



Oregon

Kate Brown, Governor

Department of State Lands
South Slough National Estuarine
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June 18, 2015

State Land Board
Kate Brown
Governor

Heather Wade, Coastal State-Federal Relations Coordinator
Oregon Coastal Management Program
Oregon Department of Land Conservation and Development
635 Capitol Street NE, Suite 150
Salem, OR 97301-2540

Jeanne Atkins
Secretary of State

Ted Wheeler
State Treasurer

Ms. Wade:

The South Slough National Estuarine Research Reserve (Reserve) is a 5,000 acre natural area located in Coos County and managed, under Section 315 of the Coastal Zone Management Act (CZMA), as a partnership between Oregon and the National Oceanic and Atmospheric Administration (NOAA) for research, education, and training. The Reserve is an agency of Department of State Lands, which owns the land occupied by the Reserve and manages operations.

Oregon law defines the purpose for the Reserve and designates State Lands as the Reserve's state partner. State Lands is the administrative agency of the State Land Board. All decisions at the Reserve must comply with policies of the State Land Board. The South Slough Management Commission oversees programs and activities to ensure they remain consistent with Oregon's management policy for the Reserve. Commissioners are appointed by the Governor to four-year terms. The Director of State Lands serves as commission chair.

Work is guided by the South Slough Management Plan. NOAA requires the Reserve to periodically revise the management plan to remain consistent with federal laws, the CZMA, applicable state laws and enforceable policies, and county land use plans and regulations. The Reserve is revising its management plan for 2015-2020. The Department of Land Conservation and Development must determine the plan's consistency with the NOAA-approved Oregon Coastal Management Program.

I am submitting a consistency determination. I believe the revised plan is consistent to the maximum extent possible with Oregon's statewide planning goals, state agency authorities, enforceable policies of Oregon's Coastal Management Program, the Coos Bay Estuary Management Plan (an element of the Coos County Comprehensive Plan), and county land use regulations. If, at any point, the Reserve will require state approvals for activities, the Reserve will seek out the required permits and certifications at that time.

I request your help in determining the plan does in fact comply with the enforceable policies of Oregon's Coastal Zone Management Program and state law. To assist your review, I've provided a review draft of the management plan together with data and statements sufficient to determine consistency.

The current plan, approved in 2006 and 1994, remains effective until a new plan is approved. The plan was adopted in 1986.

Cordially,

A handwritten signature in black ink, appearing to read "John Bragg", with a stylized flourish at the end.

John Bragg | South Slough National Estuarine Research Reserve
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Attachments

1. Consistency Determination.pdf
2. Management plan Review Draft.pdf
3. Appendix F: Coos Bay estuary management plan (parts 1, 2 & 3)
4. Consistency COOS COUNTY
5. Enforceable Policies APPENDIX 3-CBemp

CZM CONSISTENCY DETERMINATION FOR THE SOUTH SLOUGH NATIONAL ESTUARINE RESEARCH RESERVE'S 2015-2020 MANAGEMENT PLAN

Part 1. A detailed description of the proposed activity and its associated facilities

Part 2. Anticipated coastal zone effects

Part 3. Comprehensive data and information sufficient to support the finding of consistency with Oregon Coastal Management Program's enforceable policies

Part 4. Consistency, to the maximum extent practicable with, the enforceable policies of the OCMP, based on an evaluation of the relevant OCMP enforceable policies

Part 5. Evaluation of relevant enforceable policies

Part 1. A detailed description of the proposed activity and its associated facilities

The National Estuarine Research Reserve System (Reserve System) was created under the Coastal Zone Management Act of 1972, as amended, to augment the National Coastal Zone Management Program which is dedicated to comprehensive, sustainable management of the nation's coasts. The Reserve System is a network of protected areas representative of the various biogeographic regions and estuarine types in the United States. Reserves are established for long-term research and education and interpretation to promote informed management of the Nation's estuaries and coastal habitats (15 C.F.R. Part 921.1(a)).

The Reserve System includes 28 reserves in 23 states and territories, protecting over one million acres of estuarine lands and waters. The Reserve System is a partnership program between the National Oceanic and Atmospheric Administration (NOAA) and the coastal states. NOAA provides basic funding for operations, system-wide initiatives, land acquisition and construction, program guidance, and technical assistance. The state partner manages reserve resources on a daily basis working collaboratively with local and regional partners.

a. Strategic goals

Estuaries are biologically rich, economically valuable, and highly vulnerable ecosystems. The vision and mission of the Reserve System reflect the importance of these systems to coastal communities. The Reserve System's vision is of resilient estuaries and coastal watersheds where human and natural communities thrive. Its mission is to practice and promote stewardship of coasts and estuaries through innovative research, education, and training using a place-based system of protected areas.

Federal regulations (15 C.F.R. Part 921.1(b)) outline five specific goals for the Reserve System:

- Ensure a stable environment for research through long-term protection of National Estuarine Research Reserve resources.

- Address coastal management issues identified as significant through coordinated estuarine research within the Reserve System.
- Enhance public awareness and understanding of estuarine areas and provide suitable opportunities for public education and interpretation.
- Promote federal, state, public and private use of one or more reserves within the Reserve System when such entities conduct estuarine research.
- Conduct and coordinate estuarine research within the Reserve System, gathering and making available information necessary for improved understanding and management of estuarine areas.

These goals are complemented by strategies for the Reserve System that are updated every five years. Strategic planning has been an integral part of the Reserve System since the 1990's; it ensures that the national program's priorities are informed by—and responsive to—local coastal management needs. The Reserve System's Strategic Plan for 2011-2016 focuses on climate change, habitat protection, and water quality.

b. Management plans

A management plan provides a vision and framework to guide a reserve's activities during a five year period, and enable both the reserve and NOAA to track progress and realize opportunities for growth. The management plan contains the reserve's goals, objectives, and strategies supported by programs focused on research and monitoring, education and training, and stewardship.

Upon designation, and with a federal-approved management plan in place, a reserve may apply for financial assistance on a cost-share basis with the state to fund operations, facility construction and land acquisition, as outlined in its management plan.

Reserves are increasingly confronted with complex questions regarding new uses in or near reserves that may or may not be compatible with the Reserve System's mission. A thoughtful and comprehensive management plan provides a foundation for addressing these challenges to protect and manage the reserve's resources wisely and ensure the public and coastal decision-makers value and protect coastal resources.

c. Program support and evaluation

NOAA administers the Reserve System and establishes standards for designating and operating reserves, provides support for the reserves' operations and for system-wide programs, undertakes projects that benefit the Reserve System, and integrates information from individual reserves and programs to support decision-making at the national level.

NOAA periodically evaluates each reserve for compliance with federal requirements and with the reserve's federally-approved management plans, as mandated under Section 312 of the Coastal Zone Management Act (15 C.F.R. Part 921.40).

Biogeographic representation

NOAA has identified eleven distinct biogeographic regions and 29 subregions in the United States, each of which contains several types of estuarine ecosystems (15 C.F.R. Part 921). When complete, the Reserve System will contain examples of estuarine hydrologic and biological types characteristic of each biogeographic region. As of 2015, the Reserve System includes 28 reserves and two states in the process of designating a reserve. A reserve's size will vary greatly depending on the nature of the ecosystem. Boundaries must include an adequate portion of the key land and water areas of the natural system to approximate an ecological unit and to ensure effective conservation.

The South Slough Reserve is part of a drowned river mouth estuary that is typical of those found in the Lower Columbia Biogeographic Region, which includes the US coastal zone between the mouth of the Columbia River and Cape Mendocino, California.

The South Slough embraces a rich variety of habitat for fish and wildlife and other natural amenities that people of the area value and enjoy. Its history extends from time immemorial for some area residents; for others it began in an era of migration, settlement, industrialization, and nation-building. All of these peoples' lifestyles were rooted in the natural resources they found in and around the slough: wood, fish and wildlife, fertile soil, and mild climate.

Today their sovereign tribal and Euro-American descendants honor the traditions of this mixed heritage and embrace styles of living that characterize modern Coos Bay. In 2010 the US Census estimated that 63,064 people live in Coos County—nearly one-third of Oregon's coastal population. The cities of Coos Bay and North Bend form the economic heart of the county. Collectively, they have about 25,518 residents (US Census, 2010), making Coos Bay the largest population center on the Oregon coast. The Reserve strives to maintain ecological and hydrological connectivity, from ridgetop to estuary, to sustain both the ecological function of forest and estuary, and the many benefits that they provide to society.

Part 2. Anticipated coastal zone effects

The activities planned within the Reserve over the next five years will improve the management and understanding of Pacific Northwest estuaries and coastal watersheds by proactively addressing priority management issues using collaborative, adaptively-managed processes that engage stakeholders. The Reserve has identified three priorities for the planning period. Priorities reflect new developments and new information and may benefit from new ideas and solutions.

In Chapter III, for each of the priorities, we present the goals and objectives that will guide work over the next five years, which also align with NOAA's strategic priorities (climate change, water quality, and habitat restoration). The goals and objectives are summarized here to demonstrate their contributions to desirable coastal management outcomes.

Priority: Characterize and communicate the current trends and likely future effects of climate change on Pacific Northwest coastal communities and estuarine ecosystems.

As the Reserve addresses this priority, we anticipate the following impacts on coastal zone management:

1. As a result of the Reserve's providing timely and relevant information about the local effects of sea level rise for Coos Bay, local government officials and natural resource managers will be better prepared to consider, in decision-making, a) whether sedimentation and vertical accretion rates in the Coos estuary's tidal wetlands are likely to keep pace with current and anticipated rates of local sea level rise; b) how sea level rise will affect the density and spatial distribution of intertidal marshes and eelgrass beds at the Reserve's climate monitoring stations (NOAA sentinel site stations); c) the needs of Coos Bay decision makers for information and training related to sea level rise and other likely climate change impacts, and d) how to incorporate research pertaining to sea level trends, emergent plant communities, and eelgrass, in education and training for and communication products.
2. Decision makers and stakeholder will be better informed of the actual and potential climate change impacts as a result of the Reserve's a) providing socio-economic and environmental data, collected through the Partnership for Coastal Watersheds, as the foundation for a climate change vulnerability assessment for Coos Bay; b) emphasizing climate communication in education and incorporating climate change in interpretive programs, and c) improving staff's knowledge, understanding, and skills for communicating about climate change.
3. Coastal communities and local governments will benefit from an improved understanding of ocean acidification and its potential effect on the functions of marine and estuarine ecosystems of the Pacific Northwest, including production of fish and shellfish, as a consequence of the Reserve: a) evaluating water column carbon dynamics within the South

Slough, and b) incorporating knowledge of ocean acidification impacts into education programs and training.

Priority: Promote and apply comprehensive and adaptive approaches to maintaining and improving the long term resilience of coastal habitats in Pacific Northwest estuaries and coastal watersheds.

As the Reserve addresses this priority, we anticipate the following impacts on coastal zone management:

1. Scientists, policymakers and local government officials will have a better understanding of carbon-related ecosystem services (e.g., coastal blue carbon) associated with the restoration and conservation of tidal wetlands, as a result of the Reserve: a) helping biophysical scientists quantify carbon budgets for Pacific Northwest tidal wetland habitat classes in diked or tide gated wetlands (including restored or recovering sites) and b) investigating the social and economic barriers, and potential incentives, for incorporating coastal blue carbon and other ecosystem services as factors in funding work and developing resilient land use policies, to support tidal wetland restoration and conservation.
2. Through the assessment and monitoring of intertidal marshes, subtidal habitat, and upland forests of the South Slough catchment, the Reserve will establish baseline conditions by which to measure changes in habitat use and availability, including a) the distribution of terrestrial and intertidal habitats within the Reserve; b) tracking and evaluating the use of estuarine habitat by fishes and invertebrates; and c) reviewing the science about the use of woody debris in estuaries for habitat restoration and conservation.
3. The Reserve will implement a comprehensive, ridgetop-to-estuary, habitat restoration plan for the Wasson Creek watershed, and a comprehensive long-term strategy to monitor the effectiveness of the Reserve's completed habitat restoration projects.
4. The Reserve will ensure that coastal managers and stakeholders are aware of the water quality and environmental data that is available from the Reserve, that the data are readily available in formats applicable to their management needs.
5. The Reserve will maintain ecological integrity by: a) engaging neighboring forest-management agencies and firms to monitor land use in the South Slough watershed beyond the Reserve; b) developing best management practices for public events occurring within the Reserve, and adaptively-managing habitat restoration based on effectiveness monitoring, and c) otherwise increasing public awareness of the Reserve's stewardship mission.

Priority: Monitor, research, manage, and communicate the impacts of existing and emerging invasive species within the Reserve and characterize potential threats from other locations.

As the Reserve addresses this priority, we anticipate the following impacts on coastal zone management:

1. Coastal managers will have a better understanding of the extent of aquatic and terrestrial exotic, non-native, invasive species in the South Slough watershed as a result of the Reserve's having established a) aquatic and terrestrial invasive species monitoring programs, and b) baseline maps of the presence and extent of existing invasive species.
2. Measure and monitor the impact of non-native species on biodiversity of estuarine and upland communities in the Reserve to compile a database for decision-making.
3. Reduce the impact of invasive species on native communities and biodiversity within the Reserve by a) implementing appropriate methods for minimizing the impact of invasive species; b) providing opportunities for the public to assist in weed removal or control campaigns.
4. Provide science-based information about the status of existing invasive species and potential impacts of newly-arriving invaders.

Part 3. Comprehensive data and information sufficient to support the finding of consistency with Oregon Coastal Management Program's enforceable policies

The plan contains chapters and appendices that specifically address applicable state land use planning goals, state law, and county authorities that provide the basis for OCMP enforceable policies (Chapter 2, pages 25-26).

a. Statewide land use planning goals.

Since 1973, Oregon has maintained a statewide program for land use planning based on statewide planning goals that express the state's policies on land use and related topics, such as citizen involvement and natural resources.

The Reserve is managed in accordance with Goal 16—Estuaries. Under Goal 16, the general priorities (from highest to lowest) for management and use of estuarine resources, as implemented through management unit designation, and permissible use requirements, are:

1. Uses which maintain the integrity of the estuarine ecosystem
2. Water-dependent uses requiring estuarine location, as consistent with the overall Oregon estuary classification;
3. Water-related uses which do not degrade or reduce the natural estuarine resources and values;
4. Nondependent, nonrelated uses which do not alter, reduce or degrade estuarine resources and values.

Goal 16 also requires that management units (natural, conservation, and development) be identified within estuary management plans.

In the early days of South Slough, the Management Commission defined stewardship units (management units) for the Reserve before the Coos Estuary Management Plan was approved (1986). The Reserve's stewardship units are defined as natural aquatic (NA), sanctuary (S), special protection (SP), and limited development (LD).

Descriptions of the management units are included in the management plan as Appendix H, and briefly presented here:

Natural aquatic unit.

Includes about 600 acres of tidally submerged and submersible lands within the Reserve between the north and south boundaries across Winchester Creek. Its east-west extent is determined by the heads of tide in Day, Elliot, Talbot and John B. creeks in the east arm of South Slough, and in the western arm by the heads of tide in Cox, Theodore Johnson, and Wasson creeks.

Sanctuary unit.

Includes all lands within the Reserve exclusive of estuarine tidal and subtidal areas, including about 3800 acres of upland forest that serves as a conservation buffer around the natural aquatic unit.

Limited Development units.

LD1 includes the Wasson Creek and Anderson Creek valleys and the Fredrickson house area. The Fredrickson house area includes remnants of a Native American homestead and other cultural resources. The Reserve manages the Fredrickson house area with the advice and cooperation of two sovereign tribal nations in Coos County, the Coquille Indian Tribe, and the Confederated Tribes of Coos, Siuslaw, and Lower Umpqua Indians, and has sought the advice of the Oregon Historic Preservation Office, about how best to preserve these resources. Beyond the Fredrickson house area, Wasson Creek and Anderson Creek valleys are managed for habitat restoration.

LD2 includes the land now occupied by the Interpretive Center, the Estuary Study Trail network and education platforms.

Special Protection units.

There are two: Valino Island (SP1) and Long Island Point (SP2), both of which are considered to be of especial value due to their remote locations, relative inaccessibility, conservation values and aesthetic features.

b. Oregon law.

Oregon Revised Statutes (O.R.S. 273.553) declare that the management policy of the reserve is to:

- Maintain the integrity of the estuary,
- Protect the estuary from uses and activities, both within and beyond boundaries, which may alter or affect the ecosystem and its natural dynamic processes, and
- Preserve the area for long-term scientific and educational uses.

The management policy is implicitly or explicitly expressed across all of the Reserve's programs and activities. The South Slough Management ensures that programs and activities are carried out in accordance with the management policy.

c. Coos Bay Estuary Management Plan (an element of the Coos County Comprehensive Plan).

The Coos Estuary Management Plan, an element of the Coos County Comprehensive Plan, is included in the Reserve's revised management plan as Appendix F. It provides

recommendations to guide the management and planning of land activities which may affect the estuary.

The Coos Bay Estuary Management Plan was last updated in 1986. During the coming planning period, the Reserve anticipates assisting the county with further updating of the estuary management plan, in part by addressing specific data gaps that have been highlighted by the Coos Estuary Inventory.

The Coos Estuary Inventory is currently under development by the Reserve and partners within a collaborative decision-making framework known as the Partnership for Coastal Watersheds. The partnership, an initiative of the Reserve, is engaging a wide range of community stakeholders to visualize desired future conditions for Coos Bay communities. The inventory identifies, among other things, quality-of-life needs, many of which are contingent on the health, productivity, and sustainable management of the estuary. See Chapter 4, Page 57 of the draft management plan for more information about the partnership.

Part 4. Consistency, to the maximum extent practicable with, the enforceable policies of the OCMP, based on an evaluation of the relevant OCMP enforceable policies

I provided a draft of the management plan to Jill Rolfe, Coos County Planner, for review. Based on her review I believe the plan is consistent, to the maximum extent practicable, with OCMP's relevant enforceable policies. A copy of her letter of determination is attached.

Part 5. Evaluation of relevant enforceable policies

To evaluate the Reserve's management plan for its consistency with the Coos Bay Estuary Management Plan, the Coos County Comprehensive Plan, county land use regulations, and the relevant enforceable policies of OCMP, Ms. Rolfe conducted an extensive review of the draft management plan and of the South Slough Estuary Zones. The enforceable policies have been adopted into Chapter III of the Coos County Zoning and Land Development Ordinances, and Chapter III Coos Bay Estuary Management Plan.

Submitted June 18, 2015

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