Salinity Management Workshop Agenda

March 26-27, 2024

Delta Science Program

DELTA STEWARDSHIP COUNCIL

Day 1: March 26

1. **PLENARY**: Welcome, overview, and opening remarks
2. **KEYNOTE PRESENTATION**: Salinity management challenges and opportunities
3. **BREAKOUT GROUPS**: Building conceptual models of salinity management actions, their tradeoffs, and key uncertainties
4. **BREAKOUT GROUPS**: Creating "actor maps" to visually depict the key groups and individuals that are affected by salinity management
5. **PRESENTATION**: The state of salinity modeling in the Delta

Day 2: March 27

1. **PRESENTATION**: Delta salinity during drought: Modeling salinity management from regional response to statewide scales
2. **BREAKOUT GROUPS**: Providing feedback on important metrics and ways to visualize modeling results and discussing tradeoffs and concerns
3. **PRESENTATION**: Co-design and modeling
4. **BREAKOUT GROUPS** : Discussing what should be prioritized in future research and modeling efforts
5. **WORKSHOP WRAP-UP**: Discussion of the next steps

#salinitymanagement

Day 1 – Salinity Management Connections and Impacts

9:00–9:05 **Welcome** – Lisamarie Windham-Myers, Delta Lead Scientist

9:05-9:15 **Workshop overview** – Stephen Elser, Delta Science Program

9:15–9:20 **Opening remarks** – Diane Burgis, Contra Costa County; Delta Protection Commission; Delta Stewardship Council

9:20–9:40 **Keynote: Salinity management challenges and opportunities**

The opening keynote will include a review of the primary drivers that affect salinity intrusion in the Delta, actions that have unintentionally increased Delta salinity, and regulations and actions designed to manage Delta salinity; an introduction of tradeoffs of common salinity management actions; and discussion of how changing climate is affecting the system today and into the future.

Presenter: Deanna Sereno, Contra Costa Water District

9:40–11:20 **Breakout group activity: Building conceptual models of salinity management**

Participants will split into breakout groups to build conceptual models of salinity management in the Delta. The objectives of this activity are to 1) Expand upon existing conceptual models of salinity in the Delta to better understand the wide-reaching impacts of management actions, 2) Pinpoint key uncertainties, and 3) Identify major tradeoffs associated with different strategies.

11:20–12:20 **Lunch**

12:20–1:40 **Breakout group activity: Actor mapping**

Breakout groups continue after lunch to shift focus onto the "who" of salinity management. Participants will work together to identify who currently drives salinity management actions and who is impacted by those actions. The objective of this activity is to establish who should be a part of collaborative, adaptive management of salinity in the Delta.

1:40-1:50 **Break**

1:50-2:10 **Presentation: The state of salinity modeling in the Delta**

Modeling the distribution of Delta salinity is a critical component of water operations that release flows into the Delta sufficient to meet salinity standards. However, the flexibility of Delta salinity modeling has historically been limited, due to challenges with simulating three-dimensional flow dynamics over the large, complex environment of the Delta. These challenges have limited the number of scenarios that can be run to evaluate the effects of rising sea levels or changes to the structure of the Delta (i.e., water levels, engineering features, wetland restoration, and levee breaches). This talk provides an overview of how Delta salinity modeling is commonly done, as well as recent innovations that enable salinity modeling to be much more flexible to a range of scenarios.

Presenter: Laurel Larsen, UC Berkeley

2:10-2:15 **Wrap Up**

Day 2 – Salinity Modeling and Future Collaborations

9:00–9:10 **Welcome and overview** – Stephen Elser, Delta Science Program

9:10–10:10 **Presentation: Delta salinity during drought: Modeling salinity management from regional response to statewide scales**

This presentation will introduce a new salinity modeling methodology that combines the use of high-resolution hydrodynamic and salinity transport models of the Delta in combination with the CALSIM statewide water operations model to estimate potential water savings associated with salinity management actions, such as large-scale ecosystem restoration. The presentation will demonstrate the use of this methodology by sharing output from a scenario with ecosystem restoration in Suisun Marsh.

Presenters: Eli Ateljevich, CA Department of Water Resources

John DeGeorge, Resource Management Associates

10:10–10:20 **Break**

10:20–11:20 **Breakout group discussions: Reactions to modeling**

These breakout group discussions will provide feedback to the modeling team about the important metrics they should track and how results should be visualized and shared. Participants will discuss tradeoffs and concerns that they may have based on the modeling results shared.

11:20–12:20 **Lunch**

12:20–12:45 **Presentation: Co-design and modeling**

This presentation will explore public and stakeholder-driven modeling processes. It will use the Franks Tract Futures Project to illustrate how iterative, participatory modeling may lead to more equitable, multi-benefit outcomes for those involved and for communities potentially impacted by planning and design efforts.

Presenter: Brett Milligan, UC Davis

12:45–1:55 **Breakout group discussions: Future collaborations and direction**

In these breakout groups, participants will discuss what they would like to see prioritized in future research and modeling efforts.

1:55–2:05 **Next steps and wrap up** – Stephen Elser, Delta Science Program

Workshop Planning Team

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