

10/14/09 online search of "Ryer Island" shows URS map of the OTHER Ryer Island, in Suisun Marsh area

Suisun Bay Region: Tidal Wetland Extent (circa 1770-1820)



■ Deep Bay
■ Shallow Bay
■ Bay Flats
■ Deep Major Channel
■ Shallow Major Channel
■ Old High-Elevation Tidal Marsh

(San Francisco Bay Delta Science Consortium, Data from SFEI EcoAtlas)

Planned, Completed & Targeted Suisun Marsh Tidal Wetland Restoration Projects



○ Total Restoration Projects
○ Management Zone Boundaries
○ Area Hows Must Use Level
○ City
○ Highway
○ Drainage Boundary
○ Urban Area
○ Water
○ County Boundary
○ Planned Project
○ Public Land
○ Completed Project

Note: Numbers refer to Zones 1 through 4.

Suisun Marsh

Area (acres)¹

- 102,053 acres Suisun Marsh total area
- 50,750 acres of managed marsh
- 7,624 acres of tidal wetland

Tidal Wetland Restoration Activities:

Areas restored to tidal wetland in Suisun Marsh include:

- Murphy #914, San Souci #901, Mastelotto #910, Taylor #801, Ryer Island, Peytonia Slough, Blacklock

Areas planned for tidal wetland restoration include:

- Hill Slough West, Meins Landing and the Montezuma Wetlands

The Suisun Marsh Habitat Management, Preservation Plan and Restoration, (in preparation), targets restoration of 2,000 to 9,000 acres of tidal marsh.

Restoration Criteria:

- Site elevations at or above mean sea level
- Sites in close proximity to or contiguous with adjacent upland transitional areas
- Site design will maintain existing levels of flood protection
- Current ownership not a selection criteria

Suisun Marsh Management Zones	Target Acreage for Tidal Restoration ¹	Total area in Zone
Zone 1	2,250	17,721
Zone 2	2,070	16,165
Zone 3	810	6,662
Zone 4	3,870	35,841
Total	9,000	102,053

¹Habitat Management, Preservation and Restoration Plan for Suisun Marsh. In preparation for the Suisun Marsh Charter Group.

The upper right figure identifies conceptual maximum area targeted for restoration using the criteria listed above.

About the Building Block:

Definition

- Managed wetlands and other diked lands would be converted to tidal wetlands and remaining wetlands would be enhanced.

Objective:

- Provide habitat for tidal marsh-dependent special status species and other native species.
- Take advantage of lower subsidence rates, higher elevations, and availability of adjacent upland transitional habitats to restore sustainable habitat continuum from tidal marsh to upland habitat.
- Minimize salinity effects on the Delta from tidal restoration.
- Enhance remaining managed wetlands through structural levee improvements and water circulation improvements, including replacement/repair of tide gates and installation of fish screens.

Benefits

- Provide additional rearing habitat for delta smelt (*Hypomesus transpacificus*)
- Mitigation of potential impacts of levee failures associated with floods, subsidence, sea level rise, and seismic events.
- Habitat restoration and revegetation would occur relatively quickly compared with many western Delta islands because of existing elevations.

Additional consequences

- Change in habitat from managed wetland to tidal marsh may affect waterfowl species.

Major Cost Components

- Restoration construction: breaching and re-alignment of flood protection levees.
- Levee enhancement
- Gate replacement and fish screen installation
- Total project cost = \$1.2B