OWEB Focused Investment Partnership Priority
ESTUARY HABITATS

Summary Statement of Priority

The OWEB Board will consider proposals for investment in **estuary habitats** for Initiatives that address habitat conservation and restoration needs to achieve ecological outcomes over time at the landscape scale, which will restore and protect ecologically meaningful areas.

OWEB's Focused Investment Priority for estuary habitats guides voluntary actions that address primary limiting factors related to the quality of this habitat type. These actions also support and/or improve watershed functions and processes to benefit fish and wildlife that depend on estuary habitats. **Actions will be guided by the habitat, limiting factors, ecological outcomes, and conservation approaches outlined in Oregon's State Wildlife Action Plan and other plans listed at the end of this document.**

Background

Where it occurs

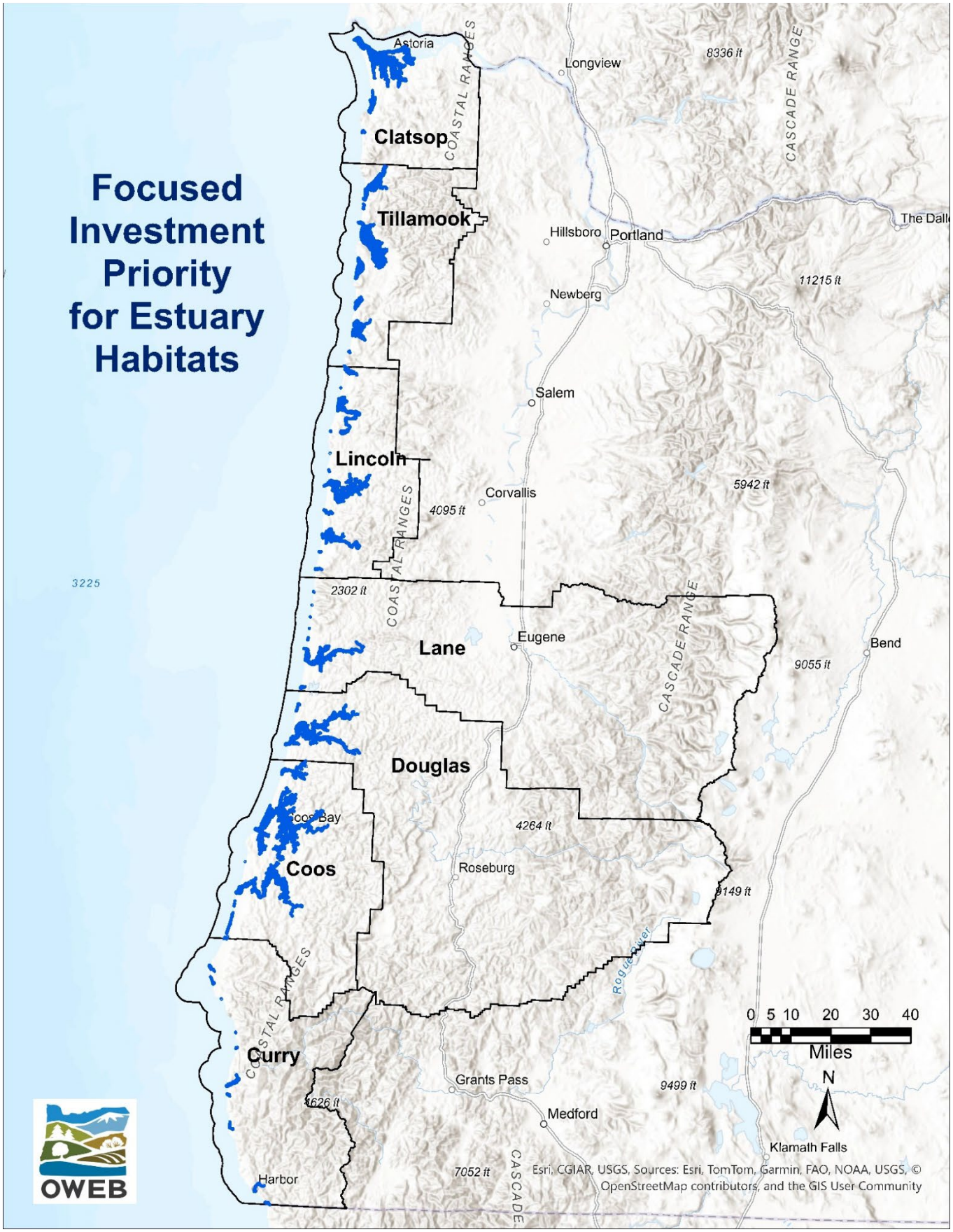
Estuaries exist at the confluence of freshwater rivers and the ocean. Estuarine habitat at these confluences is determined by the extent of tidal influence on these freshwater rivers (see map). Estuarine tidal basins typically include a marine-dominated zone, a mixing zone, and a brackish-to-fresh zone that can extend many miles inland away from the ocean. Estuary habitats experience regular fluctuations in salinity, water levels, sunlight, and oxygen.

The spatial extent of Oregon estuaries and tidal wetlands has been significantly reduced over the past 150 years due to human development and agriculture. The greatest losses of historic estuarine habitat have occurred within low-lying estuarine tidal basins. Anthropogenic alterations to habitat and natural hydrologic processes, including diking, tide gates, dredging, and channelization, among other impacts, have contributed to estuarine habitat losses and impairments, including large expanses of historic forested tidal wetlands (>90%), substantial saltwater and freshwater marshes, and other tidal wetlands (ODFW, 2026).

Indicator species and/or species of interest supported by this habitat

Oregon estuaries provide a diversity of complex, productive habitat that is critical for many species of fish and wildlife, including salmon, rockfish, crab, shrimp, invertebrates, marine mammals, and birds. Estuaries provide critical breeding and nursery areas for rockfish, lingcod, and greenling, as well as rearing grounds for juvenile coho, Chinook, and chum salmon. Oregon estuaries support some component of the life cycle for up to three-quarters of all harvested fish species (ODFW, 2026), largely due to the high productivity and diversity of habitats, including those provided by eelgrass beds. Native eelgrass is an important component of an estuary, providing habitat for Species of Greatest Conservation Need and other species of interest, including Black Brant, Dungeness crab, black rockfish, copper rockfish, and kelp greenling.

Figure 1: Map of Focused Investment Priority areas for Estuary Habitats



The map above displays priority areas for Estuary Habitats along the Oregon coast to the coastal range in Clatsop, Tillamook, Lincoln, Lane, Douglas, Coos, and Curry Counties.

Why it is significant to the state

Oregon's Statewide Planning Goal 16 seeks to recognize and protect the unique environmental, economic, and social values of estuaries and their associated wetlands and (where appropriate) to protect, maintain, and restore the long-term environmental, economic, and social values, diversity, and benefits of Oregon's estuaries. The Lower Columbia River estuary and Tillamook Bay estuary are each designated as an "estuary of national significance" by the U.S. Environmental Protection Agency (two of 28 National Estuary Programs managed under the Clean Water Act). Many Oregon estuaries have Total Maximum Daily Loads developed for water quality in these habitats, as estuaries play an important role in filtering sediment, nutrients, pathogens, and other contaminants from aquatic environments.

Estuary habitats are integral to the existence and success of various Endangered Species Act-listed fish and wildlife species. Numerous species are dependent upon estuary habitats because they are adapted to the unique habitat conditions that estuaries provide. Estuaries are of cultural significance to Native American tribes and also provide critical services for the people of Oregon. Healthy estuaries help store carbon, mitigate ocean acidification, and buffer storm wave damage to stabilize shorelines from erosion and protect coastal communities from increased storms and floods.

Key limiting factors and/or ecological threats, with a focus on ecosystem function and process

- Increasing development and land-use conversions;
- Alteration of natural hydrological processes and streamflow, including limited salt- and fresh-water exchange due to such issues as tide gates;
- Water-quality degradation (including increased bacterial loads; decreased dissolved oxygen; and toxic contaminants from industry, agriculture, and urban development)
- Loss of habitat complexity and connectivity degrades tidal areas;
- Invasive aquatic plant and animal species;
- Impacts of climate change (e.g., sea-level rise, increased acidification);
- Nutrient cycling and sediment transport;
- Landscape-scale disturbance, including wildfire, landslides, flooding or similar events may occur within the FIP geography. Post-disturbance restoration actions addressing landscape-scale disturbance may be eligible FIP actions; and
- Loss of wildlife habitat connectivity. Many species rely on the ability to move throughout the landscape to fulfill their daily and seasonal needs for access to food, shelter, and opportunities to reproduce. ODFW produced Priority Wildlife Connectivity Areas (PWCAs) maps to show where habitat connectivity is most important. Fifty-four species were selected for the project as surrogates, representing a variety of taxa, movement types, dispersal capabilities, and sensitivity to anthropogenic threats. FIP Initiatives may include actions enhancing PWCAs within the geographic boundary of their FIP Initiative.

Reference plans

1) Oregon State Wildlife Action Plan

2) NOAA Fisheries Columbia River Estuary ESA Recovery Plan Module for Salmon and Steelhead, 2011

3) ODFW Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead

4) Oregon Coastal Multi-Species Conservation and Management Plan, 2014