

**California State Wildlife Action Plan (SWAP) 2015**

**San Francisco Bay Delta Conservation Unit  
 Salt Marsh Habitat**

**About our conservation unit** The San Francisco Bay-Delta Estuary is the largest estuary on the west coasts of North and South America providing drinking water for 25 million Californians, irrigation water for 4.5 million acres of farm land, and habitats for more than 750 species of plants, fish, and wildlife. Tides bring water from the Pacific Ocean through the Golden Gate Strait into the estuary while California’s two largest rivers, the Sacramento and San Joaquin, contribute the greatest amount of freshwater to the estuary. Two-thirds of the State’s salmon pass through estuary, and at least half of the Pacific Flyway migratory water birds rely on the wetlands, mudflats, and shoreline areas in the estuary.

**What are the sensitive species found in the salt marsh habitat?** The following 27 salt marsh dependent species from this region are found to be sensitive:

**Bird [12]**

- |                           |                                   |
|---------------------------|-----------------------------------|
| ALAMEDA SONG SPARROW      | NORTHERN HARRIER                  |
| AMERICAN WHITE PELICAN    | SALTMARSH COMMON YELLOWTHROAT     |
| BLACK SKIMMER             | SAN FRANCISCO COMMON YELLOWTHROAT |
| BRANT                     | SAN PABLO SONG SPARROW            |
| BRYANT'S SAVANNAH SPARROW | SHORT-EARED OWL                   |
| CALIFORNIA BLACK RAIL     | SUISUN SONG SPARROW               |
| CALIFORNIA CLAPPER RAIL   | TRICOLORED BLACKBIRD              |
| CALIFORNIA LEAST TERN     | TULE-GREATER WHITE-FRONTED GOOSE  |
| LEAST BITTERN             | WESTERN SNOWY PLOVER              |
| LOGGERHEAD SHRIKE         | WHITE TAILED KITE                 |
| LONG-EARED OWL            | YELLOW-HEADED BLACKBIRD           |

**Mammal [4]**

- |                          |                            |
|--------------------------|----------------------------|
| SAN PABLO VOLE           | SALT-MARSH WANDERING SHREW |
| SALT-MARSH HARVEST MOUSE | SUISUN SHREW               |

**Fish [11]**

- |                 |                      |
|-----------------|----------------------|
| CHINOOK SALMON  | STEELHEAD            |
| DELTA SMELT     | SACRAMENTO SPLITTAIL |
| GREEN STURGEON  | TIDEWATER GOBY       |
| LONGFIN SMELT   | TULE PERCH           |
| PACIFIC LAMPREY | WHITE STURGEON       |
| RIVER LAMPREY   |                      |

**What do we find important for recovering and sustaining healthy salt marsh habitat?**

Ecological conditions that are found to be most critical to sustain healthy salt marsh habitat in this region are:

- Area and extent
- Connectivity
- Community structure and composition
- Biotic interactions
- Productivity
- Hydrological regime
- Climate related factors

Degraded ecological conditions that are found to be impacting the salt marsh habitat in this region are:

- Change in snowpack
- Change in air temperature
- Change in runoff and river flow
- Change in snow cover period
- Sea level rise
- Change in frequency or intensity of extreme events
- Change in spatial extent of community
- Fragmentation
- Change in community structure or composition
- Change in biotic interactions
- Change in successional processes and ecosystem development
- Change in flood occurrence frequency
- Change in water levels and hydrology
- Change in sediment erosion deposition regime
- Pollutants

Human related activities and issues that are found to be sources of potential impacts to the salt marsh habitat are:

- Annual and perennial crops
- Commercial & industrial areas
- Dams & water management/use
- Greenhouse gas emissions
- Housing and urban areas
- Illegal fishing & harvesting
- Illegal hunting & collecting
- Invasive plants/animals
- Inappropriate livestock grazing
- Marine & freshwater aquaculture
- Recreational activities
- Renewable energy development and operations
- Roads & railroads
- Shipping lanes
- Tourism & recreation areas
- Utility & service lines

### **More questions?**

1. Come talk to us and ask questions at scoping meetings!
2. Check our Website: <http://www.dfg.ca.gov/SWAP/>
3. Provide written comments

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