



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

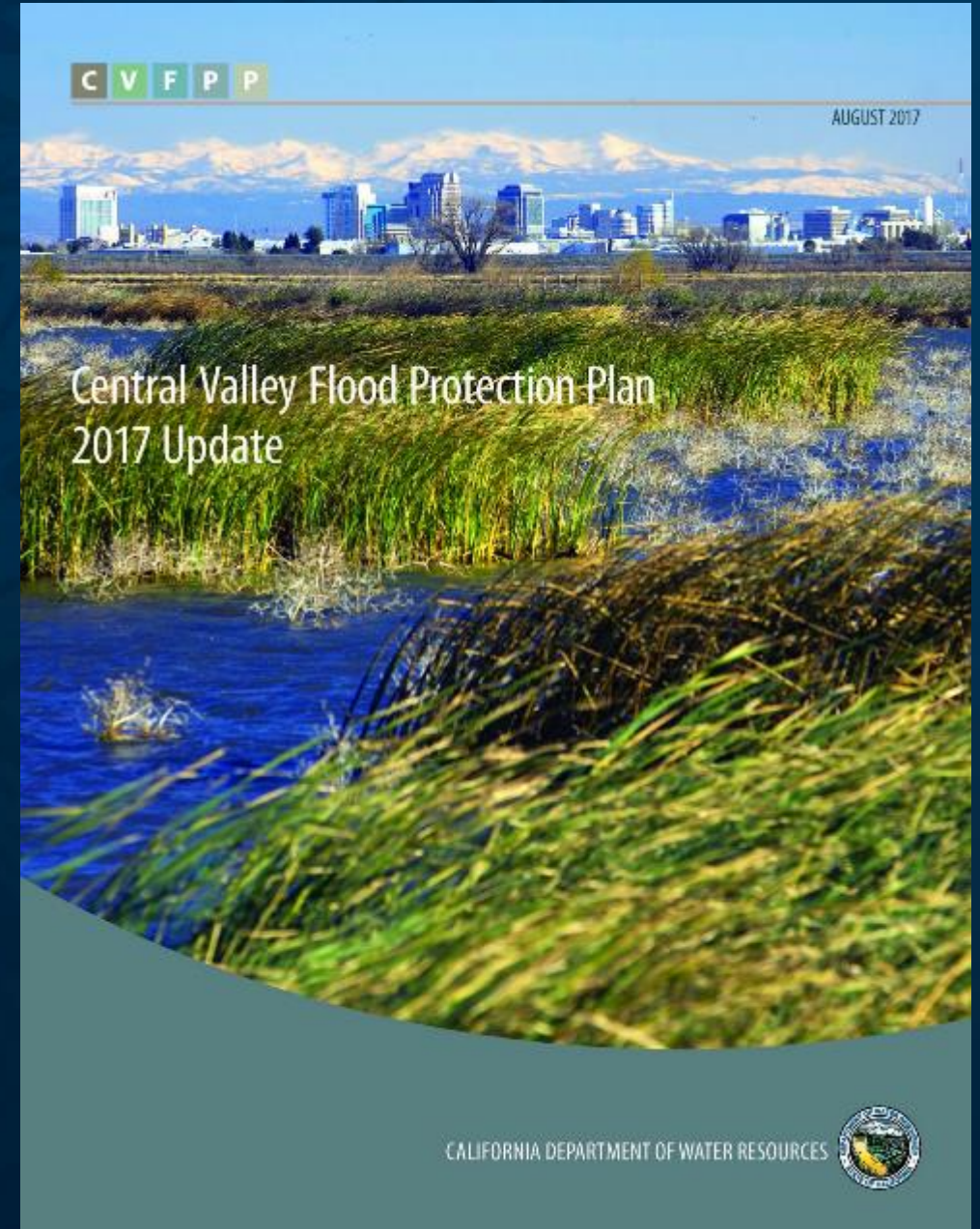
Lookout Slough Tidal Habitat Restoration & Flood Improvement Project

**Delta Stewardship Council Hearing
(Certification ID 20215)
May 20, 2021**

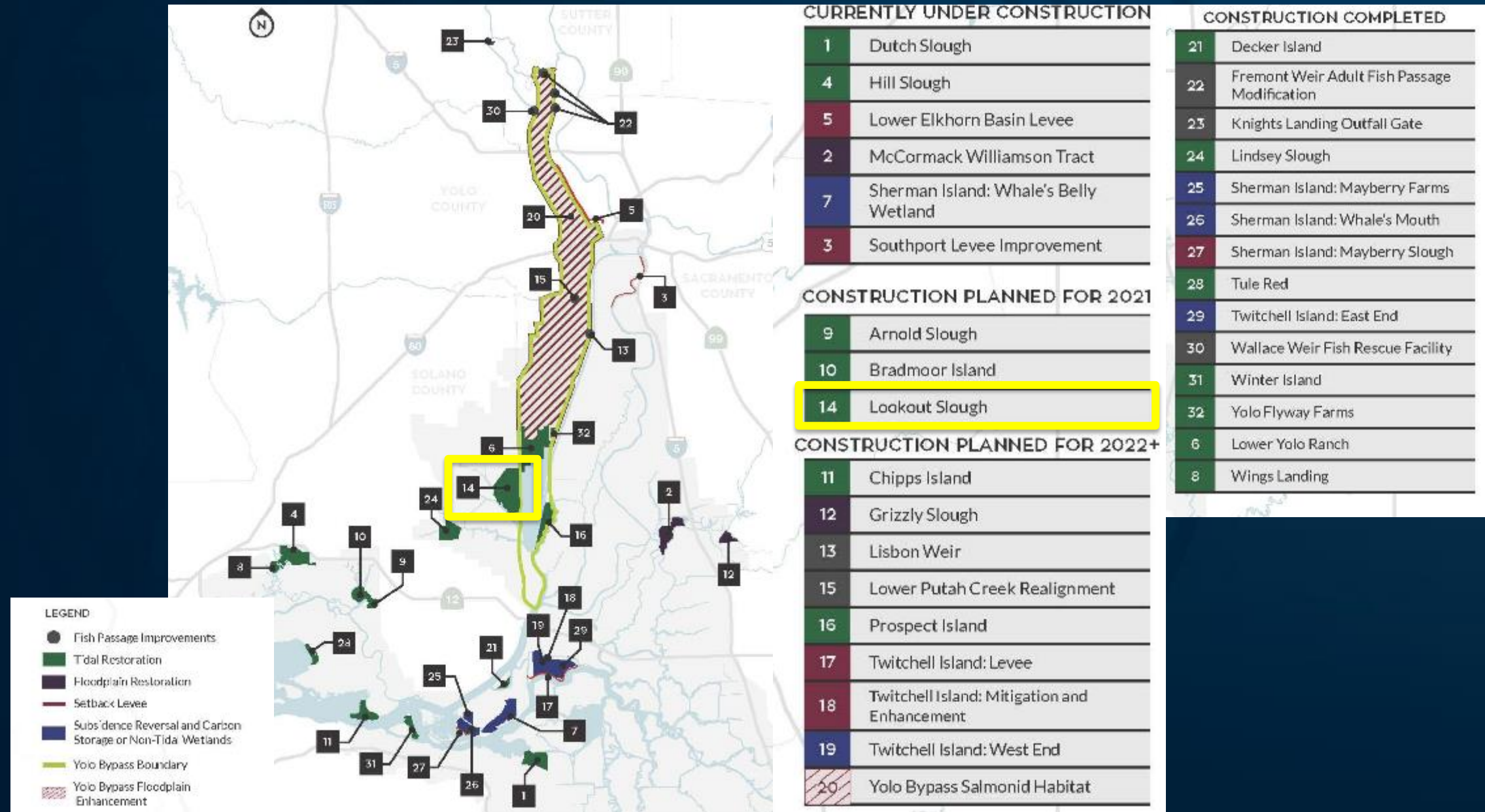
Project Drivers



State Water Project Operations

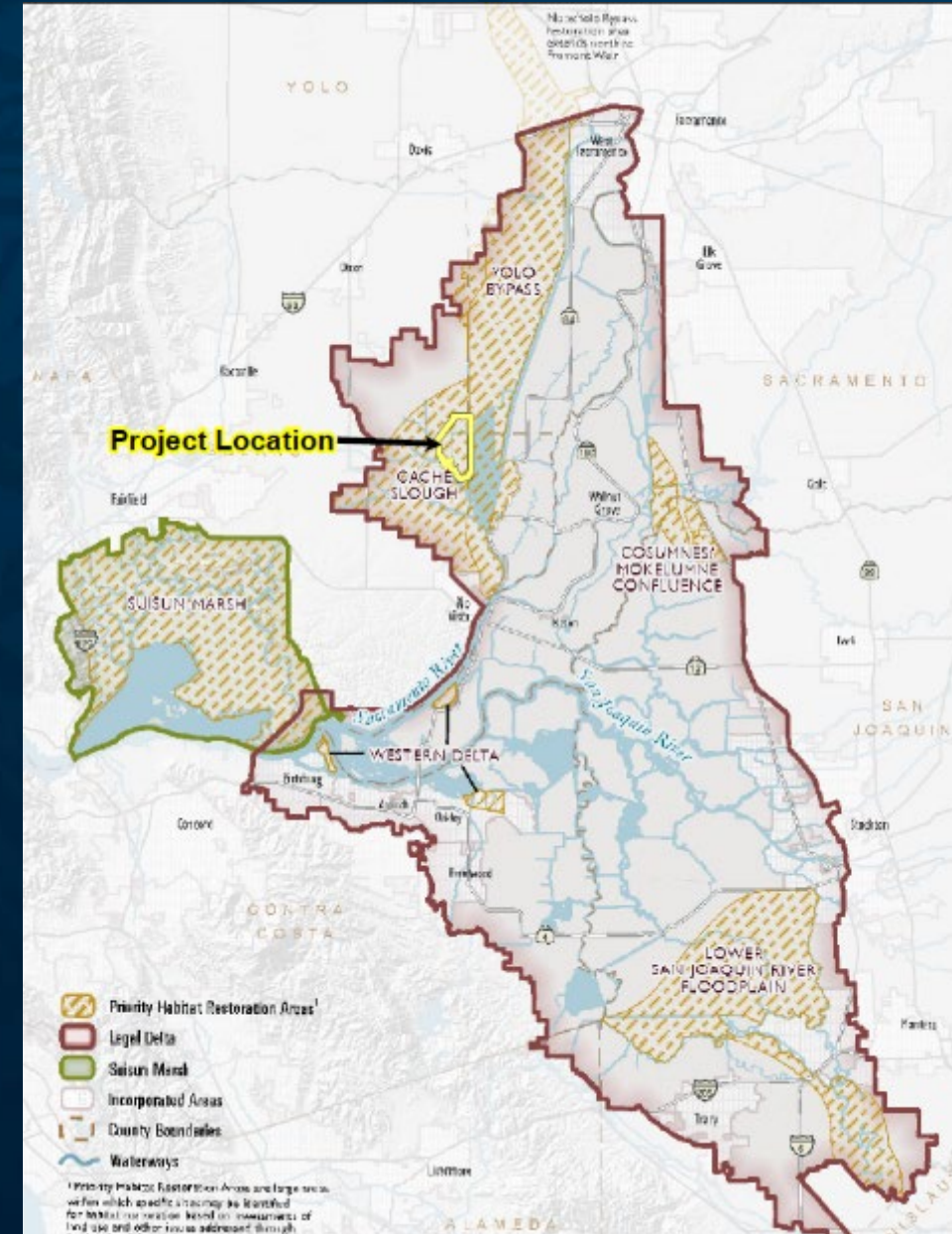


EcoRestore Project

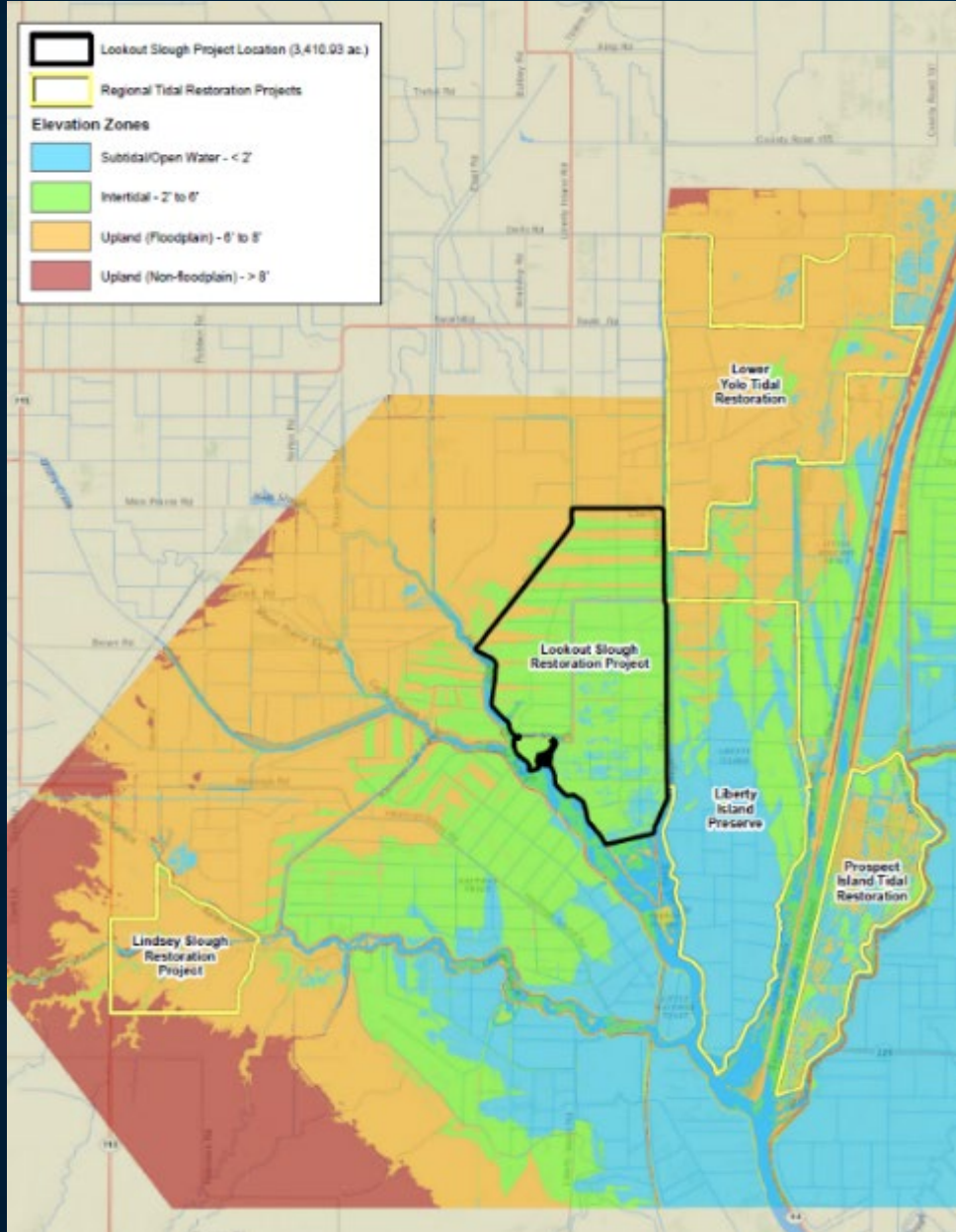


Multi-benefit Project Goals

- **Obtain** approx. 3,000 habitat credit acres
- **Restore** diverse intertidal & subtidal habitat
- **Expand** areas for food productivity
- **Provide** additional flood storage & conveyance within the Yolo Bypass
- **Improve** flood protection of nearby & adjacent infrastructure



Ideal Location & Size

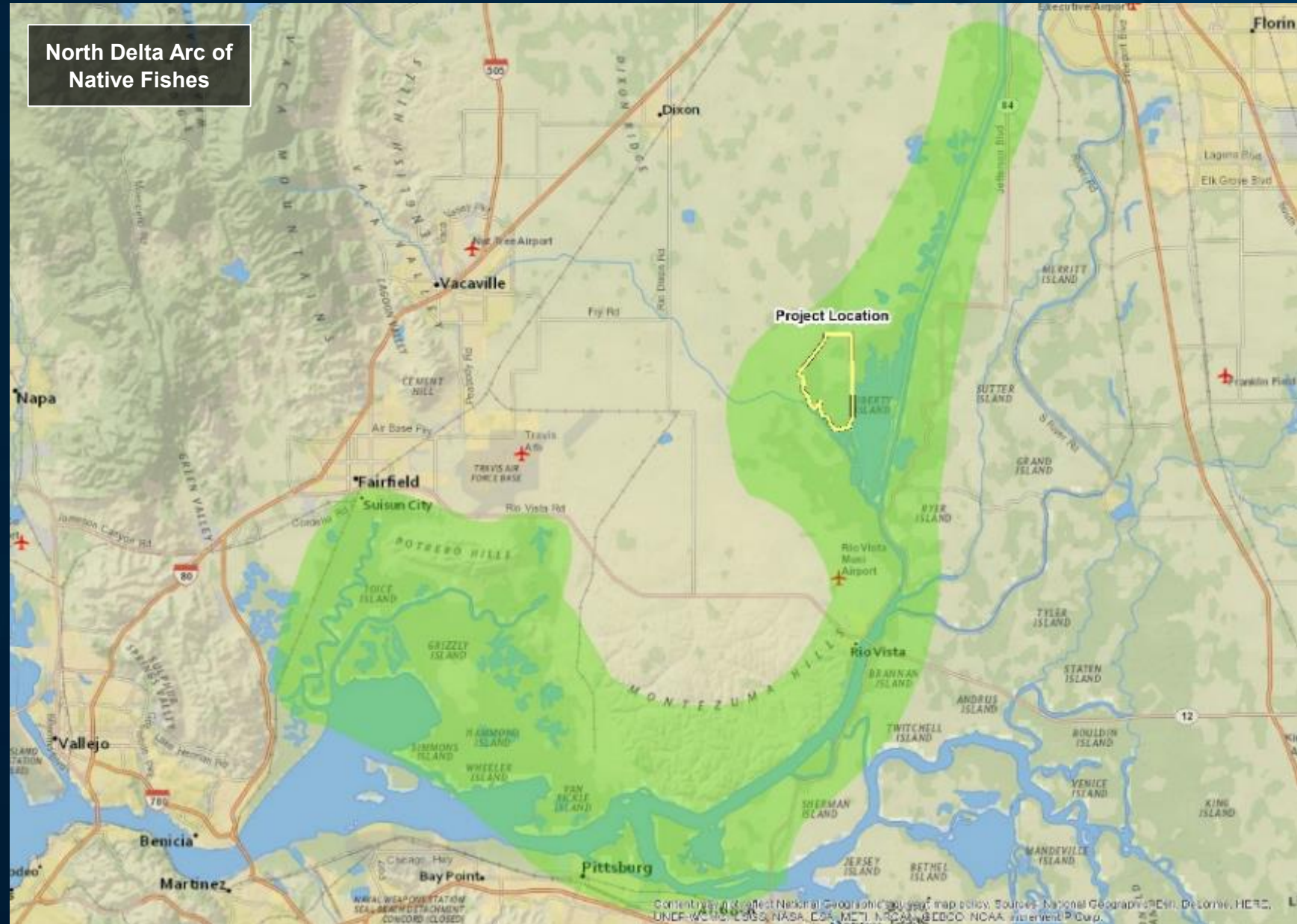


Lookout Slough



Lower Yolo Ranch & Yolo Flyway Farms

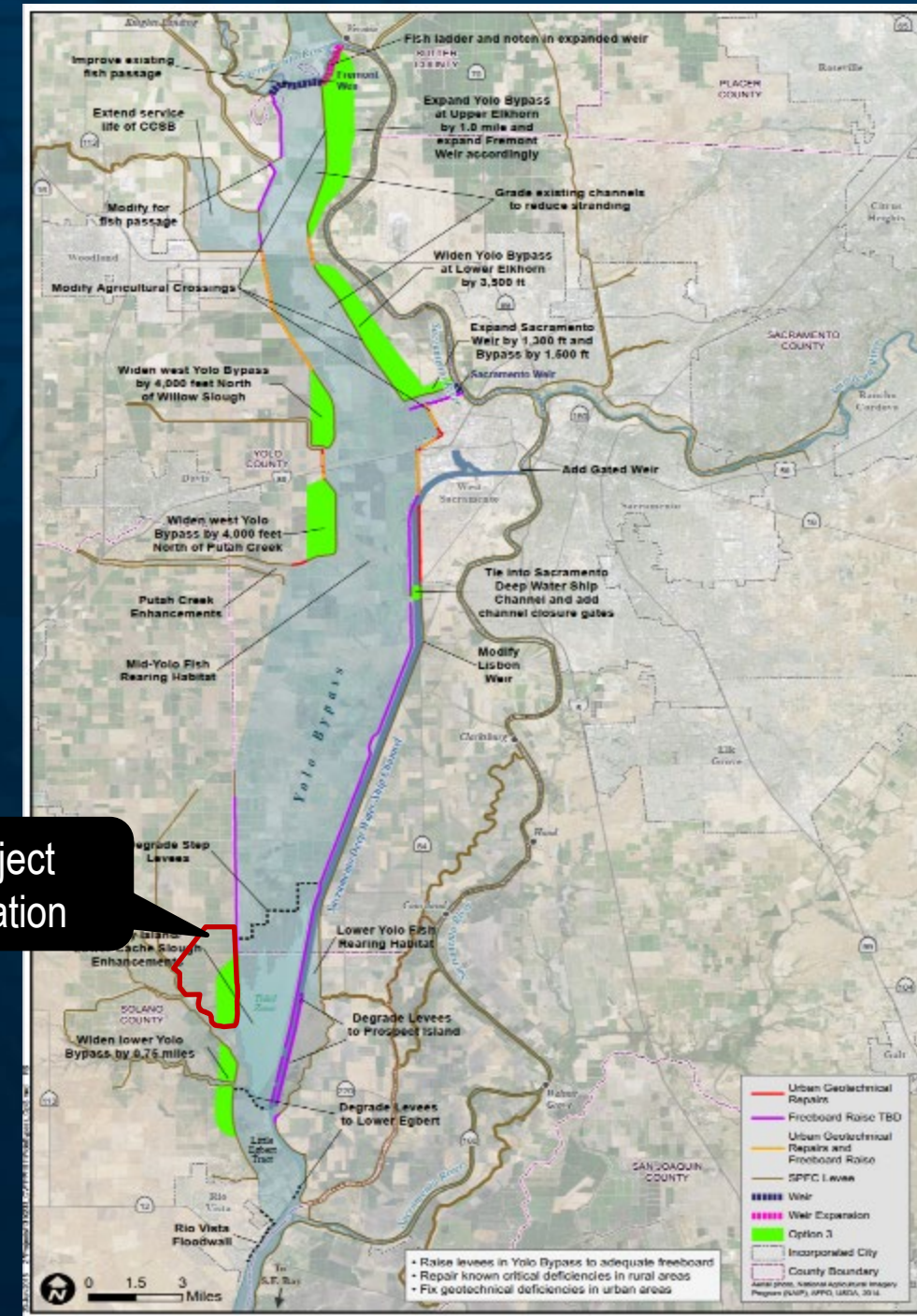
Located within North Delta Arc



Flood Protection

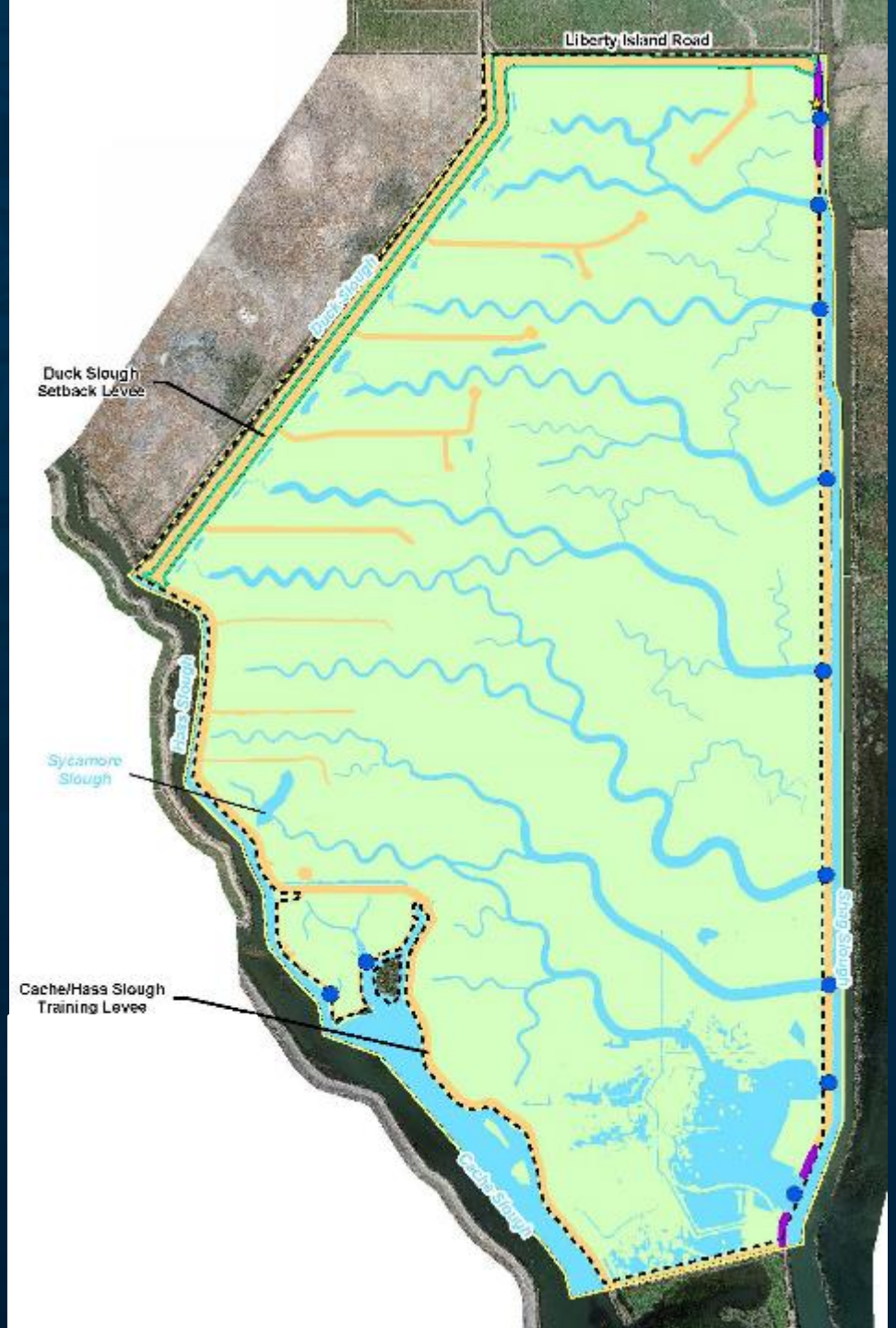
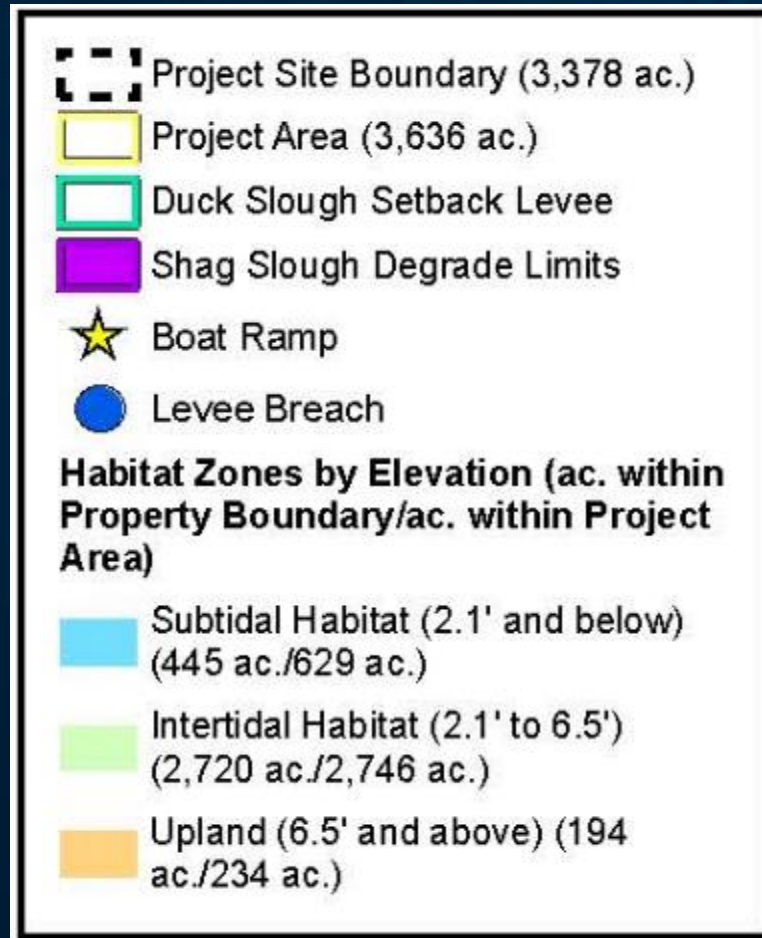


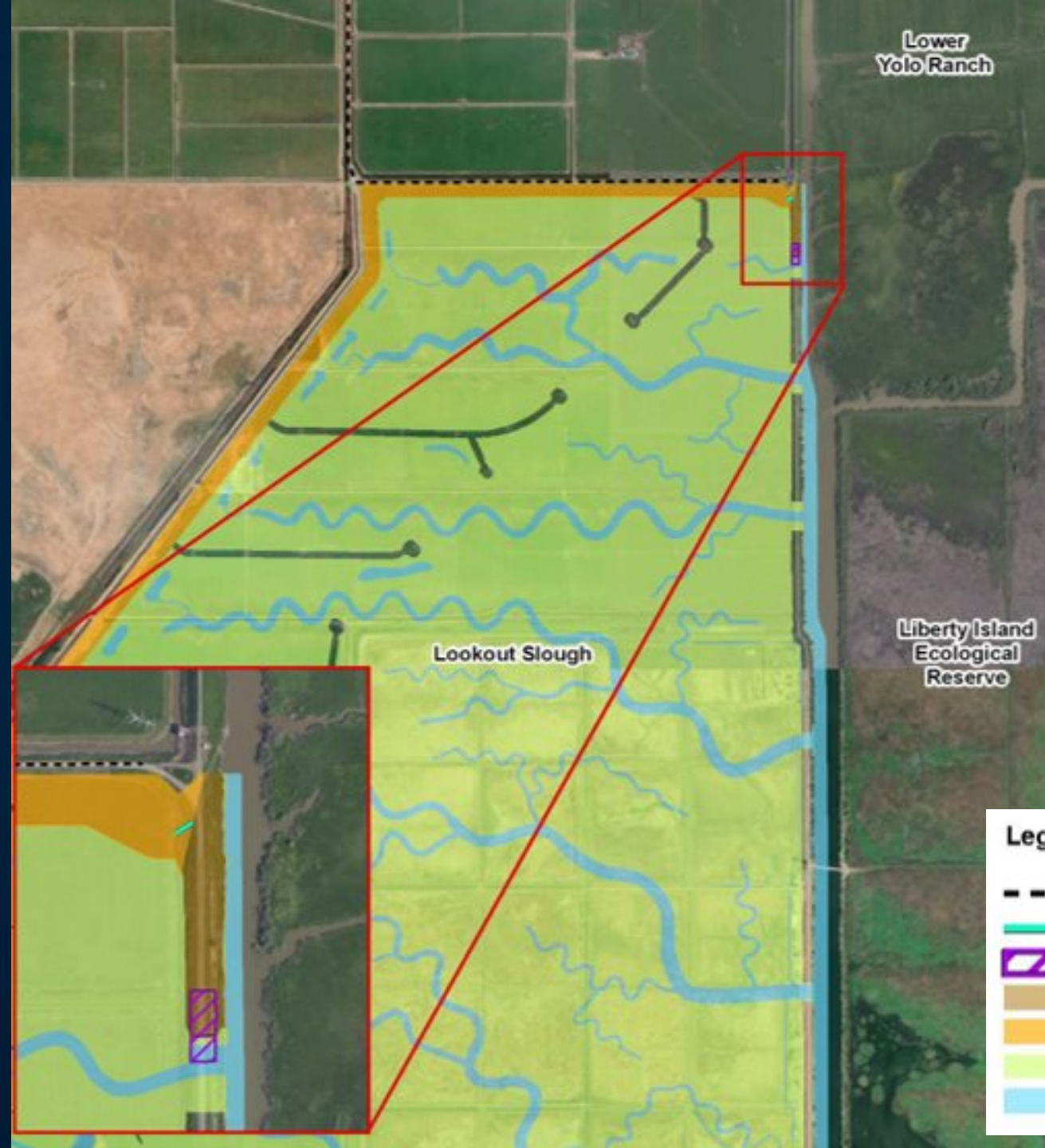
Project
Location



Shag Slough Levee (SPFC) October 2020

Project Design





Project Site Elements



Recreation & Public Access



Long-term Maintenance

Duck Slough Setback Levee

**Shag Slough Levee,
Restoration Site & Agency
Boat Ramp**

**Cache/Hass Levee &
Cross Levee**



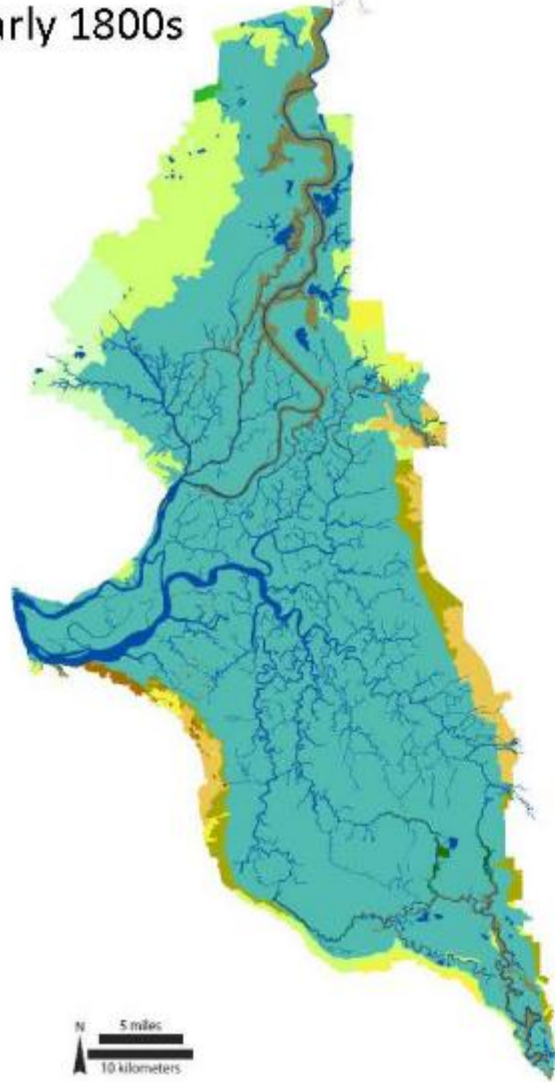
Stakeholder & Public Input



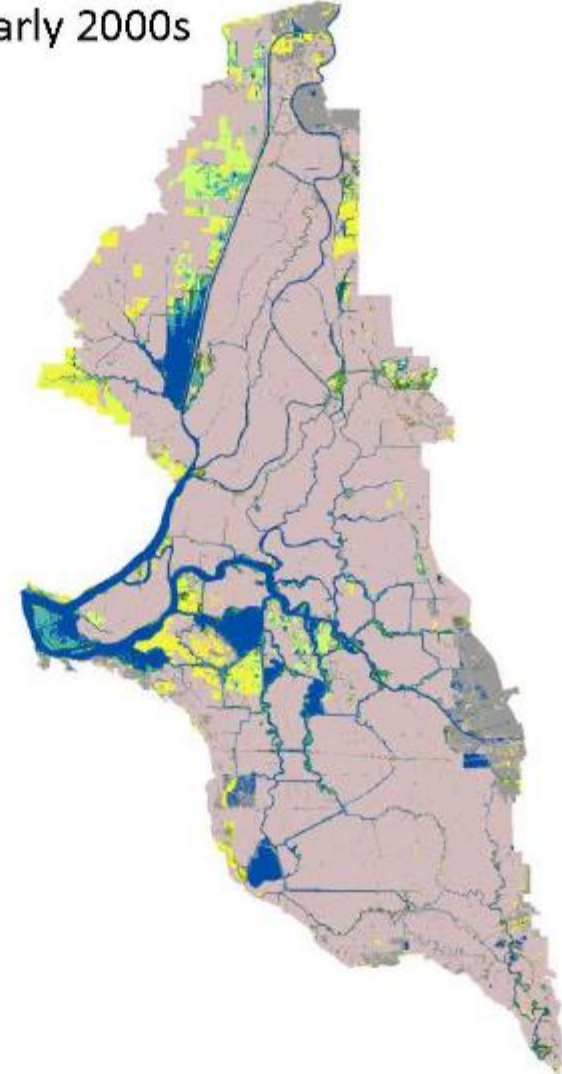
Historical Marsh



Early 1800s



Early 2000s



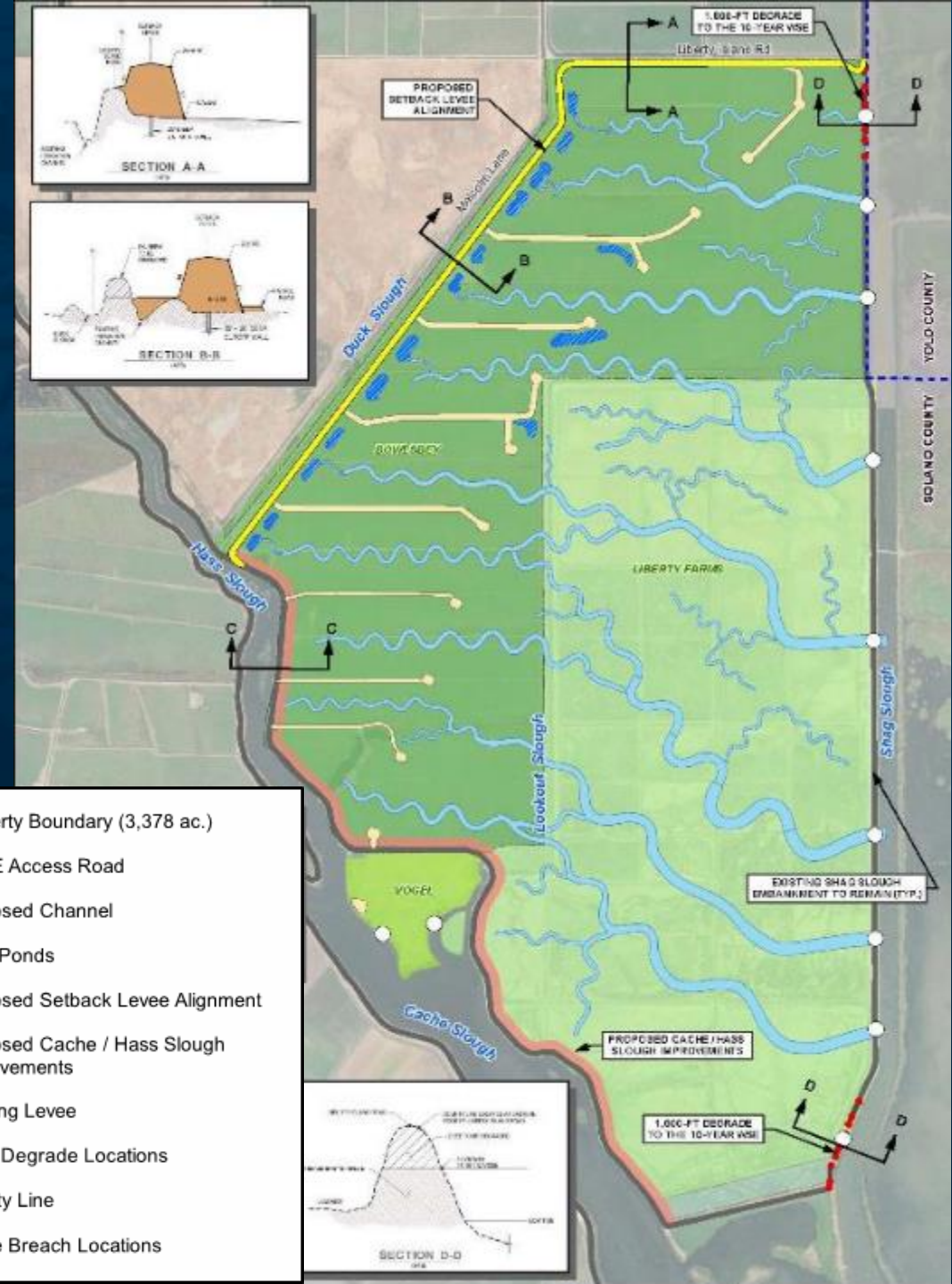
- Agriculture, non-native or ruderal
- Urban or barren
- Oak woodland or savanna
- Grassland
- Stabilized interior dune vegetation
- Alkali seasonal wetland complex
- Vernal pool complex
- Wet meadow or seasonal wetland
- Valley foothill riparian
- Willow riparian forest, scrub or shrub
- Willow thicket
- Freshwater emergent wetland
- Water

*Whipple et al.
2012.
Sacramento-San
Joaquin Delta
Historical Ecology
Investigation:
Exploring Pattern
and Process.*

Restoration Component Goals



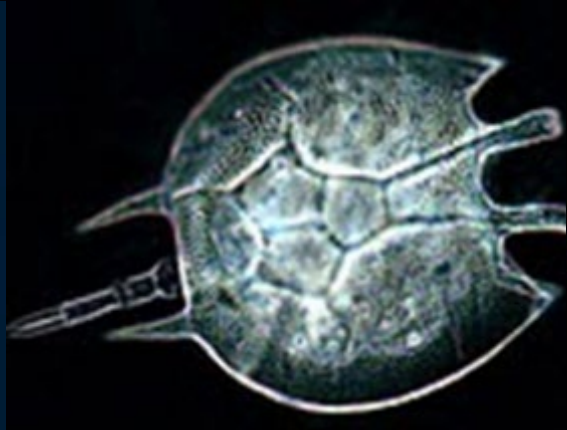
Restoration Design



Species Benefits



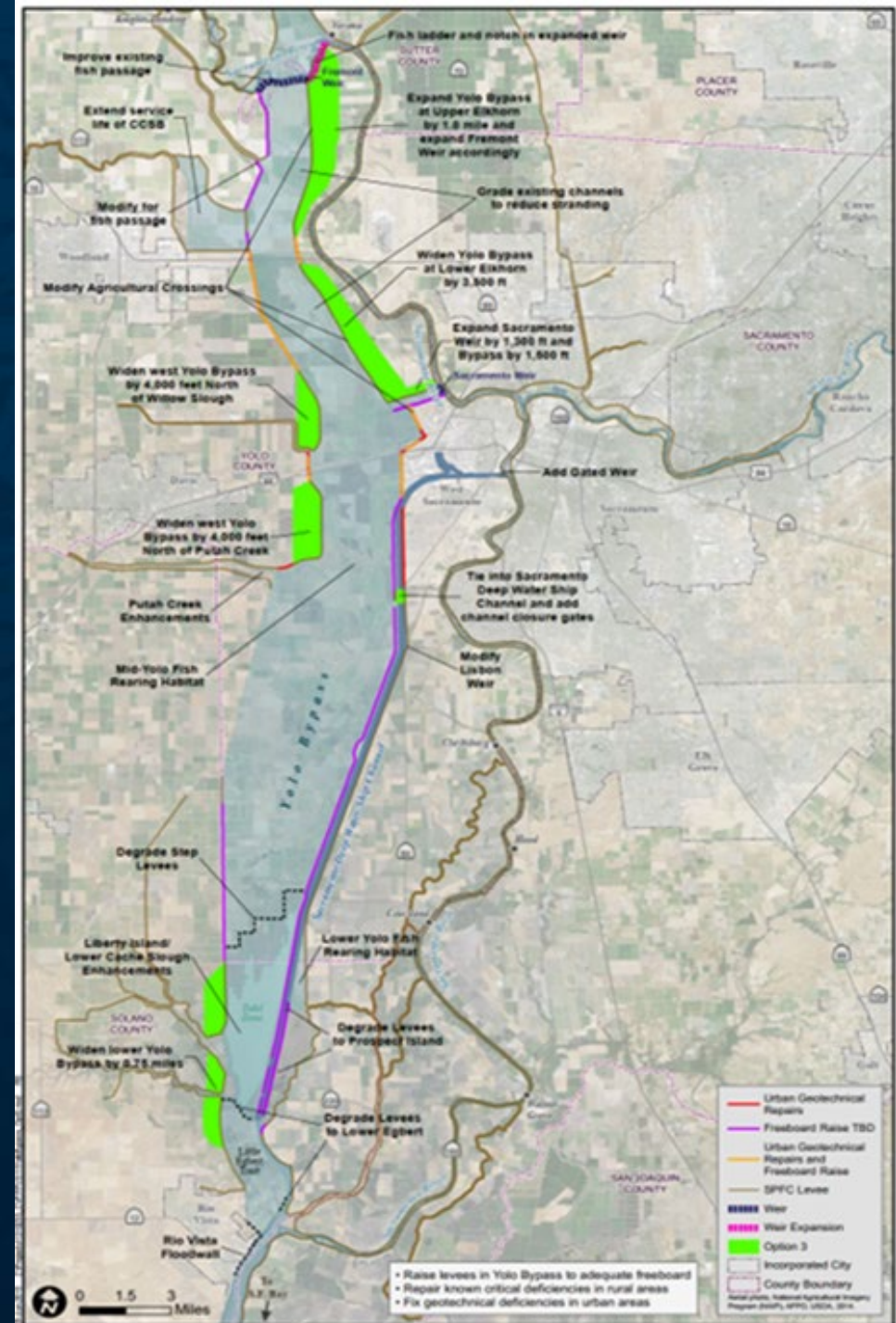
Food Production



Flood Component Goals

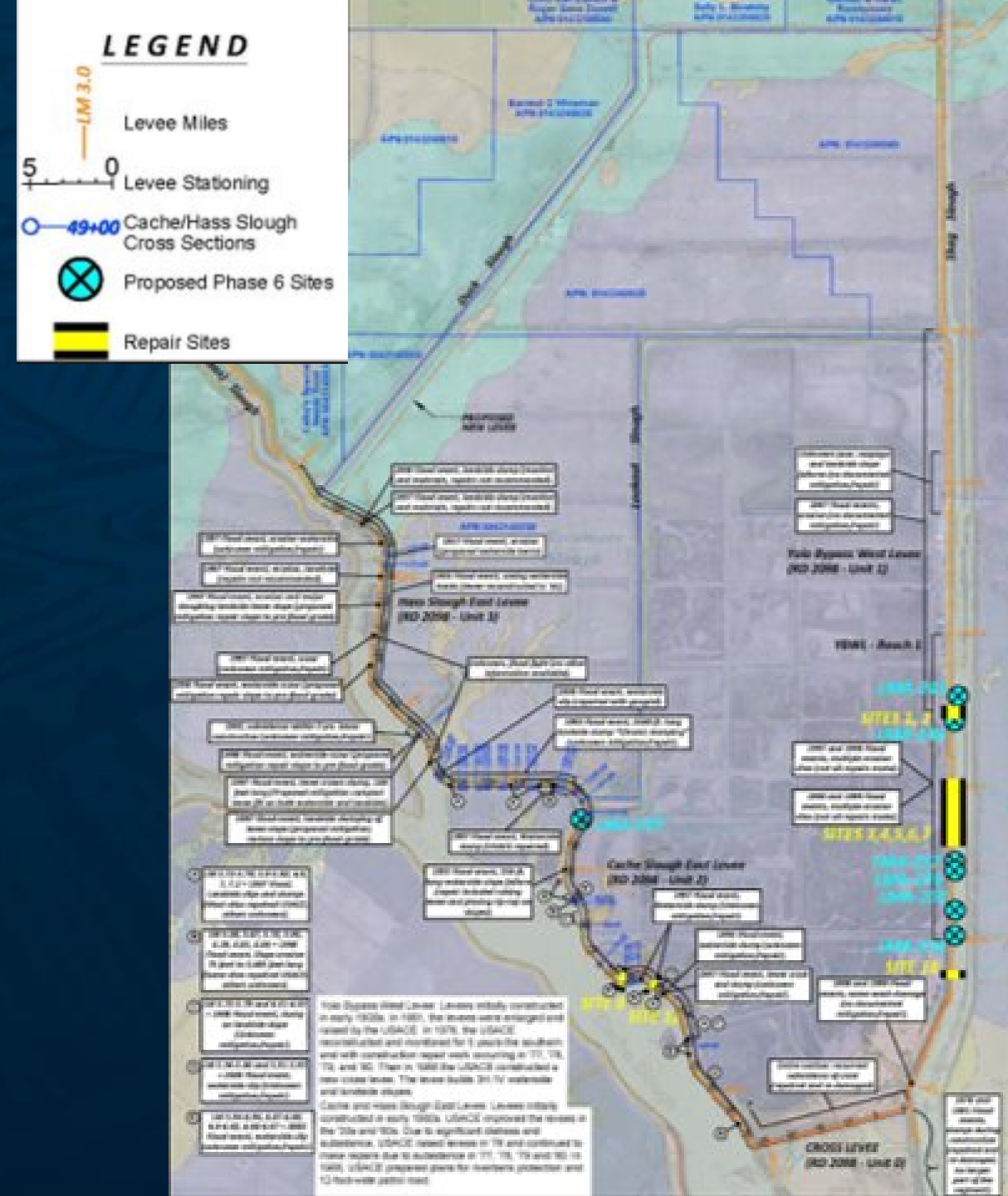


Yolo Bypass Systemwide Improvements



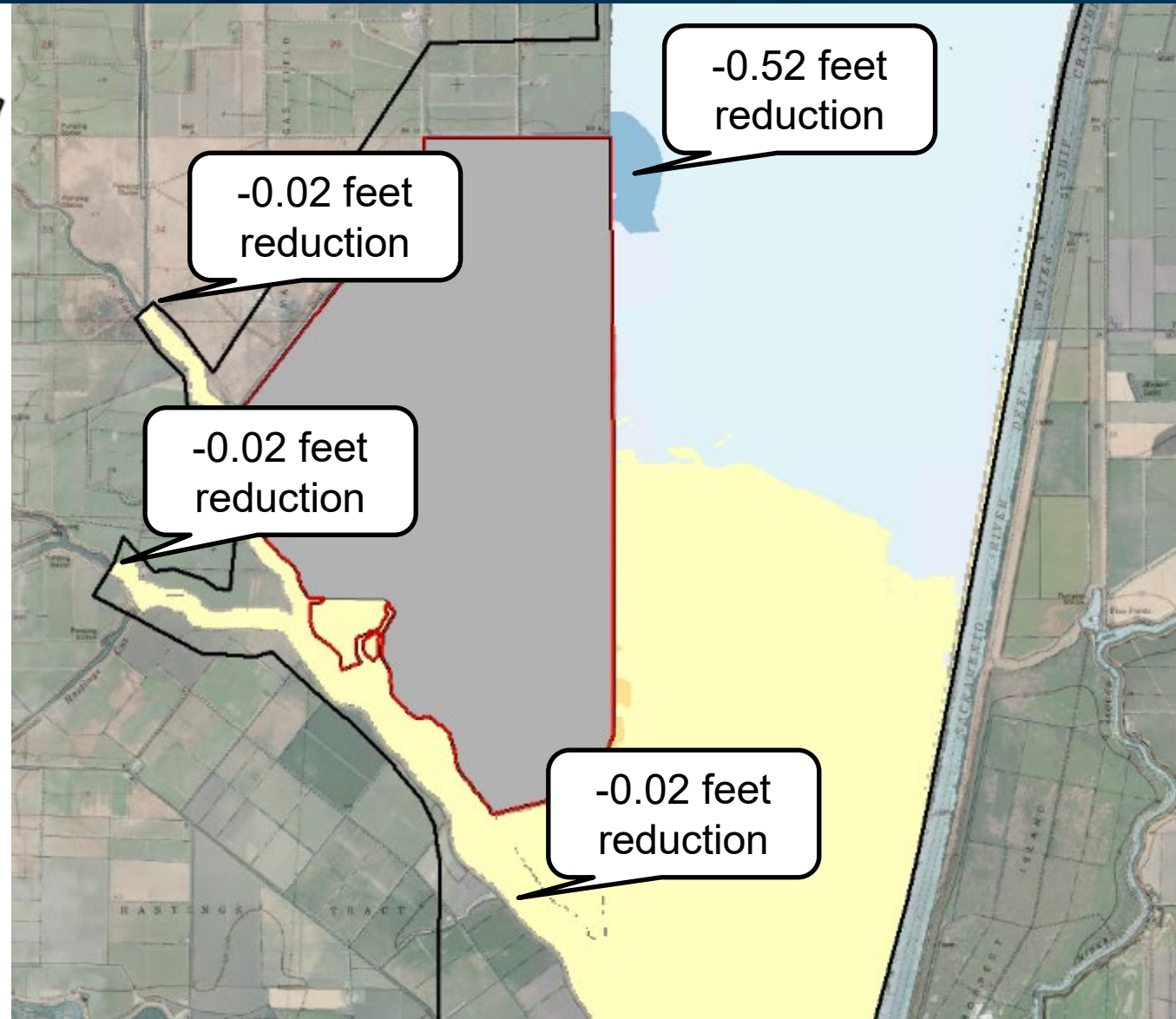
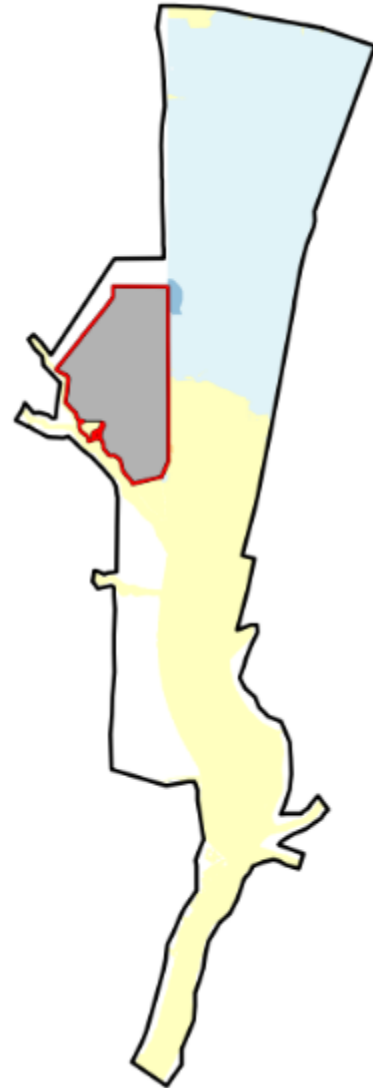
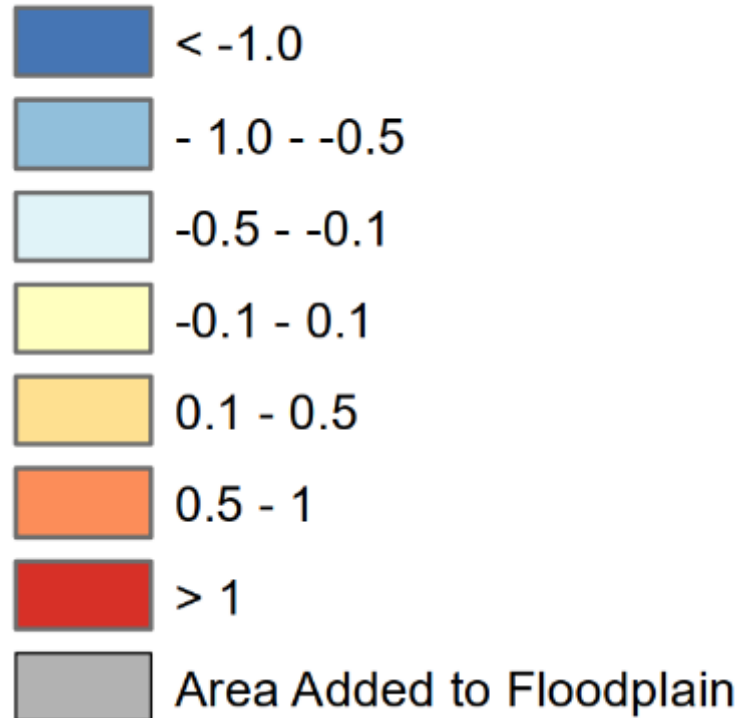
Modern Levee Design Standards

- Existing project area levees do not meet modern levee design standards

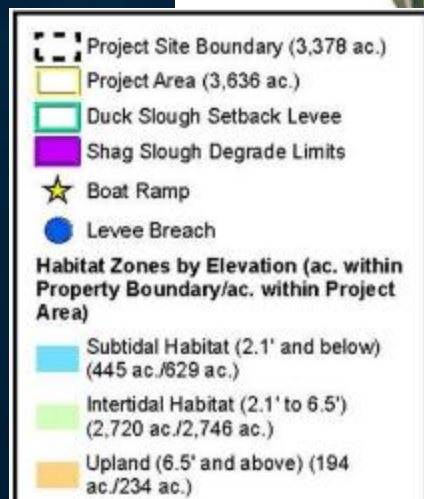
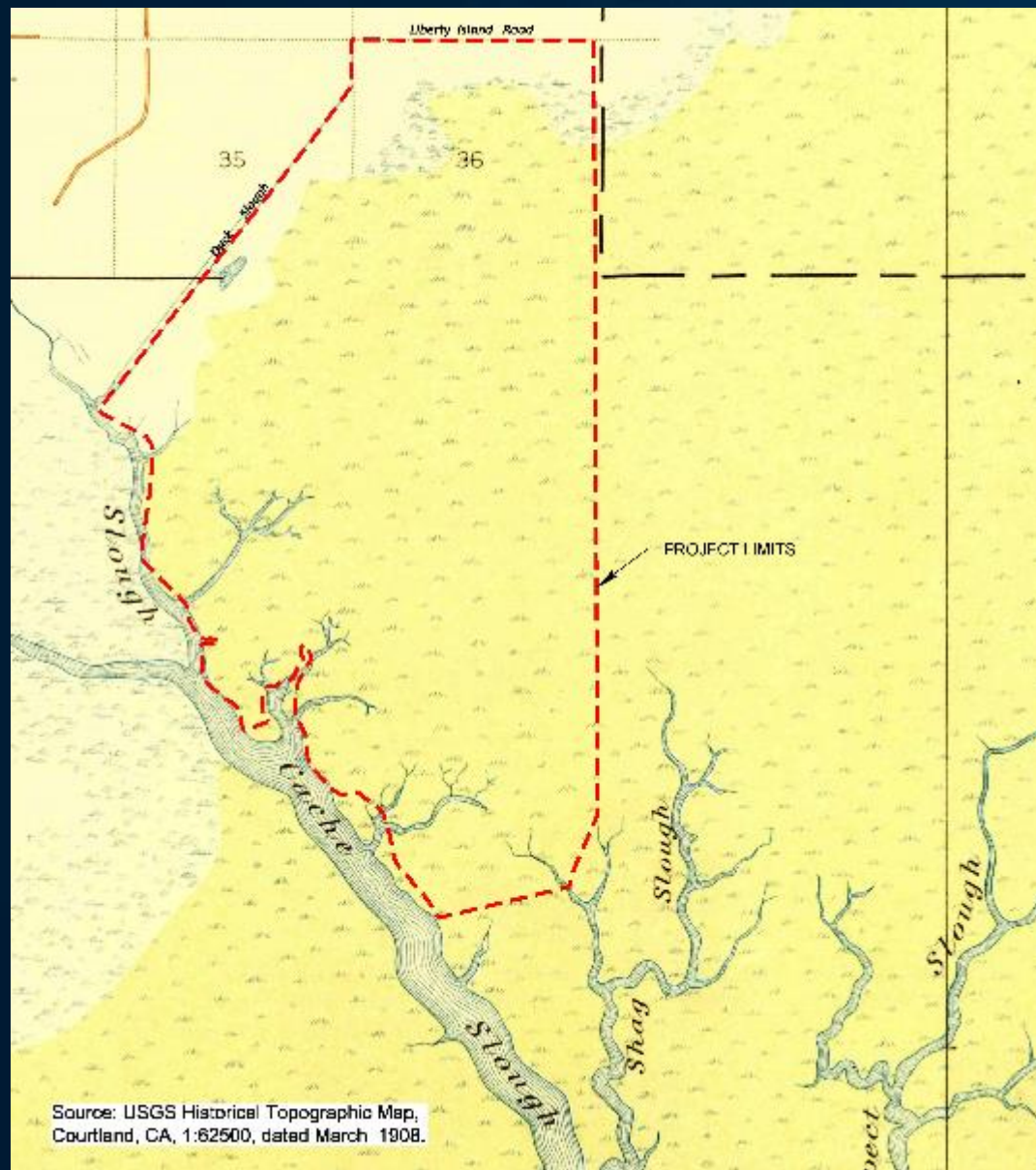


Water Surface Reduction

100-year Design Storm Change in WSEL (feet)

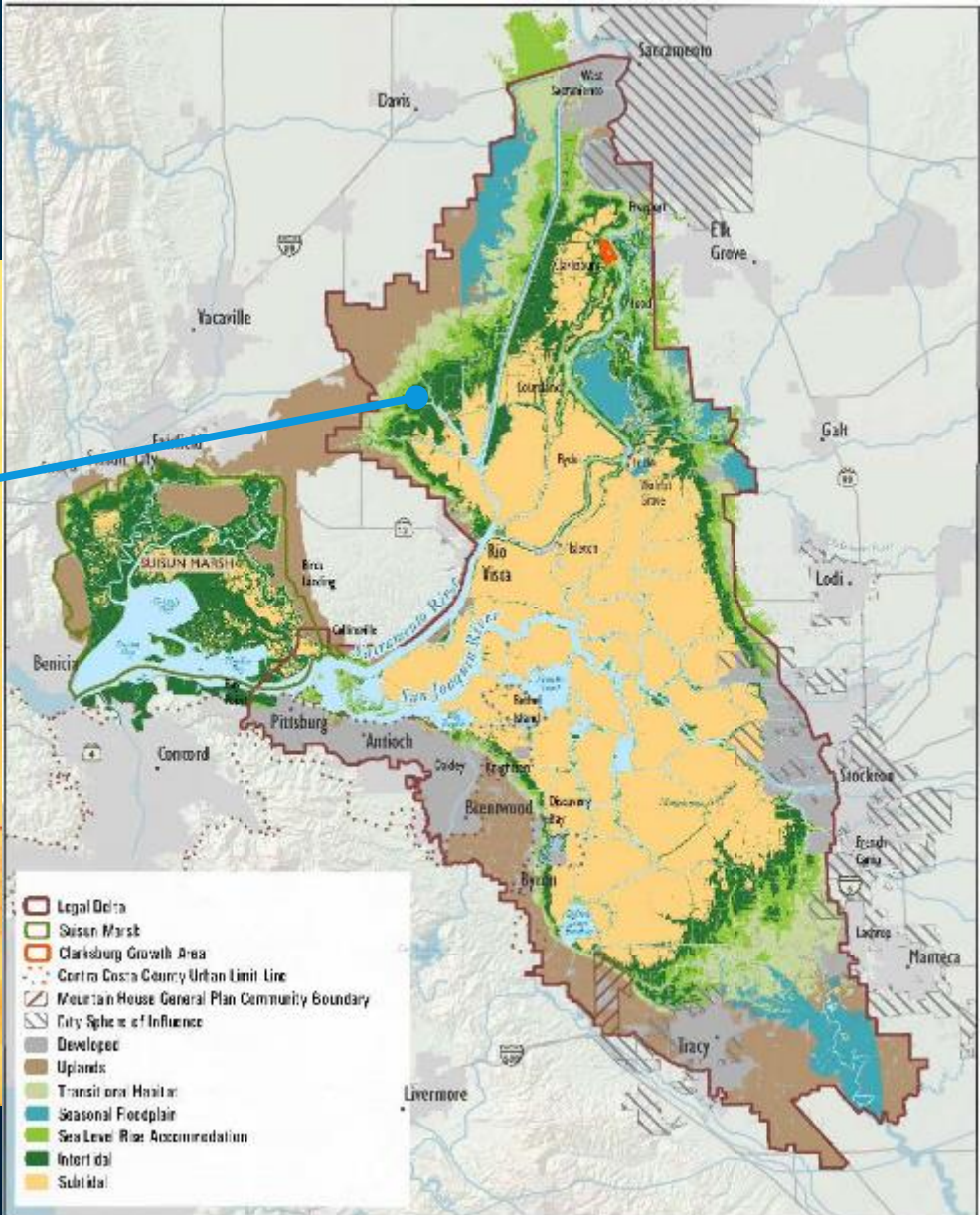
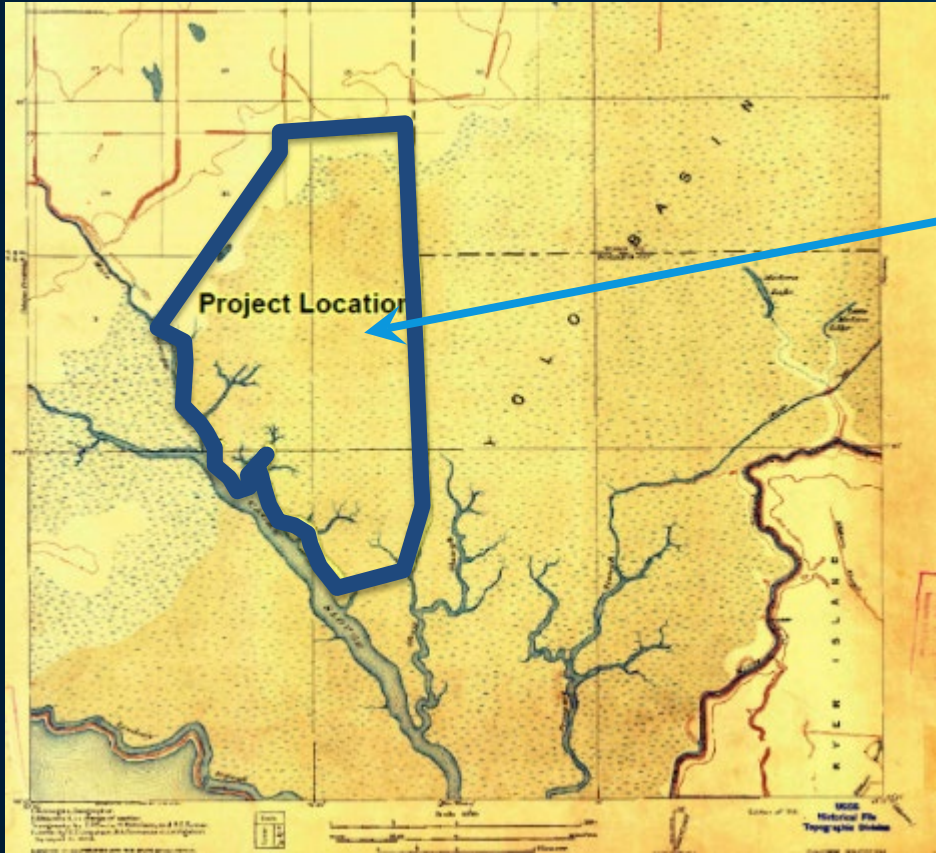


Coequal Goals



Future site design

DP P2 - Siting



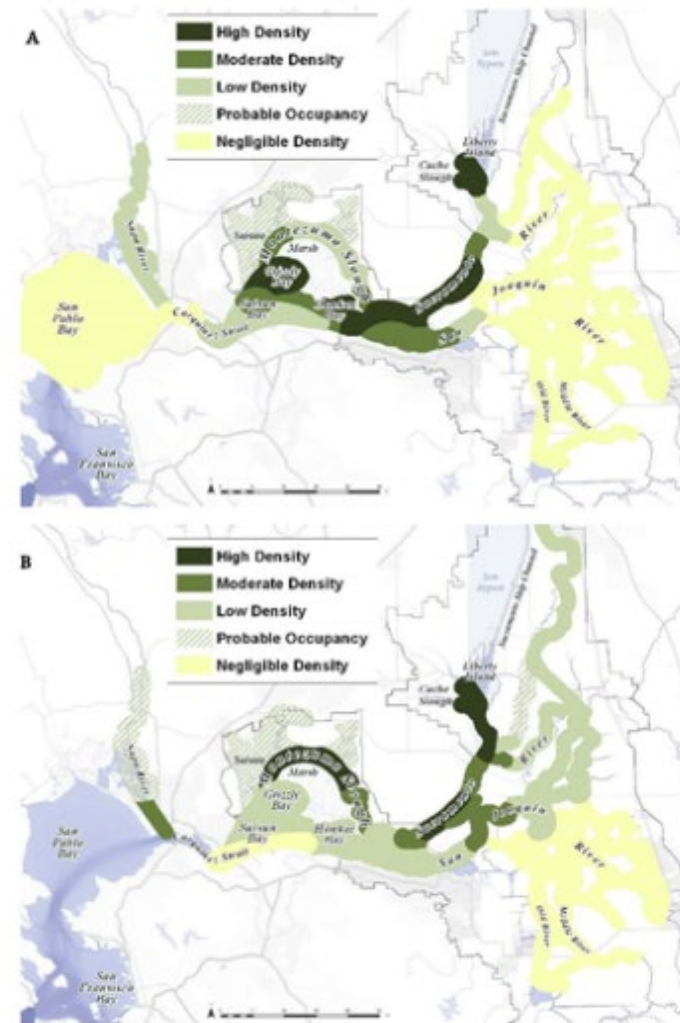
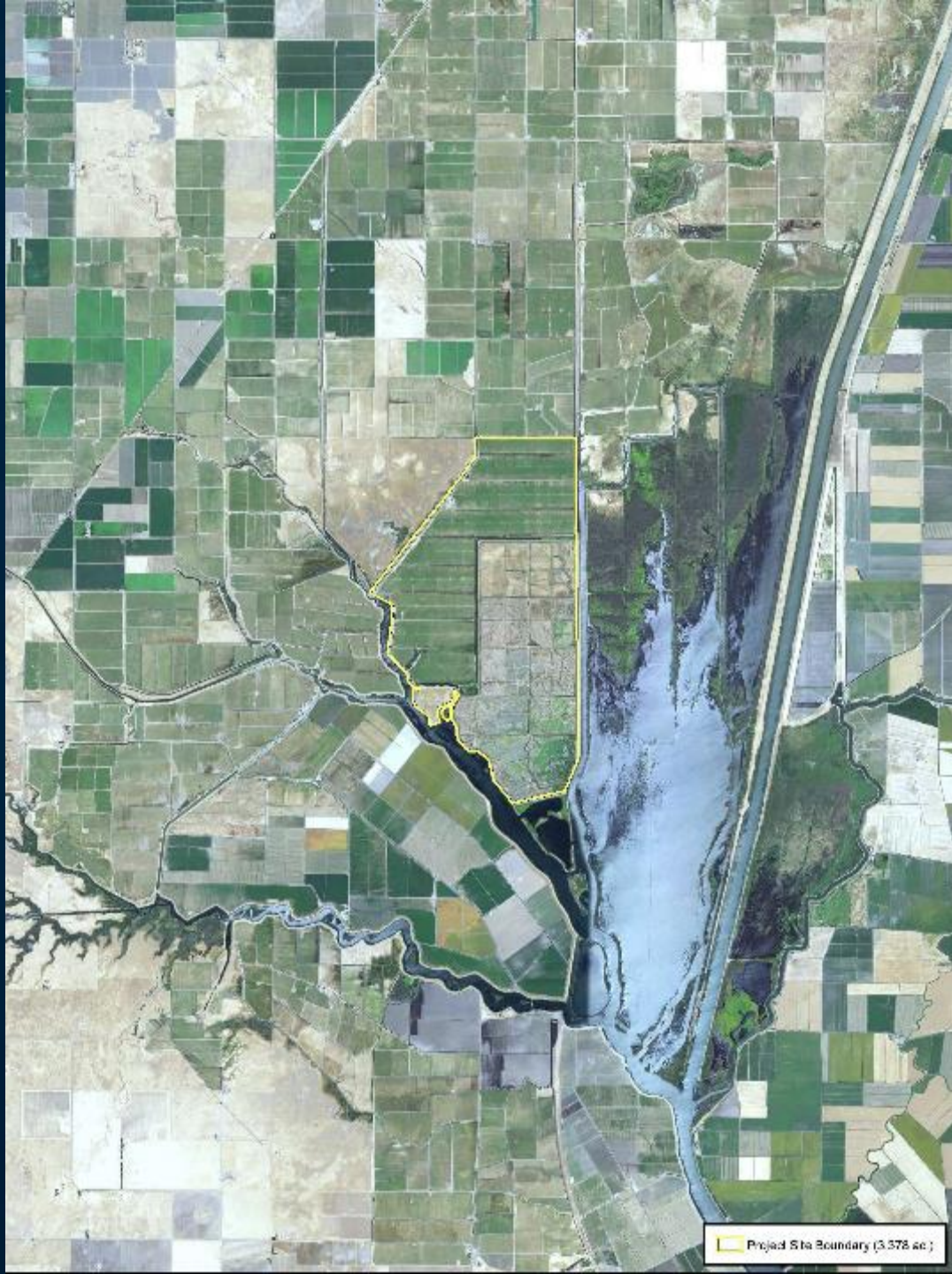
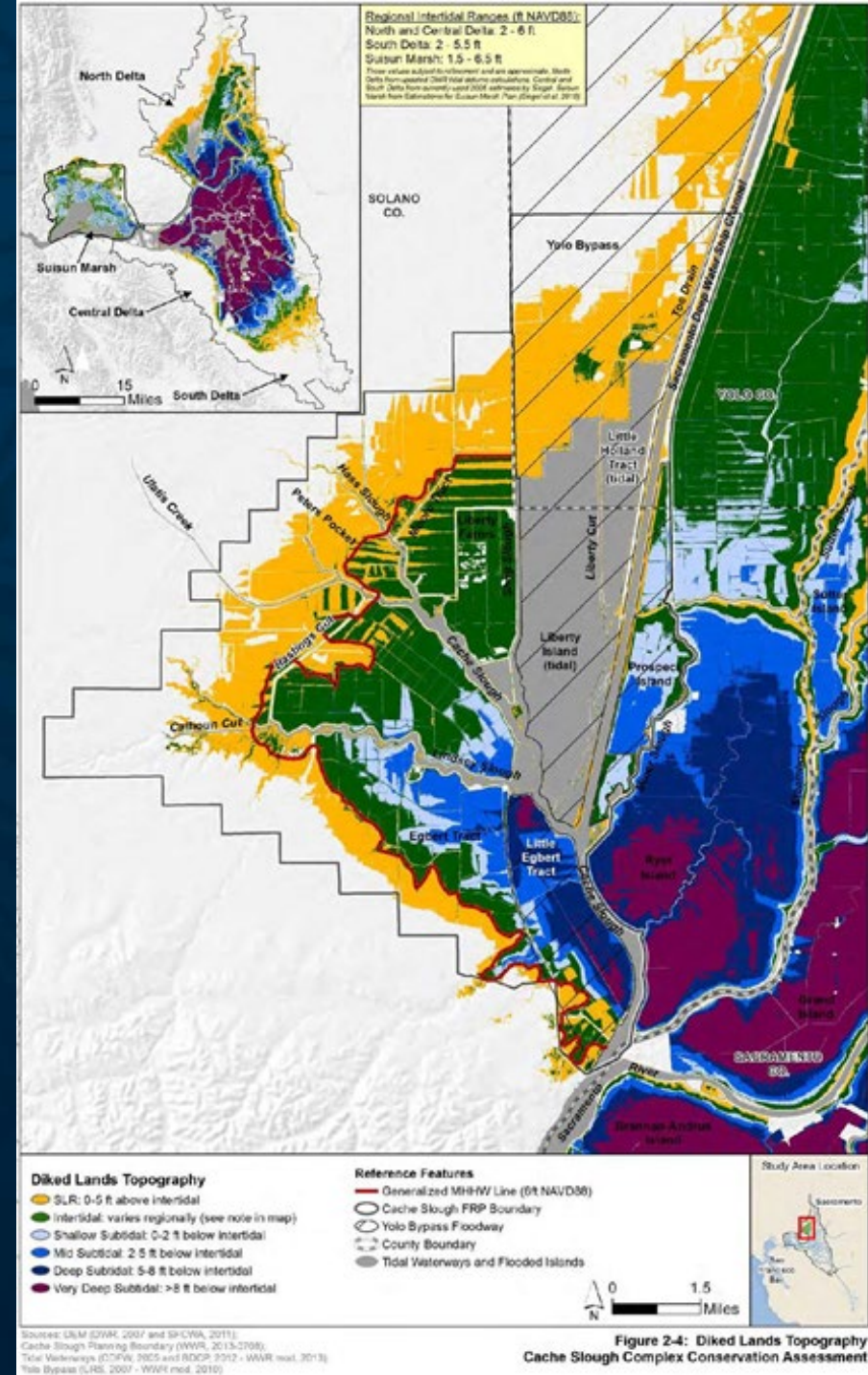


Figure 8 Synthesized distribution of delta smelt in summer and fall (A) before dispersal to spawning areas, and in spring (B) after dispersal. The dark areas show the predominant range during each period. The high and moderate density areas combined account for 90%, on average, of the observed presence of delta smelt. Areas of negligible density combined account for less than 1% of delta smelt during the survey period. Light green areas represent 9% of the presence of delta smelt. Source: CDFW survey data.



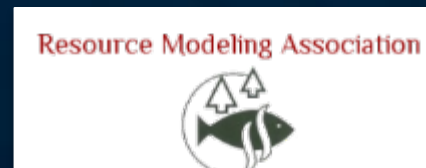
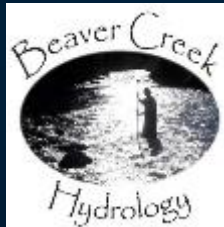
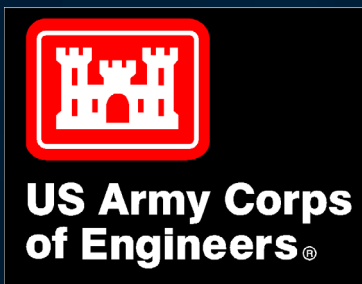
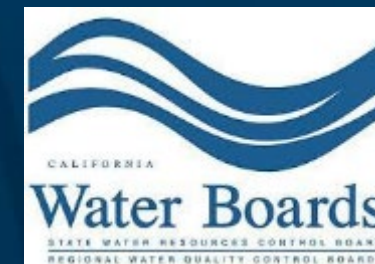


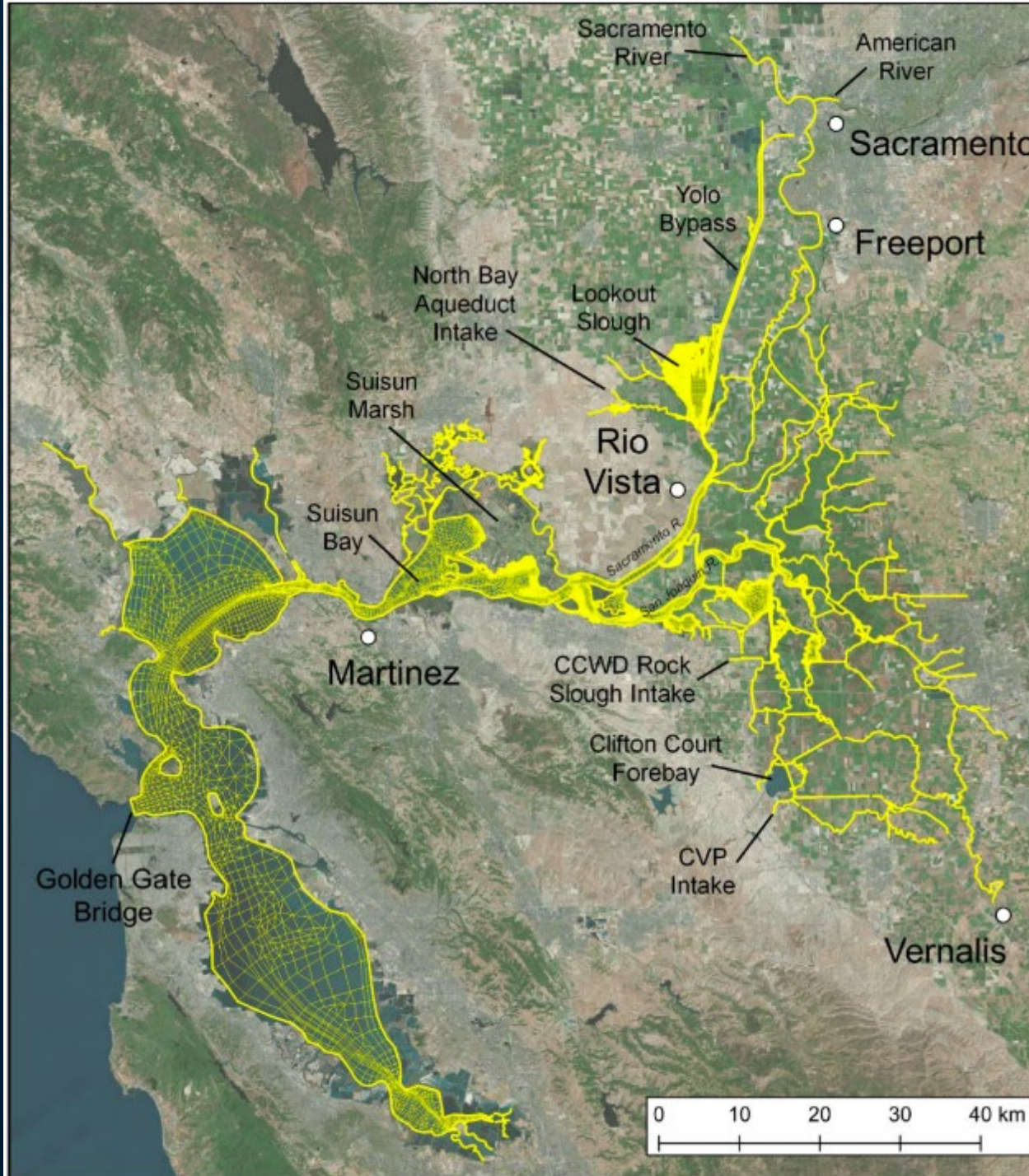
ER P2- Restore Habitat at Appropriate Elevations



G P1- Best Available Science

Project design incorporates input and studies by:



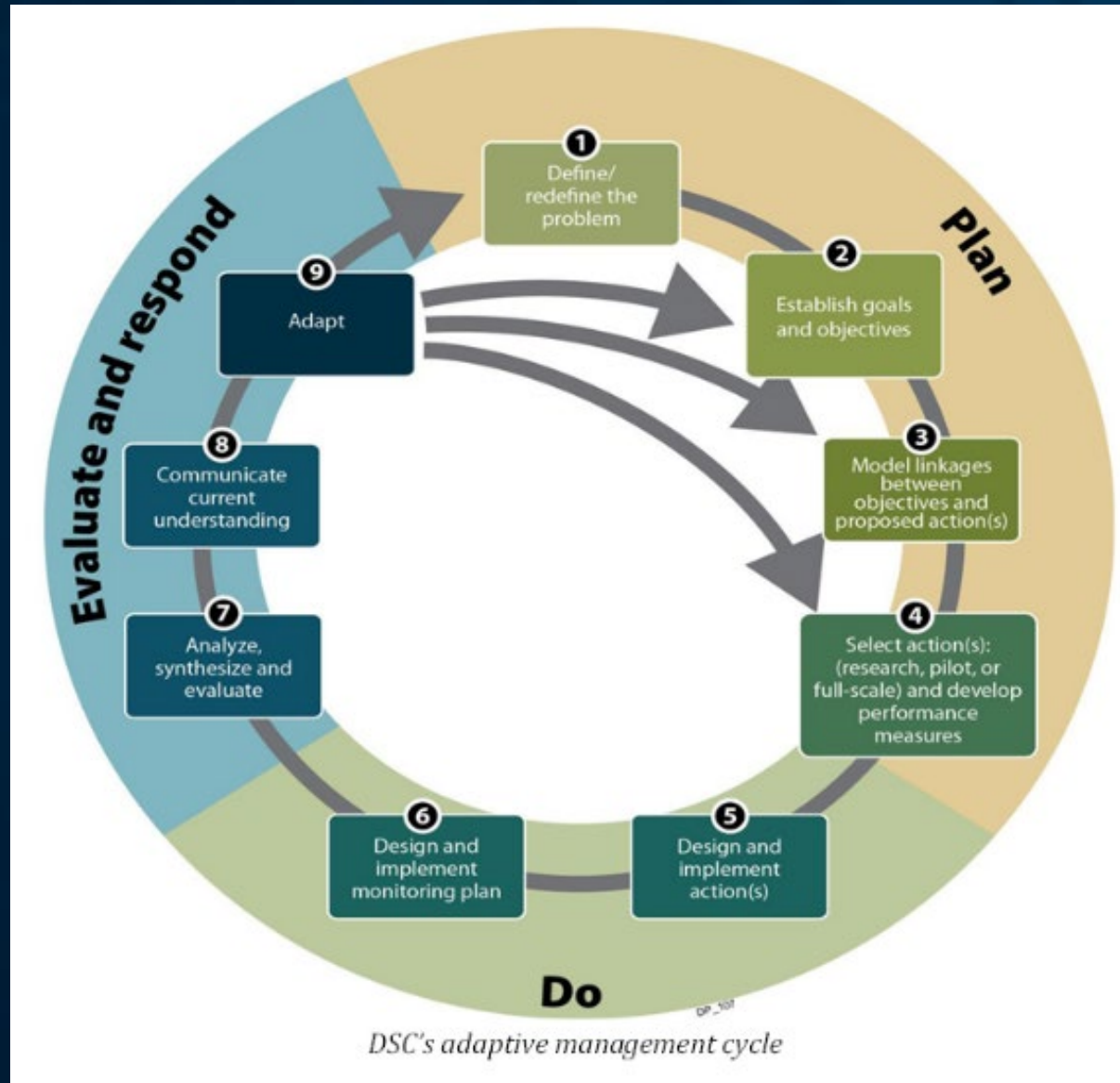


FEIR, Appendix X,
Figure 2. Extents of
RMA Bay-Delta
model for Project
Analysis

ER P5 - Invasive Species



G P1 - Adaptive Management



G P1 – Mitigation Measures

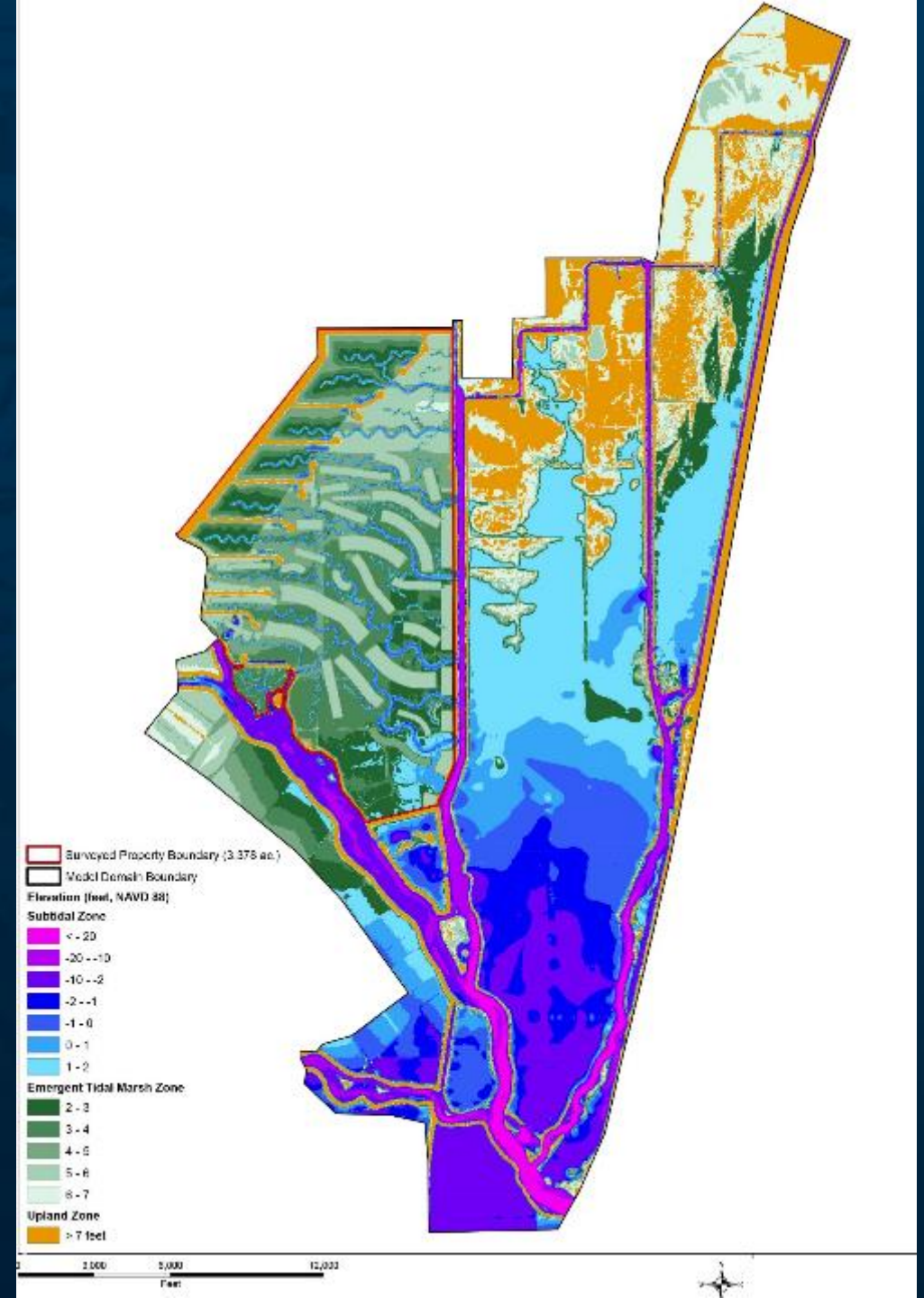


DEIR, Figure III-3, View 2 – Irrigated pasture of the Bowsbey Property during waterfowl migration





ER P1 - Delta Flow Objectives



RR P1 - State Investments in Delta Levees

