

Restoration Objectives:

- Natural flooding
- River floodplain connectivity
- Channel migration
- Sediment deposition
- Foodweb productivity
- Habitats
- Special status species
- Limit exotics

McCormack-Williamson Tract Ecological Restoration

Draft Alternatives



Fluvial Maximum/ Minimum Control:

Specific Objective:
- Promote sedimentation

Riverine Sedimentation:

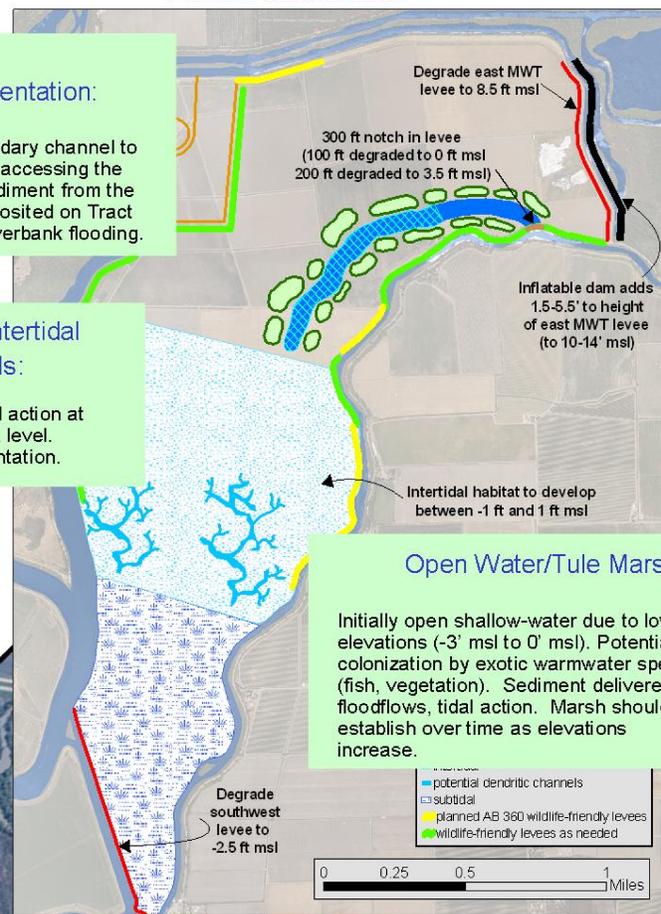
Increased via a secondary channel to the Mokelumne River accessing the Tract. Suspended sediment from the Mokelumne River deposited on Tract from more frequent overbank flooding.

Dendritic Intertidal Channels:

Establish through tidal action at elevations around sea level. Potential tidal sedimentation.

Open Water/Tule Marsh:

Initially open shallow-water due to low elevations (-3' msl to 0' msl). Potential for colonization by exotic warmwater species (fish, vegetation). Sediment delivered by floodflows, tidal action. Marsh should establish over time as elevations increase.



*Height of MWT east levee and inflatable dam to be refined by hydraulic modeling for annual flooding, high event conveyance and maximizing sediment capture

Fish Ecological Maximum/ Maximum Control:

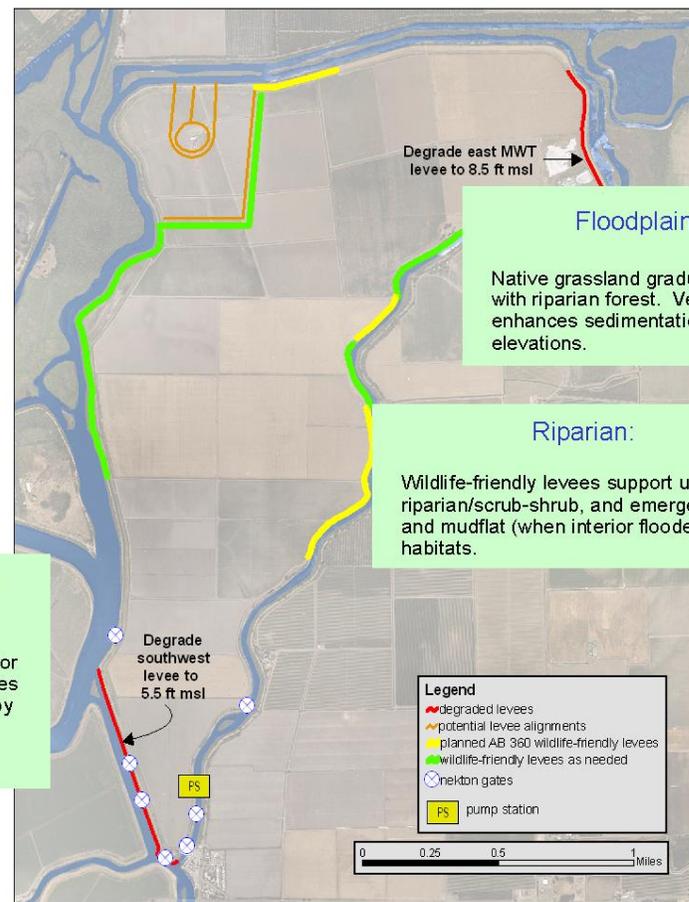
Specific Objective:
- Provide floodplain habitat for native fish

Floodplain:

Native grassland gradually colonized with riparian forest. Vegetation enhances sedimentation increasing elevations.

Riparian:

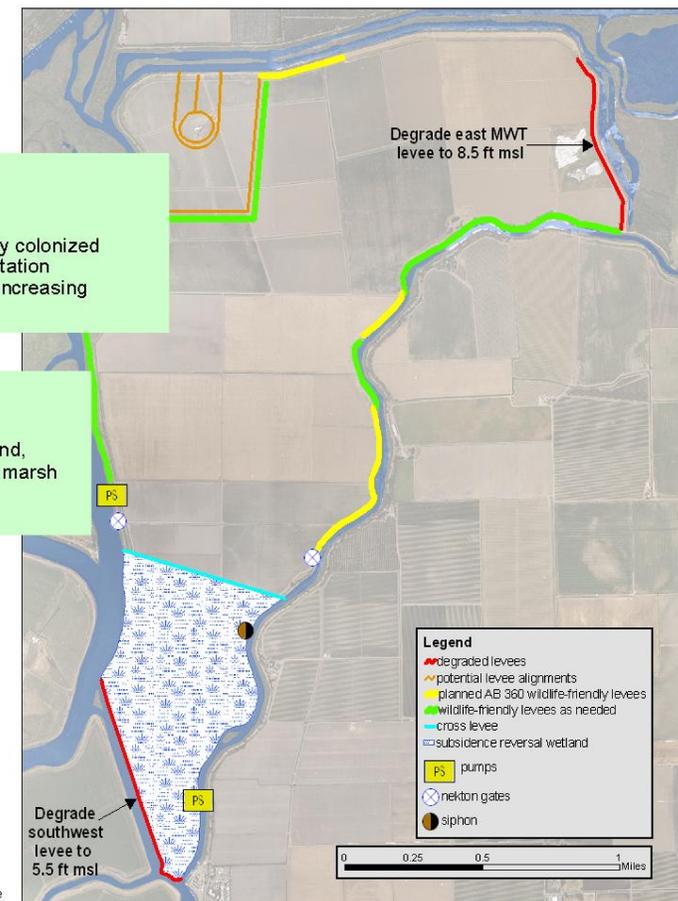
Wildlife-friendly levees support upland, riparian/scrub-shrub, and emergent marsh and mudflat (when interior flooded) habitats.



*Height of MWT east levee to be refined by hydraulic modeling for annual flooding and high event conveyance

Hybrid Floodplain/ Subsidence Reversal:

Specific Objective:
- Apply subsidence reversal techniques at a demonstration scale



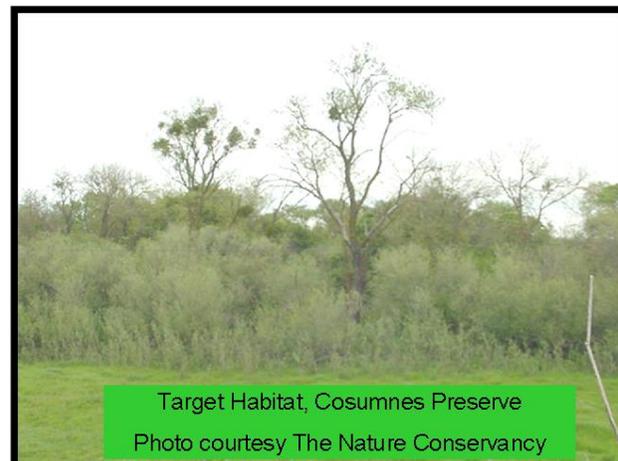
*Height of MWT east levee to be refined by hydraulic modeling for annual flooding and high event conveyance

Emergent Marsh/Subsidence Reversal Demonstration Project Wetland:

Emergent tule marsh promotes bioaccretion. Isolation and water control avoid shallow-water habitat which is associated with exotic species. Subsidence reversal will increase elevations to near sea-level (intertidal) elevations.

Flooded McCormack-Williamson Tract, 1986

Photos courtesy Dan Wilson



Target Habitat, Cosumnes Preserve
Photo courtesy The Nature Conservancy

Participation and Contact Information:

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