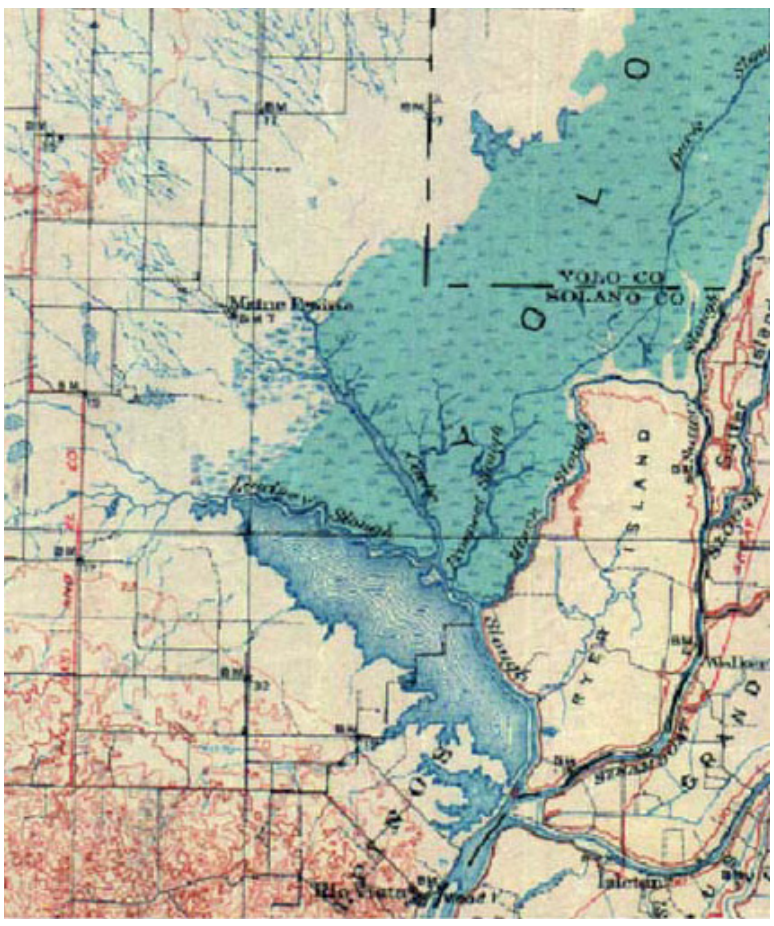
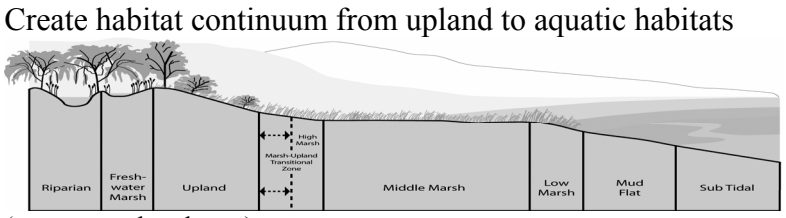
Historic Wetland Extent (circa 1903-1910; USGS)



Objectives

Create habitat continuum from upland to aquatic habitats



(www.vernalpools.org)

Restore dendritic slough channels for fish habitat

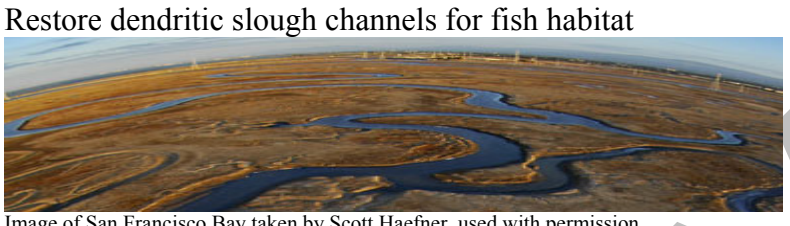
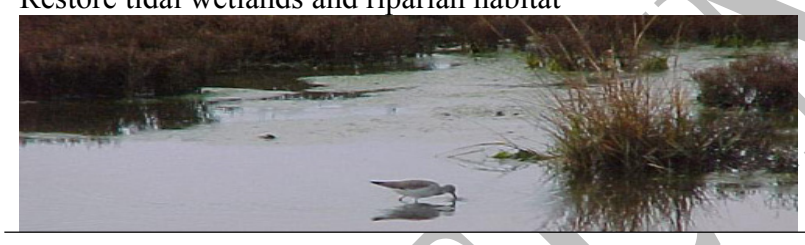
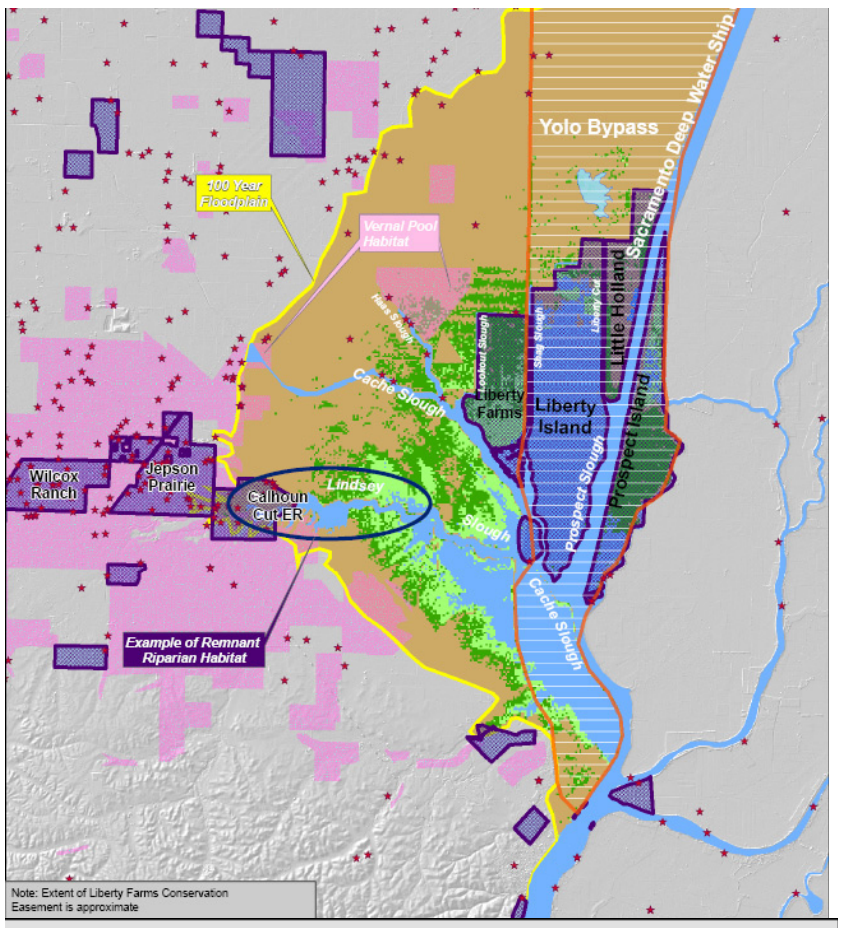


Image of San Francisco Bay taken by Scott Haefner, used with permission

Restore tidal wetlands and riparian habitat



Tidal Marsh Cache Slough Restoration Alternative



- The Cache Slough area includes high biodiversity and sensitive habitats including remnant riparian, vernal pools, and Yolo Bypass floodplain supporting 80 listed species.
- Preservation and restoration has begun through conservation easements and public lands (purple).
- This restoration alternative will re-establish historic habitat including tidal marsh, floodplain and open water.
- The following management plans were used in preparing the building block: Jepson Prairie-Prospect Island Corridor (Solano Land Trust); Bay Delta Conservation Plan (CALFED); Envisioning Futures (Public Policy Institute of California); North Delta National Wildlife Refuge (USFWS); Pacific Flyway (Pacific Flyway Council).

Restoration Objectives

- Connect uplands and wetland habitats
- Increase area of habitats supporting listed species, including delta smelt spawning and rearing habitat[1]

Analysis objective

- Provide the ecological impacts as a basis for stakeholder input to refine the restoration design

Benefits

- Creates large contiguous habitat including upland, vernal pools, floodplain, tidal marsh and aquatic habitat through connecting existing restored sites, increasing habitat value for 80 listed species
- Builds on success of multi-use floodplain in Yolo Bypass
- Reduces levee failure and maintenance
- Connects to existing conserved areas, increasing impact
- Restore and create full channel network to support delta smelt, juvenile Chinook salmon and steelhead, and other native plants and animals that benefit from tule marsh, riparian habitats and grazing land that border the sloughs
- High potential for restoration success due to relatively high tidal range, historical dendritic channel network, relatively minimal subsidence, and remnant riparian and vernal pool habitat

1 Office of the Governor of the State of California. (2007) Press Release: Gov. Schwarzenegger Directs Immediate Actions to Improve the Deteriorating Delta, California's Water Supply. 07/17/2007. GAAS:564:07

Analysis of Findings

- Creates and preserves habitat for 80 listed species
- Re-establishes ~32,900 acres of habitat
  - ~7,000 acres tidal marsh, establishes in > 4 yrs
  - ~3,900 acres tidal marsh, establishes in < 4 yrs
  - ~23,600 acres floodplain
  - ~10,300 acres open water
- Connects 12,000 acres of restored habitat as well as preserved remnant riparian and vernal pool habitat, increasing connected habitat 37% (total ~44,900 acres). In addition, connects 65,000 acres of Yolo Bypass floodplain during flooding.
- Achieves restoration objectives:
  - Re-establish complex channel and slough network
  - Increase seasonal wetland, marsh and riparian habitat
  - Increase protected area of vernal pool/perennial grasslands
  - Increase habitat to promote increased abundance and distribution of at risk and other native plant and animal species

Project Costs

Option 1—Purchase land = $921M

Option 2—Acquire conservation easement = $426M