State Wildlife Action Plan
2015 Update

South Coast Marine Conservation Unit
Bays, Estuaries, and Lagoons

Debbie Aseltine-Neilson, CDFW
October 15 & 16, 2013
Marine Region:

- North Coast
- N-C Coast
- Central Coast
- South Coast
Marine Region

Broad Ecosystems:
• Bays, Estuaries, & Lagoons
• Intertidal (rocky, beaches)
• Nearshore Zone (0-30 m)
• Mid-Depth Zone (30-100 m)
• Deep Zone (>100 m)
Marine Region

- Bays, Estuaries, & Lagoons
- Intertidal (rocky, beaches)
- Nearshore Zone (0-30 m)
Marine Region

• Bays, Estuaries, & Lagoons
South Coast Marine Region, Bays, Estuaries, and Lagoons
Bays, Estuaries, and Lagoons

Tijuana River Estuary/ Tijuana River National Estuarine Research Reserve

San Diego Bay

Los Peñasquitos Lagoon. Tim Dillingham, CDFW
Why Are Bays, Estuaries, & Lagoons Important?

Herring spawn event. Ryan Bartling, CDFW
Why Are Bays, Estuaries, & Lagoons Important?

Tim Dillingham, CDFW
Why Are Bays, Estuaries, & Lagoons Important?

Seagrass Beds, Morro Bay. Kirsten Ramey, CDFW
Why Are Bays, Estuaries, & Lagoons Important?

Los Peñasquitos Lagoon. Tim Dillingham, CDFW
Bays, Estuaries, and Lagoons

Key Attributes
• Surface water flow regime
• Freshwater input – water quality

Stressors
• Changes in freshwater input
• Changes in quality of freshwater input

San Luis Rey River. Tim Dillingham, CDFW
Bays, Estuaries, and Lagoons

Key Attributes
• Area/extent
• Circulation
• Connectivity

Stressors
• Reduction in area
• Changes in circulation patterns
• Change/loss in connectivity
• Altered tidal mixing

Batiquitos Lagoon. Tim Dillingham, CDFW
Bays, Estuaries, and Lagoons

Key Attributes
- Water quality
- Quality of sediments
- Biogenic habitat

Stressors
- Decrease in quality of water and sediments within water bodies
- Decrease in seagrass (eelgrass) beds
Bays, Estuaries, and Lagoons

Key Attributes
• Biotic assemblages
• Biotic interactions

Stressors
• Decrease in native species populations including shorebirds and bivalves
Species of Interest

Tidewater Goby. Mike Wallace, CDFW

California Least Terns & Black Skimmer. Robin Madrid, CDFW

Light-footed Clapper Rail. Robin Madrid, CDFW
Species of Interest

Seagrasses. Kirsten Ramey, CDFW

Native Oysters. Kirsten Ramey, CDFW
Species of Interest

California Halibut. Travis Tanaka, CDFW

Soupfin Shark, Ed Roberts., CDFW
Human-related Activities

- Shoreline Development
- Urban Runoff
- Diversion/Control of Freshwater
- Agricultural Runoff

Aqua Hedionda Lagoon. Tim Dillingham, CDFW

San Luis Rey River. Tim Dillingham, CDFW
Human-related Activities

- Hazardous Spills
- Invasive Species

Batiquitos Lagoon. Tim Dillingham, CDFW

Calerpa. Bill Paznokas, CDFW
Human-related Activities

• Modification of Mouth/Channels

Buena Vista Lagoon. Tim Dillingham, CDFW

Batiquitos Lagoon. CDFW Archived Photo
Human-related Activities

- Climate Change and Ocean Acidification

B. McVeigh, CDFW

Humboldt Bay. Annie Eicher
Strategies

• Improve engagement in decision-making process
  • Reviewing documents
  • Participating in meetings
  • Collaborating on projects
  • Coordinating management of habitats at the ocean-land interface

• Advocate for policies and practices that minimize impacts on shorelines and wetlands

Upper Newport Bay. Robin Madrid, CDFW
Strategies

• Improve rapid response capabilities to events that degrade target
• Support development, implementation, and enforcement of effective regulations
• Expand education and outreach activities

Upper Newport Bay. Robin Madrid, CDFW
Strategies

- Expand restoration activities
- Support monitoring activities and maintenance, compilation, and integration of data for management
- Encourage research that provides information for management
- Incorporate assessment of marine resource vulnerability to climate change and ocean acidification into management

San Dieguito Lagoon. Tim Dillingham, CDFW
Funding

• Fish and Game Preservation Fund
• Project mitigation funds