



## Poster Program

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## Poster Clusters

### Advancing Conservation in the San Pablo Baylands

#### **Sonoma Creek Baylands Strategy Hatches a 6,000-acre Restoration Plan**

Renee Spent, Ducks Unlimited, Inc.

#### **Bringing Together Science, Policy, and Community to Improve Conservation Outcomes Through the North Bay Baylands Regional Conservation Investment Strategy**

Tierra Groff, Environmental Science Associates

#### **The Petaluma River Baylands Strategy: Planning for Climate Adaptation and Resilience**

Julian Meisler, Sonoma Land Trust

#### **Connecting San Pablo Baylands Strategies to Advance Regional Resilience**

Jemma Williams, San Francisco Bay Joint Venture

#### **The Novato Creek Baylands Strategy: From Vision to Action**

Ellen Plane, SFEI

### An Updated State of the Salt Marsh Harvest Mouse

#### **Salt Marsh Harvest Mouse Densities and Habitat Associations Throughout the San Francisco Estuary**

Katie Smith, WRA, Inc.

#### **High Density Nesting of the Salt Marsh Harvest Mouse in South Bay Strip Marshes**

Laura Coatney, Swaim Biological Inc.

#### **Rising Waters: The Effects of Winter Flooding on Salt Marsh Harvest Mouse Persistence in Managed and Tidal Wetlands**

Melissa Riley\*, CDFW

#### **Just Add Water? Practical Habitat Management for Salt Marsh Harvest Mouse**

Sarah Gidre, Santa Clara Valley Water District

#### **Using Noninvasive eDNA Surveys to Produce an Updated Range Map for the Endangered Salt Marsh Harvest Mouse**

William Claflin, Mammalian Ecology and Conservation Unit, UC Davis, Suisun Resource Conservation District

### Implementing Nature-based Solutions for Shoreline Resilience

#### **Implementing Nature-based Solutions for Shoreline Resilience**

Jill Sunahara, Environmental Science Associates (ESA)

#### **Highlighting Regulatory Pathway Priorities for Nature-based Solutions in the San Francisco Bay Area**

Jill Sunahara, Environmental Science Associates (ESA)

#### **North Richmond Living Levee and Collaborative Shoreline Plan**

Eddie Divita, Environmental Science Associates (ESA)

#### **Case Studies: Using Nature-based Solutions to Enhance Shoreline and Tidal Habitat Resilience**

Eddie Divita, Environmental Science Associates (ESA)

## General Sessions

### Adaptation and Resilience

#### **Current State of the Science on Delta Soil Emissions and Subsidence**

Lauren Damon, Sacramento-San Joaquin Delta Conservancy

#### **Advancing Nature-based Solutions for Wetland Restoration: An Overview of the Delta Conservancy's Awarded Grants**

Anjali Shakya, Sacramento-San Joaquin Delta Conservancy

#### **An Exploration of Nature-based Restoration Solutions in a San Francisco Estuary Tidal Marsh**

Becca Morris\*, Estuary & Ocean Science Center, SFSU

#### **Utilizing Nature-based Strategies for Shoreline Protection at the Sears Point Restoration Project**

Stuart Siegel, San Francisco Bay National Estuarine Research Reserve

#### **Net Emissions Reductions from Dredging and Wetlands Creation - Comparing Greenhouse Gas and Pollutant Emissions Before and After Dredging Over a 50 Year Project Lifetime**

Jason Emmons, US Army Corps of Engineers, San Francisco District

#### **Delta Adapts: Climate Change Vulnerability and Adaptation Strategies in the Upper Estuary and Delta**

Daniel Constable, Delta Stewardship Council

#### **Sea Level Rise Project - Canal Alliance**

Edgardo Vazquez\*, Canal Alliance

#### **Delta Drought Response Pilot Program: A Novel Approach to Building Resiliency to Drought**

Rachel Lane, Sacramento-San Joaquin Delta Conservancy

### Community Engagement

#### **Championing Messy and Complex Shorelines**

Cristina Bejarano, WRT

#### **Overcoming Barriers to Equitable Adaptation in the Sacramento - San Joaquin Delta**

Tara Pozzi\*, UC Davis

#### **Institutional Barriers and Social Opportunities for Restoring the Estuary**

Robin Freeman, David R. Brower, Ronald V. Dellums Institute for Sustainable Policy Studies and Action, Merritt College

#### **Science for Communities Event: Lessons Learned and Determining Future Pathways for Environmental Justice Participatory Research in the Delta**

Hannah Chaney, Delta Stewardship Council

### Community Science

#### **Lake Merritt Underwater - Views Before and After Environmental Catastrophes of 2022-2023**

Adrian Cotter, Lake Merritt Underwater Observatory

#### **Delta Science Tracker - Fostering Collaboration and Transparency in the Sacramento-San Joaquin Delta Science Community**

George Isaac, Delta Stewardship Council

#### **Oyster Base Camps Bring Olympia Oyster Restoration to Community Scientists**

Jivan Khakee, Wild Oyster Project

**Community-based Model for Monitoring Watershed Health**

Satoko Mills, The Watershed Project

**Plankton Blooms in Lake Merritt – Community Science Monitoring 2022-2023**

Katharine M. Noonan, Rotary Nature Center Friends, Lake Merritt Institute

**Dissolved Oxygen in an Urban Tidal Estuary - Oakland CA's Lake Merritt 2022-2023**

Katharine M. Noonan, Rotary Nature Center Friends, Lake Merritt Institute

**Tracking Aquatic Invertebrates in an Urbanized Estuary - Keeping an Eye on Oakland's Lake Merritt in 2022-2023**

Katharine M. Noonan, Rotary Nature Center Friends, Lake Merritt Institute

**Data/Tools**

**Baylands Change Basemap: Mapping Progress Toward Habitat Restoration Goals**

Pete Kauhanen, SFEI

**www.baydeltalive.com Constituent Tracker and Remote Sensing Data**

Dave Osti, 34 North

**High-resolution Classification of Wetland Vegetation and Detritus**

Robert Shortt\*, UC Berkeley

**Review of the Monitoring Enterprise in the Sacramento-San Joaquin Delta**

Delta Independent Science Board

**The San Francisco Estuary Microbiome: A Catalogue of Complete Genomes of Uncultured Bacteria, Archaea, Viruses, and Picoeukaryotes for Understanding Response to Climate Change**

Lauren Lui, Lawrence Berkeley National Laboratory

**Urban Greening, Housing Prices, and Neighborhood Stability: A Data Integration Study in San Francisco Bay Area, California, USA**

Iryna Dronova, UC Berkeley

**Education and Outreach**

**Delta Conservancy Community Enhancement Grant Program**

Martha Ozonoff, Sacramento-San Joaquin Delta Conservancy

**Middle Schoolers Meet the Estuary at the Wings Landing Tidal Habitat Restoration Project**

Abby Dziegiel, Natural Resources Group, Inc.

**Outdoor Education Programs**

Haymar Lim, Save The Bay

**Flood Management**

**Seismic Velocity Measurement and Profiling of the Eastern Shoreline of San Francisco Bay for Earthquake Hazard Assessment**

Mitchell Craig, CSU East Bay

**Balancing Sediment Transport, Flood Protection and Water Resources: Redesigning the Alameda Creek Flood Control Channel**

Kees Nederhoff, Deltares USA Inc.

## Invasive Species

### **Invasive Snails Proliferate Across Santa Clara County Creeks**

Kylee Nielsen\*, Santa Clara Valley Water District

### **Decreasing the Risk of Aquatic Invasive Species introductions from Vessels**

#### **Arriving at San Francisco Estuary Ports**

Johnathan Thompson, California State Lands Commission

### **Propagule Pressure of Invasive Common Reed (*Phragmites Australis*) in Suisun Marsh: Seedset, Germination Success, and Seedling Susceptibility to Herbicide**

Virginia Matzek, Santa Clara University

### **Flow Management: How Sacramento-San Joaquin Delta Outflow Influence Non-native Submersed Aquatic Vegetation Abundance and Distribution**

Yuxuan Liu\*, UC Davis

### **Storms, Droughts, Blobs, HABs, and Invasions: Environmental Influences on Invasions in San Francisco Estuary Sessile Invertebrate Communities Since 2000**

Andrew Chang, Smithsonian Environmental Research Center

### **Mobilizing a Rapid Response to the Threat Posed by *Paspalum vaginatum* to Tidal Marsh Conservation and Restoration in the San Francisco Estuary**

Drew Kerr, Kerr Ecological Solutions

### **San Francisco Estuary Invasive Spartina Project: Progress Update and Beginning Phased Treatment at the Final Sites**

Tobias Rohmer, Olofson Environmental

## Planning and Permitting

### **American Canyon Wetland Restoration Project: Improving Habitat and Public Access Constrained by Aging Infrastructure**

Katie Dudney, Environmental Science Associates (ESA)

### **How Can We Encourage More Projects Along San Francisco Bay to Take Advantage of BCDC's Fill for Habitat Policies?**

Jenn Hyman, BCDC

### **Shoreline Adaptation Project Mapping Program: Tracking Shoreline Resilience in SF Bay**

Viktoria Kuehn, BCDC

### **Efficient Permitting Roadmap: A Guide to the Regulatory Process for Habitat Restoration on the North-central California Coast**

Wendy Kordesch, Greater Farallones and Cordell Bank National Marine Sanctuaries

### **Planning for Grand Challenges to Delta Science**

Tricia Lee, Delta Science Program - Delta Stewardship Council

### **Interagency Collaboration to Achieve Delta Plan Restoration Targets**

Rachel Wiggington, Sacramento-San Joaquin Delta Conservancy

### **Collaborative Wetland Restoration Implementation in the Bay and Delta: A Comparative Case Study Approach**

Kyra Gmoser-Daskalakis\*, UC Davis

## Restoration – General

### **The Lower Walnut Creek Restoration Project Two Years Post-construction**

Stephanie Bishop, Environmental Science Associates (ESA)

### **Large-scale, Low-cost Native Plant Propagation for Transition-zone Habitat Restoration in the San Francisco Bay**

Alyssa Alfonso, Save The Bay

### **Changes in Tidal Range and Optimization of Sediment Capture in a South San Francisco Bay Tidal Marsh Restoration Project**

Noah Hume, Stillwater Sciences

### **Showcase of Nature-positive, Multi-benefit Urban Creek Restoration**

Juliet Lamont, Creekcats Environmental Partners LLC

## Restoration - Species Impacts

### **Monitoring Waterbird Nesting Populations for the South Bay Salt Pond Restoration Project**

Alex Hartman, USGS Western Ecological Research Center

### **Habitat Use by Breeding Waterbirds in Relation to Tidal Marsh Restoration in the San Francisco Bay Estuary**

Alex Hartman, USGS Western Ecological Research Center

### **Restoring Tidal Marsh Food Web Structure and Energy Pathways for Estuarine Fish Communities**

Megan Pagliaro\*, UC Berkeley

### **Reconnecting Delta Food Webs: Evaluating the Influence of Tidal Marsh Restoration on Prey Availability and Diet of Native Fishes**

Susan De La Cruz, USGS San Francisco Bay Estuary Field Station

### **Microorganisms as Indicators of Habitat Conditions in Restoring Wetlands**

Erick Ortiz\*, Estuary & Ocean Science Center, SFSU

### **Effects of Eelgrass and Reef Restoration on Blue Carbon Storage in San Francisco Bay**

Tessa Filipczyk\*, Estuary & Ocean Science Center, SFSU

### **Investigating Dynamic Landform Features that Comprise Wetland Fish Habitat in the California Delta**

Alejandro Ramos Hurtado\*, UC Davis

## Sediment – Beneficial Reuse

### **Evaluating Wetland Restorations with Beneficial Reuse of Dredged Material**

Lyndsay Rankin, USGS Western Ecological Research Center

### **Montezuma Wetlands Project: Beneficial Sediment Reuse for Tidal Marsh Restoration**

Cassie Pinnell, Vollmar Natural Lands Consulting, Montezuma Wetlands, LLC

### **Sediment to Wetlands Adaptation Project: Workshop Findings and Roadmap Preview**

Maya McInerney, BCDC

### **Regional Monitoring Program Survey of Contaminants in Shallow and Intertidal Bay Margin Sediment**

Donald Yee, SFEI

## Sediment – General

### **Strategic Sediment Pulse Delivery Pilot Project in Marin County**

Jade Ishii, U.S. Army Corps of Engineers San Francisco District

### **Updated Curves of Tidal Channel Regime Equations for Central and North SF Bay Marshes**

Roger Leventhal, Marin County DPW Flood Control

### **Modeling Sediment and Contaminant Transport in San Leandro Bay**

Samuel McWilliams, Integral Consulting Inc.

### **Is Suspended-sediment Concentration a Good Predictor for Marsh Accretion?**

Samantha McGill, USGS Pacific Coastal and Marine Science Center

### **Monitoring Suspended Sediment Flux from Fluvial and Estuarine Sources in Tidal Slough Habitats of South San Francisco Bay**

Ian Pryor, Stillwater Sciences

### **Mining the Sand Transport System, What Have We Learned?**

Brenda Goeden, BCDC

### **San Francisco Bay Sand and Mud Budget**

Scott Dusterhoff and Jeremy Lowe, SFEI

## Species and Communities – Birds

### **San Francisco Bay - Climate Refuge for Seabirds?**

Maggie Lee Post, Farallon Institute

### **Influence of Drought on Long-term Waterbird Trends in the Napa-Sonoma Marshes Wildlife Area**

David Nelson, USGS San Francisco Bay Estuary Field Office

### **Abundance and Distribution of Non-breeding Shorebirds in San Francisco Bay**

Mark Dettling, Point Blue Conservation Science

### **Canvasback Winter Habitat Use in the San Francisco Bay Delta**

Susan De La Cruz, USGS Western Ecological Research Center

### **Space Use Characteristics of Translocated and Resident Ridgway's Rail (*Rallus Obsoletus*) Evaluated Using High Frequency GPS Relocation with Comparisons to Traditional Low Frequency Radio-telemetry**

Cory Overton, USGS Western Ecological Research Center

### **Terns Eating Chinook Salmon: Using Geochemistry to Characterize the Origins of Tern Prey**

Sami Araya, UC Davis

## Species and Communities – Fish

### **Quantifying the White and Green Sturgeon Die-off Resulting from the 2022 San Francisco Bay Area Harmful Algal Bloom (HAB) Event**

Dylan Stompe, CDFW

### **Long-term Patterns in Splittail Abundance: Is a Trend Hidden in Their Inherent Recruitment Variability?**

Savannah Valdez, USFWS

**Age-0 Pacific Herring Population Stability Across the San Francisco Estuary**

Denise Colombano, Delta Stewardship Council

**Otolith-based Insights Regarding the Growth, Phenology, Life History, Fitness, and Conservation of Delta Smelt in the San Francisco Estuary**

Alex Lama, UC Davis

**Otolith-based Age, Growth, and Life History of Adult Longfin Smelt**

Brian Alper, UC Davis

**Collaborative Development of Fish Monitoring Recommendations for the Wetlands Regional Monitoring Program in San Francisco Estuary**

Alison Weber-Stover, NOAA Fisheries

**A Comparison of eDNA Sampling Methods in an Estuarine Environment to Assess the Effects of Beneficial Dredge Reuse on Presence of Longfin Smelt (*Spirinchus thaleichthys*) and Fish Community Composition**

Lizabeth Bowen, USGS

**The Influence of Abiotic and Biotic Factors on the Abundance of Delta and Longfin Smelts**

Gonzalo Castillo, USFWS

**Improving Our Understanding of Longfin Smelt (*Spirinchus thaleichthys*) Maturation and Fecundity**

Nikolas Floros, UC Davis

**Species and Communities – Sensitive Species**

**Utilizing New Technology to Address the Vessel Traffic Gap in Conventional Whale-ship Strike Risk Assessments**

Pilar Rodriguez, The Marine Mammal Center

**Novel Photo-identification of Gray Whales (*Eschrichtius robustus*) in San Francisco Bay**

Josephine Slaathaug, The Marine Mammal Center

**From Protocols to Population Estimate: How a Standardized Protocol and Multi-partner Database Led to More Efficient Tracking of an Endangered Species**

Megan Elrod, Point Blue Conservation Science

**California Freshwater Shrimp (*Syncaris pacifica*) Distribution in Lagunitas Creek Watershed, Marin County**

Jonathan Koehler, Marin Water

**Water Quality – General**

**Above Average Rainfall During Spring 2023 Led to a Rare Diatom Bloom in San Pablo Bay**

Ella Jones\*, CSU Maritime Academy

**A Decade of Regional Monitoring of Biological Condition in San Francisco Bay Area Streams**

Aroon Melwani, Applied Marine Sciences, Inc.

**Monitoring and Mapping Mercury Pollution Associated with Atmospheric Rivers in South San Francisco Bay**

Niky Taylor, USGS Western Geographic Science Center



**Managing Cyanobacterial Blooms in the Sacramento-San Joaquin Delta System: Understanding Microbial Diversity, Environmental Triggers, and Toxicity**  
Andreja Kust, UC Berkeley

## Water Quality – Nutrients

**Origin and Development of the 2022 *Heterosigma* Bloom from Observations and Modeling**

Richard Dugdale, Estuary & Ocean Science Center, SFSU

**Assessing Nutrient and Phytoplankton Effects of a Major Change in Wastewater Discharge to the San Francisco Estuary**  
Frances Wilkerson, Estuary & Ocean Science Center, SFSU

**Multi-omic and Biogeochemical Insights into the Dynamics and Activity Ammonia-oxidizing Archaea Blooms in South San Francisco Bay**  
Christopher Francis, Stanford University

**Carbon and Nitrogen Uptake of a Rare *Heterosigma akashiwo* Bloom in San Francisco Bay**  
Matthew Rothschild\*, CSU Maritime Academy

**High Frequency Water Quality Monitoring and Synthesis in South San Francisco Bay**  
Ariella Chelsky, SFEI