



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

Sea Level Rise Resilience Across South San Francisco Bay Tidal Marshes

Kevin Buffington, USGS

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

Supporting Estuary Health and Climate Resilience in DWR's Multi-benefit Habitat Restoration Projects

Michelle Jesperson, State of California Department of Water Resources (DWR)

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

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

Lessons Learned and Considerations for Ballast Water Sampling for Compliance Assessment with the Discharge Performance Standards

Lina Ceballos Osuna, California State Lands Commission

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

Isaac Swanson, 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

Resilient Roots: Unearthing the Benefits and Equity Dimensions of Restoration Projects Across the Bay-Delta

Xoco Shinbrot, Delta Stewardship Council

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

Elk Slough Fish Passage and Flood Improvement Project

Doug Brown, Douglas Environmental

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

Larval Fish Diets as Indicators of Food Web Dynamics in Tidal Wetland Restoration

Anthony Donahue*, Estuary & Ocean Science Center, SFSU

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

Investigating Ecosystem Functions of Restored Eelgrass Beds in San Francisco Bay

Natalie Rossi*, 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

Tidal Marsh Restoration Benefits of Dredged Sediment Reuse in North San Francisco Bay

Ryan Dougherty, U.S. Environmental Protection Agency

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

Sources and Spatial Patterns of Deposited and Incorporated Blue Carbon Across a Marsh Surface

McKenna Bristow, USGS Western Ecological Research Center

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

Utilizing Aerial Drones to Survey Waterfowl Broods to Inform Management

Desmond Mackell, USGS Western Ecological Research Center

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

A Prickly Pappose Tarplant Success Story: Disturbance in the Delta
Karley Rodriguez, Stillwater Sciences

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.

Light Limitation or Low-light Adapted: Phytoplankton Productivity Quantified Using Stable Isotopes Along Floodplain-Estuary Transect
Reed Hoshovsky*, Estuary & Ocean Science Center, SFSU

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