State Wildlife Action Plan (SWAP) 2015
North-Central Coast Marine Conservation Unit
Bays, Estuaries, and Lagoons

About Our Region and Bays, Estuaries, and Lagoons

The marine region spans the length of the state and extends from the highest tidal zones out three miles seaward to the State’s jurisdictional limit. It includes over 1,100 miles of coastline and encompasses a diverse array of habitats within its coastal waters and the water bodies that interface between the land and ocean. These habitats include rocky subtidal reefs, sandy beaches, rocky intertidal, beach strands, and estuaries.

The marine region can be subdivided into four conservation units that follow divisions in water movement or community assemblages. The boundaries of these smaller units occur along the coast at: Point Arena, Pigeon Point, and Point Conception. Broad ecosystem categories are present within each of these smaller units: 1) Bays, Estuaries and Lagoons; 2) Intertidal Zone; 3) Nearshore Zone (0-30m); 4) Mid Depth Zone (30-100m); and 5) Deep Zone (>100m). The first three of these focal conservation ecosystems (targets) are considered the most critical for strategic planning and therefore are addressed within this State Wildlife Action Plan update process.

This fact sheet covers Bays, Estuaries, and Lagoons, and defines it as: bay surface area at high tide, bay islands, estuarine habitats, tidelands, tidal marshes, and submerged habitats.

What are the species of interest found in bays, estuaries, and lagoons? Some of the species of interest are:

<table>
<thead>
<tr>
<th>Plants</th>
<th>Invertebrates</th>
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</thead>
<tbody>
<tr>
<td>SEAGRASSES</td>
<td>NATIVE BIVALVES</td>
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<tr>
<td></td>
<td>DUNGENESS CRAB</td>
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<table>
<thead>
<tr>
<th>Fishes</th>
<th>Birds</th>
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<tbody>
<tr>
<td>LONGFIN SMELT</td>
<td>BROWN PELICAN</td>
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<tr>
<td>TIDEWATER GOBY</td>
<td>CALIFORNIA CLAPPER RAIL</td>
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<tr>
<td>EULACHON</td>
<td>BLACK RAIL</td>
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<tr>
<td>COHO AND CHINOOK SALMON</td>
<td>CALIFORNIA LEAST TERN</td>
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<td>GREEN STURGEON</td>
<td>SNOWY PLOVER</td>
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<tr>
<td>SEVENGILL SHARK</td>
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<tr>
<td>CALIFORNIA HALIBUT</td>
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</tbody>
</table>
What do we find important for recovering and sustaining healthy bays, estuaries, and lagoons? The ecological conditions that are most critical for sustaining healthy bays, estuaries, and lagoons are:

- Area and extent
- Biotic assemblages
- Biotic interactions
- Biogenic habitat
- Surface water flow regime
- Freshwater input – water quality
- Circulation and connectivity of water body
- Water quality of water body
- Sediment quality of water body

Degraded ecological conditions that are found to be impacting the bays, estuaries, and lagoons are:

- Reduction in area
- Decrease in native species populations, including shorebirds and bivalves
- Decrease in seagrass (eelgrass) beds
- Altered sediment deposition
- Changes in freshwater input
- Decrease in quality of freshwater input
- Change in circulation pattern
- Altered tidal mixing
- Change or loss in connectivity
- Decrease in quality of water and sediments within water bodies

Human related activities that are found to be sources of potential impacts to the bays, estuaries, and lagoons are:

- Climate change & ocean acidification
- Shoreline development
- Diversion/control of freshwater
- Agricultural runoff
- Point discharges
- Hazardous spills
- Modification of mouth/channels
- Invasive species
- Urban runoff
- Pathogens

What are we trying to achieve through SWAP 2015 for this habitat? Through our conservation actions, we are aiming to improve the health of the bays, estuaries, and lagoons, and as a consequence, the health of the species populations that depend upon them.

More questions?

1. Come talk to us and ask questions at scoping meetings!
2. Check our Website: [http://www.dfg.ca.gov/SWAP/](http://www.dfg.ca.gov/SWAP/)
3. Provide written comments
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   - By mail: Armand Gonzales
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