

October 10–11, 2017

13th Biennial *State of the
San Francisco Estuary Conference*

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Posters at the 2017 State of the Estuary Conference are listed below. Posters are listed by topic (clusters first, then individual poster topics). For posters with multiple authors, only the presenting author is listed here. A full list of authors is available in the poster abstracts.

Asterisks (*) indicate the poster is submitted by a student and eligible for the student poster awards competition.

Poster Clusters

A Fifty-Year Plan to Restore Aquatic Ecosystems with Green Infrastructure in Walnut Creek Watershed

A Fifty-Year Plan to Integrate Multi-Functional Green Infrastructure in Walnut Creek Watershed

Jennifer Natali*, UC Berkeley

Infiltration Suitability Mapping for Cost-Effective, Watershed-Scale, Community-Based Green Infrastructure

Anneliese Sytsma*, UC Berkeley

Land-Use Planning, Policy and Precedents for Integrating Green Infrastructure in Suburban Watersheds of SF Bay

Jennifer Natali*, UC Berkeley

Conserving the Endangered Salt Marsh Harvest Mouse in the Modern San Francisco Estuary

Conserving the Endangered Salt Marsh Harvest Mouse in the Modern San Francisco Estuary

Katie Smith*, UC Davis

The Salt Marsh Harvest Mouse (SMHM; *Reithrodontomys raviventris*) Workgroup: Identifying Recovery Needs and Data Gaps

Laureen Barthman-Thompson, CDFW

Salt Marsh Harvest Mouse Survey Bias, New Results for China Camp State Park

Laureen Barthman-Thompson, CDFW

Nest Variation in the Salt Marsh Harvest Mouse Offers Potential Resilience to Climate Change

Sadie Trombley, CDFW

Drivers of Longterm Trends for Salt Marsh Harvest Mouse (*Reithrodontomys raviventris*) at Crescent Unit, Suisun Marsh

Isa Woo, USGS

Characterizing Adaptive Immunogenetic Variation in the Endangered Salt Marsh Harvest Mouse, *Reithrodontomys raviventris*

Anastasia G. Ennis, RTC/SFSU

Managing the Salt Marsh Harvest Mouse in the Built Environment

Katie Smith*, UC Davis

Diet Preferences of the Salt Marsh Harvest Mouse

Candice Rose, CDFW

Delta Narratives: The History and Culture of the Sacramento-San Joaquin Delta

Changing Sense of Place in the Sacramento-San Joaquin Delta

Robert Benedetti, CSU Sacramento

Managing the Garden: Agriculture, Reclamation, and Restoration in the Sacramento San Joaquin Delta

Philip Garone, CSU Stanislaus

Stitching a River Culture: Trade, Transportation and Communication in the Sacramento San Joaquin Delta

William Swagerty, University of the Pacific

Literature and Visual Arts of the Delta, 1849-1975

Gregory Camfield, UC Merced

Invasive Spartina Project Updates

Progress Toward Eradicating Invasive *Spartina* from the San Francisco Estuary – 2005-2016

Peggy Olofson, Olofson Environmental, Inc.

California Ridgway's Rail Survey Results at *Spartina*-invaded Marshes from 2010 to 2017 and the Implications for Eradication of Invasive *Spartina* from the SF-Bay Estuary

Jennifer McBroom, Olofson Environmental, Inc., Invasive Spartina Project

Designing High Tide Refuge Islands for the California Ridgway's Rail

Gavin Archbald, H. T. Harvey & Associates

Enhancing Tidal Marsh Habitat to Support California Ridgway's Rail

Jeanne Hammond, Olofson Environmental, Inc., Invasive Spartina Project

McCormack-Williamson Tract Monitoring and Restoration Preview

McCormack-Williamson Tract Research Project Overview

Carson Jeffres, UC Davis

Flooding of McCormack-Williamson Tract Creates High Zooplankton Biomass, a Distinct Zooplankton Community, and Subsidizes Downstream Habitat

Nicholas Corline, UC Davis

High Frequency Monitoring of Isotopic Signatures in the Flooded McCormack-Williamson Tract Elucidates the Effect of Restoring Floodplain Habitat in the Sacramento-San Joaquin Delta

Bobby Nakamoto*, UC Merced

Hydrodynamic and Water Quality Model of the McCormack-Williamson Tract

Lily Tomkovic*, UC Davis

Hydrospatial Analysis for Evaluating Floodplain Restoration: Application to Sacramento Splittail Habitat on the Lower Cosumnes River, California

Alison Whipple*, UC Davis

***Microcystis* Blooms in San Francisco Estuary during Drought Conditions: Field and Laboratory Studies Associated with *Microcystis* spp from 2014 to 2016**

***Microcystis* Blooms and Controlling Factors during Two Successively Severe Drought Years in San Francisco Estuary**

Peggy Lehman, CDFW

Spatiotemporal Dynamic Changes in Cyanobacteria Assemblages and Emerging Cyanotoxins in the San Francisco Estuary

Melissa Bolotaolo*, UC Davis

Biodiversity of Cyanobacteria and Presence of Multiple *Microcystis* Genotypes in the San Francisco Estuary

Tomofumi Kurobe, UC Davis

Establishment of Pure Algal Cultures from the San Francisco Estuary for Testing Differing Water Qualities

Chelsea Lam, UC Davis

Detection of Microcystins in Tissue Samples via Gas Chromatography Coupled With MMPB Extraction

Melissa Bolotaolo*, UC Davis

San Jose-Santa Clara Regional Wastewater Facility: Sustaining & Improving Water Quality & Habitat of Lower South San Francisco Bay

Nutrients & Dissolved Oxygen in Lower South Bay: Seasonal & Tidal Influence

Bryan Frueh, San Jose-Santa Clara Regional Wastewater Facility

Benthic Invertebrate Composition & Abundance in Lower South San Francisco Bay Margins

Jessica Donald, San Jose-Santa Clara Regional Wastewater Facility

Phytoplankton Community in Lower Coyote Creek, a Tributary of Lower South San Francisco Bay

Ryan Mayfield, San Jose-Santa Clara Regional Wastewater Facility

Fish Populations in Artesian Slough and Lower Coyote Creek

James Ervin, San Jose-Santa Clara Regional Wastewater Facility

Bald Eagle Nesting in Lower South San Francisco Bay

James Ervin, San Jose-Santa Clara Regional Wastewater Facility

Pharmaceuticals in Wastewater at San Jose-Santa Clara Regional Wastewater Facility

Simret Yigzaw, San Jose-Santa Clara Regional Wastewater Facility

Chronic Toxicity Testing at San Jose-Santa Clara Regional Wastewater Facility: a 25-year history

Eric Dunlavey, San Jose-Santa Clara Regional Wastewater Facility

Sears Point Tidal Wetland Restoration

The Sears Point Experience: Early Returns on a State-Of-The-Art Tidal Wetland Restoration Project

Michael Vasey, SF Bay NERR

Laying the Groundwork for Large-Scale Tidal Wetland Restoration at Sears Point, Sonoma County

Julian Meisler, Sonoma Land Trust

Design Considerations of the Sears Point Tidal Marsh Restoration Project

Stuart Siegel, SF Bay NERR

Construction Challenges of Translating the Sears Point Restoration Design from Paper to Mud

Renee Spenst, Ducks Unlimited, Inc.

Strategies and Early Outcomes of Revegetating Marsh Mounds at the Sears Point Tidal Wetland Restoration Project

Margot Buchbinder*, RTC/SFSU

Preliminary Findings on Vegetation, Hydrology, and Geomorphic Processes at the Sears Point Tidal Wetland Restoration Project

Michael Vasey, SF Bay NERR

Documenting Increased Avian Richness and Abundance at the Sears Point Wetland Restoration Project Based On Point County Surveys that Include Citizen Science Monitoring

Daniel Edelstein, Consulting Avian Biologist

Fish Habitat Use and Insights from a Paired Sampling Strategy at Sears Point Tidal Wetland Restoration Project

Dana Lee, FISHBIO

The Face of "Resiliency" -- At the Forefront of Translating Climate Resiliency into Implementation Projects that Reconcile Past, Present, and Future

Stream Management Master Plan (SMMP): An Updated Regional Vision for Integrated Flood Management

Carol Mahoney, Zone 7 Water Agency

Preparing for the Storm: Riparian Restoration, Sediment Reuse, and Urban Greening to Enhance Stream and Watershed Resilience

Julie Beagle, SFEI

Arroyo Mocho Stanley Reach: Guiding a Stream Enhancement Project through Drought and Flood — Is this the New Normal?

Tami Church, Zone 7 Water Agency

Arroyo Mocho Medeiros Parkway: Recapturing Historical Function in a Contemporary Landscape

Emily Moshier, Zone 7 Water Agency

Haunted by the Ghosts of Historical Landscapes: Mapping of 2017 Flood Damage

Kerri Smyth, Zone 7 Water Agency

Variability in Land-Atmosphere Interactions of the SF Bay-Delta's Restored and Natural Wetlands: Implications for Carbon, Methane, and Water Fluxes

Phenological Indicators of Wetland Recovery in the Sacramento-San Joaquin Delta

Sophie Taddeo*, UC Berkeley

Biophysical Controls on Ecosystem-Scale CO₂ Exchange in a Brackish Tidal Marsh in Northern California

Sara Knox, USGS

Evaporation versus Transpiration in Delta Wetlands: The Effect of Wetland Structure on Water Use

Elke Eichelmann, UC Berkeley

Multi-Year Greenhouse Gas Budgets of Restored Wetlands and Drained Peatlands across the Sacramento-San Joaquin Delta, California, USA

Kyle Hemes*, UC Berkeley

Using Remotely Sensed Phenology to Understand Wetland Composition and Dynamics at the Estuary Scale

Iryna Dronova, UC Berkeley

Ozone Depleting Emissions from a Mesohaline Saltmarsh Heavily Invaded by *Lepidium latifolium*

Yi Jiao, UC Berkeley

Water Quality and Sediment Monitoring - State of the Art Plume Mapping Technology

Dismantling the Bay Bridge Old East Span: Controlled Implosion Yields Greatest Net Environmental Benefit for Water and Sediment Quality

Dragomir Bogdanic, CDOT

Monitoring Water Quality Effects from Controlled Implosion in a Dynamic Tidal Estuary

Dragomir Bogdanic, CDOT

Sediment Quality Effects from Bridge Removal

Dragomir Bogdanic, CDOT

Individual Posters

Citizen Science

Expanding Our Outreach, Increasing Our Impact: New Directions in Save The Bay's Community-Based Restoration Program

Silas Ellison, Save The Bay

"Otter Spotter": Use of Citizen Science to Document the Recovery of North American River Otters (*Lontra canadensis*) in the San Francisco Bay Area

Megan Isadore, The River Otter Ecology Project

Art Aids Environmental Education at a Shoreline Landfill

Susan Moffat, UC Berkeley

Citizen Science at Lake Merritt: Past, Present and Future

Katharine Noonan, Lake Merritt Institute

Climate Adaptation

Beyond the Vulnerability Study: Moving from Sea Level Rise Adaptation Planning to Implementation in the San Francisco Bay Area

Clesi Bennett*, SCC

A New Living Shorelines Project at Giant Marsh: Integration of Restoration Features Across an Elevational Gradient for Sea Level Rise Adaptation

Katharyn Boyer, RTC/SFSU

Delta Fishes and Multiple Stressors: Native and Non-Native Vulnerability to Elevated Temperature and Salinity

Brittany Davis*, UC Davis

Transforming the Bay Edge - Strategic Coastal Adaptation Insights from Cost Estimation

Daniella Hirschfeld*, UC Berkeley

Lessons from the 2014-2015 Drought

Amber Manfree, UC Davis

Understanding the Broader Consequences of Tidal Wetland Loss for Sea Level Rise Adaptation Planning: San Mateo County Case Study

Hayden Maya, Point Blue Conservation Science

Sensitivity of the San Francisco Bay Ecosystem to Future Scenarios

Emma Nuss, SFEI

Testing a Novel Adaptation Strategy in a Coastal Salt Marsh

Evyann Sloane, SCC

Data and Tools

Effects of Resolution on Multi-Temporal Remote Sensing of Wetlands: Towards a Wetland Vegetation Phenology Indicator

Christiana Ade*, UC Merced

Applications of UAS (Drones) for Aerial Mapping for Shoreline and Wetland Restoration and Management

Pascual Benito, Northgate Environmental Management, Inc.

Adapting to Rising Tides (ART) Bay Area Sea Level Rise Analysis and Mapping Project: Locally-Refined Maps to Support Sea-Level Rise Adaptation Planning

Eliza Berry, BCDC

New Carbon Offset Methodology to Quantify Greenhouse Gas Emissions Reductions from the Restoration of California Deltaic and Coastal Wetlands

Sabina Dore, HydroFocus, Inc

Modeling San Francisco Bay and Estuary: Climatology and 2014-2016 Warming Conditions

John Farrara, Remote Sensing Solutions

An Innovative Framework in Assessing Climate Change Impacts on Estuary Inflow

Minxue He, CDWR

Seasonal Variability of Salinity and Stratification Dynamics in Lower South San Francisco Bay

Olivia Hoang*, UC Berkeley

A Remote Sensing-Based Model of Tidal Marsh Aboveground Carbon Stocks for Greenhouse Gas Inventories and Climate Mitigation

Kristin Byrd, USGS

Inundation Patterns in the Delta Ecosystem during the 2016 Wet Season

Shruti Khanna, CDFW

Bay Area Advanced Quantitative Precipitation Information Project

Carl Morrison, BAFPAA

NMFS NOAA/USFWS Biological Opinions and RPAs Data Dashboards and Decision Support

Amye Osti, 34 North

Towards Measured Performance: Habitat Restoration Project Tracking, Assessment and Reporting

Sandra Scoggin, San Francisco Bay Joint Venture

Tidal Marsh Restoration Monitoring via Drone Data Analysis: A Case Study

Geoff Smick, WRA, Inc.

A Biogeochemical Modeling Study of San Francisco Bay

Zhengui Wang, University of Maine

Emerging Contaminants

The Horizontal Levee: Improving Water Quality while Providing Flood Protection and Habitat Improvement

Aidan Cecchetti*, UC Berkeley and ReNUWit

Delta Regional Monitoring Program: Current-use Pesticides and Toxicity Monitoring Results, 2015-16

James Orlando, USGS

Habitat Restoration

Vegetation Development in a Tidal Marsh Restoration Project during a Historic Drought: A Remote Sensing Approach

Dylan Chapple, UC Berkeley

Environmental Factors that Influence Benthic Macroinvertebrate Prey Resources for Waterbirds in Managed Ponds at Eden Landing Ecological Reserve, South San Francisco Bay

Alison M. Flanagan, USGS

Reconstructing an Estuarine Beach at Aramburu Island – Shoreline Design Performance Five Years Post-Construction

Daniel Gillenwater, Gillenwater Consulting

The Interagency Development of an EcoRestore Adaptive Management Program

Karen Kayfetz, DSC/DSP

Habitat Development on the Napa River: Napa County Flood Protection Project Restoration Progress

Megan Keever, Stillwater Sciences

Benthic Microalgae Primary Production Modeling: A Test Run for the San Francisco Estuary

Tricia Lee, DSC/DSP

Oxygen Dynamics Across Scales in Lower South Bay

Lissa MacVean, SFEI

Preliminary Exploration of Methane Flux from the South Bay Salt Pond Restoration Project

Haley Miller*, Chapman University

Expanding the capacity of Unmanned Aerial System to River Restoration

Toby Stegman, cbec inc.

Habitat Restoration - Flood Management/Levees/Dams

Resilient Landscape Restoration on Lower Walnut Creek

Edward Divita, ESA

The Effects of Wetland Hydraulics on Organic Accretion and Land Subsidence Reversal

Katie Duncan*, Sacramento State

Restoration Design in the Sacramento-San Joaquin Delta: Lessons from Case Studies
Megan Keever, Stillwater Sciences

Habitat Restoration - Public Education, Outreach, and Access

The Restoration Gauntlet: Will Your Project Survive?
Alison Furler, CDFW

California EcoRestore Initiative
Erik Loboschefskey, CDWR

Blue Greenway Re-Vegetation Guide
Kristin Tremain, AECOM

Habitat Restoration – Sediment

The Novato Creek Dredged Sediment Beneficial Reuse Project: Demonstrating the Technical and Regulatory Feasibility of Local, Opportunistic, Beneficial Reuse
Christina Toms, SF Bay Water Board

Beneficial Use of Dredge Material in Wetland Restoration: Progress at the Cullinan Ranch Restoration Project
Natalie Washburn, Ducks Unlimited, Inc.

Habitat Restoration - Species and Communities

Accelerated Growth of Juvenile Salmon in a Managed Pond Relative to Historic and Leveed Sloughs in Suisun Marsh
Nicole Aha*, UC Davis

An Assessment of Process-Based Concepts for Channel-Floodplain Reconnection in the Sacramento-San Joaquin Delta
Scott Dusterhoff, SFEI

South Bay Salt Pond Restoration Project Phase 2: Balancing Habitat Restoration with Public Access and Flood Risk Management in Construction Designs
Seth Gentzler, AECOM

Avian Response to Restoration of North Bay Salt Ponds: Managed vs. Breached Ponds
Tanya Graham, USGS

High- and Low-Tide Waterbird Use of the Cullinan Ranch Restoration Area
Tanya Graham, USGS

Managing Expectations - An Assessment of Land Use and Ecological Restoration in the Sacramento - San Joaquin Delta
Ron Melcer Jr., DSC

Scaling Up Native Species Propagation Methods to Accommodate Large Transition Zone/Ecotone Projects of the Future

Jessie Olson, Save The Bay

Funding Science & Restoration in SF Estuary Ecosystems: An Overview of New CDFW Grant Programs

Hildie Spautz, CDFW

Habitat Restoration - Water Quality

Proposition 1 Delta Conservancy Ecosystem Restoration and Water Quality Grant Program

Aaron Haiman, Sacramento-San Joaquin Delta Conservancy

Red Rock Warehouse Creosote Removal and Pacific Herring Habitat Restoration

Austin Payne, Ducks Unlimited, Inc.

Invasive Species

Marine Invasive Species in San Francisco Bay

Karen Bigham, CDFW

The Golden Bear Research Facility - Ballast Water Treatment System Testing in the San Francisco Estuary

Christopher Brown, CSU Maritime Academy

Assessing Aquatic Plant Invasiveness to Facilitate Management in the Sacramento-San Joaquin Delta

Elizabeth Brusati, CDFW

Storms, Droughts, Blobs and Invasions: Environmental Influences on Invasions in San Francisco Estuary Sessile Invertebrate Communities (2000 to 2016)

Andrew Chang, SERC

A Classic Estuarine Lagoon of the 1960s Undergoes Oceanization by the 2010s: Remarkable Changes in the Biodiversity and Community Composition of Lake Merritt, Oakland, California

Andrew Chang, SERC

Survival of the *Gemma gemma* Clam in Low Salinity Conditions: Field and Laboratory Observations

Daniel Cox*, RTC/SFSU

The Impact of Invasive Aquatic Vegetation on Turbidity and Marsh Accretion in the Sacramento-San Joaquin Delta

Judith Drexler, USGS

Exploring the Distribution of an Invasive Crab and Its Impact on Cordgrass Restoration in San Francisco Bay

Julie Gonzalez*, RTC/SFSU

The Direct Economic Costs to Manage Invasive Aquatic Weeds in the Bay-Delta

Karen Jetter, UC Agricultural Issues Center

Controlling Algerian Sea Lavender in San Francisco Estuary Tidal Marshes

Drew Kerr, Invasive Spartina Project

Decreasing the Risk of Aquatic Species Invasion from Vessels Arriving at Bay-Delta Ports

Raya Nedelcheva, CSLC

Innovative Techniques for Removal of *Arundo donax* in the Sacramento/San Joaquin Delta, Solano County, CA

Mark Newhouser, Sonoma Ecology Center

Biotic Filters Shaping *Limonium* Invasion in San Francisco Bay Salt Marshes

Stephanie Saffouri*, SFSU

Public Outreach

2017-2021 Science Action Agenda: A Collaborative Roadmap for Delta Science

Yumiko Henneberry, DSP

Delta Plan Performance Measures

Martina Koller, DSC

Heavy Rainfall Follows Record Drought: Changes in Lake Merritt

Bryant La, Oakland High School

Oakland Adopt a Drain Volunteers Prevent Flooding and Improve Water Quality by Keeping Storm Drain Inlets Clean and Clear

Mike Perlmutter, City of Oakland

Wintering Waterfowl Avoidance and Tolerance of Recreational Trail Use

Lynne Trulio, SJSU

Sediment

Regional Sediment Management: San Pablo Bay

Alex Braud, BCDC

Seasonal Patterns in Sediment Deposition across Two San Francisco Bay Tidal Marshes

Kevin Buffington, USGS

Bathymetric Change within Alviso Slough as Salt Pond Restoration Progresses: 2010 – March 2017

Amy Foxgrover, USGS

140 Years of Morphologic Change in the San Francisco Estuary: The 1850s to the 1980s

Theresa Fregoso, USGS

A Comparison of Sediment Fall Velocity Estimates Using In-Situ Observations and Theoretical Methods

Ivy Huang, Stanford University

Processes Governing Tidal Mudflat Width in South San Francisco Bay

Bruce Jaffe, USGS

Regional Sediment Management: Central San Francisco Bay

Anniken Lydon, BCDC

Wetland and Open Space Restoration in an Underserved Community of San Francisco: Case Study of Yosemite Slough, San Francisco Bay

Elizabeth Nixon, Northgate Environmental Management, Inc.

Urban Wetland Restoration: Sediment Quality Action Goals for Success

Elizabeth Nixon, Northgate Environmental Management, Inc.

Future Management of the Peyton Slough Remediation Project

Jan Novak, AECOM

Comparing Prospects for Recovery from PCB Contamination in SF Bay Margin Areas

Donald Yee, SFEI

Species and Communities

Relocating a Historic Cormorant Nesting Colony through Implementation of Nesting Platforms on New East Span of the San Francisco-Oakland Bay Bridge

DJ Allison, AECOM

Canvasback Movement Patterns and Space Use in Suisun Bay and Marsh

Susan De La Cruz, USGS

Suisun Marsh Waterfowl and Managed Wetland Research Program

Cliff Feldheim, CDWR

Environmental Drivers of Macroinvertebrate Biomass and Waterbird Abundance in Managed Ponds of South San Francisco Bay

Laurie A. Hall, USGS

PCB Tissue Concentrations and Benthic Community Impacts at a Carbon Amendment Pilot Study in the Intertidal and Subtidal Zones of San Francisco Bay

Cameron Irvine, CH2M HILL

Declining Productivity of Brackish Marsh Plants with Increasing Inundation and Salinity in Suisun Bay

Christopher Janousek, Oregon State University

Celebrating 30 years of Francisco Bay Wildlife Society: A Pilot Study on Macroinvertebrate Recolonization at the Bottom of Dredged Stockton Ship Channel, in the California Delta
Christopher Kitting, CSU East Bay and SF Bay Wildlife Society

Macroinvertebrate Prey Availability for Fish in Periodically Dredged Areas of Central San Francisco Bay
Hannah N. Mittelstaedt, USGS

Phenotypic Plasticity and Morphological Variation in a Native Submerged Aquatic Plant
Melissa Patten, SFSU

Spatiotemporal Characterization of Microbial Communities Controlling Estuarine Nitrogen Cycling in the San Francisco Bay-Delta
Anna Rasmussen*, Stanford University

Seasonal and Spatial Patterns of Macroalgal Dominance in San Francisco Bay Eelgrass (*Zostera marina*) Beds
Gwen Santos, RTC/SFSU

A Spatiotemporal Assessment of Benthic Community Composition in a San Francisco Bay Mudflat
Isa Woo, USGS

Species and Communities – Fish

Deep in the Shallows: Environmental Variability and Habitat Use by Native and Invasive Fishes in San Francisco's Complex Saltmarsh Complexes
Arthur Barros, UC Davis

Examining the Diets of Longfin Smelt Larvae in Shoals and Tidal Marshes of the San Francisco Estuary
Jillian Burns*, RTC/SFSU

Effects of High Temperature and Low Oxygen on Early Life Stage Chinook Salmon Physiology
Annelise Del Rio*, UC Davis

Effects of Temperature and Bifenthrin on the Endocrinology of Juvenile Chinook Salmon (*Oncorhynchus tshawytscha*)
Marissa Giroux*, UC Riverside

A Combined Biomarker and Metagenomic Study of Copepod Diet Across a Spectrum of Food Qualities
Jennifer Harfmann*, UC Davis

Revealing the Invisible Contributors to the Diets of Young Longfin Smelt in the San Francisco Estuary
Michelle Jungbluth, RTC/SFSU

Rearing Habitat of Pacific Herring in the San Pablo and Suisun Bays

Andrew Kalmbach, ICF

Illuminating Endocrine Disruption: Determining Estrogenic Effects of Bifenthrin on Zebrafish Using Fluorescence

Paige Mundy*, UC Davis

Initial Identification of Individual Cultured and Wild Adult Delta Smelt Using Natural Tags

Marade Sandford, UC Davis

The Timing and Distribution of Juvenile Lamprey in the San Francisco Estuary

Anjali Shakya, CDWR

Growth, Survival, and Tag Retention of Juvenile Chinook Salmon (*Oncorhynchus tshawytscha*) Surgically Implanted with a Dummy Acoustic Transmitter

Kristen Towne, USFWS

A Tale of Two Stripers: The Benefits of Using Multiple Fish Tracking Technologies

Margarita Watts-Peterson, CDWR

Thermal Resilience of Delta Smelt: What Can We Learn from Otoliths?

Malte Willmes, UC Davis

Species and Communities - Sensitive Species

Performance of a Mass Marking Technique, SE-Mark™ (Calcein), on Post-Larval Longfin Smelt (*Spirinchus thaleichthys*)

Virginia Afentoulis, CDWR

A Comprehensive Protocol for Monitoring Ridgway's Rail Population Trends in the San Francisco Estuary

Megan Elrod, Point Blue Conservation Science

Biogeography and habitat dynamics of Bank Swallow on the Sacramento River

Adam Henderson*, CDWR

Fitness of Cultured Delta Smelt in the Wild

Tien-Chieh Hung, UC Davis

Longfin Smelt Distribution: Abundance and Evidence of Spawning in San Francisco Bay Tributaries

Christina Parker*, UC Davis

Evaluation of Oyster Shell Enhancement on Western Snowy Plover Breeding Success

Karine Tokatlian, SJSU

Storm Water

Trees in Green Infrastructure: Their Health and Growth in Relation to "Soil" Conditions in Street-Side Bioswales

Igor Lacan, UC Cooperative Extension

Water Management

Comparative Study of Consumptive Water Use in the Sacramento-San Joaquin Delta

Jesse Jankowski*, UC Davis

Incidental Nitrogen Removal in a San Francisco Bay Wastewater Treatment Plant

Kelsi Oshiro, City of Palo Alto

Investigating the Impacts of Freshwater Flow Pulses in the Yolo Bypass

Stephanie Owens*, RTC/SFSU

Evapotranspiration from Three Crop Types in the Sacramento-San Joaquin River Delta

Kyaw Tha Paw U, UC Davis

Water Quality

From Rio Vista to the Golden Gate Bridge: Seasonal changes in DOM chemistry across a salinity gradient

Peter Hernes, UC Davis

Pollutant Removal Efficiency of Stormwater Biofilters

Richard Vitamanti*, CSU Chico

When It Rained, It Poured: Water-Quality and the End of the San Francisco Bay Drought

Charles Martin, USGS

A Hybrid Treatment System to Remove Contaminants from Reverse Osmosis Concentrate Produced by Potable Water Reuse Systems

Rachel Scholes*, UC Berkeley

Plankton Communities and Water Quality in the Sacramento River and its Tributaries

Lisa Thompson, Sacramento Regional County Sanitation District

Primary Productivity and Nutrient Uptake Rates in South Bay Measured During Spring 2016

Frances Wilkerson, RTC/SFSU

Delta Environmental Data to Understand a California Estuary (DEDUCE): An Estuary-Wide Data Repository

Shakoora Azimi-Gaylon, Sacramento-San Joaquin Delta Conservancy

Evaluating Turbidity in the San Francisco Bay-Delta Utilizing NASA and ESA Earth Observations

Erin Hestir, UC Merced

Monitoring the Bay and Estuary with Landsat-8 and Sentinel-2

Nicholas Tuffillaro, Oregon State University

**Water Quality Conditions in the Sacramento-San Joaquin Delta and Suisun and San Pablo Bays
Interactive Report**

Karly Wagner, 34 North

Water Supplies and Instream Flows

Comparison of Phytoplankton Fate and Transport in the Cache Slough Complex During Fall Agricultural Drainage Periods Using a Particle Tracking Model

April Sawyer, cbec inc.

Watershed Management

Visualizing and Aggregating Intensive Datasets to Better Understand the Cumulative Effects of Positive and Negative Impacts

Shakoora Azimi-Gaylon, Sacramento-San Joaquin Delta Conservancy