

April 2026

# CWEMF 2026: From Science to Solutions with the Delta Modeling Collaboratory



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Delta Lead Scientist / USGS



**Delta  
Stewardship  
Council**

A CALIFORNIA STATE AGENCY



# Delta Science Program

DELTA STEWARDSHIP COUNCIL

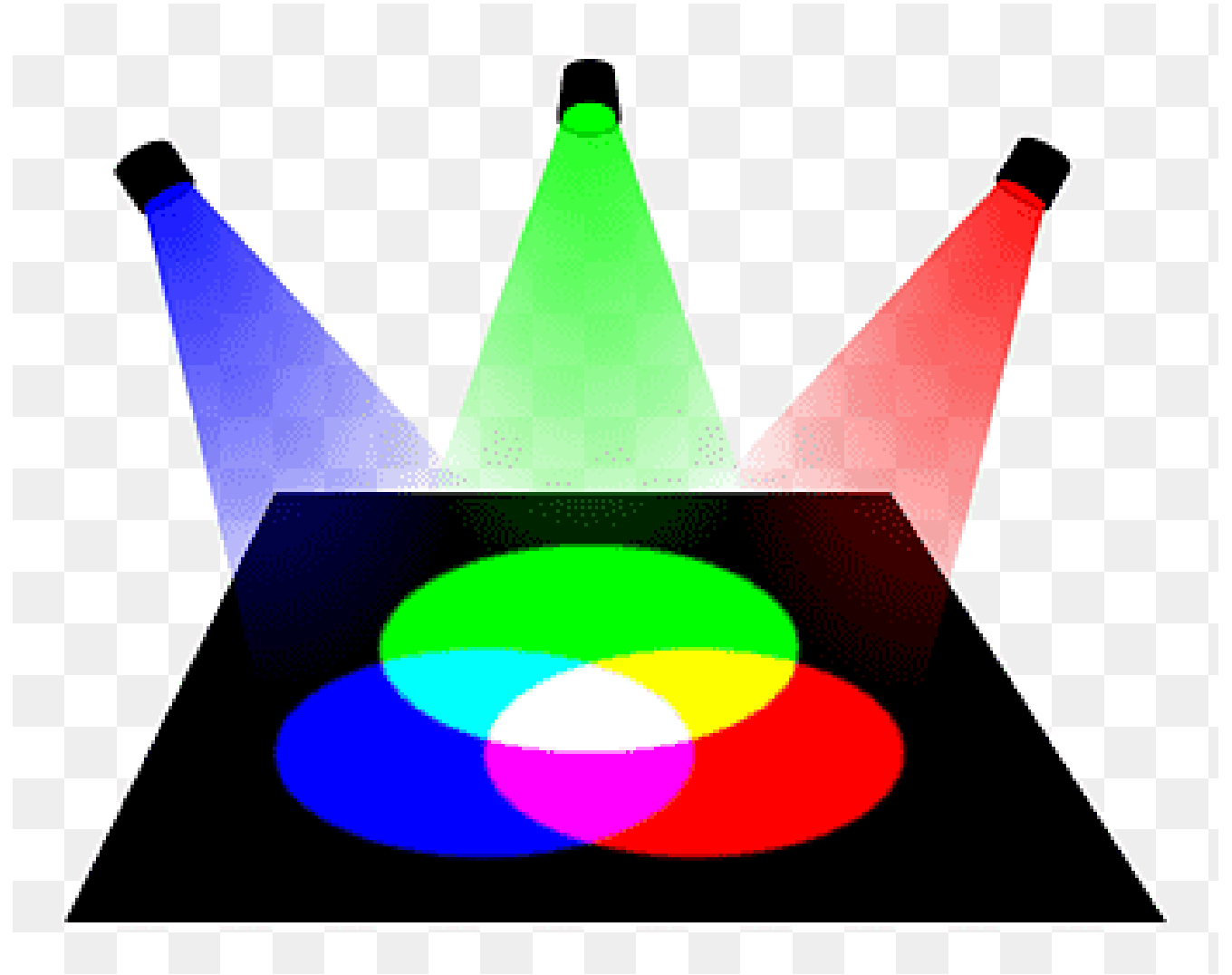
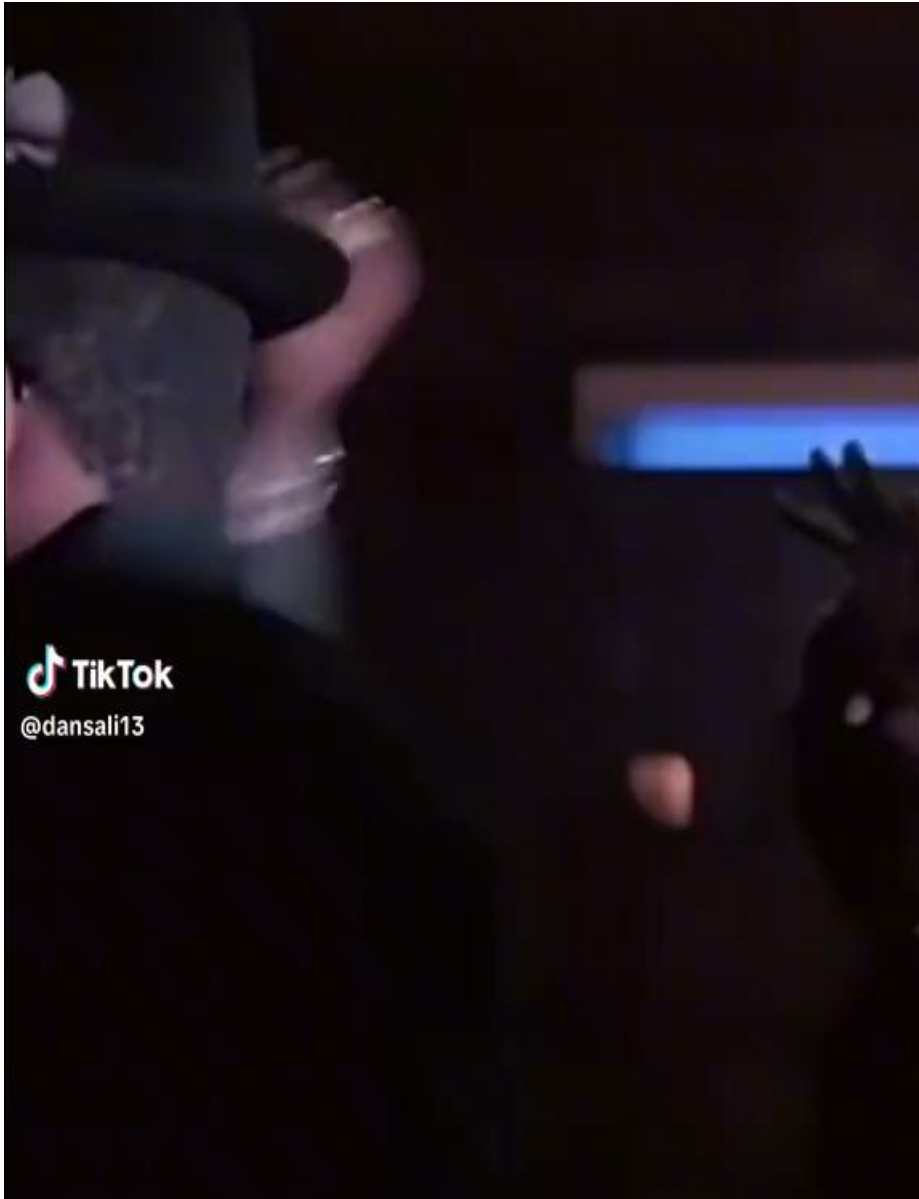
Best possible science for:

**Water supply  
reliability**

**Ecosystem  
resilience**



# Delta Modeling Collaboratory - Phase 1



Run DMC and Aerosmith "collaboratory" – Walk this Way (1986)

# Delta Modeling Collaboratory - Phase 1 mixing model

## Salinity Intrusion Management

Josue Medellin-Azuara, UC Merced

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## Harmful Algal Bloom Management

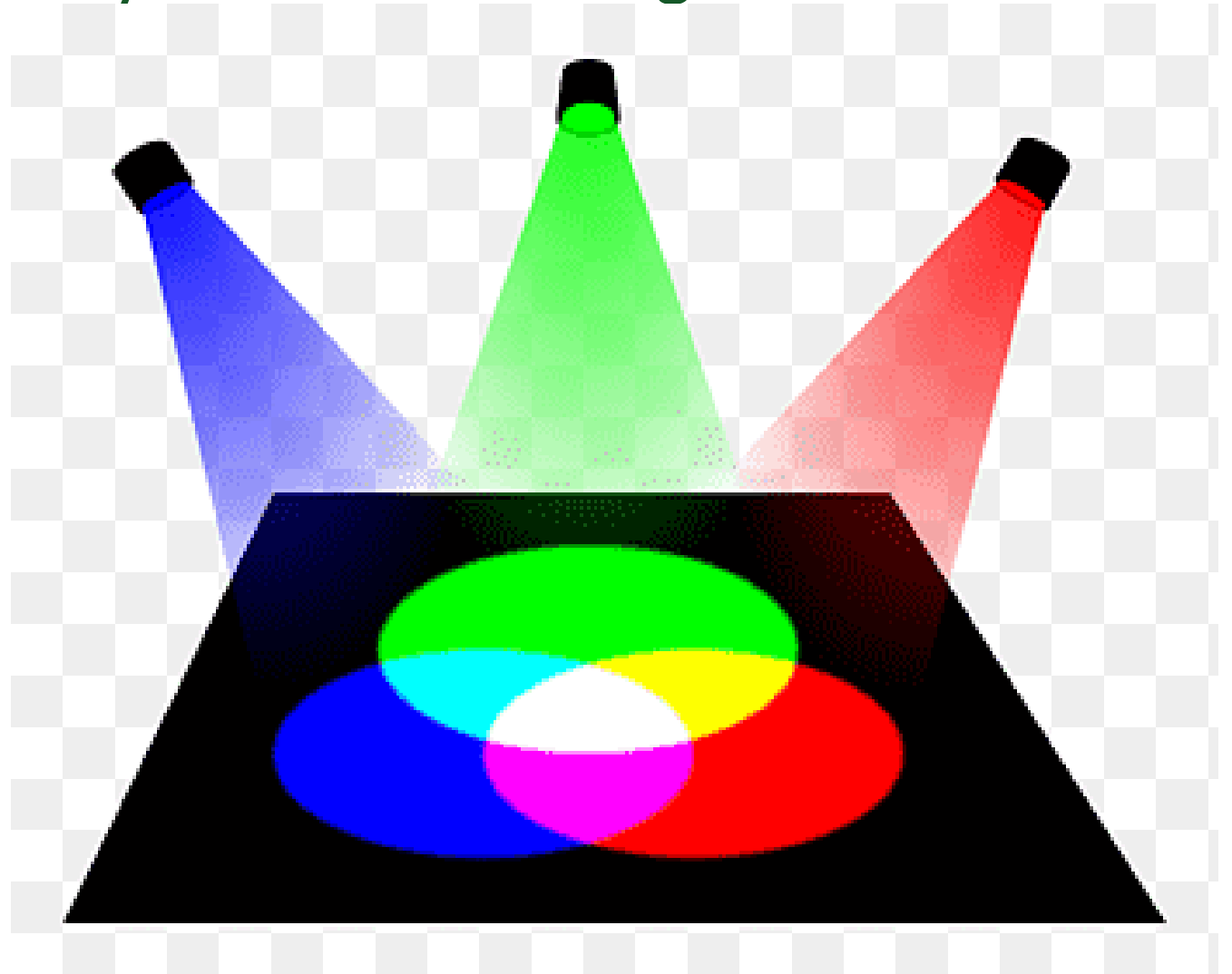
David Senn, San Francisco Estuary Institute

Keith Bouma-Gregson, U.S. Geological Survey

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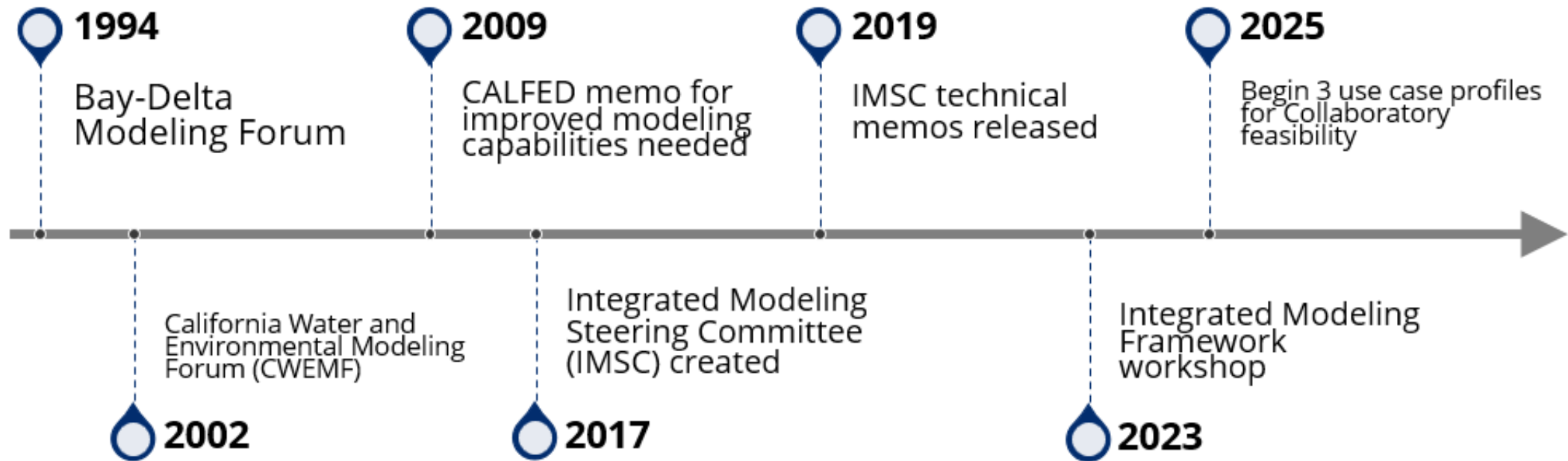
## Tidal Wetland Food Web Restoration

Matt Young, U.S. Geological Survey



# Year 1 of the Delta Modeling Collaboratory

- Years in the making



# What is holding us back? What is the opportunity?

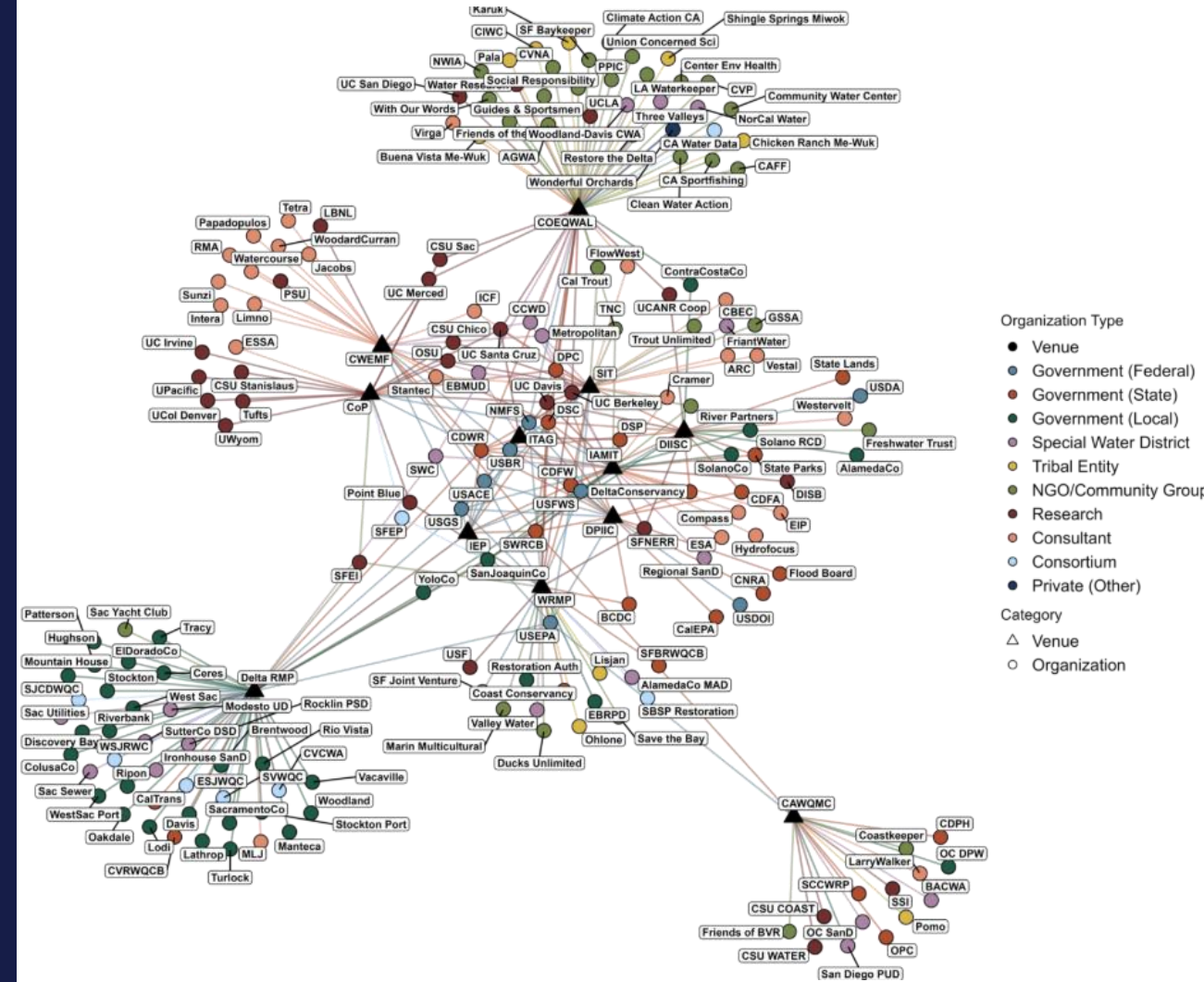
People and paradigms



Twitchell Island, 2/27/26: Pilot prescribed burn in partnership with cultural practitioners. Photo credit: Tyler Anthony/DWR

# Vision

Deeply connected scientists – we are each others teachers and students, across generations



## Collaboratory Lessons



**Maggie Christman**  
Delta Modeling  
Collaboratory (CA)



**James Gilbert**  
UC Santa Cruz  
COEQWAL  
<https://dev.coeqwal.org/>



**Jeanne Godaire**  
USGS - Colorado  
River Basin ASIST



**Jordan Read**  
CUAHSI



**Erika Lentz**  
USGS - Woods Hole  
Research Center



**Victoria Coles**  
UMCES - Chesapeake  
Global Collaboratory



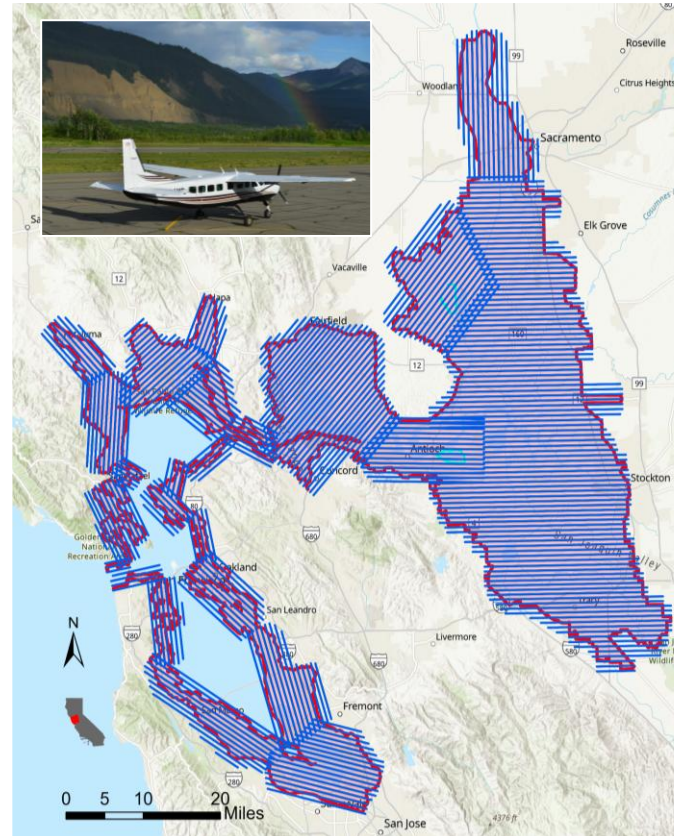
**Alyssa Dausman**  
The Water  
Institute

# Delta Stewardship Council Translational Science

## Communication and Alignment for Accelerated Discovery

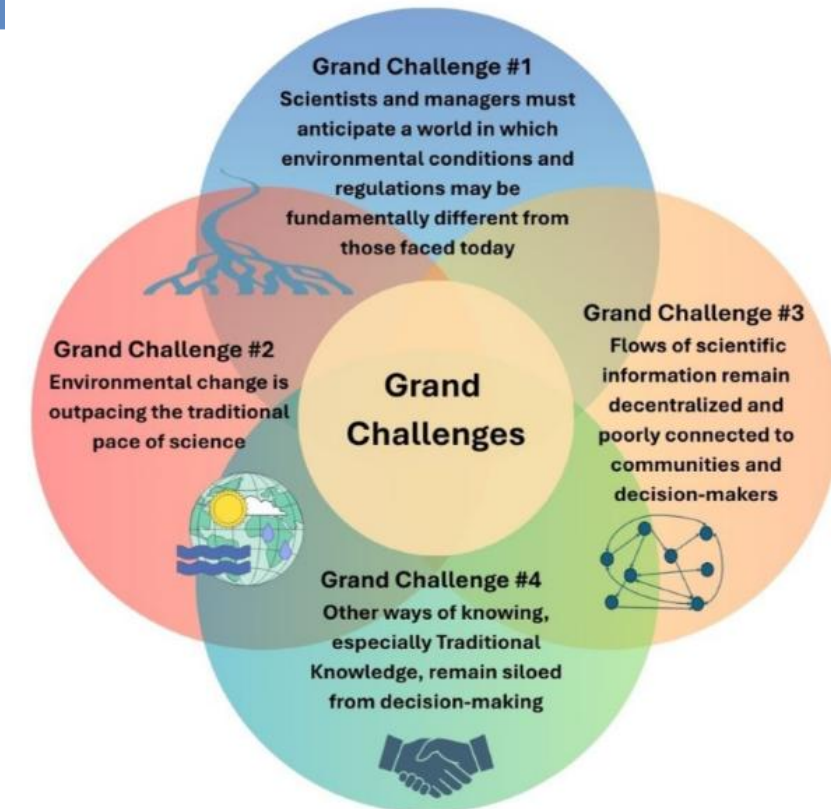
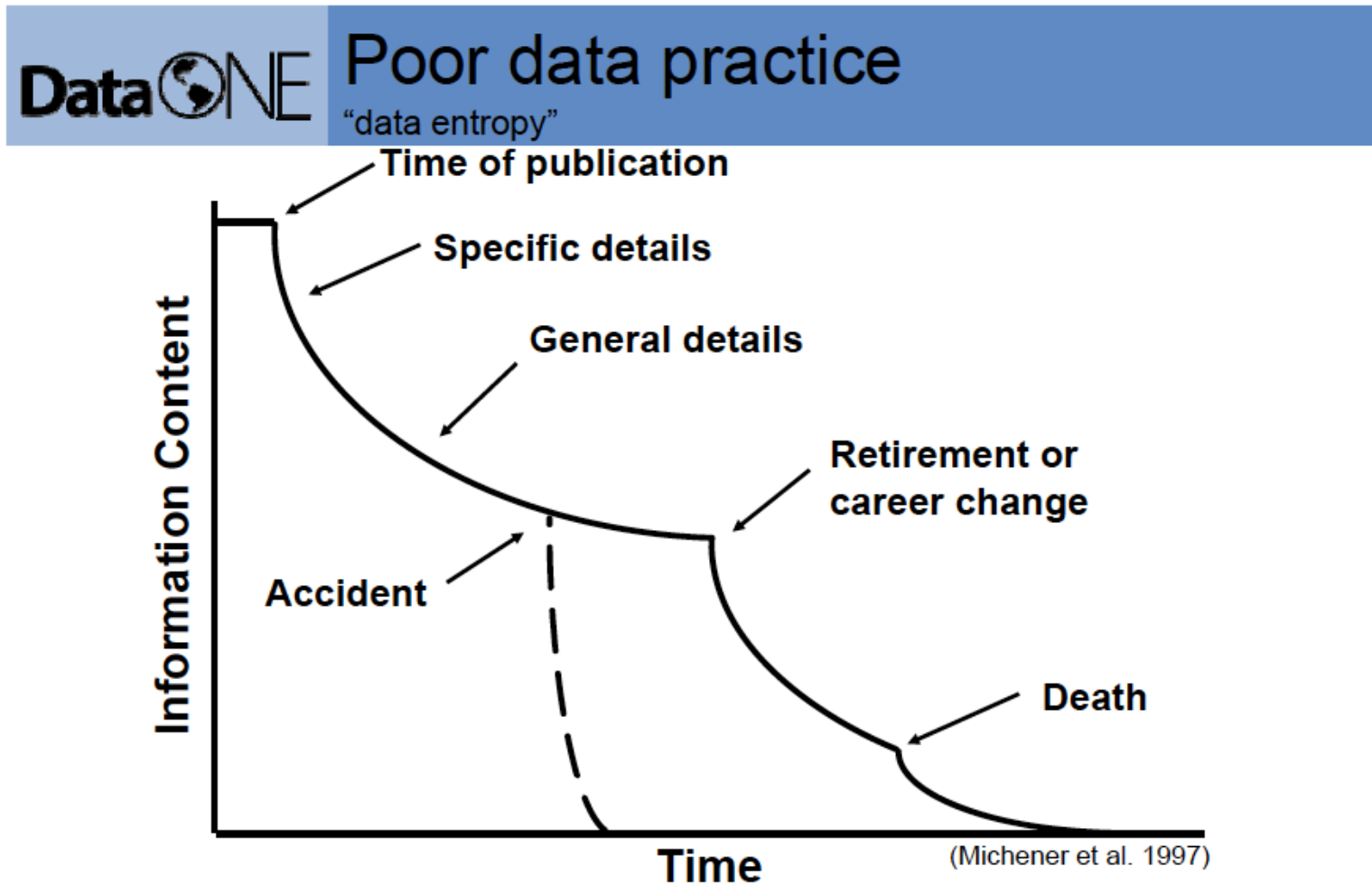
- Adaptive Management Report (2026)
- Salinity Management Workshop (2023-4) and Modeling
- Cyanobacterial HABs Monitoring Strategy
- ISB Food Web Review
- National Center for Ecological Analysis and Synthesis Training
- State of Bay Delta Science
- Delta Science Plan Update
- Independent Peer Reviews
- Interweaving Traditional Knowledge Roundtables
- UC Davis CMSI-DSP Symposium
- Bay Delta Science Conference

### First DMC Tool: 2025 seamless estuary lidar



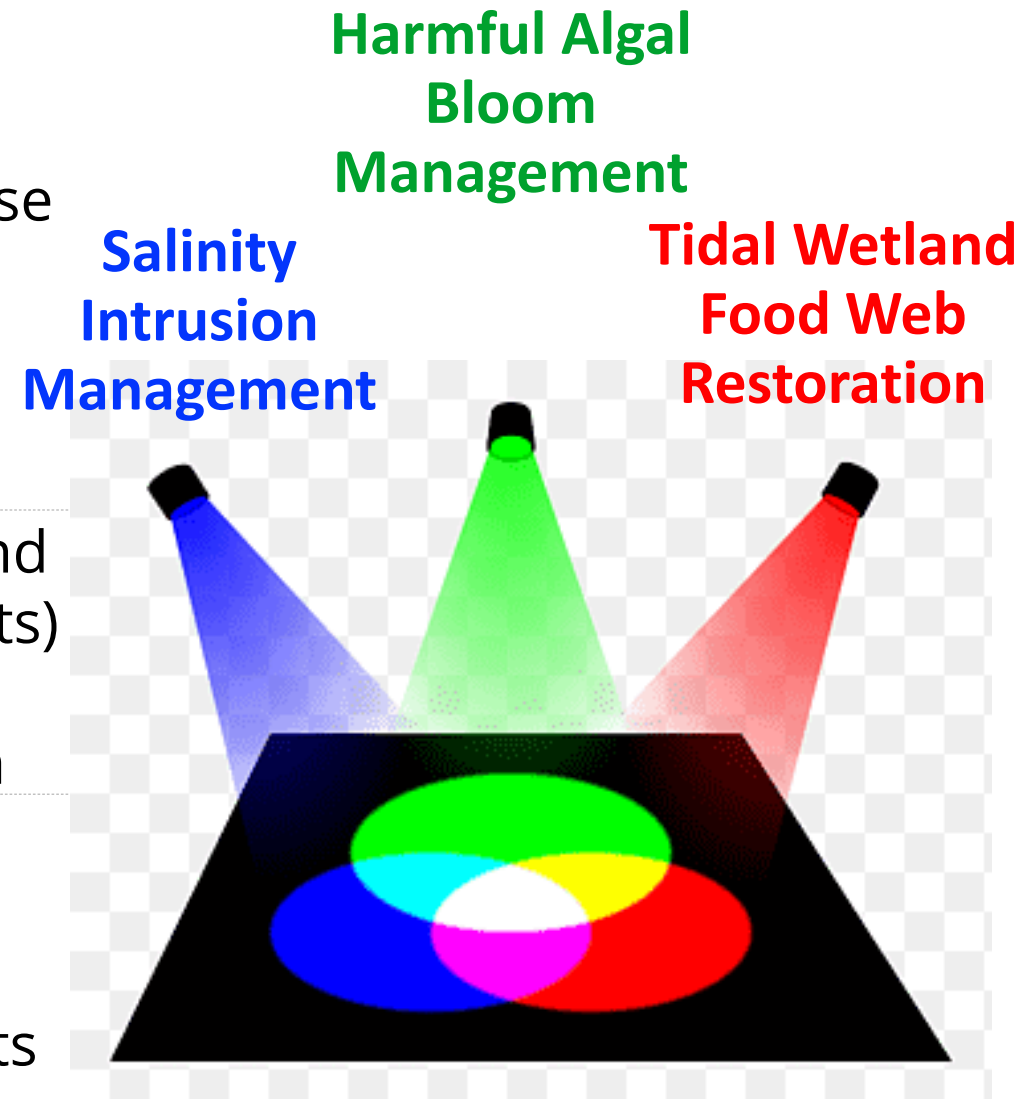
Digital mapping generated and photo taken by Alex Braud

# Data dies in darkness.



# Phase 1 Delta Modeling Collaboratory : 8 elements of the Ask

1. **Critical management decisions** needing improved modeling or data synthesis support
2. **Specific goals** and **deliverables** – for the use case and for Collaboratory elements
3. **Strategy** and **scope of work** – detailed work plans to address management needs and advance the collaboratory
4. **Feasibility** and **impact assessment** for near- and longterm planning horizons (including moonshots)
5. **Existing resources** that could be leveraged
6. **Additional resources** needed short or longterm
7. **Key partners** to engage as participants in a full use case application
8. **Long-term management** and **accessibility** of models, data, scenarios, communication products



THANK YOU!

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<https://www.mentimeter.com/app/presentation/alcmlvea1b9agpaetbmaenae/stsxp8myk/results>

MENTI: how does your  
work fit into the  
collaboratory?  
What do we need to  
bring it forward?



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