Adaptive Management Forum 2025

SUMMARY

Delta Science Program

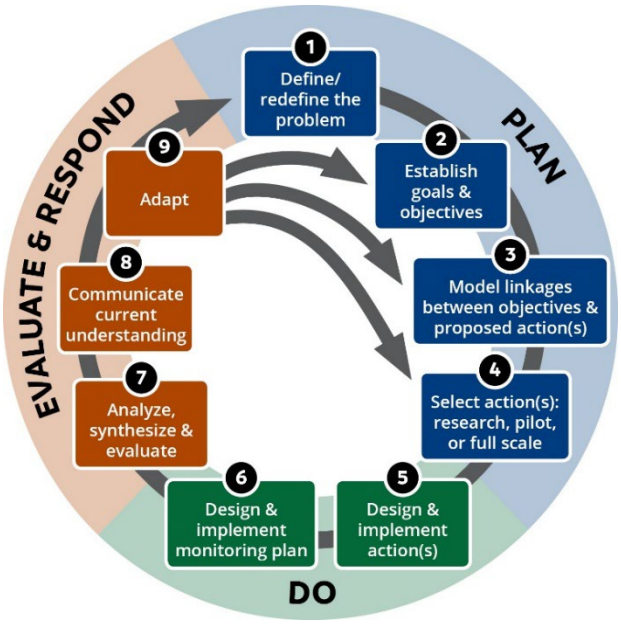
DELTA STEWARDSHIP COUNCIL

Background

The Delta Science Program hosted the fourth biennial Adaptive Management (AM) Forum on October 14-15, 2025. The event was designed to share lessons from across all stages of the adaptive management cycle to showcase successes, gaps, and future needs. It featured presentations, panel discussions, a poster session, and activities connecting participants from across sectors and disciplines. The theme of this year's event was *Progress*, showcasing how AM is being implemented across the Sacramento-San Joaquin Delta and what remains to be done to sustain that progress. A recording of the event's first day is available on YouTube.

About Adaptive Management

AM is a science-based approach to improving our understanding of the problems and uncertainties of environmental and water management. This three-part approach (*Plan*, *Do*, and *Evaluate & Respond*) enables an active learning process to advance an objective, ensuring that management strategies are rooted in current on-the-ground knowledge. The Delta Science Program provides science support to other agencies and organizations that are planning and implementing AM.



To learn more, visit the Delta Science Program's AM web page.

Keynote Presentation

Dr. Karrigan Börk, University of California, Davis, Professor of Law and Director of the UC Davis Center for Watershed Sciences, delivered the keynote presentation, highlighting risk mitigation and foreseeable uncertainties in AM. Topics included upfront contingency triggers, phased project development and the release of benefits, and financial assurance instruments as mechanisms to address foreseeable uncertainties.

Panel 1: Advancing Adaptive Management Under Accelerating Change

Panelists Dr. Denise Colombano (Delta Stewardship Council), Dr. Shruti Khanna (CA Department of Fish and Wildlife), and Dr. Karrigan Börk (UC Davis) shared how new tools are improving AM and enabling adaptation to the accelerating rate of environmental change. Emerging technologies enable broader spatial data collection and more efficient data processing, while new financial tools can help prevent project stoppages. Panelists emphasized the importance of continued investment in monitoring and data infrastructure.

Panel 2: Leadership Perspectives on Adaptive Management

In this panel, Campbell Ingram (Sacramento-San Joaquin Delta Conservancy), Steve Chappell (Suisun Resource Conservation District), and Dr. Louise Conrad (CA Department of Water Resources) shared their perspectives as leaders in their agencies on the state of AM in the region. AM progress includes developing decision-support tools, formal processes for incorporating feedback and lessons learned, and implementing nature-based solutions at scales that allow for analysis of their effectiveness. Panelists noted that advancing permitting flexibility and financial support for monitoring will continue to aid AM progress.

Panel 3: Adaptive Management Headlines from the Future

Panelists Dr. Don Hankins (CA State University, Chico), Dr. Sydney Chamberlin (The Nature Conservancy), and Morgan Chow (Delta Stewardship Council) shared their visions for what large-scale AM success could look like in 2050. These visions included advancing the Delta's AM capacity by investing in collaboration with communities, indigenous groups, farmers, and the private sector to build stewardship and financial resilience.

Adaptive Management Case Studies

Presentations shared applied examples of AM, ranging from project-scale implementation and monitoring to AM at the programmatic level. Representatives from the CA Department of Fish and Wildlife, CA Department of Water Resources, CA State Parks Division of Boating and Waterways, Restore the Delta, Vollmar Lands Consulting, and Ecosystem Investment Partners gave presentations sharing how they incorporate AM into their work. These case study presentations included examples on adaptive monitoring, invasive species management, water flow actions, restoration implementation, and more. Each case study shared considerations, challenges, and lessons learned across the *Plan*, *Do*, and *Evaluate & Respond* phases of AM. These case studies will be highlighted in an upcoming report led by the Delta Science Program.

Gallery Walk

Forum participants engaged in a facilitated breakout activity to share perspectives on barriers, successes, and indicators of effective AM. Participants shared their ideas on how effective AM incorporates lessons learned, responds to stakeholder input, and values long-term monitoring. Barriers to AM include unclear directives, inconsistent resources, limited institutional commitment, and inconsistent monitoring design. Improving data and information-sharing venues, increasing permit flexibility, and developing targeted funds can further enhance AM capacity.

Site Visit to Lookout Slough

On the second day of the event, participants visited the Lookout Slough Tidal Restoration and Flood Improvement Project. Representatives from the CA Department of Water Resources and Ecosystem Investment Partners discussed the public-private partnership approach to project development and the iterative design and planning processes used to achieve ecosystem and habitat goals. Representatives from the CA California State Parks Division of Boating and Waterways and the CA Department of Fish and Wildlife's Fish Restoration Program discussed monitoring and strategies to manage invasive aquatic vegetation.

Presenters demonstrated the sampling gear used in monitoring and ended the day by highlighting the importance of understanding local dynamics for effective monitoring and adaptive management.

Next Adaptive Management Forum

The next Adaptive Management Forum will be held in 2027. For more information, please email AdaptiveManagement@deltacouncil.ca.gov. To receive updates on this event and other Delta Science Program events, please subscribe to receive our email announcements.