CALIFORNIA DEPARTMENT OF

GOALS

- 1. By 2025, improve or maintain water and sediment quality and quantity conditions that fully support healthy and diverse aquatic ecosystems...
- 2. By 2025, maintain, restore, and anticipate accommodation space for future salt marsh development.
- 3. By 2025, maintain and improve biotic diversity including genetic, species, and structural diversity of native species in salt-marsh habitats.
- 4. By 2025, improve salt-marsh habitat structure, function, and composition by reducing the impact and spread of invasive species.
- 5. By 2025, maximize opportunities and planning for tidal marsh upland trangression on adjacent lands.
- 6. By 2025, increase resiliency of salt-marsh habitat by providing high-tide refugia for sensitive species.
- 7. By 2025, flow objectives are met consistent with the Bay-Delta Water Quality Control Plan requirements.
- 8. By 2025, improve water quality by meeting Total Maximum Daily Load requirements for organic and inorganic pollutants.



California State Wildlife Action Plan Update 2015 San Francisco Bay Delta Conservation Unit DRAFT STRATEGY: Salt Marsh Habitat

The State Wildlife Action Plan examines the health of wildlife and prescribes actions to conserve wildlife and vital habitat before they become more rare and more costly to protect. The plan also promotes wildlife conservation while furthering responsible development and addressing the needs of a growing human population.

SENSITIVE SPECIES

Alameda song sparrow American white pelican **Black skimmer** Brant Bryant's savannah sparrow California black rail California clapper rail California least tern Least bittern Loggerhead shrike Long-eared owl Northern harrier Saltmarsh common yellowthroat Salt-marsh harvest mouse Salt-marsh wandering shrew San Francisco common yellowthroat San Pablo song sparrow San Pablo vole Short-eared owl Suisun shrew Suisun song sparrow Tricolored blackbird Tule-greater white-fronted goose Western snowy plover White-tailed kite Yellow-headed blackbird

Fish List: Delta smelt Sacramento split-tail Tidewater goby Tule perch





Northern harrier © 1999 Chris Green



Greater white-fronted goose © 2013 Ron Wolf



Black-headed blackbird. Glenn and Martha Vargas © California Academy of Sciences





Tule perch © 2011 Rob Schell

ENVIRONMENTAL STRESSES

Change in snowpack

Change in air temperature

Change in runoff and river flow

Change in pollutants

Change in snow cover period

Change in sea level rise

Change in sediment erosiondeposition regime

Change in spatial extent of community

Change in community structure or composition

Change in frequency or intensity of extreme events

Change in biotic interactions

Change in successional processes and ecosystem development

Change in flood occurrence frequency

Change in water levels and hydrology

Water pollutants



<u>Name</u> Junko Hoshi **Christina Sloop** Eric Wilkins Kristal Davis-Fadtke Greg Yarris Daniel Burmester Mike Brown Terry Tillman L Gustafson Tim Dodson

TEAM

<u>Organization</u> CDFW-HCPB San Francisco Bay Joint Venture CDFW-R7 Delta Conservancy Central Valley Joint Venture CDFW-WB CDFW-FB CDFW-R7 CDFW-BDB CDFW-R3











HUMAN RELATED IMPACTS

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

Roads & railroads

Shipping lanes

Tourism & recreation areas

Utility & service lines

. Partner for joint advocacy

iii.Solicit additional funding through grants or political advocacy b. Activities

a. Objectives

b. Activities

<u>Roles</u> Team Member Team Membei Team Member Team Member Team Member Team Member Team Member Team Leader Team Member Team Leader





STRATEGIES, OBJECTIVES AND ACTIVITIES

a. Objectives

- i. Create high-level multi-agency/Non-governmental organization (NGO) partnership to coordinate conservation actions
- ii. Through partnerships, enhance political awareness of need to conserve salt-marsh habitat in San Francisco Bay Delta Conservation Unit
- i. Coordinate with umbrella agencies/groups in San Francisco Bay Delta Conservation Unit
- ii. Advocate science based decisions and process
- 2. Integrated Resource Management
 - i. Coordinate and integrate ongoing management activities
 - ii. Enhance working landscapes to benefit fish and wildlife
 - b. Activities
 - i. Create common set of biological/ecological indicators
 - ii. Develop common methods/priorities for habitat restoration and management
- 3. Advocate for Laws and Policies
 - a. Objectives
 - i. Influence land use policies to reduce impacts on salt-marsh habitat
 - ii. Streamlining permit process for restoration
 - iii.Enhance law enforcement capacity
 - i. Make recommendations to enhance enforcement of existing laws and regulations
 - ii. Develop legislative and regulatory proposals for streamlining
 - permit process

4. Control invasive species

- a. Objectives
- i. Coordinate update and implementation of landscape level invasive species monitor and control plan

b. Activities

i. Monitor invasives and continue removal efforts as needed to keep populations in check

5. Conduct research (data management)

a. Objectives

- i. Coordinate research efforts and data sharing
- ii. Identify and prioritize data gaps for future investigation/research b. Activities
- i. Create central repository for data, research tracking, and
- coordination
- ii. Evaluate and prioritize existing long-term baseline data gathering efforts
- 6. Education & Outreach
 - a. Objectives
 - i. Educate local agencies and the public on the biological values of the San Francisco Bay Delta Conservation Unit
 - ii. habitats and the existing threats affecting fish and wildlife.
 - b. Activities
 - i. Participate in existing partnerships for developing education and
- outreach strategy for San Francisco Bay Delta Conservation Unit 7. Acquire, restore and protect salt marsh
 - a. Objectives
 - i. Within 10 years Restore 10,000 acres salt-marsh habitat
 - ii. Acquire, protect, enhance salt marsh habitat in the San Francisco Bay Delta Conservation Unit
 - iii.Support Delta Conservancy to establish priority for restoration in San Francisco Bay Delta Conservation Unit