



Assessing Estuarine and Shoreland Use and Zoning for the Coos Bay Estuary

Overview

The Coos Bay estuary is one of Oregon's most important ecological resources, valued by surrounding communities for its abundant, diverse natural resources and economic and cultural significance. However, modern management of the estuary and its surrounding shorelands is based on local land use plans developed in the 1970s, a time when timber export and a vision of an industrialized waterfront predominated. While still important industries, the community agrees that land use regulations need to evolve to reflect today's economic and social drivers such as tourism and retirement services, while proactively addressing environmental changes and protecting natural resources.

This project provided support for local governments to obtain necessary information to modernize and revise their estuary management plan. Through an integrative assessment, the project team leveraged knowledge from community members, synthesized and compiled existing information, and applied a triple-bottom-line lens (economic, social, and environmental) to portray current conditions and uses in the estuary, and generate options and recommendations for local governments to improve their estuarine and shoreland management.

Project Approach

The project team developed the land use and zoning analysis methodology and assumptions in close coordination with the Partnership for Coastal Watersheds, a community stakeholder group. The project team conducted an analysis of the existing plan, focusing on areas where the legal framework has changed, implications of legal decisions that occurred since plan adoption, and plan usability. The assessment highlighted areas for local governments to focus on during plan revision, and included using GIS mapping technologies. Stakeholders guided the inclusion of multiple parameters into a map atlas, which identified, analyzed, and mapped resource inventories for protection, development, management, and other features.

The project team received expert input to evaluate and recommend language and content within the plan that was most in need of revision, and to identify data gaps. They did this through three analysis workshops focused on each of the following areas: economic development, natural resources protection and restoration, and sociocultural identity.

Project Location

Coos Bay Estuary, Oregon

Project Duration

November 2016 to June 2019

Project Lead

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Project Type

Integrated assessment – Evaluating options for action

Project Partners

- City of Coos Bay
- Coos County
- Oregon Department of Fish and Wildlife
- Oregon Department of Land Conservation and Development
- Partnership for Coastal Watersheds
- South Coast Development Council
- South Slough National Estuarine Research Reserve
- University of Oregon

The project team developed multiple option scenarios based on all above information to provide local officials with a way to weigh decisions related to how, when, which pieces, and how much of a plan revision is feasible. The project team shared the integrated land use scenarios with the public and then refined the scenarios based on feedback. Finally, the project team developed an integrative framework to provide officials with a roadmap to incorporate new and future data and map products into the plan.

Products

- [Coos Estuary Land Use Analysis](#), an integrated assessment report that evaluates options for local government jurisdictions to determine the best process for moving forward with a plan revision. The report includes a set of focus group recommendations and a matrix of integrated land use scenarios developed with the Partnership for Coastal Watersheds and refined based on public feedback.
- The [Coos Estuary and Shoreland Atlas](#), consisting of an online web mapper tool, geodatabase, and report with large format maps.
- A community planning [lessons learned guide](#) summarizing successes, difficulties, and obstacles in revising land use plans.

Benefits

This project realized a critical step in a process to revise the Coos Bay Estuarine Management Plan, which guides conservation and development decisions in Coos County, the cities of Coos Bay and North Bend, and the Port of Coos Bay. The process itself produced several additional benefits:

- Coos County increased its capacity to reconcile environmental, economic, and social interests by engaging in community-guided decision-making. The county heard the perspectives of multiple stakeholders through focus groups and the presentation of draft recommendations at a public open house, then incorporated this feedback into its estuary land use plan.
- The project fostered a strong collaborative relationship among local government planning departments, South Slough Reserve staff, the Partnership for Coastal Watersheds, and community stakeholders.
- This serves as a model for other Oregon coastal counties. Coos County is the first in the state to modernize its estuary management plan. This integrative assessment offers a guide to facilitate updates in other coastal counties.
- It has helped launch new restoration and mitigation efforts. The creation of a draft restoration inventory focused attention on lands of that would benefit from new restoration projects and approaches. Additionally, the Partnership for Coastal Watersheds and Department of State Lands have begun new conversations about the suitability of developing and designating mitigation banks.

What's Next

The team will focus on the creation of a restoration action plan for local practitioners, based on a technical review of the draft restoration inventory and site visits by local experts.

About the Science Collaborative

The National Estuarine Research Reserve System's Science Collaborative supports collaborative research that addresses coastal management problems important to the reserves. The Science Collaborative is managed by the University of Michigan's Water Center through a cooperative agreement with the National Oceanic and Atmospheric Administration (NOAA). Funding for the research reserves and this program comes from NOAA. Learn more at nerssciencecollaborative.org or coast.noaa.gov/nerss.