



Subcommittee on Imported Water

2025 Scientific Achievements Report

Item 3a

July 28, 2026

Presented by: Brian Mahardja

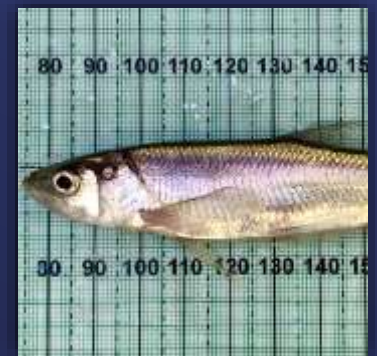
Item 3a
Bay-Delta
Science
Summary
Update

Subject
2025 Scientific Achievements Report

Purpose
Provide an update on recent Metropolitan Bay-Delta Science Program achievements and ongoing projects.

Importance of Metropolitan's Bay-Delta Science Efforts

- Consistent with the Board's Bay-Delta policies
- Supports policy & management actions
- Fosters collaborative partnerships statewide
- Improves water supply reliability of SWP



Bay-Delta Initiatives Science Update



Science Highlights

- Delta Smelt Preservation Project
- Pesticide Risk Model
- Structured Decision Making
- Multi-benefit Landscape Restoration on Webb Tract
- Forest Health Pilot Investigations

Delta Smelt Preservation Project

1. Improve water supply reliability and permit compliance
 - Permit protections for smelt reduce exports by 390 TAF/year on average
2. Promote recovery of Delta Smelt
 - CVP/SWP Permits Require Supplementation of 500K by 2030
 - ↑ survival
 - ↑ reproduction



Shawn Acuña

Delta Smelt Preservation Project



- Culture Milestones
 - Harvest of >7000 juvenile/adult Delta Smelt
 - >90% survival
- Bouldin Island Rearing Project
 - USFWS lead
 - Lease agreement
 - Interim facility

Pesticide Risk Model



Prioritize reduction of high-risk pesticides for Delta Smelt

- Pesticide data in the Delta
- Collaboration
 - Department of Pesticide Regulation
 - Delta Science Program
 - Western Washington University
 - State Water Contractors
- 4 common agriculture and urban pesticides and 1 metal



Shawn Acuña

Delta Smelt Summer/Fall Operations 2025



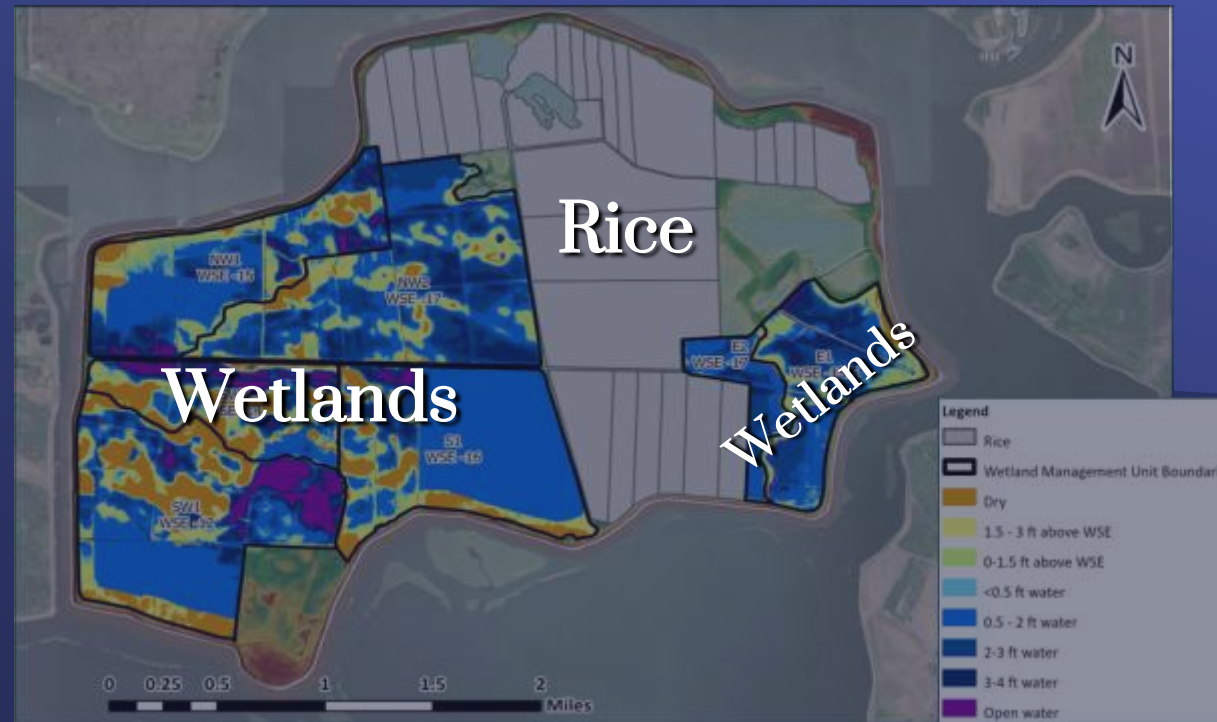
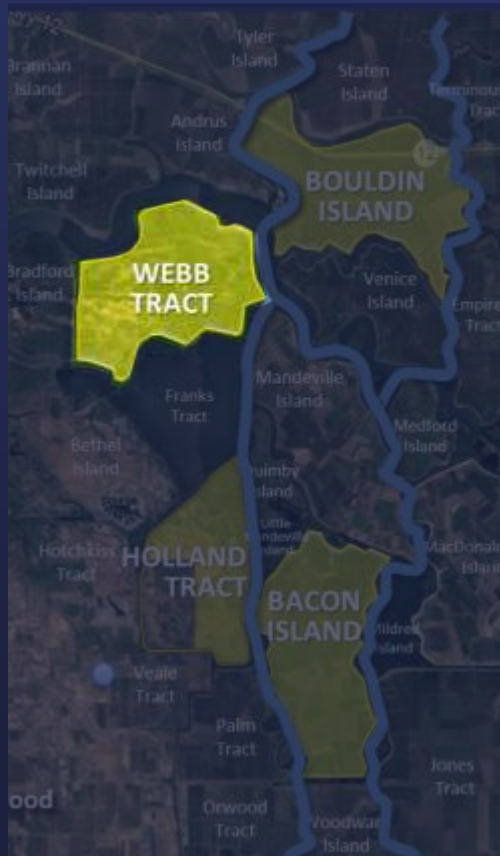
Structured decision-making saved SWP water in 2025

- Structured Decision-Making process was employed to help determine summer/fall Delta operations
- Evaluated trade-offs between Delta Smelt benefit and water supply cost
- Done in collaboration with multiple agencies and interested parties
- Preserves approximately 105 TAF for the State Water Project



Corey Phillis & Brian Mahardja

Multi-benefit Landscape Restoration on Webb Tract



- Actions in July:
 - MWD approves wetland construction
 - Delta Conservancy approves release of construction funds



Malinda Stalvey & John Hindley

Upper Watershed Forest Health Pilot Investigations



Promoting forest health in the Northern Sierra Nevada watersheds

- Non-profit Partner: Blue Forest
- Funding: Forest Resiliency Bond
- Pilot Projects:
 - North Feather
 - Plumas Community Protection
 - Upper Butte Creek



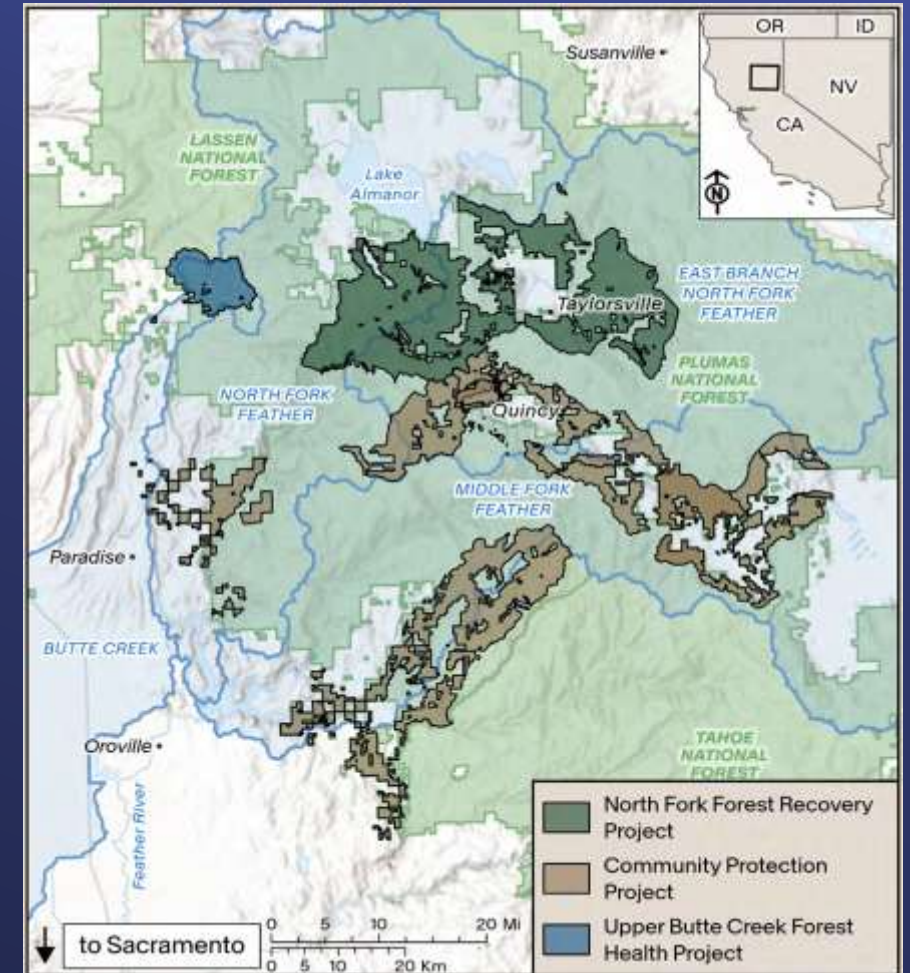
Jennifer Nevills

Upper Watershed Forest Health Pilot Investigations



Potential Benefits of Protecting and Restoring Forest Health

- ↓ Fire risk
- ↑ Water supply
- ↑ Water quality
- ↓ GHGs
- ↑ Aquatic habitat & species



Ongoing and Future Projects

- Continuation of Upper Watershed and Webb Tract work
- Leveraging Structured Decision Making to identify best returns for scientific investments
- Delta Smelt Rearing Facility at Bouldin Island
- Salmon and steelhead entrainment forecasting models



