

**Session Coordinators:** Sarah Nossaman Pierce, CA Sea Grant and Matt Clifford, JD, Trout Unlimited

Planning and Implementing Streamflow Improvement Projects in the Russian River Watershed with the Coho Partnership, Jessica Pollitz, P.E., Sonoma Resource Conservation District

Just Add Water: an Overview of Small-scale Flow Releases and Monitoring Tools to Support Salmonid Recovery in the Lower Russian River Basin, Elizabeth Ruiz, CA Sea Grant

Addressing Land Use Impacts to Restore Dry Season Flows, Tasha McKee, Sanctuary Forest, Inc.

Lessons Learned from Agricultural Water Storage Projects in Coastal San Mateo County, Joe Issel, San Mateo Resource Conservation District

**Water Rights Permitting for Small-scale Streamflow Enhancement Projects in Coastal California— Practical Considerations, Matt Clifford, JD, Trout Unlimited**

**Challenges in Evaluating the Effectiveness of Streamflow Enhancement Efforts, John Green, Gold Ridge Resource Conservation District**

**Possibility of a Renaissance for Spring-Run Chinook: Fact or Fiction?**

**Session Coordinators: Cynthia Le Doux-Bloom, Ph.D., Humboldt State University, Department of Fisheries Biology, and Michael Belchik, Yurok Tribe**

**Using an Evolutionary Perspective to Inform Spring Chinook Conservation, Tasha Thompson, UC Davis, Animal Science Department**

**Ocean Fisheries and Central Valley Spring Run Chinook Salmon, Will Satterthwaite, NOAA Southwest Fisheries Science Center, Santa Cruz, CA**

**Using the Genetic Basis of Adult Migration Type to Inform Conservation and Restoration of Spring Chinook, Michael Miller, UC Davis, Animal Science Department, Davis, CA**

**The Genomic Basis Of Ecotypic Differentiation In Chinook Salmon In California, J. Carlos Garza, Ph.D., NOAA Southwest Fisheries Science Center, Santa Cruz, CA**



*Female spring chinook holding at the top of a gorge in the South Fork Salmon River, tributary to Klamath River. Photo Credit: Thomas B. Dunklin*

**Effects of Wildfire on Salmon: A Spring Chinook Story, Rebecca Flitcroft, USDA Forest Service, PNW Research Station, Corvallis, OR**

**An Engineer's Perspective On Spring-Run Fish Passage Improvements and Reintroduction Efforts, Jon Mann, California Department of Fish and Wildlife**

**Book signing with Langdon Cook following the Plenary Session**

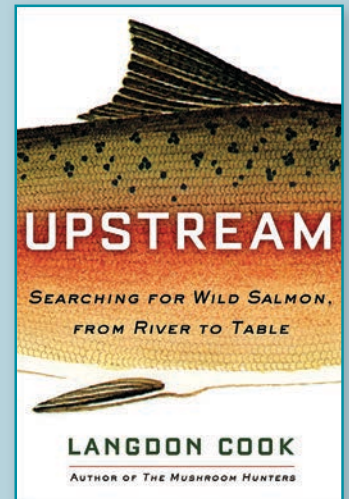


*Langdon Cook*

Review from **THE WALL STREET JOURNAL**: "In tracing the history and life cycle of these iconic creatures, Mr. Cook embarks on a series of his own journeys—14 nicely episodic chapters that explore how and where such fish still survive in the modern world, despite the threats of logging, dams,

the diversion of running water for domestic and commercial uses, overfishing, and climate change. It is a saga that has been told before but seldom with such immediacy and panache... Throughout these sorties, Mr. Cook is a congenial and intrepid companion, happily hiking into hinterlands and snorkeling in headwaters... [H]is continual curiosity ensures that the narrative unfurls gradually, like a long spey cast... With a pedigree that includes Mark Kurlansky, John McPhee and Roderick Haig-Brown, Mr. Cook's style is suitably fluent, an occasional phrase flashing like a flank in the current. One stream is described as sauntering languidly, like "an elderly flâneur out for a morning constitutional"; a spawning king has "pectoral fins working like frayed Chinese fans." For all its rehearsal of the perils and vicissitudes facing Pacific salmon, *Upstream* remains a celebration. Given half a chance, nature is resilient, like a thistle muscling up

through tarmac. This is not a work of eco-worship, but early on in his book Mr. Cook observes, "Our planet, the only one known to have life on it, is nothing short of a miracle."



**SRF Banquet, Cabaret, and Awards Ceremony**

*Celebrate the Restoration Field*



# Planning for Resilience

## Water Conservation and Flow Monitoring in Redwood Creek, South Fork Eel River

In 2018, Salmonid Restoration Federation continued conducting low flow monitoring and flow enhancement planning efforts in Redwood Creek, a critical tributary for juvenile salmonids in the South Fork Eel River 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. Since 2013, SRF has been conducting low flow monitoring and community outreach in this key tributary that suffers from legacy impacts of logging, rural sub-divisions, cannabis cultivation, and hundreds of unregulated water diversions.

Redwood Creek is a densely populated tributary in Southern Humboldt that has a high concentration of cannabis cultivation and also provides habitat for juvenile salmonids. This watershed once supported coho, steelhead, and Chinook salmon and still retains high intrinsic potential for salmonid recovery. 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 human, as well as threatened species like coho salmon.

In 2018, SRF conducted low flow monitoring at ten sites on a biweekly basis. At the beginning of the season, monitoring ranged from approximately 100 to 1000 gallons per minute (gpm). The monitoring crew witnessed a thriving salmonid population near the monitoring sites, especially upstream of Briceland where coho and steelhead ranging from one-inch to six inches in length were active and plentiful within the observed stream reaches.

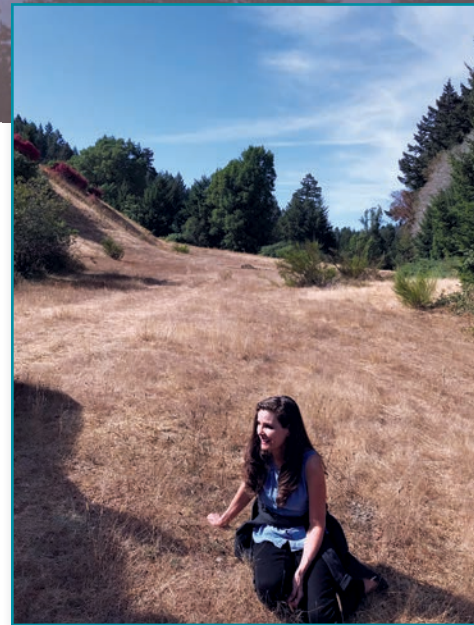
By the end of July, flows had decreased precipitously. The highest measured flow in late July was at the lower Redwood Creek monitoring site located in the CA

State Park where flows were measured just above 40 gpm—less than 4% of the measured flows from a month earlier.

By August only a few of the monitoring sites near the lower end of the watershed had any flow. However, by September two more sites had dried up leaving only two mainstem sites with measurable flows in the range of only two to four gpm. Flows persisted through early October. Sadly by early August conditions for aquatic habitat in Redwood Creek became dire with a few fish surviving in deeper pools throughout the watershed, but widespread mortality caused by drying stream reaches and shrinking pools.

Observations made, and flows measured during 2018 are similar to results from the past several years, although in 2018 there appeared to be a more precipitous drop in flow during the period spanning early July and through early August. We hypothesize that this may have resulted from the extended heat wave gripping the region during that time period. The persistence of dry-season low flows in Redwood Creek over the past four years is well documented, highlighting the need for a long-term and concerted effort to increase flows and improve fish habitat. Efforts to reduce human consumptive use during the dry season are part of the solution, but additional flow enhancement projects are likely needed to measurably improve the chronic low flows.

SRF recently was awarded two Wildlife Conservation Board grants in the Redwood Creek watershed to advance planning efforts to 100% design phase. These planning grants would enable the planning team of SRF and Stillwater Sciences to identify high-priority projects create flow enhancement designs that could measurably improve flow conditions in the watershed. Scattered projects could increase flows



*Elizabeth Maybee Marshall, of the historic Marshall Ranch, has spearheaded the preservation of the Ranch for future generations and multiple beneficial uses.*

photo by Dana Stolzman

downstream but coordinated planning and a cultural paradigm shift towards water storage and forbearance would be needed to sustain improved flows.

One of the most promising projects in the Redwood Creek watershed is on the historic Marshall Ranch which is a 2,942-acre ranch 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 the family ranch. The easement will prohibit subdivision 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 large-scale planning project could greatly enhance flows in the watershed and improve habitat values for salmon and other aquatic species.

## Salmonid Restoration Federation

425 Snug Alley, Unit D

Eureka, CA 95501



[www.calsalmon.org](http://www.calsalmon.org)

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## Join the SRF Community

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 eNewsletter with up-to-date announcements about restoration funding and training opportunities throughout the state
- Discounted admission to the annual Salmonid Restoration Conference
- Eligibility to vote in annual SRF Board of Directors elections

Becoming a member of SRF is easy and will have a lasting impact. Please take time today to add your voice to one of California's most active and highly regarded non-profits providing technical education, training, and advocacy on behalf of the salmonid habitat restoration field.

Thank you for your generous support.

For Wild Salmon,

Dana Stolzman  
Executive Director



## 22<sup>nd</sup> Annual Coho Confab

August 23-25, Klamath River

Join SRF, Mid-Klamath Watershed Council, the Karuk and Yurok tribes, and other restoration partners in a destination Confab on the Klamath River. This Confab will focus on off-channel habitat, large wood, thermal refugia, fish passage, prescribed fire techniques, and tour exciting restoration projects throughout the Klamath region. The Coho Confab is funded by CDFW's Fisheries Restoration Grant Program.

## SRF Groundwater Recharge Workshop

With support from the Wildlife Conservation Board, SRF will offer a Groundwater Recharge workshop in the Eel River to convene experts and landowners interested in building capacity for groundwater recharge projects to enhance streamflows.

*Dates & Location TBA.*

**For more information or to register for the conference, visit [www.calsalmon.org](http://www.calsalmon.org)**