



# 34<sup>th</sup> Annual Salmonid Restoration Conference

April 6-9, 2016 at the Fortuna River Lodge

*Salmonid Restoration in Working Watersheds*



## Conference Co-sponsors

Balance Hydrologics, Inc., Bawell Health Water LLC, Bear River Band of the Rohnerville Rancheria, Bureau of Land Management, Cachuma Operation and Maintenance Board, California American Water, California Conservation Corps, California Department of Fish and Wildlife, California Department of Water Resources, California State Coastal Conservancy, California Trout, Caltrans, Cardno, East Bay Municipal Utility District, ESA, GHD, Green Diamond - CA Timberlands Division, Hanford Applied Restoration and Conservation, HDR, Inc., ICF International, Inter-Fluve, Inc., Karuk Tribe, Marin Municipal Water District, McBain Associates, Mendocino County RCD, Michael Love and Associates, NOAA Fisheries, Normandeau Associates, Inc., Northern California Council of Federation of Fly Fishers, Northwest Hydraulic Consultants, Pacific Coast Fish, Wildlife and Wetlands Restoration Association, Pacific States Marine Fisheries Commission, Pacific Watershed Associates, Restoration Design Group, Rincon Consultants, Inc., Samara Restoration, San Lorenzo Water District, Sanctuary Forest, Santa Cruz County Fish and Game Advisory Commission, Solano County Water Agency, Sonoma County Water Agency, Stillwater Sciences, The Nature Conservancy, The Wildlands Conservancy, West Coast Watershed



**Wednesday** 8am  
**Thursday** 8am  
**Friday** 8am  
**Saturday** 8am

**Registration and Hospitality**

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<p><b>9am Workshops &amp; Tours 9am - 5pm</b></p> <p><b>Workshops</b> Beaver Dam Analogues <b>Chinook Room</b></p> <p>Tools for Getting Public Input and Participation <b>Coho Room</b></p>	<p><b>9am Workshops &amp; Tours 9am - 5pm</b></p> <p><b>Workshops</b> Design and Engineering of Off-Channel Habitat and Large Wood Projects <b>Coho Room</b></p> <p>Instream Flow Enhancement and Groundwater Recharge Planning <b>Chinook Room</b></p>	<p><b>Plenary Session</b> <b>Chinook Room</b></p>	<p><b>Morning Concurrent Sessions</b> <b>Coho Room</b></p> <p>Salmonid Health Shelter in the Slow Lane <b>Chinook Room</b></p> <p>Climate Change <b>Steelhead Room</b></p>
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<p><b>12:15pm Lunch</b></p>	<p><b>1:15pm Field Tours</b></p> <p>Headwaters to Bay: Arcata Tour Lower Mattole River and Estuary: Salmon Creek Watershed Tour Headwaters Forest Reserve to Humboldt Bay National Wildlife Refuge Tour</p>	<p><b>1:15pm Field Tours</b></p> <p>Eel River Delta and Estuary Tour Lower Klamath and Strawberry Creek Restoration Projects Tour Fish Passage and Tidegates Restoration in Humboldt Bay and the Mad River Watershed Tour</p>	<p><b>Afternoon Concurrent Sessions</b> <b>Steelhead Room</b></p> <p>Life-Cycle Modeling Gold Country Legacy Impacts <b>Coho Room</b></p> <p>Innovative Approaches to Understanding and Improving Salmon Habitat Relationships <b>Chinook Room</b></p> <p>Eel River Biology <b>CCC Room</b></p>	<p><b>Afternoon Concurrent Sessions</b> <b>Chinook Room</b></p> <p>Incised Stream Channels Spring-run Chinook Biology &amp; Genetics <b>Coho Room</b></p> <p>Impacts of Cannabis Cultivation <b>Steelhead Room</b></p>
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<p><b>5:30pm</b></p> <p><b>Annual Meeting</b> <b>Coho Room</b></p>	<p><b>6:30pm</b></p> <p><b>Membership Dinner &amp; Film Screening</b> <b>Chinook Room</b></p>	<p><b>7pm</b></p> <p><b>Poster Session</b></p>	<p><b>10pm</b></p> <p><b>Banquet, Awards Ceremony, Cabaret, and Dance Band</b></p>
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# April 6, Wednesday Workshops, 9am - 5pm

## Evolving Science and Policy to Restore Streams Using Instream Obstructions and Beaver Dam Analogues

Workshop Coordinator: *Eli Asarian, Riverbend Sciences*

### Chinook Room

#### Streams Evolve, and Habitat and Ecosystem Benefits Accrue

*Brian Cluer, Ph.D., NOAA Fisheries*

#### Using Ecologically Functional Dams and Other Instream Obstructions to Restore Complex Fluvial Ecosystems

*Michael Pollock, Ph.D., NOAA Fisheries*

#### Post-Assisted Woody Structures: Implementing California's First Beaver Dam Analogues (Part 1, Project Overview)

*Betsy Stapleton, Scott River Watershed Council*

#### Demonstration of Carbon Sequestration and Biodiversity Benefits of Beaver & Beaver Dam Analogue Restoration

*Sarah Yarnell, University of California, Davis*

#### Fish Passage at Natural & Constructed Channel-Spanning Obstructions: Preliminary Klamath Basin Observations

*Rocco Fiori, Fiori Geosciences*

## Let's Get Connected—Tools for Getting Meaningful Public Input and Participation

Workshop Coordinators: *Natalie Arroyo, Redwood Community Action Agency (RCAA), and Anna Halligan, Trout Unlimited*

### Coho Room

#### Defining the Issue and Developing Facilitation Skills

#### What's Up with People in our Watersheds? Defining the Issues that Reduce Public Participation in Recovery

*Natalie Arroyo, Senior Planner, RCAA and Eureka City Council Member, and Anna Halligan, North Coast Coho Project Manager, Trout Unlimited*

#### Compassionate Communication

*Steph Wald, Central Coast Salmon Enhancement*

#### Sense Making: How to Use Graphic Recording to Convey Ideas and Increase Understanding

*Keytra Meyer, Strategy Manager, Humboldt Area Foundation*

#### Facilitating Effective Communication

*Miriam Volat, Occidental Arts & Ecology Center*

### Lunch

#### What Do These Connections Look Like in Our Work?

#### The Mattole Field Institute: An Incidentally Novel Approach to Engaging the Public in a Rural Watershed

*Flora Brain, Mattole Restoration Council*

#### Connecting Policy and People

*Jennifer Savage, California Policy Director, Surfrider Foundation*

#### How Service Programs Create a Legacy of Stewardship

*Jennifer Catsos, Director, Watershed Stewards Program*

#### Building Trust Within a Project Area Through Meaningful Public Engagement and Outreach

*Sara Schremmer, Program Manager, Salmonid Restoration Federation*

#### Involving Multiple Landowners in a Large-Scale Restoration Project

*Doreen Hansen, Humboldt County Resource Conservation District*

#### Rollout of the SONCC Coho Salmon Recovery Plan: the Vision and Lessons Learned

*Julie Weeder, SONCC Coho Salmon Recovery Coordinator, NOAA Fisheries*

#### Beaver Restoration in the Sierra Nevada: U.S. Fish and Wildlife Service Applications

*Damion Ciotti, U.S. Fish and Wildlife Service*

#### The Beaver Restoration Guidebook: Are Beavers Too Good to be True for Stream Restoration?

*Gregory Lewallen, Portland State University*

#### Post-Assisted Woody Structures: Implementing California's First Beaver Dam Analogues (Part 2, Permitting)

*Betsy Stapleton, Scott River Watershed Council*

#### How to Streamline Permitting of Restoration Projects that Makes Streams Less Streamlined

*Gordon Leppig, California Department of Fish and Wildlife*

#### Regulatory Challenges to Restoring Complex Fluvial Ecosystems in California

*Michael Pollock, Ph.D., NOAA Fisheries*

#### Panel Discussion on Improving the Restoration Permitting Process

# April 9, Saturday Afternoon Concurrent Sessions

## Incised Stream Channels: Causes, Environmental Impacts, and Practical Restoration Solutions

Session Coordinators: *Thomas Leroy, Engineering Geologist, Pacific Watershed Associates and John Green, Gold Ridge RCD*

## Upper Klamath-Trinity River Spring-Run Chinook: Biology, Genetics and Recovery

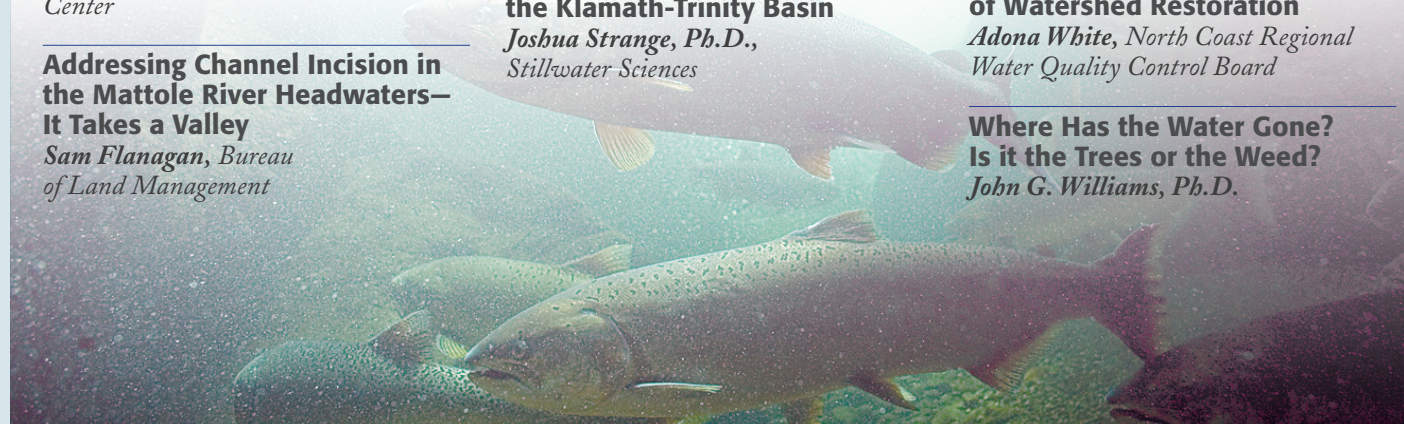
Session Coordinator: *Tom Hotaling, Salmon River Restoration Council*

## The Impacts of Cannabis Cultivation on Fisheries Recovery

Session Coordinator: *Dougald Scott, Ph.D., Salmonid Restoration Federation Board of Directors*

Room	Chinook Room	Coho Room	Steelhead Room
1:15pm	<b>Stream Channel Incision and Coho Salmon Restoration in Coastal California</b> <i>John Green, Project Manager, Gold Ridge Resource Conservation District</i>	<b>Ishyâat, Spring Salmon</b> <i>Josh Saxon, Karuk Tribal Council</i>	<b>Impacts of Surface-Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds</b> <i>Scott Bauer, California Department of Fish and Wildlife</i>
	<b>A Stream Evolution Model for Incised Stream Channels</b> <i>Brian Cluer, Ph.D., NOAA Fisheries, West Coast Region</i>	<b>The Evolutionary Basis of Premature Migration in Pacific Salmon Highlights the Utility of Genomics for Conservation Unit Delineation</b> <i>Michael Miller, Ph.D., University of California, Davis</i>	<b>Cannabis and Coho</b> <i>Hezekiah Allen, Executive Director, California Growers Association</i>
	<b>The Evolution and Restoration of Incised, Lower-Order Stream Channels in Managed, Fish-Bearing Mountain Streams of North Coastal California</b> <i>Thomas Leroy, Pacific Watershed Associates</i>	<b>Monitoring and Restoration Efforts for Salmon River Spring-Run Chinook and Their Relevance to the Planned Reintroduction of Salmonids in the Upper Klamath Basin After Dam Removal</b> <i>Nathaniel Pennington, Salmon River Restoration Council</i>	<b>Long-Term Streamflow Trends in the Eel River Basin</b> <i>Eli Asarian, Riverbend Sciences</i>
3:00pm	<b>Break</b>	<b>Break</b>	<b>Break</b>
	<b>Morphologic Effects of Anthropocene Sediment Pulses on the South Fork Eel River of Northwestern California</b> <i>Tim Bailey, Humboldt State University</i>	<b>Spring Chinook of the South Fork Trinity River</b> <i>Joshua Smith, Watershed Research and Training Center</i>	<b>Regulating the Watershed Impacts of Pot: Assessing the Utility of New Regulatory Regimes for Commercial Marijuana Production on the North Coast of California</b> <i>Scott Greacen, Friends of the Eel River</i>
	<b>Using Biogenic Structures to Restore Complexity to Incised Streams</b> <i>Michael Pollock, Ph.D., NOAA Fisheries-Northwest Fisheries Science Center</i>	<b>Restoration of Wild Spring-Run Chinook on the South Fork Trinity River—A Call for Action</b> <i>DJ Bandrowski, Yurok Tribe</i>	<b>Water Resource Protection Requirements for Cannabis Cultivators Informed by Decades of Watershed Restoration</b> <i>Adona White, North Coast Regional Water Quality Control Board</i>
	<b>Addressing Channel Incision in the Mattole River Headwaters—It Takes a Valley</b> <i>Sam Flanagan, Bureau of Land Management</i>	<b>Spring-Run Salmon Recovery in the Klamath-Trinity Basin</b> <i>Joshua Strange, Ph.D., Stillwater Sciences</i>	<b>Where Has the Water Gone? Is it the Trees or the Weed?</b> <i>John G. Williams, Ph.D.</i>

6:30pm Banquet & Cabaret in the Steelhead & Chinook Room



# Plenary Session

## Chinook Room

**Master of Ceremonies:**  
Thomas Williams, Ph.D.

NOAA Fisheries, Southwest Fisheries Science Center

**Homage to the Interface:  
Coastal Deltas, Estuaries, & Floodplains,**  
Michael Furniss, MJ Furniss & Associates

**Drought, Floods, and Alternate States  
of Algal-Based Food Webs in the Thirsty Eel,**  
Mary Power, UC Berkeley

**Ridges to River—Ecological Restoration,**  
Merv George, Jr.,  
Six Rivers National Forest, U.S. Forest Service

**Climate Change, Drought,  
and the Future of California Salmonids,**  
Peter B. Moyle, P.h.D.,  
Center for Watershed Sciences and Department of Wildlife,  
Fish and Conservation Biology, UC Davis



# April 8, Friday Afternoon Concurrent Sessions

## Life-Cycle Modeling to Inform Conservation, Restoration, and Recovery Planning

Session Coordinators:  
Thomas Williams, Ph.D., and Brian Cluer, Ph.D., NOAA Fisheries

## Gold Country—Legacy Impacts and Restoration Strategies

Session Coordinator:  
Jay Stallman, Stillwater Sciences

## Innovative Approaches to Understanding and Improving Salmon-Habitat Relationships

Session Coordinator:  
Cynthia Le Doux-Bloom, Ph.D., AECOM

## Eel River Biology: Salmonids, Sturgeon, Lamprey, and Multi-Species Planning

Session Coordinator:  
Pat Higgins, Eel River Recovery Project

### Room

### Steelhead Room

### Coho Room

### Chinook Room

### CCC Room

### 1:15pm

**The Right Side Channel, at the Right Time: Using Life-Cycle Analysis and Interdisciplinary Design to Build Resilient Side-Channels on the Clackamas River**  
John Esler, Portland General Electric

**Assessing Legacy Impacts of Hydraulic Mining in the Sierra Nevada—a 20-Year Perspective,**  
Jennifer Curtis, U.S. Geological Survey, California Water Science Center

**The Progress and Promise of the Timber Regulation & Forest Restoration Program to Implement Planning Watershed Pilot Projects**  
Richard Gienger, Sierra Club and Forests Forever, and Russ Henly, Ph.D., California Natural Resources Agency

**The Distribution of Anadromy Versus Residency in *Oncorhynchus mykiss* in the Eel River**  
Bret Harvey, USDA Forest Service, Redwood Sciences Lab

**Coho Life-History Modeling in Coastal Northern California**  
Gabe Scheer, Humboldt State University

**Gravel, Gold, and Fish: Reclaiming California's Gold Fields**  
Rocko Brown, Ph.D., Environmental Science Associates

**Life on the Edge: Recovering Southern California Steelhead**  
Mark Capelli, NMFS, West Coast Region

**Life History, Distribution, and Ecology of Pacific Lamprey in the Eel River**  
Abel Brumo, Stillwater Sciences

**Illuminating Population Consequences of Disparate Survival and Behavior between Hatchery and Wild-Origin Chinook Salmon: the Role of Salmon Life-Cycle Models**  
Michael Beakes, Ph.D., NOAA Fisheries, Southwest Fisheries Science Center

**Restoration Progress and Opportunities for the Yuba River Goldfields**  
Gary Reedy, South Yuba River Citizens League

**P.A.C.T.—A Trans-Agency, Trans-Discipline Program to Prevent Coho Salmon Extirpation in the Central California Coast**  
Stephen Swales, Ph.D., California Department of Fish and Wildlife

**Green Sturgeon of the Eel River**  
Eddie Koch, Wiyot Tribe

### 3:00pm

### Break

### Break

### Break

### Break

**When are Population Models Like Blimps? How to Avoid Fatal Flaws by Proper Model Selection**  
Frank Ligon, Stillwater Sciences

**Gold Mining, Extreme Floods, and Geomorphic Context of the Trinity River, CA**  
Andreas Krause, Yurok Tribe

**The Effects of Early Sandbar Formation on the Ecology and Population Dynamics of Steelhead and Coho Salmon in the Scott Creek Lagoon**  
Ann-Marie K. Osterback, Ph.D., Southwest Fisheries Science Center, NOAA Fisheries

**Gauging Eel River Fall Chinook Abundance Through Citizen-Assisted Monitoring**  
Pat Higgins, Eel River Recovery Project

**The Black Box for Salmon Survival: Changing Perspectives on Marine Survival and Implications for Life-Cycle Models**  
Cyril Michel, Ph.D., UCSC and NOAA Fisheries, Southwest Fisheries Science Center

**Riparian Area Rehabilitation after Gold Mining**  
John Bair, McBain & Associates

**Effects of Staggered Release Timing of Hatchery Coho Salmon Smolts on Subsequent Adult Returns to Scott Creek, California: Spreading Risk to Cope with Variable Ocean Conditions**  
Brian Spence, Ph.D., Southwest Fisheries Science Center NOAA Fisheries

**The Influence of Natural Barriers on the Distribution of Steelhead and Rainbow Trout in Tributaries of the South Fork Eel River**  
Suzanne Kelson, UC Berkeley

**Incorporating Life-History Diversity into Estimates of Skagit River Chinook Salmon Production**  
Corey Phillis, Ph.D., NOAA Fisheries contractor, Ocean Associates, Inc.

**Quantifying Legacy Impacts on Summer Stream Temperatures and Potential Riparian Reforestation Strategies**  
Rosealea Bond, Department of Forestry and Wildland Resources, Humboldt State University

**Assessing the Impact of Brown Trout on the Trinity River, CA**  
Justin Alvarez, Hoopa Valley Tribal Fisheries

**Wild Fish of Southern Humboldt and Mendocino—What the Coastal Monitoring Program Partnership Has Learned from Five Years of South Fork Eel River Coho Spawning Abundance Surveys**  
Brian Starks, Pacific States Marine Fisheries Commission and Allan Renger, CDFW



### 7pm

Poster Session and Reception in the Chinook, Steelhead, & Coho Rooms

## April 9, Saturday Morning Concurrent Sessions

### Salmonid Health: Effects of Parasites and Pathogens

Session Coordinator:  
*Cynthia Le Doux-Bloom, Ph.D., AECOM*

### Shelter in the Slow Lane: Off-Channel Ponds, Floodplains, and Beaver-Influenced Habitats

Session Coordinator:  
*Eli Asarian, Riverbend Sciences*

### Climate Change: Effective Restoration for a Warming World

Session Coordinator:  
*Joshua Strange, Ph.D., Stillwater Sciences*

Room	Coho Room	Chinook Room	Steelhead Room
9:00am	<p><b>Presence and Prevalence of Parasites and Pathogens in Pacific NW Salmonids</b> <i>Cynthia Le Doux-Bloom, Ph.D., AECOM</i></p> <p><b>An Outbreak of <i>Ichthyophthirius multifiliis</i> in the Klamath and Trinity Rivers in 2014 with Updated 2015 Results</b> <i>Michael Belchik, Yurok Tribal Fisheries Program</i></p> <p><b><i>Ceratonova shasta</i>: Timing of Myxospore Release from Juvenile Chinook Salmon (<i>Oncorhynchus tshawytscha</i>)</b> <i>Scott Benson, Humboldt State University</i></p>	<p><b>Fast Life In The Slow Lane—Or How Flooding Facilitates the Floodplain Fatty Feeding Frenzy</b> <i>Jacob Katz, Ph.D., California Trout</i></p> <p><b>Slowing Down Fast Traffic: Adapting a Levee System Built for Speed to Provide a Bit of Comfort (and a Fatty Feeding Frenzy)</b> <i>Eric Ginney, Environmental Science Associates (ESA)</i></p> <p><b>Creating Off-Channel Coho Rearing Habitat in the Middle Klamath River Sub-Basin: A Status Review of Constructed Projects (2010-2015)</b> <i>Will Harling, Mid Klamath Watershed Council</i></p>	<p><b>Survive, Thrive, or Die? Adapting California's Water Infrastructure to Help Salmon in the Face of Extreme Climate Change</b> <i>Joshua Strange, Ph.D., Stillwater Sciences</i></p> <p><b>When It Rains It Pours, But Not Very Often; Implications for Climate Change Considerations for Southern California Steelhead Restoration</b> <i>Stacie Fejtek Smith, NOAA Restoration Center</i></p> <p><b>Spatial and Temporal Variability in Baseflow Magnitude and Dry Stream Channels in the Mattole River Headwaters: Implications for Salmonids and Restoration</b> <i>Nathan Queener, Mattole Salmon Group</i></p>
10:30am	<p><b>Break</b></p> <p><b><i>Ceratonova shasta</i> Disease Impacts on Juvenile Chinook Salmon in the Klamath River Basin: Perspectives from a 10-Year Fish Health Monitoring Program</b> <i>Kimberly True, U.S. Fish and Wildlife Service</i></p> <p><b>A Conceptual Plan to Remedy Major Fish Pathogens in the Klamath-Trinity Basin</b> <i>Joshua Strange, Ph.D., Stillwater Sciences</i></p> <p><b>Panel Discussion Linking Salmonid Health and Restoration Planning</b></p>	<p><b>Break</b></p> <p><b>The Influence of Habitat Characteristics on Juvenile Coho Salmon Abundance and Growth in Constructed Off-Channel Habitats in the Mid-Klamath</b> <i>Michelle Krall, Humboldt State University</i></p> <p><b>Physical and Biological Monitoring of Beaver Dam Analogues in the Scott River Watershed</b> <i>Erich Yokel, Scott River Watershed Council</i></p> <p><b>The Role Beavers Have in Creating Salmonid Rearing Habitats in Coastal California Streams Lacking Perennial Beaver Dams</b> <i>Marisa Parish, Humboldt State University and Justin Garwood, California Department of Fish and Wildlife</i></p>	<p><b>Break</b></p> <p><b>Availability of Thermal Stratification and Refugia in the Middle San Joaquin River System</b> <i>Nathaniel Butler, Ph.D., University of California, Berkeley</i></p> <p><b>Use of GIS Technology to Prioritize the Restoration and Protection of Anchor Habitat Riparian Areas in the Rogue River Basin</b> <i>Eugene Wier, The Freshwater Trust</i></p> <p><b>Thinking Like Planet Water for Rehydrative Resilience in a Time of Global Weirding</b> <i>Brock Dolman, Occidental Arts and Ecology Center WATER Institute</i></p>

12:15pm Saturday Lunch

## April 7, Thursday Workshops & Tours, 9am - 5pm

### Restoring Complexity: Design of Large Wood Structures and Off-Channel Habitats Workshop

Workshop Coordinators: *Michael Love, P.E., Michael Love & Associates, Inc., and Steve Allen, P.E., GHD Inc.*

#### Coho Room

**Geotechnical Characterization and Construction Techniques for Creating Off-Channel Habitats and Post-Assisted Wood Structures,**  
*Rocco Fiori, Fiori GeoSciences*

### Constructed Wood Jams and Off-Channel Habitats on the Trinity River, CA

*Aaron Martin, DJ Bandrowski, Kyle DeJulio, and Andreas Krause, Yurok tribe*

**Integrating Off-Channel Estuary Slough Restoration in the Mattole, with Riparian Revegetation and Terrace Margin Treatment**  
*Sungnome Madrone and Drew Barber, Mattole Salmon Group*

### Installation of LWD from a Contractor's Perspective

*Mark Cederborg, Hanford ARC*

**LWS Construction Considerations for Publically Bid and Contracted Restoration Projects**  
*Steve Allen, GHD*

**Jacoby Creek Off-Channel Habitat: Site Characterization, Design, and Construction**

*Michael Love and Antonio Llanos, Michael Love & Associates*

#### Lunch

**Channel Surfing by Juvenile Salmonids: Fish and Water Quality Responses to Off-Channel Habitat Restoration Projects in the Stream-Estuary Ecotone of Humboldt Bay**  
*Mike Wallace, California Department of Fish and Wildlife*

**Coho, Cows, and Collaboration: Creating Coho Rearing Habitat in an Anthropogenic Landscape**

*Charles Wickman, Mid Klamath Watershed Council*

**Coho Salmon Utilization of Constructed Off-Channel Habitats along Seiad Creek and other Middle Klamath Tributaries**

*Toz Soto, Karuk Tribe*

**The Effectiveness of Large Wood Enhancement in Lagunitas Creek over 15 Years**

*Eric Ettlinger, Marin Municipal Water District*

**Design and Implementation of Fine Woody Material for Juvenile Salmonid Habitat**

*Brian Wardman, Northwest Hydraulic Consultants*

**Models for Cranberry Bog Stream and Wetland Restoration**

*Caitlin Alcott, Inter-Fluve, Inc.*

### Instream Flow Enhancement and Groundwater Recharge Planning and Implementation Workshop

Workshop Coordinators: *Lisa Hulette, The Nature Conservancy, and Tasha McKee, Sanctuary Forest*

#### Chinook Room

**California Water Action Plan: Enhance Water Flows in Stream Systems Statewide**  
*Daniel Worth, State Water Resources Control Board*

**Policy Analysis and Implementation of the Sustainable Groundwater Management Act (SGMA)**

*Pablo Garza, The Nature Conservancy*

**Providing Flows for Salmonids in Drought Years and Beyond**

*Daniel Schultz, State Water Resources Control Board*

**South Fork Eel River Water Conservation Program—A Variable Diversion Rate Strategy for Coastal Watershed Management**

*William Trush, Ph.D., Humboldt State University, River Institute, and Darren Mierau, North Coast Director, California Trout*

**Effect of Water Transactions on Water Quality and Adult Fall-Run Chinook Salmon in the Shasta River**

*Amy Campbell, The Nature Conservancy*

**Aquatic Habitat Is More than Skin Deep—Linkages Between Human Activities, Reduced Groundwater Abundance, and Aquatic Ecosystem Health**  
*Brad Job, Civil Engineer, Pacific Watershed Associates*

**Reconnecting Hillslope Hydrology—Road Run-Off and Infiltration**

*Joel Monschke, Stillwater Sciences*

**Meadow and Floodplain Restoration and Active and Passive Groundwater Recharge**

*Eric Ginney, Environmental Science Associates (ESA)*

**Quantifying Groundwater Storage Associated with Restoration Projects**

*David Shaw, P.G., Balance Hydrologics, Inc.*

**Restoring an Incised Coastal Stream—Groundwater Recharge Outcomes**

*Tasha McKee, Sanctuary Forest, and Brad Job, Pacific Watershed Associates*

**Interactive Groundwater Planning Exercise**

*Joel Monschke, Stillwater Sciences, Tasha McKee, Sanctuary Forest, and Eric Ginney, Environmental Science Associates (ESA)*

**Permitting Groundwater Recharge Projects—Permit Pathways and Lessons Learned**

*Tasha McKee, Sanctuary Forest, and Joel Monschke, Stillwater Sciences*