

Tule Red Tidal Restoration Project

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Current Projects

2016 / 2017

(Target Construction Start Dates)

1	Decker Island
2	Dutch Slough
3	Fremont Weir Adult Fish Passage Modification
4	Hill Slough
5	McCormack Williamson Tract
6	Tule Red
7	Wallace Weir Fish Rescue Facility

2018+

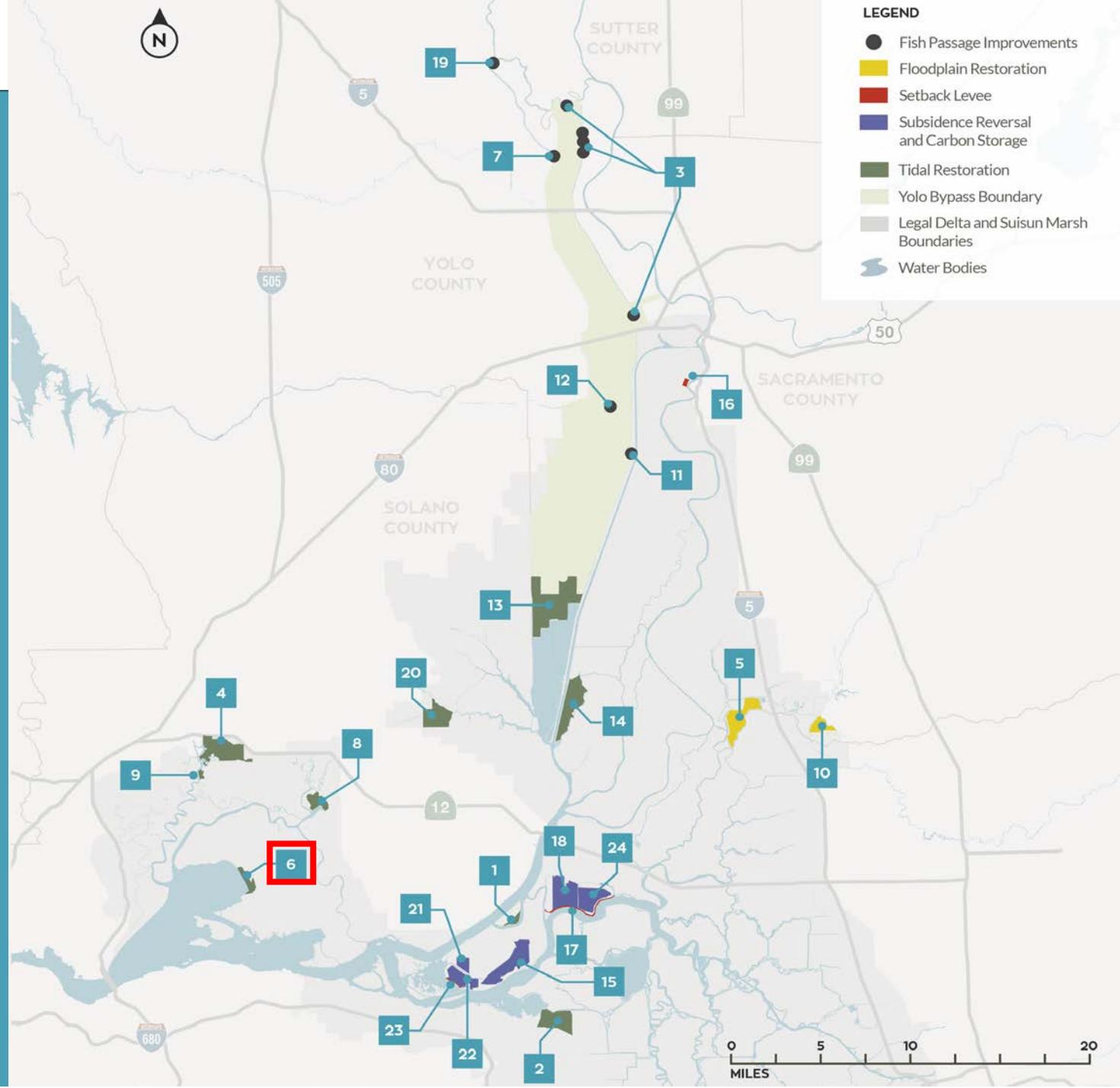
(Target Construction Start Dates)

8	Bradmoor Island
9	Goat Island
10	Grizzly Slough
11	Lisbon Weir
12	Lower Putah Creek Realignment
13	Lower Yolo Ranch
14	Prospect Island
15	Sherman Island: Whale's Belly
16	Southport Levee
17	Twitchell Island: Levee
18	Twitchell Island: West End

COMPLETED

(Construction Completed)

19	Knights Landing Outfall Gate
20	Lindsey Slough
21	Sherman Island: Mayberry Farms
22	Sherman Island: Whale's Mouth
23	Sherman Island: Mayberry Slough
24	Twitchell Island: East End



TIDAL WETLAND PROJECT PROGRESS

Restoration Site	Tidal Wetland (acres)	Construction Begins
Tule Red	600	2016
Dutch Slough*	660	2016/2017
Hill Slough*	750	2017
McCormack Williamson*	908	2016/2017
Decker Island	140	2017
Lower Yolo Ranch	1,600	2017
Bradmoor Island	280	2018
Prospect Island	1,500	2019
TOTAL	6,438	

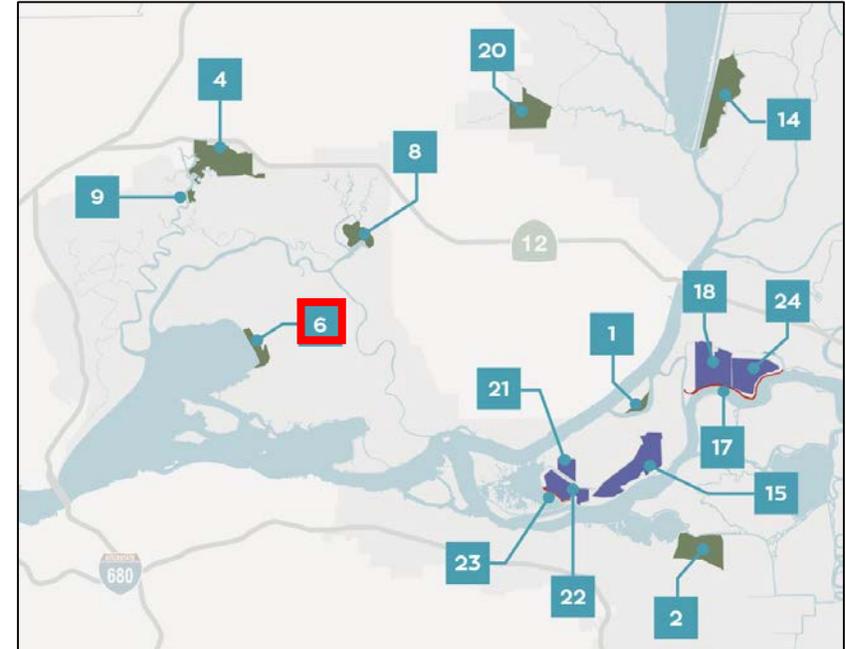
*Currently not BiOp projects



Tule Red Groundbreaking September 2016

TULE RED TIDAL RESTORATION

- Tidal Wetland
- Led by State and Federal Contractors Water Agency and Westervelt Ecological Services
- Located in Suisun Marsh
- Status: permitting complete, currently under construction

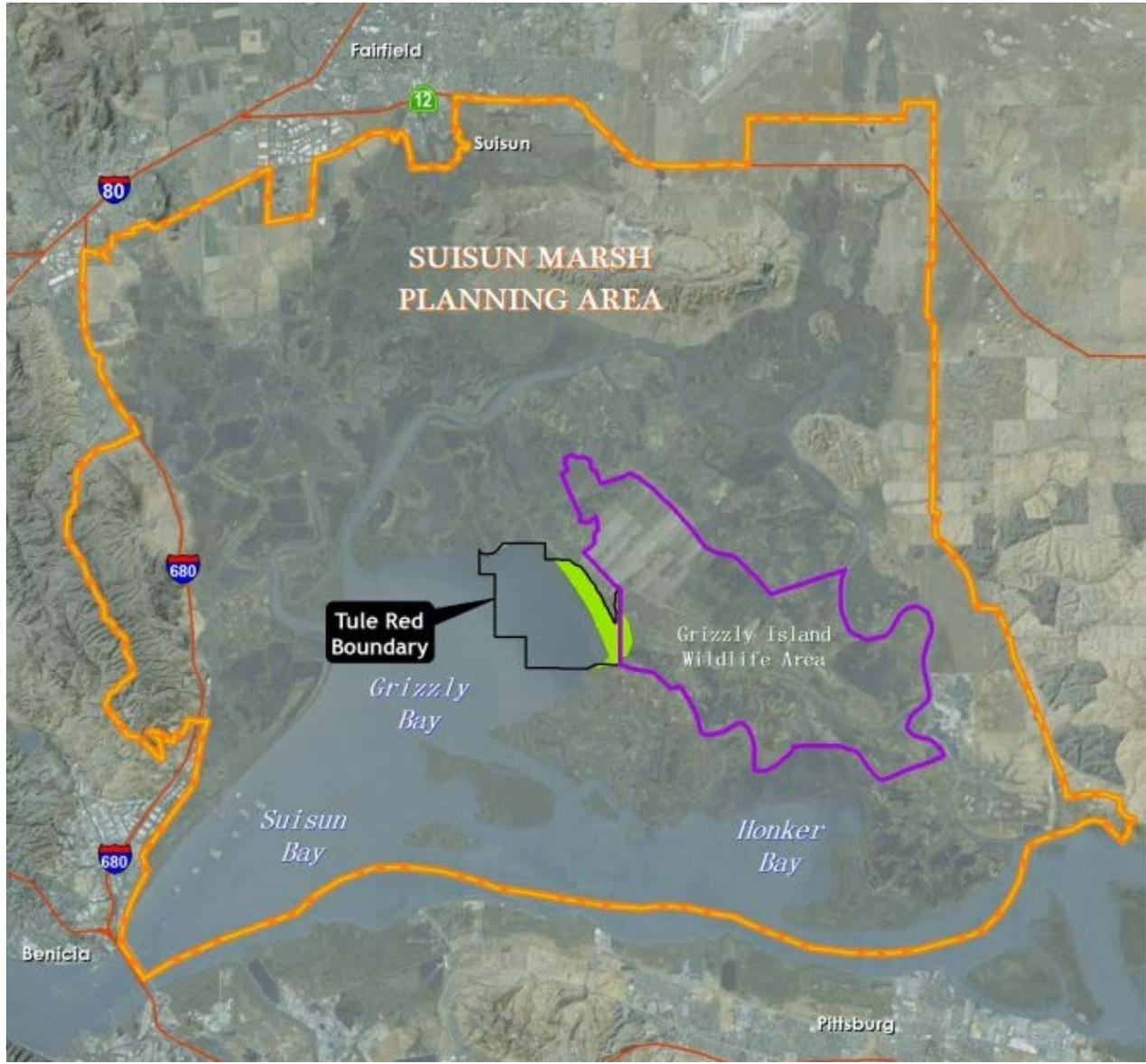


Additional Background

- 2,000 acre site owned by Westervelt Ecological Services under agreement with SFCWA
 - 420 acres of managed marsh
- Tidal restoration intended to partially fulfill:
 - 2008 USFWS BiOp → 8,000 acres of intertidal/subtidal restoration for Delta Smelt
 - 2009 NMFS BiOp → 17-20k acres of floodplain/rearing improvements for salmonids
 - 2009 CDFW ITP → 800 acres of tidal restoration for Longfin Smelt
- SFCWA-DWR Partnership
 - Design (WES, SFCWA, DWR)
 - Creditable acres (DWR)
 - Monitoring (WES, SFCWA, DWR, CDFW)
 - Land Management (CDFW)

Tule Red Project Goals and Objectives

- Increase food web primary production for fish
- Take advantage of existing topography and elevations
- Promote native and naturalized marsh vegetation
- Accommodate sea level rise
- Avoid impacts to neighboring properties.



RED

CA DFW



Restoration Alternative: North breach

DESIGN FEATURES:

Tidal Channels

Tidal Pannes

Habitat Berm

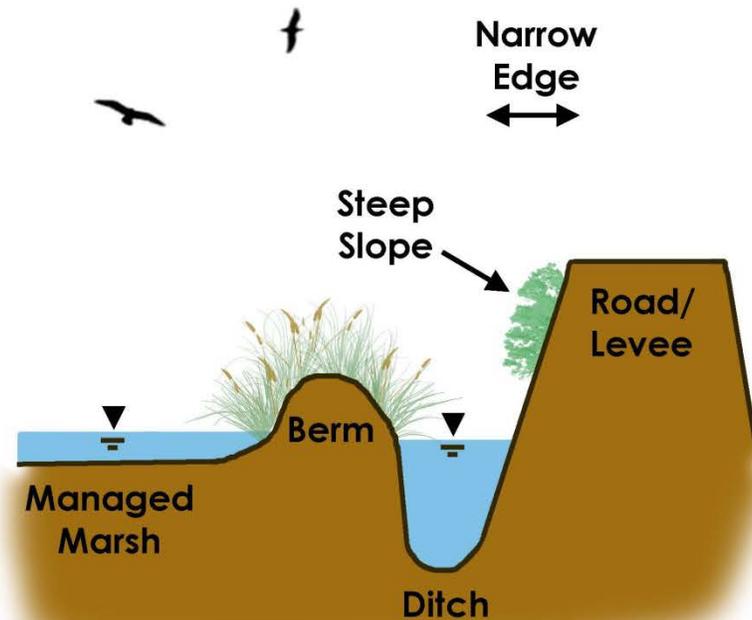
Tidal Ponds

FOR:

- Aquatic Food Web Contribution
- Delta and Longfin Smelt
- Listed salmonids
- Wetland-dependent terrestrial species



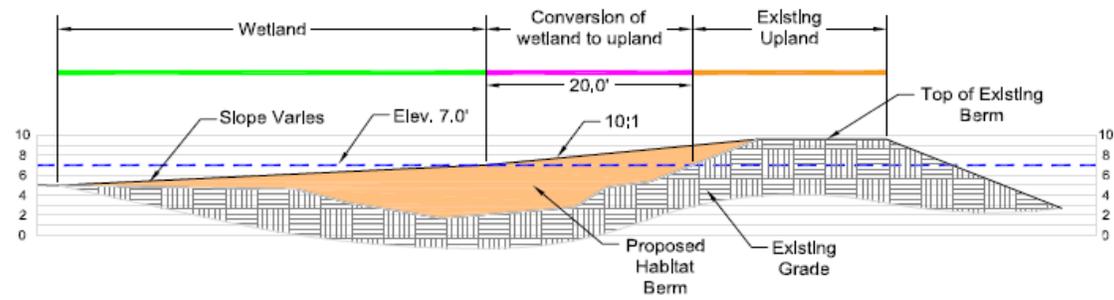
Existing Berm



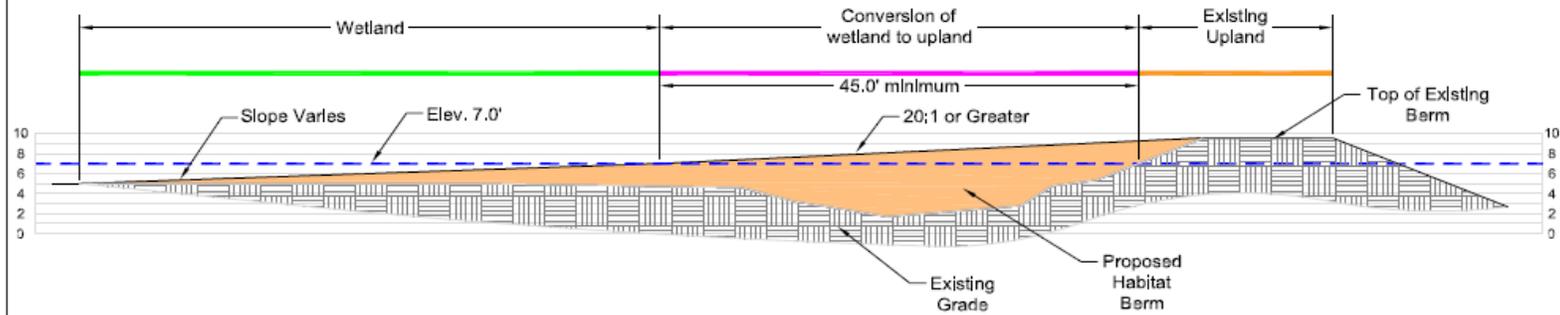
Existing



Proposed Habitat Berm: Variable Slope



10:1 - Proposed Habitat Berm



20:1 or Greater - Proposed Habitat Berm

Project Benefits

Existing Habitat



Restored Habitat

- Managed Marsh
 - Managed for wintering waterfowl
 - Static water level
 - Drained all summer for mowing, disking, and ditching
 - No regular hydrologic connection to fish habitat
 - Narrow ecotone for salt marsh harvest mouse refugia (5 ac.)
- Tidal Marsh
 - Daily tidal exchange
 - Food web support for listed fishes
 - Year-round waterfowl and shorebird use
 - No annual vegetation management
 - Gradually sloping habitat for salt marsh harvest mouse refugia (25 ac.)

Project Benefits



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Restored Habitat: Tidal Marsh

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- Daily tidal exchange
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