



INFORMATION ITEM

Lead Scientist's Report

Summary: Due to time constraints resulting from the hearing on appeals of the Certification of Consistency No. C202110 for the Lookout Slough Tidal Habitat Restoration and Flood Improvement Project, this month's Lead Scientist Report focuses only on Delta Science Program activities and upcoming events.

DELTA SCIENCE PROGRAM ACTIVITIES

2022-2026 Science Action Agenda

After considering and addressing comments from the public review period, including those from the Delta Independent Science Board (Delta ISB), on the draft 2022-2026 Science Action Agenda (SAA), Delta Science Program staff are working with the Office of State Publishing to produce the final document. Scheduled to be released on Earth Day (April 22, 2022), the final SAA will be presented for possible endorsement by the Council at the April 28, 2022 meeting.

Adapting Restoration for a Changing Climate Report-out

Restoration and management strategies that incorporate climate change are critical to strengthening climate resilience and require innovative, collaborative thinking. To facilitate these efforts, the Delta Science Program hosted the Adapting Restoration for a Changing Climate Symposium on February 2-3, 2022, to explore how immediate and long-term climate change considerations are being integrated into restoration projects, as well as the social and political dimensions that shape projects. Over 300 people attended the two-day symposium, representing various groups including federal, State, and local agencies, private industry, non-profits, water contractors, and academia.

The symposium began with a plenary session on restoration and management across time in a changing climate. Participants heard about the work of Sogorea Te' Land Trust, an indigenous-led non-profit restoring reciprocal relationships between people and the land in East Oakland. The Natural Resources Agency also highlighted the hope and energy that California's 30x30 initiative is generating through setting tangible conservation goals for climate resilience, and participants heard about the power of storytelling for equitable restoration. The session closed

with a call to think holistically at the landscape scale and use process-based restoration for long-term adaptation, and a reminder that humans are a part of the ecosystem, not apart from the ecosystem. Speakers in the following session shared creative and innovative on-the-ground strategies currently being implemented in climate-smart restoration. A panel on partnerships emphasized the need to cultivate connections between communities and their local landscapes, the benefits of eco-cultural restoration, and strategies for equitable stewardship.

On day 2, a session on linking long-term perspectives across the estuary and its watershed underscored the urgent need to restore connectivity and complexity and learn from multi-benefit projects as they are implemented. In a panel discussion on visioning the future, panelists shared climate-smart strategies for permitting, planning, and implementing projects to restore ecosystem processes and human connections. The symposium concluded with a panel in which speakers reflected on promising opportunities for progress, possibilities for adaptive management, engagement practices to facilitate greater community involvement, and how to reach across silos to achieve shared goals for restoration and climate adaptation.

Delta Lead Scientist "Ask-Me-Anything" (AMA) Series

The February 28, 2022, Delta Lead Scientist Ask-Me-Anything focused on the upcoming release of the Delta Science Tracker (see below) and featured the Delta Science Program's Dr. Maggie Christman and Clint Alexander of ESSA Technologies as co-hosts. The next AMA will occur on March 28, 2022, with a focus on the Delta Independent Science Board. The Delta Science Program's Lauren Hastings and Delta Independent Science Board member Lisa Wainger will serve as co-hosts. Join the AMA by logging into Instagram and visiting the @deltacouncil feed for the live stream. Past events are archived on the Council's IGTV tab.

Delta Science Tracker

The Delta Science Tracker is an online tool to organize and communicate information about science activities in the Delta. The tool contains an inventory of science activities with details related to funding, collaborators, and management linkages for each activity. Products and outputs related to each project, such as reports, publications, and links to project data, are also available on each activity page. The Council has been working with ESSA and other external partners to

design and create the platform, which is currently in the final stage of development and testing. A full public launch is anticipated for late spring 2022.

ON YOUR RADAR

Delta Governance Brown Bag Webinar Series

The first Delta Science Program Governance Brown Bag webinar took place on March 1, 2022, and focused on environmental governance and featured four panelists across academic and government settings: Councilmember and Sacramento County Supervisor Don Nottoli, Carl Wilcox (California Department of Fish and Wildlife), Mark Lubell (UC Davis), and Kaylee Allen (US Fish and Wildlife Service). The goal of this three-part brown bag webinar series is to foster discussion of the complex and multi-faceted governance of the Sacramento-San Joaquin Delta by featuring speakers from federal, State, local, and tribal governments. The series highlights collaborative partnerships between government and non-government entities and also features academic social scientists to speak on different social scientific frameworks that can be used to understand Delta governance.

The second webinar will take place on April 13, 2022, focusing on collaborative governance, highlighting how partnerships and decentralized structures and processes are used by government and non-government actors to influence decision-making.

Attendance is free, and registration is available at:

https://us06web.zoom.us/webinar/register/WN_35B-vRhyR4umt_90WQJyIlg

Interagency Ecological Program Workshop

The virtual Interagency Ecological Program (IEP) Workshop takes place on March 22-24, 2022, and features speakers, interactive training, poster sessions, and a mentoring luncheon, all intended to help support improved IEP monitoring and science. The emphasis for this year's workshop will be on early-career scientists and managers, with discussions led by and for those with newer roles.

The 2022 IEP Workshop program can be found on the IEP website:

<https://iep.ca.gov/Public-Engagement/Annual-IEP-Workshop>. Those interested may also sign up for future email workshop announcements at this site.

Please direct any questions to the Workshop Co-chairs, Steven Culberson (steve.culberson@deltacouncil.ca.gov) or Christine Joab

(christine.joab@wildlife.ca.gov). A workshop report will be provided in a future Lead Scientist's Report.

Delta Science Fellows

The Delta Science Program and California Sea Grant released a request for applications for the 2022 class of Delta Science Fellows on January 25, 2022. Delta Science Fellowship awards provide Masters and Ph.D. students, along with postdoctoral researchers, with up to two years of research funding. This program pairs the next generation of Delta scientists with academic and community mentors to conduct critical science investigations targeting high-priority Delta issues identified in the 2022-2026 SAA. New this year is an increased emphasis on recruiting social science applicants, supported by separate review panels for social science and biophysical science applications. Notices of Intent (NOI) to apply were due on February 28, 2022. Applications from the 40 candidates who submitted an NOI are due April 20, 2022, and awards will be announced in June. Fellows will begin work in August/September 2022.

Modeling Summit

The Delta Science Program is planning a Modeling Summit for late summer 2022. The summit aims to bring together members of the Delta science and modeling community to discuss the vision and identify the next steps toward the development of a modeling "collaboratory" for the Delta, a term used to describe a virtual center that facilitates the use, reproducibility, and transparency of models for planning and prediction of future conditions in the Delta. A collaboratory would enable easy integration of data with models, integration or linking of different models (e.g., flow, water quality, habitat, fish, economics), and the publication and visualization of model results. Implicit in the concept is building a community around modeling so that new users can gain help and insight from veteran users in the nuances and application of the models.

At the modeling summit, external partners will be invited to share "lessons learned" from similar collaboratories for other regions (e.g., Everglades, Chesapeake Bay). Additionally, there will be panel and breakout discussions to provide opportunities to establish collaborative partnerships and identify pilot efforts or projects that would have immediate use and benefit from collaboratory development. The expected outcomes of the summit include a refined plan to guide the development of the collaboratory and the identification of opportunities to create a proposal with which to pursue additional funding through competitive solicitations.

Salinity Management Workshop

As previously announced, the Delta Science Program will be hosting the first part of a two-part workshop on Salinity Management Actions on April 26-27, 2022. The second workshop will take place in fall 2022 with tentative dates of October 11-12, 2022. The first workshop sets out to:

- Frame the challenge of future salinity management in the context of climate change, environmental justice, and current laws and regulations
- Build toward a shared understanding of how salinity management affects different people, industries, and ecological systems
- Begin to identify knowledge gaps that could be filled with future research and scenario-based modeling
- Start a conversation around goals for long-term adaptive management and lay the foundation for a scenario-based modeling exercise

This event will be held virtually, and registration is free and open to the public. Information on how to register will be provided in a future report.

BY THE NUMBERS

Delta Science Program staff will summarize the current numbers related to Delta water and environmental management. The summary (Attachment 1) will inform the Council of recent counts, measurements, and monitoring figures driving water and environmental management issues.

LIST OF ATTACHMENTS

Attachment 1: By the Numbers Summary (provided at the Council Meeting)

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