Sitka Sedge
STATE NATURAL AREA

2016 MASTER PLAN
The mission of the Oregon Parks and Recreation Department is to provide and protect outstanding natural, scenic, cultural, historic and recreational sites for the enjoyment and education of present and future generations.

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A Vision for the Park

In June 2014, the Oregon State Parks and Recreation Commission voted to purchase the Beltz property in Tillamook County from the nonprofit that owned it.

Located on the north coast between Cape Lookout State Park and Pacific City, Sand Lake is one of Oregon’s least developed estuaries, including approximately 1,250 acres of open water, tidal flat, emergent marsh, and forested wetlands. A dominant feature within the estuary is Whalen Island, primarily owned and managed by the Oregon Parks and Recreation Department (OPRD) as the Clay Myers State Natural Area alongside the Tillamook County Campground on the south edge of the island. At the north end of the estuary is the Sand Lake Nature Preserve, property being acquired by North Coast Land Conservancy in partnership with the OPRD. At the southern end of the estuary is a 357 acre piece of land known as the Beltz property.

Beltz contains ocean beaches, wetlands, and forests. The property was acquired from a private owner by the nonprofit Ecotrust for $1.8 million in May 2014. The Oregon Parks and Recreation Commission has authorized the Oregon Parks and Recreation Department to purchase it from Ecotrust using Oregon Lottery funds dedicated to state park acquisitions by the Oregon Legislative Assembly and with assistance from a National Coastal Wetlands Conservation Grant. The purchase of the property became final in September 2014.

Because of its beauty, natural features, and location, the property has been of interest to OPRD for decades. The property will be kept in a natural state, focusing on trail recreation, enhancing facilities for wildlife viewing, and natural resource improvement projects. This master plan represents the long term vision for this incredible and unique coastal property, as it enters its next phase of life as Sitka Sedge State Natural Area (SNA).
The Role of the Oregon Parks and Recreation Department

The mission of the OPRD is:

*To provide and protect outstanding natural, scenic, cultural, historic and recreational sites for the enjoyment and education of present and future generations.*

This mission gives the agency a dual mandate; serve people by operating the state park system and protect park resources so future generations may also understand and enjoy them.

The mission is accomplished through three goals:

1) Provide Great Experiences
2) Protect Oregon’s Special Places
3) Take the Long View

Each park is a unique place where people play, picnic, camp, rest, hike, renew and everything in between. The park system is an everyday reminder of the things that make Oregon great and its existence is a testament to what Oregonians collectively value.

Oregon’s outdoor recreation and cultural heritage values are explained in state law;

*Oregon Revised Statute Chapter 390 states that the well-being of Oregonians is in large part dependent upon access to the state’s outdoor recreation resources for their physical, spiritual, cultural and scientific benefits.*

The Oregon Parks and Recreation Department (OPRD) is empowered by state law to provide outdoor recreation and heritage programs and plans.

The Oregon State Parks and Recreation Commission (the department’s citizen oversight body), positions the agency to function at a high level by aligning programs to the powers and duties granted by state law, and by observing and planning for emerging trends. Those laws direct the department to focus on four areas:

1. State Park System—Create and run a state system of parks that protects and manages resources in order to provide recreation opportunities.
2. Natural Resources—Exercise forward-thinking, sustainable land stewardship in state parks and along ocean shores and state scenic waterways. Protect state park soils, waters, plants and animals.
3. Statewide Recreation Advocate—The agency is Oregon’s lead advocate for outdoor recreation. Through research, financial and technical assistance, OPRD provides an Oregon context for federal, state and local governments to collectively fulfill their outdoor recreation-oriented missions.
4. Heritage Programs—Work to preserve and protect Oregon’s heritage and historic resources.
The State Park System

State parks are categorized based on three criteria: natural setting, facilities, and primary purpose. These criteria help OPRD plan the management and visitor experiences at each park, and combine to create nine types of state park system properties: parks, recreation areas/sites, scenic corridors/viewpoints, greenways, heritage areas/sites, natural areas, trails, and waysides. State scenic waterways are a special category; the state does not own scenic waterways, but works cooperatively with property owners to preserve each waterway’s scenic and recreational qualities.

The Oregon state park system contains more than 100,000 acres, nearly all of it natural resource-based. There are more than 300 properties in the system, including 174 developed for day use, 50 campgrounds, and 110 undeveloped parcels along the Willamette River Greenway.

Agency Resource Management Role

The natural resources staff of OPRD is responsible for land stewardship, marine conservation and the rocky intertidal shores, several permit programs, department-wide resource policies, and park plants and animals. OPRD strives to provide a safe environment at all of its park and recreation sites while maintaining the natural beauty and historic importance of our parks.

OPRD is committed to managing the natural, scenic and cultural resources within the Oregon state park system. The agency writes plans and manages properties to balance resource protection with recreation use; resources are the essential foundation for nearly all forms of recreation.

The following categories best summarize the OPRD approach to resource stewardship:

- Forest Health
- Fish and Wildlife
- Ecosystem Functions
- Invasive Species
- Protected Species
- Natural Heritage Sites
- National Register of Historic Places, Sites and Districts
- Historic Buildings
- Cultural Landscapes
- Iconic Oregon Views and Scenic Corridors.

Agency Role as Recreation Advocate

OPRD connects people to meaningful outdoor experiences by protecting Oregon’s special natural and historic places. This inherent tension between recreation and preservation, and between the needs of today and tomorrow, has always defined the mission of Oregon State Parks. ORS 390.010 describes the state’s broad policy toward outdoor recreation. In summary:

1. Present and future generations shall be assured adequate outdoor recreation resources coordinated across all levels of government and private interests.
2. The economy and well-being of the people are dependent on outdoor recreation.
3. Outdoor recreation opportunities should be increased commensurate with growth in need in the following:
   - Oregon’s scenic landscape
   - Outdoor recreation
   - Oregon history, archaeology and natural science
   - Scenic roads to enhance recreational travel and sightseeing
   - Outdoor festivals, fairs, sporting events and outdoor art events
• Camping, picnicking and lodging
• Tourist hospitality centers near major highway entrances to Oregon
• Trails for hiking, horseback riding, bicycling and motorized recreation
• Waterways and facilities for boating, fishing and hunting
• Developing recreation in major river basins
• Access to public lands and waters having recreation value
• Development of winter sports facilities
• Recreational enjoyment of mineral resources.

Need for a Plan

OPRD master plans help to accomplish the OPRD mission by establishing the goals, development concepts and resource management guidelines that strike a balance between recreational use, and development and resource protection.

A park master plan is needed to fully address future recreational use and resource management as this property becomes a state park. The need for planning is driven by both the natural resource and visitor experience aspects of the park, which need to be considered together if an appropriate balance is to be achieved. Finding the right balance is critical to success in achieving the department’s mission. In order to both “provide” and “protect,” the department must manage in a way that promotes recovery and healthy succession of ecological resources while providing for visitor experiences at levels consistent with resource capacities. The planning process provides the information, analysis and public process needed to determine that balance, and to formulate the goals and management strategies necessary to achieve the mission.

Purpose of the Plan

The master plan for Sitka Sedge State Natural Area accomplishes four tasks:

1. Establishes the vision, goals, concepts and actions to guide park development, management and operation.
2. Meets OPRD’s legal obligation to adopt a plan for the park through the state administrative rulemaking process.
3. Meets OPRD’s legal obligation to present a plan for the park to Tillamook County as a basis for assuring that planned park uses are compatible with the County comprehensive plan, and as a basis for requesting land use permits for planned park projects.
4. Establishes a library of park resource assessments to help park managers succeed with their stewardship mission.

The plan works for a variety of audiences: the visiting public, park managers, county land use planners and decision makers, surrounding local communities, and partner agencies and interest groups. It represents the vision for the park’s future supported by the public. The park manager will use this plan as the overarching guiding document in managing the park. The County will review this plan for compatibility with the County comprehensive plan and assure that requests for development permits are consistent with project descriptions in the plan for the park. Partner agencies and interest groups will work with OPRD to ensure the plan is implemented. Local communities can use it in partnership with OPRD to enhance the park as a thriving, ecological system with appropriate facilities that support recreational uses.
Planning Framework

In a critical first step for a park-specific plan, OPRD staff compiles data from department and other statewide or regional plans. This background information is used as a lens through which the park master plan is first shaped. This data is used to inform and develop a framework for the park plan, and is then taken to the public for comment and discussion. Public advice and goals for the statewide system are then synthesized to produce the values, goals, strategies, and management actions to become the comprehensive, long-term plan for a park like Sitka Sedge State Natural Area.

A park-specific plan therefore includes information on:

- Mission and mandates that define the role of OPRD (Oregon Constitution, Oregon Revised Statutes, and Oregon Administrative Rules).
- OPRD goals and objectives (Centennial Horizon, Commission Investment Strategy, Legislative Performance Measures, and Oregon Benchmarks).
- Existing OPRD organizational structure and roles of visitors, volunteers, staff, external parkland managers, and other partners.
- Statewide Comprehensive Outdoor Recreation Plan, State Trails Plans, Regional Interpretive Frameworks.

This background information defines the context for a state park master plan.
Planning Process

The planning process involves numerous steps in determining what is most appropriate for the park's future, and formulating and adopting a plan that describes the management direction. The following summarizes the steps leading to adoption of the plan.

**Resource Assessments:** In the first steps of the process, information is gathered on the park's natural and cultural resources, existing park uses and facilities, recreation trends and opportunities, as well as information about the local community. The information about the park is condensed in a way that geographically represents the opportunities and constraints related to recreational development and preservation and management of important natural, cultural and scenic resources.

**Vision for the Park:** With the information gathered in the resource assessment process, the department formulates a vision for the park's future that will be tested as the process unfolds. A core team made up of key OPRD staff is convened. The vision is formulated with input from the team.

**Public Input:** The information gathered in the resource assessment process and the vision for the park are shared in meetings with the core team, a stakeholder committee, park neighbors and the general public. The department asks participants to express their thoughts and ideas about the park's future, including issues that need consideration in formulating a plan. The stakeholder committee membership includes representatives of affected government agencies, and interest groups. A written comment period follows the meetings.

**Public Input:** The preliminary concept is shared in a second round of meetings with the core team, stakeholder committee, park neighbors and the general public. Participants are asked to share their thoughts about the concept and any recommended changes or additions. A written comment period follows the meetings.

**Draft Plan Formulation:** The department produces the first draft of the plan based on the resource assessments and information gathered from meetings with the core team, stakeholder committee, neighbors and general public. The draft plan includes the park vision, resource assessment summary, issues summary, values and goals, resource management strategies, and design concepts as they pertain to future development and management of the park. Key members of the core team contribute their expertise to the production of the document. The draft material is shared with the entire core team and executive team for their input.

**Public Input:** The draft plan is distributed for public review using OPRD’s planning website and available hard copies, and another set of meetings is held with the stakeholder committee, park neighbors and the general public for discussion of the draft. Participants share their comments on the draft plan content. A written comment period follows the meetings.

**County Commission Briefing:** Department staff meets with the County Commissioners to brief them on the draft plan and comments received in public and committee meetings, and ask for their input.

**State Parks Commission Review and Approval:** Any revisions recommended in the public process are reviewed by the Director, and needed changes are incorporated into the draft plan. The plan is then presented to the State Parks Commission for their deliberation and approval. The Commission recommends any needed changes and directs the department to proceed with the adoption process.

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6 Sitka Sedge State Natural Area
Land Use Compatibility Review: The master plan for Sitka Sedge State Natural Area serves as the "master plan" for the park as defined under OAR 660 Division 34 and OAR 736 Division 18. Prior to adoption, the draft plan is checked for compatibility with the County comprehensive plan in consultation with County planning officials. If the draft plan is determined to be compatible, it can then be presented for adoption as a state rule. If the draft plan is not compatible, OPRD takes steps necessary to achieve compatibility, either by making appropriate changes in the draft plan for the park or by requesting pertinent changes in the County's plan through the appropriate land use application process. The plan for the park cannot be adopted as a state rule until it is compatible with the County plan.

State Rule Adoption: A formal rulemaking hearing is held which allows additional comments from the public. A written comment period follows the hearing before the hearing record is closed. Final edits may be made to the draft plan based on public comments prior to filing the rule for final adoption.

Values Based Approach

A critical component of the state park comprehensive planning process is the involvement of the public, stakeholders, and partners that have interest in the property. As a state agency accountable to the public, OPRD seeks to engage the community in a discussion to develop a sense of public interest, concern, and desired experience. The agency looks to the community to help identify potential opportunities, conflicts, and desired outcomes for the property. Feedback from the public process helps relate a sense of place to potential outcomes for management actions. These values help to develop an analysis framework to view the resource inventories and recreation assessments so that a better sense of future condition or experience can be defined. The values created for this plan have close ties to the elements of the OPRD mission that relate to natural, cultural, scenic and recreational resources. These values, expressed in detail in Chapter 6, provide another layer of analysis to interpret the existing conditions and future potential of the property.

How to Use This Plan

Master plans can be confusing documents. In an effort to make navigation easier, this section outlines key components of the planning process as well as the contents of this plan.

Section One: Existing Conditions

Read this section to understand the status Sitka Sedge State Natural Area at the time this plan was written. This section explores the existing uses, natural and cultural resources, history, and geographical context of the park property.

Section One includes chapters:

1. Introduction & Planning Approach
2. Regional Context
3. Resource Assessments
4. Visitor Experience

Section Two: Analysis

Read this section to understand the discussion and collective thought behind the proposals shown later in this plan. This section describes the public process for gathering input about the plan, the opportunities and constraints that were identified, and an analysis of the major themes that arose during the existing conditions studies.

Section Two includes chapters:

5. Public Involvement
6. Needs, Constraints & Opportunities
7. Values, Goals & Strategies
Section Three: Park Proposals

Read this section to understand the long-term vision for how OPRD will serve visitors to Sitka Sedge State Natural Area and the management strategies that will maintain the park going forward.

Section Three includes chapters:

8. Park Plans & Management Recommendations

Section Four: Plan Implementation

Read this section to learn about the steps for implementing the proposals in this plan, including the priorities and phasing identified for improvements to parks, the costs, and the permitting processes required to make this plan happen over the next 20 years, and find out what you can do to help.

Section Four includes chapters:

9. Cost Estimates & Project Phasing
10. Land Use Reviews and Approvals
11. Stewarding the Plan

Finally, an appendix (Chapter 12) includes relevant documents summarized or referenced in the comprehensive plan: reports, plans, vision statements, public comments, historic documents, and others. This appendix is delivered to park staff at the end of the planning process to guide management.

12. Appendix

This plan document includes:

- A summary of the existing conditions of OPRD parks, programs, recreation activities, and natural resources (Chapters 2-4);
- Description of the public involvement process and the identification of guiding values and benefits (Chapter 5);
- Analysis of the opportunities, needs, and constraints for OPRD parks, programs and recreation activities and natural resources (Chapter 6);
- Values, Goals, and Strategies that drive planning recommendations developed during the public planning process (Chapter 7);
- Planning recommendations including strategies for park management and park specific enhancements (Chapter 8); and
- Budget and phasing for identified enhancements and maintenance (Chapter 9).
Regional Context of Sand Lake Estuary

Sitka Sedge State Natural Area (SNA), traditionally known locally as Beltz Farm, is located on the northern Oregon coast between Cape Lookout State Park and Cape Kiwanda State Natural Area (Pacific City), within the south edge of the Sand Lake Estuary. This estuary, one of Oregon’s least developed estuaries, includes approximately 1,250 acres of open water, tidal flat, emergent marsh, and forested wetlands. A dominant feature within the estuary is Whalen Island, primarily owned and managed by OPRD as the Clay Meyers State Natural Area. At the north end of Sand Lake is Sand Lake Nature Preserve, owned by North Coast Land Conservancy. Most of the submersible land within the estuary is either owned by Department of State Lands or subject to its jurisdiction.

Sitka Sedge SNA includes approximately 357 acres. Approximately 244 acres are west of Sandlake Road, fronting the ocean and the Sand Lake Estuary. This portion of the property consists of approximately 87 acres of marsh (including approximately 42 acres of tidal marsh, sand and mudflats and approximately 12 acres of estuary altered by Beltz Dike) and 157 acres of dunes and uplands. An un-maintained, half mile long, artificial dike runs east/west through the northern third of the property. The remaining 113 acres of the property east of Sandlake Road is predominately pasture and forest land. Three creeks, Reneke, Beltz, and an unnamed stream, flow into the southern portion of the property. This area is part of the Sand Lake watershed.

The subject area for this master plan encompasses roughly 357 acres, and includes the southern portion of the estuary, as well as the pasture and forest land east of Sandlake Road.

The 1967 ‘Oregon Beach Bill’ recognizes all state beaches up to the vegetation line as public land. OPRD manages these lands separately from State Parks through the Ocean Shores Program, even when adjacent, as is the case at Sitka Sedge State Natural Area. This plan will only reference the beaches adjacent to the natural area, with regard to trails and other management needs as they overlap with the ocean shores adjacent to the property.
Regional Economic Trends

Historically, Tillamook County relied heavily on timber products, dairy industries and commercial fishing to sustain its economy.

The coast has seen a rise in tourism in the past decade, especially in the vicinity of Tillamook to the north and Pacific City to the south of Sand Lake Estuary. This is also evident in the way the nearby coastal parks are filled to capacity every summer weekend.

Oregon State Park Designations

- State Parks (SP) provide a variety of general outdoor recreational uses within an extensive scenic setting, under OPRD ownership.
- State Natural Areas (SNA) protect outstanding, or important portions of Oregon’s ecosystems for continued public education, and/or for contributing to larger ecosystem health.
- State Recreation Sites (SRS) provide access to resource dependent, recreational activities, without OPRD ownership of extensive scenic setting.
- State Scenic Corridors (SSC) and State Scenic Vistas (SSV) protect corridors and viewpoints along state highways which are in jeopardy. For those single viewpoints which cannot be easily included in a grouping along a highway, the subclass State Scenic Viewpoint can be used.
- State Trails (ST) and State Trailheads (STH) provide recreation trail opportunities for hikers, equestrians, cyclists, and, where appropriate, motorized recreation vehicles such as snowmobiles, off-highway vehicles, motorcycles, and jeeps.

Definitions are referenced from the 1995 OPRD System Plan.

Oregon State Parks on the Coast

Historically, transportation difficulties were a major barrier to development along the rugged coastline. The beach was often the easiest way to move people and goods over land between communities. The precedent of using beaches as roads along the coast contributed to the designation, in 1913, of all Oregon beaches below the high tide line as public highways, which effectively made all of Oregon’s beaches public land.

The Good Roads movement prompted interest in road construction throughout the state in the early 1900s, and there were many advocates for a coastal highway in Oregon. The Roosevelt Military Coast Highway was built in 1932. The Oregon Coast Highway, as it is now known, is a National Scenic Byway and an All American Road, placing it among a handful of the most scenic roads in the country. With the construction of the Coast Highway and the growing popularity of automobile-based recreation, the interest in public parks and campgrounds along the coast increased.

During Sam Boardman’s tenure as the first superintendent of State Parks from 1929-1950, OPRD had begun a period of land acquisition across the state, including along the Oregon Coast. The Civilian Conservation Corps made improvements to some of the early parks and waysides during the 1930s. Camping in Oregon state parks was first introduced in the 1950s by superintendent Chester Armstrong. The public continues to reap the benefits of protecting these special places along the coast and the opportunities they provide for outdoor recreation. OPRD continues to manage these facilities and properties like Sitka Sedge State Natural Area add to this incredible system of parks, providing new and unique opportunities for public recreation along the Oregon coast.

More information on regional recreation can be found in Chapter 4.
Sitka Sedge
State Natural Area
Existing Conditions

Legend
- OPRD Park Boundary
- Roads
- Stream/Surface Flow
- Existing Social Paths
- 5 Foot Contours

Figure 2.1 Beltz Property Existing Conditions (OPRD)
Figure 2.2 Sand Lake Estuary Topography (OPRD)
**OPRD Acquisition of Beltz Property**

OPRD is interested in adding important and rare natural lands like the Beltz property to the ocean shore system to build on its current success with Whalen Island, and to provide Oregonians with parks that encourage outdoor recreation in quality settings. The department’s involvement around Sand Lake stretches back decades:

1960s-70s: Beltz property noted as high-value natural resource property that would be a desirable addition to the state park system.

2000: OPRD Acquired a large portion of Whalen Island and developed low-impact recreation (trails and beach access).

2004: Beltz property appraised by OPRD, but attempt to purchase is unsuccessful.

2006: Beltz property ranks high on the general state park acquisition priority list and named as a goal for 2007-2013.

2012: Beltz property identified as a potential acquisition, but no opportunity presents itself.

2014:

a. April: Acquisition of Beltz property again to OPRD priority list.

b. May: The private nonprofit Ecotrust buys the property. OPRD director Lisa Sumption signs an option with Ecotrust allowing the department to purchase the property by August.

c. June: Oregon Parks and Recreation Commission unanimously authorizes the acquisition on June 25 at their regularly scheduled meeting in Klamath Falls.

d. August: With authorization from the state commission, OPRD purchased property from the nonprofit with assistance from a National Coastal Wetlands Conservation Grant.

A portion of the park property was acquired with assistance from the National Coastal Wetland Conservation program, administered by the U.S. Fish and Wildlife Service (USFWS), and must be managed in accordance with that grant. A rough approximation of the grant-funded boundary can be found in Figure 2.2

**Partners & Land Managers in the Sand Lake Estuary**

Although OPRD is the managing agency for the park and the ocean shore, other government agencies have jurisdiction over certain resources and activities that occur in the park:

- Oregon Department of State Lands – jurisdiction of submerged and submersible land, wetland fill or removal
- Army Corps of Engineers – wetland fill or removal
- Oregon Department of Environmental Quality – responsible for protecting and enhancing Oregon’s waters and for enforcing Oregon’s environmental laws
- Oregon Water Resource Department – water rights and permitting, water diversions
- Tillamook County – county roads, land use and development
- Oregon Department of Fish and Wildlife – fishing and hunting regulation, fish passage, activities affecting state ESA listed species, and technical guidance related to streams and other habitats
- U.S. Forest Service - Management of neighboring lands to the north of the estuary and directly adjacent to the southeast portion of the park property.

The North Coast Land Conservancy owns and manages 214 acres in the northern Sand Lake Estuary, including Bradley Bog. There is no
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Figure 2.4 Sand Lake Estuary Context and Property Ownership (OPRD)
public access to this area which is composed of forested dunes dominated by Sitka spruce, freshwater wetlands, and tidal marsh at Sand Lake. Bradley Bog is a sphagnum-dominated bog with western red cedar and shore pine forest. The Bradley Bog property was acquired in 2014 in partnership with the National Coastal Wetlands Conservation Grant Program of the U.S. Fish and Wildlife Service, The Nature Conservancy, and in-kind support from OPRD.

Coordination between the other conservation partners in the region and local estuary will be an important piece of the management planning and subsequent stewardship of the property. Partners in conservation for the estuary include the U.S. Forest Service, The Nature Conservancy, the North Coast Land Conservancy, Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the Nestucca-Neskowin Watersheds Council.
OPRD prepares park resource inventories and assessments as a basis for decisions on resource management and visitor uses. This chapter summarizes key resource inventories and assessments completed for this Plan. These assessments are not intended to serve as the final documentation guiding future decisions on resource management in the park. Refinements to information gathered so far will be made through ongoing studies of resource conditions and management needs for particular areas on a case-by-case basis. Background reports resulting from key inventories and assessments are referenced in various places in this Plan and are available for review.

Natural Resources

Climate

The park property is located in an area having a mild climate. Temperatures are moderate, with winter low temperatures generally above freezing, and with summer average daily high temperatures in the low 70s° Fahrenheit (low 20s Celsius). Rainfall is seasonally abundant from October to June, but July and August tend to have very little precipitation. Average annual precipitation is approximately 82 inches (210cm). The dominant habitat of the study area’s terrestrial vicinity is classified as temperate rainforest. Fog is common, even in the summer when fog is rare in the interior of the state.

Vegetative Habitats

Generally, the park’s current vegetative habitats include a combination of forested areas, woodlands, saltmarshes, freshwater marshes, scrub-shrub wetlands, tidal mudflats, submerged and aquatic plant communities, sparsely vegetated sandy beach, upland shrublands, native dunal grasslands, European beachgrass dominated stabilized and semi-stabilized dunes, and pasture. Forest habitat types are varied in both age and species composition. Major forest types present in the study area include mixed red alder-sitka spruce forest, shore pine-sitka spruce forest and woodland, shore pine forest and woodland, and Sitka spruce-western hemlock forest. Wetlands are tidally influenced. A manmade dike that extends across much of
the estuary located on the property has muted saltwater influence inside the dike for several decades. See Figure 6.2 on page 55 for locations of these land cover types.

**Historic Vegetation**

The broad vegetation types presumed to be present on much of the site prior to and soon after European-American settlement are assumed to be forest to the east of Sand Lake, sand dunes with patches of woody vegetation west of Sand Lake, and a variety of marsh types and mudflats within the tidal portion of the property.

**Natural Resource Inventory**

Four separate assessment reports were prepared by OPRD staff and consultants to provide guidance to the planning process and inform broad management strategies to park staff:

1. Hydrology Modeling (In process)
2. Vegetation Inventory, Botanical Resource Assessment, and Natural Landscape Characterization
4. Wildlife Assessment

The findings from these reports have been summarized in this section and referenced throughout the plan. Full reports can be requested for review.

**Hydrology Modeling**

Since 2015, the southern portion of the Sand Lake Estuary has been the subject of a hydrology assessment and conceptual restoration design conducted by Waterways Consulting Inc. (Portland, OR engineering, land surveying and environmental consulting), funded by USFWS and OPRD. This study is intended to inform a collaborative partnership between OPRD, USFWS habitat restoration programs, Nestucca-Neskowin Watershed Council (NNWC), ODFW, USFS, TEP, DEQ, and Tillamook County to help inform decision-making regarding future actions to restore natural hydrology and meet state and federal fish passage requirements.

This study will look at fluvial and tidal hydrology and hydraulics, and take into account geomorphology, historic channel alignment, watershed dynamics, current state and federal fish passage requirements, salinity levels, and wetland plant communities. This study will serve as a basis for restoration concepts at Reneke and Beltz Creeks and potential reconnection of tidal wetlands to restore habitats for juvenile fish rearing including Coho, chum, steelhead, and coastal cutthroat trout species among other wildlife species.

At this point no alternatives have been defined for dike modification or fish passage. However, two scenarios were modeled by Waterways as an initial reference to provide information on: 1) whether increasing tidal interchange has a potential to impact roads and human communities, 2) the depth and duration of inundation behind the dike and likely changes to habitats that would result.

The fish passage improvement scenarios were proposed by Waterways, Inc under contract with OPRD and in collaboration with the technical advisory group described above. The specific hydrologic models produced by Waterways, Inc. correspond to fish passage improvement scenarios of:

1) Removing the tide gate flap from the existing tidebox to allow for fish movement through the dike (approximately 4 foot gap)
2) Creating an 18 foot wide gap in the dike corresponding to the cumulative channel widths of Beltz and Reneke Creeks, a likely state fish passage minimum.
These alteration scenarios were compared with models for the existing hydrology inside the dike as well as for Sand Lake outside the dike as reference conditions.

It was envisioned that, based on data collection, additional modeling would be undertaken in relationship to a) State and Federal fish passage requirements, b) velocity and scour that might impact structural stability of the dike, and c) goals associated with restoration and reconnection of key tidal processes, including sediment transport and water quality.

In response to these scenarios (shared at Sitka Sedge Master Plan public meetings in January 2016) people expressed concern that existing flooding in Tierra Del Mar could be exacerbated with construction of fish passage improvements. The restoration concept development process has been put on hold at time of plan writing, pending further analysis of groundwater conditions and site hydrology. A groundwater study was initiated in March 2016 to understand the processes that affect seasonal changes in the groundwater elevations at Tierra Del Mar.

A description of modeled surface-water hydrologic changes resulting from analysis of the preliminary fish passage improvement scoping scenarios, including data collected to inform the scenarios has been included in the Vegetation Inventory and Botanical Resource Assessment for Sitka Sedge State Natural Area: Existing Conditions and Modeled Future Conditions Under Two Potential Dike Alteration Scenarios and Sitka Sedge State Natural Area Wildlife Assessments. These reports are appendices of this Master Plan.

At time of plan writing, methods for the groundwater study consist of shallow groundwater monitoring, site evaluation, and collection of elevation data. Three groundwater monitoring wells were installed, to develop a continuous record of groundwater elevations and allow for an estimation of the primary direction of groundwater flow, concurrent water surface elevation data in Beltz Marsh, and rainfall and ocean tidal data for the same time period. Water surface elevations and stormwater infrastructure in Tierra Del Mar and in the wetland east of Sand Lake Road have been evaluated.

Only limited results of this groundwater analysis are currently available due to the short duration of information collected at time of plan writing. A more complete report from this analysis is expected to be available in 2017-18 (pending data collection), that includes data gathered through a full calendar year (March 2016-2017). This report will include more complete data on the effects of tidal changes, local streams, and potential storm surge on groundwater levels to neighboring properties in the northern section of Tierra Del Mar, as well as results of hydrologic modeling collected in the process of developing concept alternatives, including water quality information. Further analysis of site hydrology in relation to neighboring properties will be conducted in coordination with project partners and the public prior to a decision by regarding improved fish passage and tidal exchange through the dike.

**Botanical Resource Summary**

Vegetation and habitat assessment for the Sitka Sedge State Natural Area property involved both 1) detailed survey of the existing vegetation as part of the standard natural resources background data assessment for use in the development of a Master Plan for the management of the property; and 2) statistical modeling of predicted future vegetation and habitat response to potential dike alterations for improvement of fish passage. Complete data for this assessment can be found in Further descriptions for these findings can be found
in the full *Vegetation Inventory, Botanical Resource Assessment, and Natural Landscape Characterization*. Inventory and assessment of existing vegetation for the purposes of OPRD master plans involves:

1. Review of published or archived biological data for the site
2. Inventory and mapping of plant associations
3. Identification and mapping of significant habitat
4. Identification and mapping of any rare plant or animal species known or found
5. Assessment of condition, successional status, and conservation ranking of plant communities present at the site.

In the case of this particular property, significant natural habitats are present throughout the property, including in areas in close proximity to developed sites. Although invasive plant species are widespread and abundant in upland and wetland habitats, much of the landscape retains a natural character and provides valuable wildlife habitat. Saline habitats are generally in higher ecological condition, as are dense forest ecosystems. The most significant habitats present on the property from a vegetation perspective are the wetlands, particularly the varieties of saltmarsh (high and low).

No plant species listed under the state or federal Endangered Species Acts are known from the property, although suitable habitat is present. Several unregulated rare plant species and rare habitat types are present.

**Present Plant Communities**

A variety of forest, woodland, herbaceous, and shrubland habitats ranging from wetland to upland are present in the park. These habitats are described in this report in various hierarchical levels of habitat type and land cover (See Map on Page 51 for general locations).

**Broadleaf Forest**

Broadleaf forests within the context of the Sitka Sedge State Natural Area study area are typically composed of red alder with some communities also being significantly colonized by cascara, Scouler willow, and Pacific crabapple. All instances of broadleaf forest in the study area are early successional and contain Sitka spruce and other conifer species in the understory. These stands have their origins in disturbance events such as logging, wildfire, blowdown, or landslides. Given enough time without disturbance the hardwood species will eventually be overtopped by the shade tolerant conifers in their understories.

**Coniferous Forest and Woodland**

The study area’s conifer forests are primarily composed of Sitka spruce and shore pine. Smaller (and older) areas sometimes contain significant quantities of western hemlock or Douglas-fir. Older forests are located in two areas on the sand spit west of the central low lying ground dominated by marshland, as well as on most of the sloping land to the east of the marshlands. The forests and woodland on the sand spit are relatively newly established as a result of stabilization of the sand dunes by European beachgrass in the last century. Forests east of the marshlands have been forested for many centuries, but have gone through periods of destruction and regrowth from fire, logging, and blowdown.

For the purposes of this study, the difference between forests and woodlands is in the density of the forests. Forests being tree-dominated landscapes with nearly contiguous tree canopies, whereas woodlands are characterized by widely spaced trees with well developed and sunny areas of shrubland or herbaceous plant communities in the large gaps between trees. Woodlands are almost always made up of younger trees encroaching on formerly open dunal or marshland habitats.

**Forested Wetland**

Forested wetlands occur in wetland areas that are predominantly non-tidal and which are not so wet as to prevent trees from being
able to establish. Surface water inundation is generally seasonal, and less than 2-3 feet deep. These forests can be made up of shore pine, Sitka spruce, red alder, cascara, Scouler willow, and/or Pacific crabapple. These wetlands can be broken into two main topographic types: swamps and streamside communities. Swamps are generally characterized by standing water during long periods of time, whereas streamside wetland types are generally inundated by moving water during storm events for shorter periods of time. Streamside communities may have saturated (rather than inundated) soils from sub-irrigation from the streams they abut rather than overbank flooding. Slough sedge, skunkcabbage, and water parsley are common understory plants in most of the swamp habitats. Herbaceous vegetation in the stream terrace and bank communities tends to be different from that of the swamps, but slough sedge and skunkcabbage are common to both environments.

Mixed Broadleaf-Coniferous Forest
These forests occur in areas that either have 1) relatively frequent conifer attrition due to flooding, disease, blowdown; or 2) a history of salvage/high grade logging. Both situations occur in the study area. These stands are typically characterized by scattered spruce and hemlock with intervening alder. Shrub understories tend to be very dense with salmonberry, red elderberry, and sometime salal, evergreen huckleberry, or cascara.

Conifer/Kinnikinnik Woodland
These woodlands are early to mid seral stages of forest developing from dune habitats. They are characterized by relatively widely spaced trees and shrubs, and kinnikinnik understories with some other herbaceous dunal habitat remnants such as dune goldenrod, red fescue, beach knotweed, etc. Well developed forms of these habitats where the transition has been slow are rich with lichens and contain manzanita and other shrubs. The kinnikinnik woodlands in the current study area are stabilizing and becoming forested very rapidly, and have not developed the richness of some of the better examples of this habitat type. Tree species encroaching into these habitats are primarily shore pine and Sitka spruce. There is potential for the rare Seaside Hoary Elfin butterfly to populate this habitat as kinnikinnick is its host plant.

Shrub-Swamp
Shrub swamps within the study area are later successional forms of freshwater wetlands. Typical shrub species forming these habitats are Hooker willow, Douglas spirea, black twinberry, Pacific crabapple, cascaras, and sometimes salal, salmonberry, and evergreen huckleberry. These habitats start out as scattered shrubs within freshwater marsh (typically dominated by slough sedge in this study area). Over time the shrubs grown and spread and eventually form a continuous canopy. The hydrology of these swamps is toward the drier end of the freshwater marsh spectrum, and some areas of the study area where hydrology has increased due to the deterioration of the tidegate have shown the shrubland to be receding from their current extent toward higher topography. Some shrub swamp habitat is hydrologically suitable to develop into forested wetland/swamp over time as tree species encroach and shade out the shrub species.

Shrubland (Upland)
Shrubland in the sense intended here is non wetland habitat made up of dense shrubs. Typical species making up this habitat type within the study area include salal, evergreen huckleberry, salmonberry, red elderberry, Pacific rhododendron, waxmyrtle, and sometimes cascaras, vinemaple, Pacific crabapple, or Scouler willow. These habitats are usually intermediate between an open herbaceous habitat type and forest, but some are relatively permanent because of poor soils or frequent disturbance.

Dune and Beach
The habitat grouping is characterized by relatively open sand and herbaceous vegetation on the oceanfront. It includes subtypes from pure sand areas such as the wet sand beach,
to relatively dense herbaceous vegetation areas dominated by European beachgrass or American dunegrass. The non-beach forms of this habitat grouping are declining in acreage rapidly as forest and shrubland vegetation covers the formerly open dunelands. Aerial photography from the period between 1939 and the present shows a rapid progression from sands very sparsely vegetated with native dune species to dense and often nearly impenetrable forest of young trees and thick shrubs. The remaining open dune habitat falls into three main groups: American dunegrass dominated dunes, sparsely vegetated semi-native dunes with native species and sparse encroaching European beachgrass, and those dunes where European beachgrass has already achieved dominance. Some of the European beachgrass dominated habitat contains few species other than the European beachgrass itself. Semi-native dunes often still have significant presence of species such as dune goldenrod, beach knotweed, red fescue, Indian paintbrush, dune bluegrass, and Kinnikinnik, in addition to several weedy grass and forb species.

**Freshwater Marsh**

Freshwater marsh habitat occurs in the portions of the study area's lowlands that are not reached by tidal oceanwater. These areas are located both inside the dike at elevation above about 8 feet, and in interdunal swales and deflation plane in the dunes. Freshwater marsh is often characterized by the presence of slough sedge, water parsley, cattail, Pacific silverweed, falcate rush, and common rush (although some of these species can also occur in high saltmarsh as well). Sitka sedge occurs both in freshwater marsh and in upper high saltmarsh. Freshwater marsh is frequently eventually succeeded by shrub swamp and forested wetland, but areas that are too wet for shrubs and trees can remain herbaceous for a very long time. More information on this and the results of salinity testing inside the dike can be found in the *Botanical Resource Assessment for Sitka Sedge State Natural Area: Existing Conditions and Modeled Future Conditions Under Two Potential Dike Alteration Scenarios and Sitka Sedge State Wildlife Assessments* in the plan appendix.

**Native Herbaceous Upland**

Native herbaceous uplands make up a very small amount of the habitat of the study area. These habitats are transitional between native dunes and coastal prairie. They occur in a few locations at the north end of the sand spit in areas that have not yet been dominated by European beachgrass. Typical species composition includes red fescue, seathrift, tufted hairgrass, dune sedge, and American dunegrass, among other native and non-native species.

**Pasture and Non-native Grassland**

This habitat group includes areas cleared of forest and converted to production of forage grasses, as well as former pasture land on the edge of the marshes that is above the wetland influence and which retain dominance of the non-native plant species that were introduced there for cattle forage. These areas are typically dominated by forage grass species and weeds common to lawns and pastures. Some of these habitats are still used for the production of hay.

**Saltmarsh**

This habitat type is characterized by relatively frequent inundation by ocean water, and a species composition dominated by species that are salt-tolerant. Saltmarshes are traditionally divided into subcategories according to their species composition and inundation regime. The categories used in the case of the current study are high saltmarsh and low saltmarsh. Low saltmarsh is the herbaceous vegetation type that occurs in the saltmarsh zones inundated for the longest period of time each tide cycle. Within the study area context, low salt marsh is characterized by the species saltgrass, pickleweed, seaside arrowgrass, threesquare bulrush, seashore bulrush, and fleshy jaumea (although some of these species can also occur in high saltmarsh or even freshwater marsh as well). High salt marsh is saltmarsh that occurs slightly
higher in elevation than does low saltmarsh, thus receiving slight shorter periods of ocean water inundation. High saltmarsh is often characterized by tufted hairgrass, Pacific silverweed, Baltic rush, three ribbed arrowgrass, meadow barley, and Puget Sound gumweed. Contrary to what was the case in the past, much of the marshland inside the dike is currently low and high saltmarsh due to construction of the dike and more recently the deterioration of the dike’s tidegate. These areas were formerly freshwater habitat (or even uplands in the distant past) when the dike and tidegate were functioning properly.

Developed/Disturbed
Developed and disturbed habitats are those that are either man-made environments such as roads, structures, parking areas, etc – or that are unnatural due to disturbance or human intervention (road shoulders, recently graded areas, etc). As much of the estuary behind the dike would have been tidally effected prior to its construction, this area could be considered disturbed.

Disturbed Streambank
The portion of Reneke Creek running from the current crossing of Sand Lake Road to the forested habitat at the east side of the pasture that it crosses through have been mapped as disturbed streambank. This stretch of stream is in an artificial location and has little natural vegetation.

Water/Mud
Water and mud environments occur in both the form of saline mudflats in the Sand Lake estuary as well as in the beds of the drainage ditches inside the dike and the artificial pond adjacent to Sand Lake Road (shown in the map on page 10). The saline mudflats occur in areas that are long-inundated seawater and which can’t support terrestrial vegetation in significant quantities due to their duration of inundation, erosional patterns, herbivory by aquatic organisms, or a combination of these causes. Mudflats inside the dike are maintained by erosion from flowing water. The water/mud habitat in the pond area is becoming vegetated as siltation decreases the depth of the water.

Botanical Resource Value Ratings

Botanical resource value is the term used to represent the relative ecological importance, from a plant community perspective, of discreet plant community polygons. The assigned value captures information about the plant community, its ecological condition and relative value for preservation, determined by combining six environmental characteristics of each polygon: conservation ranking, condition, restoration priority, restoration feasibility, wetland status of the community, and age class (for forested communities). Interaction of these parameters in assignment of a botanical resource value rating is described in detail in the “Methods” section of the background vegetation assessment report cited above. Plant communities having the most restrictive botanical ratings are wetland communities and late-seral forest in good condition. This is primarily due to the relatively high conservation rankings and decent ecological condition of these communities, but in some cases their restrictive ratings are entirely due to wetland status.

Generally speaking, the larger the Botanical Resource Value class is (ie 4), the less potential the site is for development from a plant community perspective and the lower the number (ie 1), the more appropriate the site is for development. Botanical Resource Value is just one factor in later determination of a composite suitability that factors in rare species, wetlands and waterways, historical, cultural, wildlife, and other types of restrictions. Composite suitability determinations are made in the course of Master Planning process, when all resource and use variables are assessed together.

Botanical resource value ratings for the park can
be found in Figure 3.1. Further descriptions for these findings can be found in the full Vegetation Inventory, Botanical Resource Assessment, and Natural Landscape Characterization.

Botanical resource value is a key factor used in determining “composite natural resource value” of various areas of the park. Composite natural resource value combines the botanical value with habitat resource values discussed later in the chapter. The Composite Natural Resource Values for the park are depicted in Figure 3.3 in this chapter.

Botanical Resource Management Recommendations

The background vegetation assessment report cited above includes detailed recommendations for management and restoration of various botanical resource communities in the park. Figure 8.3 in Chapter 8, “Natural Resource Management Recommendations,” illustrates priority projects for the management and restoration of botanical communities for their combined botanical and habitat values. These include projects that control invasive species, promote the health, succession and diversity of early seral and young plantation forests, restore wetland communities, and improve the ecological conditions of the park over time.

Forestry Summary

The Forest Technical Report is designed to accompany and provide guidance to the Integrated Park Services division in creating a Master Plan for Sitka Sedge State Natural Area. The report seeks to provide a summary of current conditions or condition classification, provide criteria for establishing a natural resources value, and to provide broad management recommendations for forested stands within the planning area.

39 individual areas totaling 385.09 acres were identified on digital orthophotography using GIS software. These areas were grouped into four categories:

1. Upland Forest, (176.72 acres) - These are areas that currently contain deciduous and/or coniferous forests as the dominant vegetation type and are above the riparian zone.
2. Riparian Forest, (13.44 acres) - These are areas that currently contain deciduous and/or coniferous forests as the dominant vegetation type and are within the influence of the riparian zone.
3. Forested Wetland, (12.67 acres) - These are areas that currently contain deciduous and/or coniferous forests as the dominant vegetation type and exhibit criteria required to be considered a wetland, including; a dominant hydric soil type, ground saturated by surface water for a significant portion of any given year, and the existence of understory vegetation typically adapted to saturated soil conditions.
4. Non Forested Areas, (182.26 acres) – Any area that is not currently dominated by deciduous and/or coniferous forests. These areas may have some deciduous and coniferous trees with the area but generally represent less than 10% of the dominant vegetation type.

Stand Assessment

Approximately 95 percent of the stands received a site visit to evaluate the accuracy of the GIS compilation. The stands were assessed by a combination of onsite ocular estimations and inventory plots. A variety of forest inventory measurements were taken at one to two locations per stand. This survey was not statistically robust, but OPRD forestry staff used professional judgment to collect data that represented conditions typical of each stand. Stand data collected at plots or by aerial photo interpretation included tree species, dominant species age, trees per acre,
Figure 3.1 Botanical Resource Value Map (OPRD)

Legend
- OPRD Park Boundary
- Roads
- Stream/Surface Flow
- Existing Social Paths

Botanical Resource Values

- **2/4** - Preservation where wetland. Low resource value where not wetland.
- **2** - High resource value and conservation priority and/or wetland.
- **2 to 3** - Habitat mosaic of mixed resource value. Some areas are higher quality than others. High conservation priority and feasibility.
- **2/3** - Moderate conservation priority where wetland, moderate resource value and conservation priority where not wetland; High conservation priority where wetland.
- **3** - Moderate resource value and conservation priority
- **3(2)** - Moderate resource value and conservation priority. Restoration is feasible, and if implemented this area would be high of conservation priority and resource value.
- **4** - Low resource value and conservation priority
and average diameter. A basic road inventory was also documented to assess the access needs for potential forest management activities. Furthermore, an analysis of the soil matrix was conducted through the USDA Web Soil Survey to evaluate site productivity and operational feasibility.

The data for the stand assessments was collected by OPRD forestry staff, management recommendations were made based on the guidelines in the OPRD Forest Management Policy. This policy was created in 2004 and guides forest management decisions on OPRD property statewide.

Wildlife Habitat Value Ratings

Wildlife Habitat Value ratings, shown in Figure 3.2, were developed to inform wildlife habitat areas in the park and to produce the Composite Natural Resource Values for the park illustrated in Figure 3.3 in this chapter. Habitat Value ratings were merged with the Botanical Value ratings discussed above in producing the Composite Natural Resource Value map. Wildlife Habitat Values are described in more detail in the Sitka Sedge State Natural Area Wildlife Assessment produced for this plan. The assigned Habitat Values capture information about the quality of the habitat based on botanical conditions, the desired future conditions, and anticipated disturbance based on proposed park development and related human activity and land uses adjacent to the park. Interaction of these parameters in assignment of Habitat Value ratings is described in greater detail in the background Wildlife Assessment report cited above and in the appendix.

At Risk Fish & Wildlife

At risk species are experiencing population declines otherwise at risk. Several species known to occur in the or near the park are included on federal and/or state sensitive species “watch lists,” as indicated in the list below. In addition, numerous other species either protected under federal and/or state Endangered Species Acts (ESAs) or included on watch lists under federal and/or state programs have the potential to occur in the park. At-risk species surveys are recommended prior to initiation of development projects. For references cited below please refer to the bibliography in the Sitka Sedge State Natural Area Wildlife Assessment where these descriptions have been excerpted from.

Oregon Silverspot Butterfly
The federally threatened Oregon silverspot butterfly (Speyeria zerene hippolyta) is a small orange fritillary with dark markings. Currently this species is known to occur at only four sites in Oregon (USFWS 2001). The silverspot requires early successional, coastally influenced grassland that contains the caterpillar host plant early blue violet (Viola adunca), adult nectar sources and courtship areas. The butterfly is not currently known to occupy the park, and recolonization is unlikely without appropriate habitat and reintroduction efforts. V. adunca has been found in the park in small quantities along trail edges and surrounded by conifer kinnikinnick woodland.

Seaside Hoary Elfin
Seaside hoary elfin (Callophyrs polios maritima) is a small, brown butterfly similar in appearance to the far more common western pine elfin (Callophyrs eryphon). Seaside hoary elfin is not federally or state listed under the Endangered Species Act, but this subspecies has been documented at only three locations throughout its range. Seaside hoary elfin is closely associated with kinnikinnick (Arctostaphylos uva-ursi) exposed to sunlight, which serves as the larval host plant. There are likely other limiting factors, as ample patches of kinnikinnick exist along the coast but are devoid of seaside hoary elfin.
Wildlife Resource Values

Legend
- OPRD Park Boundary
- Roads
- Stream/Surface Flow
- Existing Social Paths

Wildlife Resource Values
- High quality, preserve and avoid disturbance
- Medium value, restore and conserve
- Marginal value, restoration possible
- Low wildlife value

Note: Portions of OPRD Property are designated critical habitat for Coho Salmon. Spatial extents are currently unavailable. OPRD is in consultation with NOAA to resolve boundaries.
**Chinook**

Coastal Chinook Species Management Unit (SMU, *Oncorhynchus tshawytscha*) is a state critical species. Fall run Chinook are present in the Sand Lake Estuary (ODFW 2016). Chinook spend most of their adult lives at sea and migrate up river and stream channels to spawn in stable gravel substrates. They are large tributary spawners, and eggs are laid in a depression in the gravel, called a redd. As with all ocean migrating fish species, the levee and tide box at Sitka Sedge currently provide a fish passage barrier. While the damaged tide box allows some passage, water velocities often exceed juvenile and adult Chinook swimming capabilities.

**Coastal Cutthroat Trout**

Oregon Coast ESU of coastal cutthroat trout (*Oncorhynchus clarkii*) is a federal species of concern and state Conservation Strategy species. Coastal cutthroat tend to spawn in smaller tributaries (ODFW 2014), and express numerous life histories. As with all ocean migrating fish species, the levee and tide box at Sitka Sedge currently provide a fish passage barrier. While the degraded tide box allows some passage, water velocities often exceed juvenile and adult Chinook swimming capabilities.

**Coho Salmon**

The Oregon Coast Evolutionary Significant Unit (ESU) of Coho salmon (*Oncorhynchus kisutch*) is a federally threatened and state vulnerable anadramous salmonid that is currently present in the park. Like Chinook, Coho spend most of their adult lives at sea and migrate up river and stream channels to spawn in stable gravel substrates. At Sitka Sedge, adult Coho return to the estuary from mid-September to January and spawn in low gradient streams from October to December and into January with peak spawning in mid-November (M. Long, pers.comm December 2014). As with all ocean migrating fish species, the levee and tide box at Sitka Sedge currently provide a fish passage barrier. While the damaged tide box allows some passage, water velocities often exceed juvenile and adult Chinook swimming capabilities.

**Chum Salmon**

The Pacific Coast Evolutionarily Significant Unit (ESU) Chum salmon (*Oncorhynchus keta*) is a state critical species, and early commercial catch records indicate chum were more abundant than they are today (Cleaver 1951). ODFW adult monitoring programs indicate chum is present consistently in a few coastal basins. As with all ocean migrating fish species, the levee and tide box at Sitka Sedge currently provide a fish passage barrier. While the damaged tide box allows some passage, water velocities often exceed juvenile and adult Chinook swimming capabilities.

**Steelhead**

The winter run of the Oregon Coast ESU steelhead (*Oncorhynchus mykiss*) is a federal species of concern and state vulnerable salmonid. Steelhead return to Sand Lake Estuary as early as December with peaks beginning in mid-March through April (M. Long pers.comm December 2014).

**Marbled Murrelet**

Marbled murrelet (*Brachyramphus marmoratus*) is a federal and state-threatened species that spends most of its time at sea in open water. Marbled murrelet are declining rapidly across Oregon, Washington, and California. Threats to this species are habitat loss, predation, and potentially declining food quality. Marbled murrelet protocol surveys have not been conducted at Sitka Sedge. In the absence of survey data, OPRD is assuming presence of marbled murrelet in the upland forests where platform trees exist. While nesting within the park has not been confirmed, protocol surveys for this species are recommended prior to initiation of development projects that could affect potential habitat.

**Northern Spotted Owl**

The federal and state threatened Northern spotted owl (*Strix occidentalis caurina*) is a medium sized, dark brown owl with white...
Spots on the breast. Often associated with “old-growth” forests, this owl inhabits forests with structurally complexity most commonly found in mature and late-seral stage stands. Sitka Sedge does not currently support any known Northern spotted owl pairs, and does not have sufficient acreage to support a pair in entirety or provide nesting habitat. However, owls could utilize Sitka Sedge for hunting, especially, riparian and mature forests that abut Critical Habitat on Siuslaw National Forest.

**Western Snowy Plover**

Western snowy plover (*Charadrius nivosus nivosus*) is a small, sparrow-sized shorebird with black bars on the forehead and behind the eye, and an incomplete black neck ring. The coastal population is federally and state threatened, and extends from Washington south to Baja California. Western snowy plover breed in open, dry sand where the male scoops out a small nest scrape in the sand. The female lays her eggs, usually 3, in the scrape of her choice and the pair strives to incubate and protect the eggs from wind, storms, tides, sand, predators, and human disturbance. Extensive habitat loss has pushed the remaining birds into small areas, where disturbance from recreation and high predator densities negatively impact their ability to reproduce. The Oregon population has been extensively monitored since 1990, and most of the population is banded with unique color combinations which makes following individuals possible. Habitat management, predator management, and recreation restrictions by OPRD and other state and federal agencies have allowed the Western snowy plovers to increase from a low of 35 adults in 1993 to over 400 in 2015.

OPRD manages the entire ocean shore in Oregon, and in the course of management Western snowy plovers could be harmed, resulting in take. In 2010, OPRD signed a Habitat Conservation Plan (HCP) with specific conservation measures as part of an Incidental Take Permit (ITP) to account for this loss, protect the state’s liability, and to maintain beach access for recreation and beach safety response. The HCP designated 16 areas across Oregon as snowy plover management areas, including South Sand Lake at Sitka Sedge (Figure 3 and Figure 13). In 2016, a Western snowy plover nest was discovered, the first known nesting attempt at this site since 1984, a testament to selecting the site for protection and the low levels of disturbance relative to other beaches on the north coast. With habitat restoration, recreation restrictions, and predator management the plovers will hopefully retain their fragile foothold at Sitka Sedge.

**Red Tree Vole**

Red tree vole (*Arborimus longicaudus*) is a federal candidate species for listing, a state vulnerable species, and conservation strategy species. Red tree voles live in the upper canopy of late-seral coniferous forests, and are the primary food source for Northern spotted owl. Habitat for this species is sparse at Sitka Sedge, and largely limited to the south eastern corner of the property. Surveys for this species require intensive effort and specialized certifications, including tree climbing. Due to the difficulty in obtaining survey data, assuming presence and avoiding actions detrimental to red tree vole habitat is more cost-effective.

**Pacific Marten**

The Pacific marten (*Martes caurina*) is a slinky brown cat-like mammal with a teddy bear face. Thought to be a species of old growth forests, recent trapping work in the Oregon Dunes of the Siuslaw National Forest is revealing surprising lifestyles; Pacific marten have been found using shore pine forest and back dune habitats that have completely different structure compared to the old growth forests. Genetic testing is underway to determine the relationship between the coastal population and interior population. With these new data on habitat usage, it is possible Pacific marten are present at Sitka Sedge.
Additional Species of Interest

Northern Red Legged Frog
Amphibians are often touted as a prime indicator species of wetland health due to their sensitivity to changes in environmental factors, and their role as secondary consumers in the food web. The close proximity of suitable breeding habitat and upland foraging habitat makes Sitka Sedge an ideal location for this species.

In 2003, adults were documented in the forest adjacent to the Beltz quarry pond and in the forest west of the estuary. Egg masses were observed in interdunal wetlands, attached to slough sedge, in 2003 and also in the freshwater marsh south of the beaver dam in 2016. Surveys did not locate any red-legged frog activity north of the beaver dam, which is affected by brackish to saline water due to its tidal influence.

Bald Eagle
The bald eagle (*Haliaeetus leucocephalus*) is a striking, large dark brown eagle with white head and tail feathers and a yellow bill. Once federally endangered, the species has recovered to delisting; the bald eagle remains state threatened and federally protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. No known eagle nests are within the park boundaries, but adults have been observed and to the north east the Siuslaw National Forest has established a bald eagle nesting area. Bald eagles are present yearround (Isaacs and Anthony, 2003).

Roosevelt Elk
Roosevelt elk (*Cervus canadensis roosevelti*) is a subspecies of elk named after Theodore Roosevelt, and roams a variety of habitats from the ocean to the western slopes of the Cascade mountain range. Their numbers were once low across the state, but careful game management resulted in population increases that allowed hunting seasons to open in 1938. Elk sign is common throughout Sitka Sedge, from tracks across the coastal dunes to scat and “elk trails” in the pastures and forest.

Wildlife Management Recommendations

The background wildlife assessment report cited above includes detailed recommendations for management and restoration of wildlife resources in the park. These recommendations provide a basis natural resource management plans, supplemented by further assessments where needed, that implement the more generalized strategies addressed in this Plan document. Key management strategies are summarized in this Plan, which are represented in the management actions detailed in Chapter 8. It illustrates priority projects for the management and restoration of botanical communities for habitat values.

Composite Natural Resource Suitability Analysis

As a basis for natural resource related planning decisions for the park, OPRD natural resource staff rated the ecological value of existing plant communities, at-risk plant species, water features, and wildlife habitat. The distribution of these individual resource values were mapped across the park landscape, and then overlaid to build the Composite Natural Resource Value Map. The values rating system has four levels ranging from highly valued (1) to very low value as functioning ecosystem elements (4). Each of the four value ratings (1-4) indicates an appropriate level of resource management and the level of recreation that can occur for corresponding mapped areas of the park. Areas of the highest recorded resource value (1) also have the highest level of protection and conservation value. The Composite Natural Resource Value Map is included in this chapter, Figure 3.3.
Sitka Sedge
State Natural Area

Figure 3.3 Composite Natural Resource Value Map (OPRD)

Legend

- OPRD Park Boundary
- Roads
- Stream/Surface Flow
- Existing Social Paths

Note: Portions of OPRD Property are designated critical habitat for Coho Salmon. Spatial extents are currently unavailable. OPRD is in consultation with NOAA to resolve boundaries.

Composite Resource Values

1 - Protection Allocation
2/4 - Preservation where wetland. Low resource value where not wetland.
2 - High resource value and conservation priority and/or wetland.
2 to 3 - Habitat mosaic of mixed resource value. Some areas are higher quality than others. High conservation priority and feasibility.
2/3 - Moderate conservation priority where wetland, moderate resource value and conservation priority where not wetland; High conservation priority where wetland
3 - Moderate resource value and conservation priority
3(2) - Moderate resource value and conservation priority. Restoration is feasible, and if implemented this area would be high of conservation priority and resource value.
4 - Low resource value and conservation priority
Scenic Views and Settings

Assessment of the park’s scenic resources included consideration of existing prominent scenic corridors, known locations that offer broad views overlooking the park landscape, opportunities for estuary and ocean views, potential for creating narrow or screened views through forest vegetation, and the qualities of various scenic settings.

There are two prominent scenic corridors that attract the attention of park visitors. Views of the relatively undeveloped Sand Lake Estuary, including views across the estuary to Whalen Island are omnipresent in the park. The pacific ocean beach with its sweeping views of the coastline and open ocean is generally regarded as a secondary, yet outstanding, scenic attraction with views of Haystack Rock to the south and Cape Lookout to the north.

A number of accessible or potentially accessible developed viewpoints offer broad views overlooking the landscape from existing or potential upland trails. Two of these areas are located on the Beltz Dike. While most spots on the dike allow unmitigated views to the estuary, these two locations have been chosen to highlight wildlife, while providing ample rest spots for hikers. Additionally, an area of high ground inside the dike has been identified for its unparalleled panoramic view of the Sand Lake Estuary.

Narrow or screened views of the estuary are possible with strategic management of the forest and shrub vegetation along existing or potential upland trails, and corridors where these opportunities appear promising have been identified. Areas along the existing and planned trails have been identified for continued management to provide long term scenic views. It should be noted that the forested section of property east of Sandlake Road contributes to the scenic quality of the park and should be managed as natural forest to increase the scenic value over time.

Figure 8.1 ‘Proposed Site Plan’ in Chapter 8 illustrates the various potential scenic corridors and viewpoints identified in this assessment. More information about planned development to increase access to these areas can be found later in the Plan in Chapter 8.
Cultural Resources

A background assessment report on the park's cultural resources, titled “Historic Resource Report of the Beltz Property” was prepared for this Plan by the OPRD Historian. Below is a condensed but comprehensive version of the report.

Historic Summary

The park property is located within the traditional territory of the Tillamook Tribe, who at the time of European contact, occupied the Pacific coast from approximately Tillamook Head in Clatsop County, south to the Siletz River in Lincoln County. The Tillamook were incorporated into the Confederated Tribes of Siletz Indians as a tribe along with many other tribal groups and individuals from the region. The property is also an important place to other tribes, such as The Confederated Tribes of Grand Ronde, who have close ties to the area. The property was likely used for a variety of traditional native land uses, foraging, hunting, fishing and temporary habitation.

Post-settlement, the historic use of the property was dairy farming, which began with the Roenicke family in the early 20th century. Anna Elise Timm Roenicke, having lived in Portland with her husband, Otto, and two children, William and Annie, was a widow by 1899. She moved to this property with her children and began dairy farming. In 1920, she and her son, William, and her two granddaughters, Hazel and Gertrude, lived on the farm. In 1930, they moved to Salem after selling the farm. (The Roenicke house, barn, and farm outbuildings no longer exist.)

Dairy farming continued when Frederick “F.A.” and Naomi Beltz purchased the property. They lived in the city of Tillamook with their four daughters, Mary Margaret, Marilyn, Nancy and Fritzi. F.A. worked in the lumber industry and was a Tillamook County judge during 1926-1932. He was a strong advocate for building the Coast Highway (Roosevelt Military Highway),

Sand Dunes Looking North in 1973 (OPRD Archives)
and worked diligently to promote better roads for the Oregon coast. After the Beltz’ purchased the subject property, F.A. was actively involved in the operation of the dairy farm, with the help of a full time caretaker, Chris Bourne.

The Amos Fry family came to live on the Beltz farm after World War II, when Chris Bourne moved to Sand Lake. The old caretaker’s house (presumably the Roenicke’s house) and barn were demolished, and a new house and barn were built across the road from the dike. Lewis Beachy and his family occupied the property during 1958 through 1975. After that, the Farrell family lived on the farm until 1987 and raised beef stock in the upland pastures. Frank Bastache bought the property and hired Peggy and Bill Howard (Fritzi’s daughter and son-in-law) to live on the property as caretakers, which they did until about 2004. During this time there was an intense community effort to prevent development of the property as a golf resort. Following several failed attempts at resort development, OPRD purchased the property in September 2014.

### Historic Features

Based on the information available to date, the Beltz family is credited with building the two historic structures that remain on the property—the “cabin” (c. 1933) and the dike (c. 1935). These structures provide evidence of the historic uses and were evaluated for historic register status. Beltz Cabin is eligible for the National Register of Historic Places but the dike was determined not to meet National Register criteria. The criteria for listing are age (50+years), integrity (retains historic appearance), and significance (events, people, architecture (engineering), and/or archaeology).

**Beltz Dike**

The dike was important to the dairy operation. It was used to provide pasture land for the cattle, and served as a road for wagons and tractors. Oral accounts indicate that Judge Beltz quarried stones out of the bank on the west side of the road to build the dike. Beltz and Schaleck Creeks ran into the field behind the dike and drained through the gates at low tide. The dike also served as a roadway for the cattle, wagons, tractors, and trucks. Chris Bourne, the Krakes,
and the Schalecks from the farms to the north, and the Sears on the south, joined in harvesting grass at each farm.

*Beltz Cabin*

The cabin retains a high degree of historic integrity both on the interior and the exterior. The cabin is a Craftsman Bungalow style residence. The style was more typically built during the 1910s and 1920s in Oregon. However, this type of house was utilized through the 1930s. The Sears Homes Catalogs show the continuation of this style in their kit homes up until 1940. Additionally, the book, *American Vernacular Interior Architecture, 1870-1940*, illustrates that the various components within the “cabin” could have been anytime between 1915 and 1940. These features include doors with five panels, Prairie style window sash, simple trim with square edge casings, panel and batten walls, and the use of natural materials, particularly wood. The hardware also appeared in trade literature from 1900-1935, and was commonly used in bungalows.

The exterior of the building incorporates the traditional features of a bungalow, including front facing gabled roof, shed roof dormer, bracketed eaves, full length front porch accessed by centrally-located stairs, and shingle and horizontal board siding. Features that are not typical for this building style are the round, nautical-shaped windows in the gable ends, and the extension of the upper floor beyond
the roof plane of the first floor, with curved, dentil-like brackets. One-and-one-half stories in height, the building is rectangular in shape, approximately 25 feet wide by 30 feet long, and is supported by a post and beam foundation.

Archaeological Features

A cultural resource inventory of the park and a review of report findings were conducted in consultation with the State Historic Preservation Office (SHPO) to inform potential impacts during development. A 49 acre survey of park property was conducted in late 2015. Given the history of use by Native American tribes, there is an overall high likelihood of archaeological resources present in the park.

Summary

Collectively, these existing condition assessments provide guidance to the planning process and assist park staff as they manage the parks for historical, scenic, and natural resource quality over the coming years.
This chapter describes the process for engaging the public in the master planning process for Sitka Sedge State Natural Area and the results of community discussions around a number of issues that arose during the park planning process. More information on how this engagement informs the overall state park master planning process can be found in Chapter 1: Introduction and Planning Approach.
Outreach & Engagement

The initial step of engaging the public and creating awareness of the planning process was through developing the website at: www.beltzplan.com. The website served as a centralized database for schedule updates, proposals, and meeting materials, allowing people the opportunity to directly comment in a public forum. Announcing meetings through the website was also helpful as it allowed partners to link to the site for updates or meeting times.

In addition to the website, public outreach was conducted via press releases, a mailing list of property owners within a quarter mile of the park and other interested parties, newspaper notifications, and television and radio interviews.

Tools for communication and outreach:

1. Values based approach
2. Plan website
3. Web mapping survey for geographic based comments
4. Public surveys, recreation and interpretive
5. Public meeting check-ins
6. Advisory committee
7. Local media interviews and communication
8. Stakeholder meetings on selected issues

Values Based Approach

During the planning process, the community was asked to form a series of plan values to help guide and define proposed management actions. OPRD looks to the community to help identify potential opportunities, conflicts, and desired outcomes for the property. The values developed in the public process describe the sense of place desired in potential outcomes for management actions. These values help to develop an analytical framework to view the resource inventories and recreation assessments, so that a better sense of future condition or experience can be defined that is relevant to the park property’s unique landscape.
At the first public meeting and through an online survey the public was asked the following questions:

1. What do you think of when someone mentions the Beltz property?
2. What benefits does the Beltz property provide?
3. What would you like to stay the same about the Beltz property?
4. What would you like to change about the Beltz property?
5. What would you like to add to the Beltz property?
6. What types of recreation activities do you do at Beltz?
7. What types of recreation activities do you like to see?
10. What do you value about the Beltz property?

Approximately 75 people responded to the online and paper surveys provided at public meetings. The answers to these questions helped in formulating the following value statements:

**Value 1: Natural Resources**
We value the ecological benefits of this unique and diverse estuarine habitat.

**Value 2: History**
We value the cultural history, stories and site features that remind us of how the landscape has been shaped by its inhabitants.

**Value 3: Community**
We value the opportunities for public access and education that this special place provides within the context of the Sand Lake Estuary.

**Value 4: Recreation**
We value the opportunity for all to discover, explore, and enjoy the peaceful beauty of this natural area.

### Public Meetings

Public meetings were hosted three times throughout the planning process, with each round including a local meeting, metro-region meeting, neighborhood meetings in Tierra Del Mar and advisory committee meeting. Full summaries of these public meetings are available in the appendix. An additional meeting was held in 2014 prior to acquisition of the property by OPRD to gauge public opinion of transferring the property to public ownership. Comments from these meetings were reviewed to inform this master plan.

**Meeting – OPRD Acquisition June 2014**

At this initial meeting OPRD presented interest to the local community in acquiring the property as a state park. The agency expressed an intention for low impact, passive recreation and natural resource restoration. Public comment was taken in regards to potential acquisition. As a result of this meeting, the OPRD Commission recommended purchase of the property later that year, which occurred in August 2014.

**Meeting I. Public Comment & Values August 2015**

At the first round of public meetings OPRD staff explained how the planning process guides the vision and management of this state park. More importantly, staff listened to local residents and stakeholders to find out what they value about this incredible place.

**Meeting II. Assessments & Concept Alternatives January 2016**

At the second set of public meetings OPRD staff presented the results of resource assessments to the public. Community members and park staff worked together to begin to identify key
goals and strategies to maintain the natural character of the state park. Staff also presented preliminary planning concepts with alternatives for development of the park and listened to public comment.

Meeting III. Draft Park Master Plan
May 2016

At our third set of public meetings OPRD staff presented the draft master plan for public review prior to approval of the draft plan by the OPRD Commission.

Advisory Committee

The advisory committee is made up of partner agencies, neighboring land management agencies, stakeholders, recreation and natural resource interest groups, and local municipalities. Representatives from these groups participate on the committee to advise the planning process, as well as take information on the planning process back to their agencies. This group is especially important to the planning process, helping to identify and analyze issues and opportunities that are multifaceted and require partnership solutions. A full list of advisory committee members can be found at the beginning of the plan.

Summary of Public Comment

The comments in this chapter were compiled with input from an advisory committee, OPRD staff and consultants, local officials, affected agencies and interest groups, tribal representatives and members of the public. Understanding the community needs and public expectations of a state park is an essential element of creating a comprehensive plan. During the process for the Sitka Sedge State Natural Area plan, OPRD has implemented approaches to maximize the opportunity for comment and issue identification. The opportunities to comment and efforts to raise awareness have included:

- Four sets of public meetings scheduled to increase awareness and gather comments.
- Creation of a mailing list, including one quarter mile radius of park neighbors.
- Press releases.
- Written comment periods.
- A website with interactive comment capability, and comments on a park map.
- Individual meetings with relevant stakeholders.
- Engagement with neighbors groups to comment on park proposals.
- Issues raised and captured in the resource assessment process.
- Advisory committee made up of locals, agency partners, resource professionals, and community leaders to provide guidance and comment.
- OPRD Commission input.
- Meetings with OPRD staff for guidance and comment.
- Media releases to increase awareness of the planning process.
- Newsletters to mailing list.

Many of these opportunities yielded excellent feedback and comments that are reflected in the overall planning document. This section addresses the issues that were identified during the outreach process and is not intended to outline management of the park. During the planning process, OPRD reviewed hundreds of public comments that came from public meetings, advisory committee, planning website, correspondence, phone calls, partner agencies, OPRD staff, and informal external sources (such as online responses to news stories). The public discussion is summarized below and informs the values, goals and management strategies contained in the following chapters of the plan. Some comments have been paraphrased from public meeting comments.
**Park Needs**

Visitors suggested better access to the dike and the beach, with clear trail routes and added wayfinding.

Reusing the former Beltz cabin as a possible host site, education center or a local museum was suggested.

Suggestions to providing a safe experience and eliminating illegal camping and other illegal activities.

Comments were made to protect and restore streams for fish passage and improving vegetation along creeks, and limiting development for the site.

**Recreation**

Many suggestions for providing recreation activities are hiking/walking, trail running, foraging for food, wildlife viewing, paddling, kayak, picnic, day use, and access to a restroom.

Another suggestion was for viewing sites and educational opportunities to explain birds, wildlife, restoration of streams, fresh/salt water bodies and native people. However, it is important to minimize the visual effect of what is provided by using viewing areas, benches, and blinds instead of panels.

Equestrian use has historically been allowed but because of the harm to trails, it was suggested to limit it to the beach. There is however, an opportunity to possibly connect the trails on the east side to the Oregon Coast Trail planning for a larger regional connection with possible biking and equestrian access.

**Facilities**

Providing some additional facilities is an important issue to park visitors. Upgrading trails, providing wayfinding, and beach access were among the many suggestions.

Other types of facilities suggested were a parking lot, picnic area with a possible shelter, educational area, bird and wildlife viewing areas, benches along the trails, and restroom facilities. The main theme throughout many of the comments was to keep the natural look of the park. Minimizing structures and using materials that will not impact the aesthetics and natural feel of the park.

**Management**

Managing the invasive species, restricting pets and leaving the park natural is important to visitors. Providing protection against illegal camping, vandalism and “leave no trace” reminders are other suggestions.
There were questions/concerns regarding the long-term stability of the park and dike.

Some felt there was a need for additional info about volunteer opportunities, assessments, volunteer rangers, adopt a park, co-op, etc.

One of the concerns was visitors bringing their ATV or motorcycle across the dike to the beach.

Developing maps for responders showing the trail system, access points and key points to use during search and rescue, also noting hazards or dangerous areas within the area such as the outfalls for the dike system, gate/control points, fenced locations where falls into the dike could occur. Cell phone service is poor in the area and a some kind of emergency notification system will need to be established.

One other suggestion was to see some opportunity for “clothing optional” recreation on part of the property.

**Park Access**

Direct access to the dike was highly supported, at Site A (adjacent) or B (southern meadow). Site A was preferred. It was understood that providing access as Site B would be cost prohibitive due to the wetland crossing.

There are some issues with overflow parking on Roma Road and other neighborhood streets for beach access, although some suggested this was not due to a people parking to access the beach, but overflow from a recent increase in rental properties. While parking in this area was generally supported for future needs, it is not a high priority currently and would not provide access to the main draw of the park, the dike. Some local residents see potential management issues with the property being left vacant. There are current issues with RV turnarounds and zero county maintenance of roads, and a wider bike lane is needed, however signing can be issued by the county to solve this issue.

OPRD compared visitor counts at other parks in the area and trail miles to determine the amount of parking spaces. We know this park can be an important resource for education and RVs and school buses can have full turnaround.

Some commented that the basic design was good but may need additional parking for more visitors which will help contribute to economic vitality of the communities. Others felt the area should be kept natural and concentrate the picnic area closer to the parking. Keeping the access and its amenities small to discourage overuse and keeping beach access to other areas of the park.

**Natural Resources & Restoration**

Comments were made that support protecting and restoring the area. Possibly restore the coastal meadows and the upland forest on the east side of Sandlake Road could be used to practice restoration forestry and return area to what it might have looked like pre European settlement. It could provide marbled murrelet habitat and the big meadow with a trail could provide nice views of the valley.

**Fish Passage and Hydrology**

Community opinions were heard that reflect a variety of opinions on this complex subject—some value leaving the estuary as is. Some people did not want to see the dike modified to protect their homes from potential flooding. Some also saw value in exploring options for improving fish passage that did not exacerbate potential flooding in the estuary.

The potential for exacerbated flooding in Tierra Del Mar as a result of modifying the dike is a concern for the local community. A ground water study was requested to see what the impact will be to the community if changes are made to the dike. It was also expressed that providing data and a visual explaining the flow through the dike would be helpful for people to see as they take in all this data.
Natural resource agency representatives expressed that work in the Salmon River estuary has shown counter-intuitive reactions because of the restoration. It may seem illogical that restored salt water marsh has more capacity; they see in many ways that things change slower now because of this giant sponge.

Comments were made that OPRD should be considerate of the dikes structure and its base when making changes to hydrology.

Comments were made that OPRD may end up having to react to dike failure later and ultimately be required to meet federal and state standards for fish passage. Some feel now is the time to consider the dike as part of the larger picture. There is a natural process that occurs and the site is in constant change. Most of the sites seen on the coast have dramatic change occurring and with that it becomes something that was meant to be there and much more self-sustaining that what was there before.

Some comments were made that a long-term vision should be reflected in OPRD’s values. It was 100 years ago that this area was first farmed and habitat has been created and in 100 years there are a lot of natural processes that will transform this site into something different. The dike may not last 100 more years, and that should be realized because other things will change.

Some people expressed having a side-by-side fresh water marsh and salt water marsh is the only example in the state. This is one of the values that would be lost if the dike modified. There are numerous values to this, not just in terms of flora and fauna but the history of man’s impact on natural lands. OPRD should take a measure approach to making changes because of the enormous potential costs and impact to the area, maybe fixing the culverts but not the tidegates. (Note: OPRD has been informed that there are several of such examples in the state of salt and freshwater marshes side by side)

### Park Name

Most comments on the park name are positive—it honors one of the unique features of this property and will help to educate visitors for years to come—while others felt the local community was not invited into the naming process sooner and that Sitka Sedge is not unique to the area and changes to the hydrology may alter the presence of Sitka Sedge.

### Waterfowl Hunting

ODFW believes there is a great public opportunity for waterfowl hunting in this area while still maintaining public safety. ODFW has the flexibility to be adaptable with hunting regulations to ensure success in these types of situations.

A more complete summary of comments received during the planning process can be found on www.beltzplan.com or by contact OPRD planning department.
Visitor Experience

Park visitors may come to Sitka Sedge State Natural Area for a specific purpose like wildlife viewing or hiking the trails, yet their experience at a park is influenced by many other factors: finding the park easily because of clear road signage, delighting at the sound of the birds in the trees, or learning something about the history of the site during their visit.

If OPRD is to plan state parks for high quality visitor experiences it must consider the cumulative effects of the many experiences a visitor has when spending a day in the park. One way we can do this is by considering the relationship between the activities that visitors participate in, the facilities that support those activities and the natural setting in which those activities occur.

The diagram on this page represents the activities that have historically taken place at Sitka Sedge SNA as it has been utilized for recreation for decades, despite being in private ownership. The property provides a wealth and variety of activities for all types of visitors. This plan aims to enhance the recreation facilities at this property to facilitate quality recreation for the long term, while managing recreation to protect natural resources.

**Historic Recreation Activities**

- Walking, Hiking, Trail running
- Plant and wildlife viewing
- Photography
- Beach Walking, Combing, Sitting
- Watching Sunsets
- Fishing/Clamming/Hunting
- Kayaking/Paddleboarding
- Horse riding
- Swimming
- Dog walking
- Foraging: Berries/Mushrooms
- Meditation
- Listening
Existing Recreation

Sitka Sedge SNA is part of an outstanding network of State, County and Federal recreation facilities between Tillamook and Pacific City that provide excellent opportunities for hiking, horse riding, camping, fishing, kayaking, ATV use, wildlife viewing all in a few mile stretch of coastline. In addition to all these activities, Sitka Sedge still fills a void in providing public access to the Sand Lake estuary as an opportunity to enjoy wildlife and scenery unlike any other section of the coast. See the context map in this chapter for locations of additional parks in south Tillamook County.

Nearby Oregon State Parks

**Cape Lookout State Park:** Considered by many to be one of the crown jewels of the Oregon State Park system, Cape Lookout is located on a sand spit between Netarts Bay and the ocean, giving visitors a terrific view of the ocean with easy access to the beach. More than eight miles of hiking and walking trails wind through a lush old-growth forest and the Cape Lookout trail follows the headland for more than two miles, providing a perfect perch above the Pacific Ocean to see migrating whales. Cape Lookout has 170 tent campsites, 35 full hookup sites, 13 yurts, 6 deluxe cabins, two group camps, a hiker biker camp, meeting hall and day use parking areas. This is the only state park nearby that provides overnight use.
Clay Meyers State Natural Area at Whalen Island: Just across the Sand Lake Estuary to the north of Sitka Sedge SNA, Whalen Island provides two miles of trail access to mixed woodlands, grasslands, fresh and saltwater wetlands (the Lillian Parker Craft Wetland) and a rare native dune sedgeland. This park contains 15 parking spaces, a restroom, picnic areas, and is directly adjacent to a Tillamook County Campground, which provides boat and fishing access to the estuary.

Tierra Del Mar Beach Access: OPRD manages all Oregon Ocean Shores as a recreation area under the 1967 Beach Bill and the beaches at Sitka Sedge SNA will be managed separately according to provisions of these administrative rules. The Tierra Del Mar Beach Access located on Sand Lake Road south of the Tierra Del Mar neighborhood provides beach access. For some of the year vehicular access is allowed from this location north to the beach adjacent to Sitka Sedge SNA.

Cape Kiwanda State Natural Area: This park, directly north of Pacific City, provides access to popular beaches, hang gliding, picnic areas, and the cape.

Bob Straub State Park: This is a popular park located south of Pacific City that provides several miles of beach access, fishing, and horse trails.

For comparison, daily average attendance by year (based on car counter data collected by OPRD) for two nearby similar state parks are provided. These numbers assist in determining appropriate parking lot capacity for Sitka Sedge State Natural Area.

**DAILY ATTENDANCE AVERAGE**

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<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<td>79</td>
<td>78</td>
<td>83</td>
<td>75</td>
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<tr>
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<td>40</td>
<td>42</td>
<td>39</td>
<td>41</td>
<td>38</td>
</tr>
</tbody>
</table>

Based on monthly car counts averaged across the calendar year.

Tillamook County Parks

Tillamook County operates several dozen day use areas, overnight parks, beach access points, and boat launches across the county. County parks in the nearby vicinity to Sitka Sedge SNA provide mostly overnight camping, and boat access. This includes the Whalen Island County Campground and boat launch just north of Sitka Sedge SNA which has approximately 30 camp sites.

U.S. Forest Service Parks

The U.S. Forest Service manages Sand Lake Recreation area, and the Siuslaw National Forest adjacent to Sitka Sedge SNA. Sand lake Recreation Area is a popular destination for off-highway vehicle (OHV) riders with access to dunes and overnight facilities.

Private Recreation Providers

Of the private coastal campgrounds, Thousand Trails is the largest and nearest to Sitka Sedge SNA. There are also various smaller private campgrounds along the Highway 101 corridor.

State Comprehensive Outdoor Recreation Plan and Oregon Trail Plan

The State Comprehensive Outdoor Recreation Plan (SCORP) is OPRD’s statewide five year plan for outdoor recreation. At the time of planning for Sitka Sedge SNA, 2013-2017 is the current SCORP plan. It guides the use of Land and Water Conservation Fund (LWCF) funds that come into the state, and other OPRD administered grant programs, and provides recommendations to guide federal, state, and local units of government, as well as the private sector in making recreation policy and planning decisions. A primary intent of the SCORP plan is to provide up-to-date, high quality information to assist recreation providers with park system
planning in Oregon. A total of 8,860 randomly selected Oregonians completed a mail/internet survey questionnaire. The current SCORP plan was the first in the U.S. to provide statistically reliable survey results at the county level. The Recreation Assessment of Sitka Sedge State Natural Area included review of SCORP. Additional details about methods can be found in the complete SCORP plan found at www.oregon.gov.

There are 11 SCORP planning regions across the state. Sitka Sedge State Recreation Area is found in SCORP Region 1. Data for this region is reflected in tables on the next few pages. OPRD has included a selection of findings that helps characterize existing recreation patterns in the vicinity of the park, as well as needs based on this statewide survey. The survey asked residents to indicate which of these recreational activities they had engaged in during 2011. Overall, 92% of Oregonians participated in at least one outdoor recreation activity in Oregon during the past year. Top statewide outdoor recreation activities are presented by proportion of the population that participated in the activity. Definitions of activities can be found in the 2013-2017 SCORP document.

SCORP and Wetland Priority Plan

According to National Park Service (NPS) requirements, each SCORP must specifically address wetlands within that State as an important outdoor recreation resource as a prerequisite to approval. The current Oregon 2013-2017 SCORP includes an appendix entitled, “Appendix F – Oregon Wetlands Priority Plan.” This Oregon Wetlands Priority Plan was developed by the Oregon Division of State Lands in March 1995 and was adopted as an agency strategic plan by the State Land Board. The 1995 plan is the most current plan.

Top 10 Activities per SCORP Region

Region 1

- Walking on local streets
- Walking on local trails
- Sightseeing
- Visiting the Beach – Ocean
- Visiting historic sights
- Relaxing
- Picnicking
- Attending Outdoor Concerts/Fairs
- Day Hiking on non-local trails
- Exploring tidepools

Oregonians were asked their opinions about priorities for the future. Respondents were asked to rate several items for investment by park and forest agencies using a 5-point Likert scale (1 = Lowest priority need to 5 = Highest priority need). The following priority lists are based on number of individuals served, not on the frequency of their participation in each activity.

The top recreation facilities needed by Oregonians are:

- Soft surface walking trails
- Access to waterways
- Nature and wildlife viewing areas
- Playgrounds with natural materials (Natural Play Areas)
- Picnic areas for small groups
- Off-street bicycle trails.
OPRD recently completed an updated statewide trails plan, Oregon Trails 2016: A Vision for the Future which guides the agency’s 10-year vision for funding trail projects.

Identified needs for non-motorized trail funding priorities in Tillamook County (Region 1) were as follows (pg 158):

1. Connecting trails into larger trail systems
2. Protection of natural features, including wildlife habitat
3. Repair major trail damage.

Additional information can be found in this plan at www.oregon.gov.

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### SCORP Tillamook County Recreation Needs (2013-2017)

<table>
<thead>
<tr>
<th>Public Recreation Provider Survey</th>
<th>Oregon Resident Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Close-to-Home Priorities</strong></td>
<td><strong>Dispersed-Area Priorities</strong></td>
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<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Public restrooms</td>
<td>Acquisition of parklands</td>
</tr>
<tr>
<td>Urban bike routes</td>
<td>Dispersed tent campsites (walk in)</td>
</tr>
<tr>
<td>Community trail systems</td>
<td>Public restrooms</td>
</tr>
</tbody>
</table>

Other recreation facilities need by Oregonians are:

- Tennis courts
- Basketball courts
- Baseball / softball fields

### Recreation Activities

The SCORP plan also identified needs for each county in Oregon by surveying recreation providers and citizens. The results of this survey for Tillamook County are shown above.
Existing Facilities Assessment

As part of the planning process, OPRD staff assessed existing facilities on the property, mostly trails. Despite being in private ownership prior to public acquisition, this property has been utilized for recreational use for decades through access on a system of user defined trails. This was seen as an advantage for development upon acquisition of this property. The following list summarizes staff findings.

- Most trails are in good shape
- Need to identify single North/South dune trail to sign and manage
- Some areas will need rerouting or turn-piking to avoid rainy season ponding, especially in dunes
- Sand surface trails in north will likely stabilize like trails in south area over time, due to increased shore pine rooting and canopy
- Some trails need resurfacing
- Best management will be to determine loop options and destinations from proposed parking area to reduce foot traffic on Sand Lake Road or into adjacent neighborhoods
- Develop a trail maintenance plan similar to Whalen Island
  - Yearly trimming for clearance standards (6’ wide/8’ tall), with potential for 4-6’ foot wide trails in areas with high

View of Estuary to the south from Beltz Dike
natural resource value (such as conifer/kinnikinnick woodlands)

- Monitor for erosion
- Five to six trail locations need slight rerouting to reduce existing erosion and severe grade
- There is potential to work with park caretaker/local volunteers on trail maintenance.

For more specific trail construction and maintenance recommendations please see Chapter 8: Park Plans and Recommendations.

In additional to trails, the property, largely undisturbed by human activity includes a dike, constructed in the 1930s to support pasturing and two residences. See the Existing Conditions map in Chapter 2 for more information on the location of these facilities.
Needs, constraints, and opportunities for Sitka Sedge State Natural Area were identified from a range of inputs including existing conditions assessments, public comments, public surveys, OPRD staff reports, and site visits. This chapter provides a generalized discussion of challenges and opportunities for recreation and resource protection, as well as a list of park specific needs. Strategies to address these needs are identified in Chapter 7: Values, Goals, and Strategies, and implementation of these strategies is outlined in Chapter 8: Park Plans and Management Recommendations.

Some of the needs, constraints, and opportunities that can be addressed through a master planning process are reflected in the master plan goals and/or development concepts. Other issues that cannot reasonably be addressed in the master planning process are noted and passed on for consideration in other appropriate OPRD programs.

**Typical Needs, Constraints & Opportunities Relevant to OPRD Master Plans**

- Natural, cultural and scenic resource management
- Recreational uses and facilities
- Major partnership opportunities
- Property ownership recommendations
- Project costs and funding

**Needs, Constraints, and Opportunities Generally Not Addressed in OPRD Master Plans**

- Routine facility maintenance and rehabilitation
- Park fees and budgets
- Staff management
- General park administration
- Lands outside of the area considered for inclusion in park management
- Park naming, feature names
How do we identify suitable development areas?

**Park Assessments:**
- Plant communities
- Habitat functions
- Sensitive species
- Wildlife
- Wetlands
- Natural hazards
- Archeological sites
- Scenic resources
- Topography/Slope
- Existing infrastructure
- Management needs

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**Access and Development Opportunity Areas**

**Need:** There currently is no formalized or developed vehicular access to the park property west of Sand Lake Road. A parking area with access to Sand Lake Road is needed to serve visitor uses of the park.

**Constraints:** OPRD considers several factors when determining developable areas in parks. Among these are plant communities, habitat function, sensitive species, wildlife, wetlands, natural hazards, archeological sites, scenic resources, slope, topography, existing infrastructure, and management needs. (See natural resource value maps in Chapter 3 that reflect these studies). Given high natural resource values across the park, there are limited opportunities for parking area development. It was determined that compacting development into one centralized area would be the best decision for natural resource preservation and long term site stewardship.

OPRD contracted with traffic engineering consultants to identify feasible locations for developing a visitor parking area with road access from Sand Lake Road. Based on this study, three potential locations for parking were identified, including one neighboring private property: (1) the pasture near the dike, (2) large pasture south of Reneke Creek and (3) neighboring parcel off Roma Avenue (See Figure 6.3). Sites 2 & 3 presented the largest challenges for development and management. Site 2 would require extensive development to provide access across Beltz or Reneke Creeks. Site 3, if acquired, could potentially create management issues, with users choosing to walk down Sand Lake road to access the dike, instead of heading north along the dune to access the west side of the dike. Parking capacity should meet goals of low impact recreation while planning adequate capacity to discourage parking along the county road.

**Opportunities:** Site 1 was chosen because in public meetings, OPRD heard that the northern pasture provides direct access to the dike and is therefore the preferred location for parking. This location also offers the best sight distance for traffic safety.

It may be advantageous to explore future
Figure 6.2 Sitka Sedge SNA Land Cover Types and Opportunity Area Map (OPRD)

Land Cover Types 12.09.15

Legend

- OPRD Park Boundary
- Roads
- Stream/Surface Flow
- Existing Social Paths
- Development Opportunity Areas

Forest & Woodland
- Broadleaf Forest
- Conifer/Kinnikinnik Woodland
- Coniferous Forest & Woodland
- Forested Wetland
- Mixed Broadleaf/Conifer Forest
- Mature to Late Seral Forest

Herbaceous
- Dune & Beach
- Freshwater Marsh
- Native Herbaceous Upland
- Pasture & Non-Native Grassland
- Salt Marsh

Shrub
- Shrub Swamp
- Shrub Land

Other
- Developed/Disturbed
- Disturbed Streambank
- Open Water/Mudflats
opportunities to acquire property at the south property boundary to facilitate closer access to the beach and an alternate trail connection to the park trail system.

**Restoring Hydrology to South Sand Lake Estuary**

**Need:** Evaluate the complex wetland ecosystem at Sitka Sedge State Natural Area to develop restoration plans that maximize natural processes, ecological values and habitat functions, while protecting neighboring human communities and infrastructure.

**Opportunities & Constraints:** In Oregon, approximately 70% of estuarine wetlands have been lost to conversion (Boule and Bierly, 1987). Sand Lake currently has the lowest land use conversion rate in Oregon and has suffered only a 2% loss, making this estuary perhaps one of the most intact for the entire coast (Good, 2000). Although the park's natural resources are in exceptional condition overall, native hydrology of the estuary has been altered by past human use including construction of a dike that separates two estuarine communities, one open salt water and saltmarsh, the other a combination of saltwater and salt marsh, freshwater marsh, scrub-shrub wetland, and forested wetland (see Figure 6.2). Since the late 1980's when the tidegate was last repaired (oral history accounts describe 1987 as the date when the Farrell family vacated the property, who were the last to graze livestock behind the dike on the property), salt water intrusion into the freshwater side of the dike has been increasing due to deterioration of the tidegate, which has resulted in gradual reversion to higher salinity and corresponding changes in botanical communities. There is a potential opportunity to return the estuary to a more naturally functioning state, by allowing tidal exchange in the estuary south of the dike. This habitat restoration may benefit federally listed fish species and optimize native fish passage to Beltz and Reneke Creeks. As the existing tidegate continues to deteriorate, major repair or replacement will trigger state and federal fish passage rules including Oregon Fish Passage Statute (ORS 509.580-.910 and OAR 635-412-0035). Options that will be available to the OPRD at the time of a trigger event are 1) provide passage; 2) request a waiver; and 3) request an exemption. OPRD sees a clear benefit in working towards a planned solution with the local community and conservation partners in the near future that enhances fish passage and does not have an adverse impact on adjacent property. No specific concept for restoration has been determined at this time as further study is needed to determine potential benefits and impacts to changing site hydrology.

In addition to providing increased habitat for Federally protected and threatened fish species such as Coho Salmon, potential benefits of restoring natural estuarine hydrology could include: tidal interchange; water quality improvements; sediment transport; natural succession of tidal wetland communities; movement of other marine aquatic life such as crabs and shrimp; enhanced nursery habitats for fish and other aquatic species; improved outflow and potential for reduced inundation that could improve drainage and reduce flooding for surrounding human communities; and establishment of foraging and resting habitats for shorebirds. Restoration of natural
estuarine hydrology could also include potential negative impacts, such as loss of freshwater marshes, saltwater marshes, and scrub-shrub habitat with impacts to existing biodiversity in the area, in addition to possible impacts to surrounding groundwater that could affect the surrounding human community. While this list of potential benefits and negative impacts is provided to outline potential opportunities and constraints that need to be considered during concept development, successional processes ensure these changes are not static. Biodiversity will be reduced in some areas and enhanced in others as a result of both current changing conditions related to the damaged tidegate and any future restoration efforts.

In this context, OPRD will consider the full range of anticipated successional processes and their potential effects when making a decision in regards to habitat restoration related to modifying the dike and upland stream restoration. Further analysis of site hydrology in relation to neighboring properties will be conducted in coordination with project partners and the public prior to a decision regarding improved fish passage and tidal exchange in the estuary. OPRD is committed to developing habitat enhancements, including fish passage improvements that will not cause adverse effects to neighboring properties.

While some preliminary data was collected to inform this effort (that can be found in the natural resource reports appendices of this Master Plan, and posted online in June 2016) it is clear that additional data needs to be collected before making a decision on habitat restoration, especially regarding potential effects on groundwater from increased tidal exchange in the estuary.

Several factors need to be considered in a future decision on how to modify the existing dike and tidegate. These factors include:

- Federal and State criteria for meeting fish passage standards.
- Topographic survey data along with tidal and fluvial hydrologic modeling.
- Current and potential upstream habitat value of Beltz and Reneke Creeks
- Considerations of impacts to existing infrastructure (Sand Lake Road, dike, etc.)
- Considerations of impacts to neighboring properties.
- Vegetation and habitat response behind the dike.
- Impacts to wildlife.

As there are currently no developed concepts for restoration to address restoring native hydrology to south Sand Lake Estuary, OPRD has commissioned a hydrology study to provide data and analysis to support a restoration plan that meets goals for restoring native hydrology to South Sand Lake Estuary, without exacerbating existing groundwater impacts to adjacent property. Options could include a variety of solutions as long as they are fiscally viable, have no adverse impacts to adjacent property and meet federal and state regulatory criteria.

OPRD will continue to work with the local community and conservation partners on an adaptive natural resource management strategy with a long term goal of restoring fish passage to the estuary, Beltz Creek, and Reneke Creeks through deliberate actions. Restoration efforts will be based on a combination of modeling and scientific data and monitoring, and will avoid exacerbating flood potential in neighboring residential areas. The merits of such projects need to be explored in cooperation with interested conservation groups, agencies and the local neighborhood. Public education about the benefits and impacts associated with restoration actions should be a primary focus of public outreach associated with restoration efforts.

Please see the ‘Vegetation Inventory and Botanical Resource Assessment for Sitka Sedge State Natural Area: Existing Conditions and Modeled Future Conditions Under Two Potential Dike Alteration Scenarios’ and ‘Sitka Sedge
Western Snowy Plover Habitat Conservation Plan Implementation

Need: Sitka Sedge State Natural Area encompasses habitat designated for western snowy plover recovery management in OPRD’s Habitat Conservation Plan for the Western Snowy Plover (2010, ICF Jones and Stokes) (HCP). This site was included in the HCP because the habitat had potential to attract to plovers. The HCP required recreation management to benefit plover recovery prior to OPRD ownership; when OPRD purchased the property in September 2014, additional management (i.e. habitat restoration, outreach, population monitoring) is required to fulfill the terms of the HCP. The entire ocean beach fronting the park is designated as a Snowy Plover Management Area (SPMA), and a site management plan to protect these rare birds is being developed. Since August of 2015, snowy plovers have been observed using the site continuously. In Spring 2016, plovers were found nesting near the mouth of Sand Lake Estuary, and OPRD acted quickly to protect nesting areas.

Opportunities & Constraints: Since this park is being planned with less visitor capacity than other higher use parks on the coast, OPRD staff presence will be limited; however management of the SPMA will be enhanced by the presence of a planned park host, snowy plover outreach volunteers, and beach ranger patrols. OPRD has had great success with neighborhood volunteers at this site already, and the plover docent program implemented at Bandon State Natural Area, has been very successful. It is OPRD’s intention to initiate a similar program at Sitka Sedge prior too the park’s opening.

Park trails can be designed and managed in such a way to discourage additional foot traffic near potential plover nesting sites. Trail use can be monitored over time and adapted as issues arise, through increased signage, fencing where appropriate and trail re-routing or closures if extreme impacts are observed. With plovers nesting in 2016, seasonal recreation restrictions (including limiting beach driving, dog walking, kites, bicycles, and all activities in the dry sand) have already been initiated in accordance with the HCP.

The presence of an avian threatened species at Sitka Sedge further enhances the natural resource values that make the site a special place. A successful breeding population of snowy plovers will make the site more attractive to recreational birders. Interpretive opportunities to provide messages about threatened species recovery and sharing space with wildlife could increase understanding in visitors interested in birds as well as the casual park-goer, and will complement wildlife viewing in the park provided disturbance to the birds is limited.

Lessons from the temporary site management plan enacted for a portion of the park property and beach in Spring 2016, will guide future management of this SPMA in cooperation with USFWS and ODFW. OPRD will continue to work with federal and state partners on a site management plan for this site that meets resource protection goals, while considering...
recreation needs at the State Natural Area. A Western Snowy Plover Site Management Plan will be developed in the next year.

The site management plan will define the area of restricted recreation within the SPMA following USFWS approval. The following restrictions and commitments for SPMA's are excerpted from the HCP for reference:

**Seasonal Recreation Restrictions (March 15 – September 15)**

- Vehicles (motorized and non-motorized) prohibited on beach or as otherwise restricted by existing OAR, except for administrative use. [Note: this includes bicycles]
- Dogs and kite flying prohibited.
- All other recreational activities directed to the wet sand (fences, ropes, and/or signs will define the dry sand breeding areas to be avoided).
- Restrictions possibly lifted early if no nesting by July 15.

**Other Site Management Plan Commitments**

- Habitat restoration and maintenance per site management plan.
- Predator management.
- Public interpretation and education.
- Monitoring, reporting, and evaluation activities.
- Continued provision of three full time beach rangers by OPRD, as well as State Park staff, local law enforcement, and additional senior State troopers, as needed, to facilitate enforcement activities.

**Trails**

**Need:** The existing trail system at the park was developed informally over decades of farming, military, and recreation use. OPRD trail assessment was undertaken to inform the planning process and produce a trail plan intended to deliver enjoyable recreation experiences while providing sustainable trail infrastructure and protecting park resources.

**Constraints:** There are significant natural and cultural resources present in the park that need to be protected from recreational use. The trail assessment identified opportunities for a refined trail system and included recommendations for new trails that guide users away from sensitive resources. Dunes and park topography present some challenges to providing trail access with firm and uniform surfaces for pedestrian use.

OPRD is interested in providing more opportunities for equestrian and off-road bicycle use in state parks that are well-suited for these uses. While several factors affected the decision not to allow these uses at Sitka Sedge SNA, the primary reasons center around potential conflicts between these uses and the park's primary purpose for natural resource management under a State Natural Area designation. Multiple partners support investing in re-establishing native plant communities and enhancing habitat conditions for wildlife. Problems of weed introduction are commonly exacerbated by horse droppings, which counteract efforts to control the spread of weeds and re-establish native species. More direct impacts on important resources can occur when horses are allowed to stray from designated trails into wetland and riparian areas and sites used by ground-nesting species. Frequent flooding and ground saturation occur over much of the park during the rainy months, and these conditions, together with the heavier impacts on trails that would result from allowing equestrian and biking activity, would necessitate more maintenance as well as trail closures for longer time periods. Additionally the trail mileage (4-5 miles) offered at Sitka Sedge does not make it as suitable as other destinations for equestrian or bike use. Expanding trail widths to facilitate multiple uses would be a significant cost. Staff considered
proximity of this park to parks that do provide for equestrian use which include Bob Straub a few miles away and Nehalem Bay to the north of Tillamook.

All things considered, the potential consequences of opening Sitka Sedge to equestrian and bike use were believed to outweigh the recreational benefits offered by the relatively small trail system. It is recommended that this park not provide for equestrian and bike use for several reasons. The impacts of these trail uses are not compatible with the parks status as a state natural area. However, these uses are allowed on the beach adjacent to the park.

**Opportunities:** In public meetings, OPRD presented a trail plan for the park that was met with favorable comments. This plan utilizes mostly existing trails and establishes new trails for the purposes of enhancing recreation experience, while managing resource protection. Clearly signing these trails with wayfinding signage and utilizing methods for closing unwanted trails with natural materials, and temporary fencing in some locations, can be successful in defining a clear park trail system. Protection of valuable habitat will be provided during trail construction and management of trails may be adapted if impacts are observed on sensitive habitats and species. Fencing, signing, closing and/or rerouting trails are strategies that may be explored in sensitive areas if impacts are observed over time.

**Safety**

**Need:** Provide for the safety of park visitors and provide access for rescue crews to reach injured park visitors quickly.

**Constraints:** The dike provides ample width for a single lane of vehicular access, however there is no space for a vehicle turnaround. Future plans for fish passage improvements potentially hinder vehicle access to the dike further.

**Opportunities:** OPRD Park staff will maintain an Emergency Procedures Manual, which covers park-specific procedures for everything from fire and medical emergencies, to water and sewer failure, flooding, hazardous materials spills and more. Evacuations are covered in detail. These procedures will be reviewed annually. Park staff will work with local fire and rescue officials to strategize on emergency management and preparedness.

Emergency routes that provide access to refuge areas will be identified.

**Universal Access**

**Need:** Provide universal access to state park properties and recreation facilities.

**Constraints:** Providing universal access is not feasible in all areas in the park due to steep topography and shifting dunal geology.

**Opportunities:** This park does have a potential to provide universal access to one of the park’s most interesting features, the Sand Lake estuary. Park development can prioritize developing trails, where feasible that meet the U.S. Access Board/ADA recreation standards.
Values, Goals & Strategies

The values, goals and strategies outlined in this chapter are a bridge between ideas generated during the public involvement process and future implementation of park management actions, park development, and resource management. They reflect the values-based planning approach described in Chapter 5: Public Involvement, and respond directly to the needs, opportunities, and constraints identified in Chapter 6: Needs, Constraints, and Opportunities. Subsequent chapters will provide a detailed approach to implementing these values, goals, and strategies in order to realize the community’s vision.
Value 1: Natural Resources

We value the ecological benefits of this unique and diverse estuarine habitat.

A top priority for park planning and management is to understand, respect and preserve the integrity of important natural resources, and to improve natural resource functions and values where appropriate.

Goal 1: Preserve and improve natural resource conditions in the park to benefit ecological function, recreation settings and visitor experience.

Strategies

1.1 Assessments: Use professional assessments of natural resources, supplemented by citizen science assessments, as a basis for decisions on resource management.
- Use natural resource assessments completed for this plan as a basis for locating and designing park uses and managing natural resources. Key guiding documents include the “Vegetation Inventory and Botanical Resource Assessment”, the “Wildlife Assessment”, “Forest Technical Report”, and “Hydrologic Reports” drafted for the park planning process.
- Use the resource assessments and expertise of other natural resource agencies and interest groups to supplement OPRD’s assessments in developing more detailed management plans and prescriptions consistent with OPRD’s objectives for the park. Partner agencies and groups will include Tillamook County, Tillamook Estuaries Partnership, Oregon Department of State Lands, Oregon

- OPRD Staff will perform the following tasks:
  - Develop a site management plan for the Snowy Plover Management Area.
  - Work with other conservation partners in the estuary including US Fish & Wildlife Service, the North Coast Land Conservancy, The Nature Conservancy, and the U.S. Forest Service to develop a management strategy for the network of protected lands in the Sand Lake Estuary.
  - Conduct more detailed follow-up assessments where needed to refine development and management plans for particular sites.
  - Continue to monitor and study the park's natural resources over time to increase understanding of ecological changes and management needs with support from expert agencies and volunteer citizen science groups (such as eBird and volunteer groups working with OPRD natural resource staff).
  - Study the effects of various restoration scenarios on adjacent habitat and land uses based on all available information. Consult with the local community prior to implementing irreversible restoration actions.
  - Utilize adaptive management strategies to lessen negative or unintended impacts of restoration over time, taking measured steps to achieve desired future conditions.
  - Retain and enhance natural resource focused partnerships with stakeholders and organizations to increase the potential for successful restoration and preservation projects across land ownership boundaries in the Sand Lake Estuary.
  - Share natural resource data collected during planning process with stakeholders and organizations.

1.2 Management Emphasis: Apply natural resource management practices that support the desired conditions and intended use and management emphasis of each area or site.

- Where the emphasis of management is on ecological conditions, management practices will focus on measures needed to preserve or improve natural ecological functions.
- Where the emphasis of management is on recreational development or a balance of natural resource conditions and recreation, utilize management practices to support ecological health that are balanced with objectives for creating desirable recreation settings and managing hazards.

1.3 Priority Habitat Preservation: Preserve the highest quality and most important ecological resource areas in the park through special designation.

- Special protection will be applied to areas and sites with high quality and rare native botanical communities, special status wildlife species, and habitats of particular importance to the life cycles of at-risk species and focal species.
- Focus development in areas currently developed or disturbed.
- Protect sensitive natural resources, especially waterways, wetlands and mature upland and riparian forests.
- Avoid development in wetlands and near streams, where possible.

1.4 Habitat Connectivity: Designate corridors where suitable contiguous habitat conditions facilitate terrestrial and aquatic wildlife movement through the park.
• Wildlife movement corridors will connect areas identified as the highest priority habitat preservation areas, especially across Sandlake Road.

• Evaluate corridors at the larger landscape scale to facilitate movement among and between partner-protected lands.

1.5 Habitat Management Projects: Implement viable projects for restoring important natural resource areas and sites to optimal conditions.

• Develop a site management plan for the Snowy Plover Management Area.

• Habitat management will be guided by desired future ecological conditions and the habitat needs of identified focal species.

• Habitat enhancement will prioritize projects that support recovery of at-risk species, help prevent degradation of high quality or rare habitats, improve important wildlife movement corridors, or that are otherwise important to overall ecological health.

• OPRD staff will work with partners to engage in habitat restoration efforts that seek to restore large acreages of native plant communities, or that will reduce habitat fragmentation.

• Protect known rare, threatened or endangered plant populations where they are being threatened by human activities.

• Feasible projects determined to have significant benefits to stream, estuary and freshwater wetland habitats will be implemented. Controlling invasive weeds in these areas will be a top priority. Projects to reverse former actions that altered stream and marsh hydrology will be evaluated for potential benefits and implemented accordingly.

• Forested areas will be managed to promote healthy succession by prescribed thinning, removal of diseased trees and under planting of native species as needed.

• Pastures with no viable farming capacity will be restored to healthy native forests over time by planting native trees and shrubs and controlling invasive weeds. Areas of pasture will be restored as upland or wetland meadows for their contributions to habitat diversity and scenic values.

• Dunal habitat management will focus on protection and restoration of identified at-risk plant species and control of invasive non-native species.

• Refer to the Oregon Coho Recovery Plan, the Oregon Coastal Management Program, and the Oregon Plan for Salmon and Watersheds, among other Federal and State guidelines for guidance on site restoration and maintenance.

• Implement strategies recommended in ODFW's Oregon Conservation Strategy.

• Partner with organizations on natural resource enhancement and restoration efforts to leverage funding and improve outcomes.

• Use native, drought tolerant, non-invasive species in developed area plantings.

• Manage and treat or infiltrate stormwater runoff from paved surfaces and parking lots.

• Manage pets in ecologically sensitive areas and on beaches.

1.6 Forest Management: Review natural resource strategies prepared for this master plan to improve forest health including forest thinning projects.

• Refer to OPRD Forest Management Policy and take appropriate actions to reduce the risk of catastrophic loss of forest resources from insects, disease, and fire, and to maintain or enhance the diversity, productivity, and integrity of native forest systems, and reduce risk of injury to park visitors.

• Limit tree removals, while managing hazard trees according to OPRD policy and natural resource assessments.
- Limit removal of native trees, wildlife snags, and other high value or rare trees where possible.
- Reduce wildfire intensities by addressing fuel reduction needs.
- Manage forests to reduce pest outbreaks.
- Add defensible space around structures to protect them from risk of fire damage.
- Avoid removal of trees and woody vegetation during this time period: March 1 through August 31.

**1.7 At-Risk Species:** Support the recovery of identified at-risk species through management actions that protect habitats critical to their survival and improve habitat conditions where needed.

- Develop a site management plan for the Snowy Plover Management Area.
- Conduct site assessments for project areas to identify possible presence of at-risk species.
- Follow applicable guidelines set out by responsible agencies to prevent impacts on at-risk species and their habitats.
- Identify wildlife reserves within park properties where no development, or only passive, low impact development, will take place.
- Develop recreation in consideration of potential impacts on fragile habitats.
- Respond to new threats posed by invasive animals in a timely manner, working with ODFW and other partner agencies.
- Add small-scale wildlife features, such as loafing logs, bat boxes, and wood duck boxes.
- Limit tree removal and avoid removal of trees and woody vegetation during this period: March 1 through August 31.

**1.8 Invasive Species:** Eradicate or control the spread of invasive species to the extent feasible using best management practices.

- Weed control measures will focus first on managing the spread of weeds along avenues of dispersal and at the perimeters of infested areas in order to control establishment of new populations.
- Develop an Integrated Pest Management Plan for the site.
- Major weed eradication projects will prioritize areas of best ecological condition with highest conservation value.
- Establish priorities for treating invasive weeds in coordination with partners. This will include prioritizing areas to maintain prior eradication efforts and to strategically limit the spread of invasive weeds into new areas.
- Explore implementation of an early detection, rapid response plan for new, high-risk invasive weeds and educate OPRD staff about the plan.

**1.9 Scenic Resources:** Preserve and enhance the park’s natural scenic character through appropriate management of natural resource settings and scenic views and careful placement and design of park development.

- Create and enhance aesthetically pleasing recreation settings through appropriate management of the natural resources for ecological health.
- Create and manage scenic views at key locations through strategic management of vegetation.
- Locate and design park development to avoid unwanted visual impacts on scenic views and settings.

**1.10 Adaptive Management:** Manage natural resources in an adaptive manner, adjusting management strategies to take advantage of professional research, expertise, innovations and practical experience to achieve desired outcomes.
Value 2: History

We value the cultural history, stories and site features that remind us of how the landscape has been shaped by its inhabitants.

In order to assist visitors in discovering the valuable resources at the parks, we must understand and respect the history of the place and its people. Understanding the relationships between the natural resources and cultural history is an essential part of instilling visitor understanding and appreciation of the park setting.

Goal 2: Honor the cultural history and traditions of the park setting.

Strategies:

2.1 Archeological Sites: Preserve the integrity of any identified archeological sites, especially those that are significant in representing the cultural history of the park setting.

- Follow protocols for investigating potential archeological sites and preserving the integrity of any identified sites prior to and during ground disturbing activities within the framework of OPRD’s Cultural Resources Policy.

2.2 Cultural Landscape: Continue working with the Confederated Tribes of Siletz Indians and the Confederated Tribes of Grande Ronde and interested historians to identify sites and settings that are important in promoting understanding and appreciation of the area’s cultural history.
2.3 Interpretation and Park History:
Implement measures for interpreting historic and culturally significant features within the park while taking appropriate steps to preserve the historic integrity.

- Relate historical stories in varied ways that capture diverse audiences (i.e. through programs, self-guided tours, music, poetry, interactive activities, scientific exploration, school groups, modern technology, volunteer programs, signage, etc.).
- Partner on interpretive programming, outdoor skills, and volunteer opportunities.
- Empower state park staff (as well as volunteers, friends groups and other partners) to create compelling educational programs.
- Provide access to relevant resources.
- Promote partnerships with valued stakeholders.
- Develop a plan for programmatic reuse of the Beltz Cabin.

2.4 Land Stewardship Interpretation

- Increase awareness and understanding of the preservation effort behind protection of the estuary.
- Increase awareness of management enhancement programs and stimulate participation in protection and restoration efforts.
- Increase knowledge and awareness of the ecological function of the estuary and its relationship with climate, hydrology and geology.
Value 3: Community

We value the opportunities for public access and education that this special place provides within the context of the Sand Lake Estuary

Relations with the community are mutually beneficial. The park is a valuable resource to the community, providing benefits to happy and healthy lifestyles, the local economy and community identity. The park and its visitors benefit from local services and various visitor programs provided or supported by partner organizations and the local business community.

Goal 3: Enhance opportunities for community involvement with park programs.

Strategies:

3.1 Community Involvement:

- Build on existing partnerships and establish new partnerships for providing natural and cultural resource interpretive, educational and outdoor learning programs at the park.
- Expand mutually beneficial programs that involve volunteer citizen science groups in studies of the park’s natural resources and related community outreach.
- Continue and enhance community outreach efforts to encourage volunteer assistance in park stewardship projects and events.
- Support programs that use the park as an environmental learning laboratory for schools.
- Promote ‘Leave No Trace’ principles in interpretive features.
• Enhance school and youth group field trips.
• Retain and enhance ‘Adopt-a-park’ or ‘Adopt-a-plot’ programs for individual or group stewardship opportunities at selected areas in the park where needed.
• Enhance these programs long-term through partnerships to generate the external support necessary to perform needed maintenance, while also monitoring changes over time and managing data.
• Develop communication and recreation elements that tell the story of natural resource preservation on the property.
• Develop self-guided experiences.
• Design wildlife viewing areas highlighting fish, bird and other species native to the estuary and Oregon Coast to provide access to these species without harming them.
• Develop signage or other less resource intensive communication tools for tourists about local resource protection.
• Increase public education on park property preservation and maintenance requirements.
• Enhance volunteer planting and invasive removal programs.

3.2 Be a Good Neighbor:

• Locate, design and manage park uses and facilities to be aware of potential effects from the park on neighboring land uses.
• Seek ways to prevent significant impacts on neighboring properties, and also to prevent impacts from the neighboring uses on the park.
• Enhance or create naturally vegetated or topographic buffers along the park boundaries.
• Where potential problems exist, OPRD makes every effort to work with the neighbors to identify and implement workable solutions. Potential problems are also addressed in the way the park uses are managed, which includes visitor management under defined park rules.

3.3 Universal Access: Develop strategies for increasing universal access in the park.

• Provide access to primary recreation activities in the park where feasible.
• Provide universal access circulation in day use areas to basic facilities like bathrooms and information stations.
• Prioritize facility development and major maintenance for projects that improve or increase universal access.

3.4 Outreach: Engage emerging and underserved demographics in the park.

• Increase survey, website, and outreach materials to capture non-English speaking populations, elderly and younger park visitors.
• Investigate methods of outreach to establish relationships with underserved and underrepresented community groups so OPRD can better engage these groups in future developments.
• Partner with organizations to increase park experiences for underserved communities.
• Develop programs to provide outreach to underserved communities, such as urban classroom visits, field trips, and service learning opportunities.
• Expand and increase low cost, introductory recreation opportunities like the Let’s Go program to include birding, wildlife viewing, and other recreation activities that highlight the Sand Lake Estuary.

3.5 Safety and Park Administration Reduce visitor safety incidences at this state park. Support safe and enjoyable visitor experiences and efficient park management through well-designed and appropriately located park facilities, well-managed administrative programs, sufficient levels of staffing and volunteers and cooperation with the area’s providers of necessary support services.
• Assess communication strategies to provide visitors with the information to make safe recreation decisions; including trail signage content, interpretive programs, printed materials, and web content.
• Prioritize budget and personnel to maintain existing facilities, alleviating safety hazards.
• Repair trails and walkways damaged by hazardous roots and wildlife.
• Use signage when necessary to warn visitors of potential hazards.
• Year-round and seasonal staffing levels for the park will be established consistent with the needs of the park in its phased development of facilities and programs and visitation levels.
• Park administration will be assisted by volunteer hosts living on site in sufficient numbers and optimally located to provide the level of assistance needed for the park visitors and facilities.
• Establish and maintain preparedness for emergencies. In cooperation with the area’s emergency response planners and service providers, develop and regularly update an emergency management plan, staff and volunteer training, related facilities and equipment, and media for conveying safety messages to park visitors.
• Designate a refuge area for emergencies requiring evacuation from vulnerable areas.
• Maintain close coordination with state and local law enforcement agencies.
Value 4: Recreation

We value the opportunity for all to discover, explore, and enjoy the peaceful beauty of this natural area.

Goal 4 Provide low-impact recreation in accordance with the park’s designation as a state natural area; to protect important ecosystem components and provide public interpretation and education.

Strategies

4.1 State Recreation Area: Enhance existing trails and develop recreation facilities to support hiking, wildlife viewing, picnicking, and interpretation.

- Park development should consider natural surroundings and blend in.
- When siting recreation facilities, consider impacts to the ecological function of the landscape setting. Design facilities to minimize impacts on natural resources and prescribe strategies for maintaining natural resources, given the increased impacts from the recreational use.
- Identify recreation opportunities in low value natural resource areas.
- Reserve high value natural resource areas for minimal or no recreational access.
- Educate users about environmentally responsible recreation practices.
- Communicate with natural and cultural resource specialists when designing recreation facilities.
- Utilize the reuse of existing roadways and infrastructure for recreation facilities.
- Reduce the amount of pavement and minimize the addition of new impervious surface.
- Manage landscaped areas around recreation facilities with ecologically responsible practices.
- Retain and enhance opportunities for picnicking, wildlife viewing and other low-impact recreation activities that complement the park’s state natural area designation.
- Retain and enhance park facilities, circulation, operations and maintenance to support the state parks mission and facilitate efficient and effective management.

4.2 Trail Opportunities: Retain, develop, and enhance short trip and smaller loop trails for walk-in visitors, families and universal access.

- Identify a single North/South dune trail with appropriate signage.
- Resurface trails where prone to wetness and/or suffering from erosion.
- Identify loop trail and clear destinations from proposed parking area.
- Develop a trail maintenance plan similar to Whalen Island with yearly trimming for clearance standards (6’ wide/8’ tall), monitoring for erosion.
- Re-route existing trails to reduce erosion and severe grade changes.
- Work with park caretaker and local volunteers on trail maintenance plan.
- Route trails to protect cultural and natural resources.

4.3 Trailhead Parking Areas: Develop trailhead parking at locations that best serve hiking and low impact trail uses.

- Develop parking lot design that provides capacity that compliments the state natural area, while reasonably accommodating local use patterns.
- Develop facilities to promote site stewardship, safety and maintenance: i.e. picnic tables, restrooms, waste receptacles, wayfinding, park rules, etc.

4.4 Wayfinding and Signage: Provide maps and information at the trailhead and on the website designed to let visitors efficiently find their way in advance, or when arriving with no prior knowledge of the park.

- Provide signage only when necessary. Try alternative management options prior to placing signage in the park.
- Interpretive and wayfinding signage should be limited and contribute to the natural setting of the park.

4.5 Trail Connectivity: Continue exploring alternatives for establishing an inland trail connection between Pacific City and the Sand Lake Estuary. Work with outside interests in establishing trail connections to community and regional trail systems.

- Work with groups interested in trail connections from the park to community and regional trails.
- Consider that connecting the park trails on the west of Sandlake Road will likely be cost-prohibitive when proposing connections to the area on an inland route from Pacific City.
The following plan proposals aim to support the recreational needs and values of the people who will visit this park, now and for decades to come. These proposals strive to find a balance between recreation access, natural resource health, scenic resource management, and fiscal responsibility. Management recommendations for the park including natural resource strategies are found in this chapter.
Park Identity

In November 2015, the OPRD Commission unanimously approved the park name Sitka Sedge State Natural Area. OPRD considered several options to name the park, weighing names that reflect past owners, politicians, and landscape features. After thinking about what the agency intends the park will become – a beautiful, natural place that offers a low-key, intimate connection to south Tillamook County – it was decided to go with a name that will introduce people to a relatively unknown native plant; Sitka Sedge State Natural Area. Sitka Sedge (Carex aquatilis v. dives) is a beautiful native grass-like plant found in pockets throughout the property, and OPRD thinks it is a perfect fit for this new park; graceful, ecologically important, and native.

The Park

Wildlife Viewing Areas

Four locations for wildlife viewing have been identified for development with varying scales (see locations on Figure 8.1). These locations were based on providing dedicated and varied opportunities for visitors to enjoy the wildlife and natural features the property has to offer. Ranging from simple benches, to viewing platforms, these viewing areas seek to allow visitors to engage with the natural qualities of the park at different interest levels. Park features will be designed to contribute to the scenic quality of the natural area and where possible, constructed from sustainably-developed materials, including potentially recycled materials from coastal state parks.
Proposed Site Program
Recreation Activities & Facilities
- Day Use
- Walking & Hiking Trails
- Nature/Wildlife Viewing
- Conservation Education

Restoration Area Focus
- Invasive Removal
- Fish Passage
- Native Habitat

Trail Mileages
(From Parking Access)
4.5 Miles of Total Proposed Trails
- To A 0.5 mi (out & back)
- To B 1.0 mi (out & back)
- To C 1.75 mi (out & back)
- Short B Loop 1.5 mi (loop & back)
- North Loop 2.25 mi (loop & back)
- South Loop 2.25 mi (loop & back)
- Full Loop 3 mi (loop and back)
Site A: Dike

A small bench will be provided along the dike trail approximately a quarter mile in from the parking lot so visitors can rest in the shade and look out to the north and south of the dike into the estuary. Some improvements may need to be made to the dike to facilitate a passing area. Minimal limbing and vegetation removal will be necessary.

Site B: Terminus of Dike

An accessible viewing platform at the terminus of the dike is proposed in this plan, providing views to the north of the estuary where the largest number of seabirds roost and feed on site. This structure will be situated to remain outside the estuary zone.

Site C: Knoll

A small platform structure and benches will be located on the topographical rise in the center of the inland estuary to provide access to panoramic views of the entire estuary, highlighting the variety of bird and wildlife species that occupy the south part of the estuary. This location makes a excellent destination for pausing to watch wildlife and the clouds moving across the park.

Site D: Pond

A small interpretive feature, highlighting the seasonal pond in this section will be installed and a small section of split rail (or similar) fence will be situated to reduce impacts on this sensitive area.

Trails

The general plan for the park, Figure 8.1, illustrates the planned trail system. All trails are designed for pedestrians only. There are approximately 4.5 miles of trail proposed in the park, including upgrading existing trails and new trails. Approximate trail mileages, including suggested loop options, are included in figure...
8.1. Trails have been designed to provide logical and varied routes all initiating from the parking area for hikers of all-abilities.

Dike Trail

This trail has been designed to highlight the view of the estuary from the dike. It allows people to walk through the center of the estuary, providing views to the north and south. This trail will be surfaced with a 60”-wide compacted gravel to maintain ADA recreation standards for universal access. The gravel trail will reduce required mowing on the dike while providing a reliable surface year round. Vegetation on the banks of the dike should be trimmed to maintain clearance standards (6’ wide/8’ high). Considerations to aesthetic and wildlife habitat values should be made prior to clearing vegetation.

Additional improvements to the dike will include fencing portions of the property boundary to reduce trespassing and improvements to clearly define this trail route along the dike, possibly by planting short stretches or fencing alongside the dike banks. Erosion control should be considered near the tide gate pending recommendations for fish passage, and potentially in other areas of the dike over time as needed. Refer to ODFW requirements for fish passage (ORS 509.580-910 and OAR 635-412-0035 - http://www.dfw.state.or.us/OARs/412.pdf). See additional background information in Chapter 6.

North Trail Loop

A new trail will connect the northern dike terminus with existing trails in a manner that will effectively facilitate management of trail use through high value resource value areas while restoring a forested portion of the dike, and allowing exciting and significant views of the estuary and wildlife. This loop will highlight views of the northern estuary and the sea birds that roost in this section of the park and typically feed at low tides. A new route is planned through mid-seral forest, that will open up views across the estuary to Whalen Island and Cape Lookout, before passing through the edge of native Kinnikinnik shrubland. This trail is designed to be linked to the south loop trail.
to provide a longer three mile hiking experience that showcases all the unique habitats of the park.

South Trail Loop

This loop highlights forested sections of the park, mostly shore pine, and makes for a nice wooded hike on a rainy or sunny afternoon. The trails weave through woods in a storybook way, while opening up on some breathtaking views of the estuary to the east. A section of this trail near the dike will need improvements to reduce flooding in the rainy season.

Dune Trail

This spine trail currently provides access to the park property and is utilized by visitors in the neighborhood of Tierra Del Mar. This trail will be maintained as a link to the north and south loops. Some sections will need slight rerouting to adjust the trail to high ground to avoid areas of seasonal flooding. Parallel sections of this trail will be closed using natural materials and vegetative restoration. A new route over the dune will be cleared to provide access to the beach near Tierra Del Mar so residents can continue accessing the park from the south. Currently the trail that connects to the property crosses private land, and unless an easement can be maintained, an additional access will need to be created onto the ocean shores.

Existing Trail Maintenance

Selected areas of existing trail are in need of brush removal to trail clearance standards (8’ tall/4-6’ wide), especially along the wooded inner dune trail. Some areas are in need of rerouting and enhancement for sustained protection against erosion, extreme grade, or flooding. Selected locations will require removal of a few trees for view shed enhancements. Wayfinding signage will be installed at trail crossings to enhance visitor safety. Signs indicating numbered coastal emergency identification locations will be installed near the dune to enhance rescue operations on the ocean shore.

Two or three beach access trails will be maintained over the dune to provide access to the beach. These locations will be signed from each side of the dune to mark access points back into the park from the ocean shore. Care will be taken during construction to protect cultural resources and high value natural resources.

Off-Site Trail Connections

OPRD welcomes opportunities to work with interested groups and landowners to connect park trails to existing and planned regional and local community trails. Possible opportunities for off site trail connections could emerge in the future, and need not be identified in this plan to be implemented.

Parking Area

Access to the park has been provided in a location proximate to the dike trail and Sand Lake Estuary providing direct access for visitors to quickly stop on a coast tour, eat some lunch at one of the provided picnic tables, choose to
take in a glimpse of the estuary and shore birds, or embark on a slightly longer day hike. The parking area has been designed to minimize the development area and provide easy access to trails whether the visitor arrives by vehicle, school bus, RV, or bicycle. Proposed capacity is based on comparable attendance data at nearby parks and trail miles. A trailhead, restroom, small picnic area, bike parking, and benches will be provided. Additionally park information, including interpretation, maps, and safety information should be concentrated at this location reducing the need to place additional signs throughout the park.

The park entrance area will be vegetated with native species, highlighting the natural area. Storm water retention areas may include plant species found on site, including the park’s namesake sitka sedge.

Successional restoration of the north meadow will serve three purposes: (1) establish a vegetative buffer between the park and neighboring residential property; (2) increase the visitor experience, creating a more naturalized park-like entrance; and (3) establish defined area for potential management of storm water from the proposed parking area.

Caretaker/Park Host Site

This project includes demolition of the residence near the proposed entrance and clearing to prepare the site for a caretaker/park host. Utility work will need to be done to abandon and/or extend existing electric, sewer, and water on site. The park host site will consist of a concrete pad and vegetation improvements to the area.
Natural Resource Management Strategies

Natural resource management actions will be consistent with the management intentions and general project descriptions expressed in this plan, which are largely based on recommendations made in the botanical and wildlife resource assessments prepared for the plan, in addition to specifications of OAR, ORS, Grant terms, ESA, etc.

Management strategies include actions to preserve natural resources and to enhance them through intervention. Aside from light development for access described in this chapter, this park will be managed with a natural resource emphasis, compatible with its designation as a State Natural Area.

Natural resource management recommendations for the park can be found in Figure 8.3.

Fish Passage and Stream Restoration

OPRD recognizes the importance of restoring fish passage between south Sand Lake estuary and upstream spawning and rearing habitat. As Sand Lake estuary is one of the least developed estuaries on the west coast, much of it now surrounded by publicly owned land, there is a great opportunity to restore native spawning and rearing habitat for several sensitive species including Coastal Coho, chum, steelhead, and cutthroat trout.

We can achieve this goal over time by allowing more natural salt water flows past the dike. This helps meet the agency’s mission to “provide and protect outstanding natural, scenic, cultural, historic, and recreational sites for the enjoyment and education of present and future generations”.

As a land manager, the agency needs to balance several needs. It is clear after working with partners on evaluating the merits of restoring hydrologic conditions to the estuary, that meeting the goals of fish passage is a complex process that will need to consider several factors including hydrology, historic land use, impacts to neighbors, engineering, ecological diversity and function, and wildlife habitat.

Following through on the agency’s pledge to “take the long view”, OPRD will take a measured pace in moving towards restoring fish passage to Sitka Sedge State Natural Area. As Oregon State Parks approaches 100 years of service to Oregonians, we feel that taking a cautious and thoughtfully considered approach to restoring fish passage based on incremental and informed steps is key to responsibly restoring natural hydraulic function over the next 100 years.

OPRD is currently (August 2016) creating a scope of work to develop a comprehensive hydrological analysis, building off digital elevation model information and preliminary groundwater monitoring collected in 2015-2016. OPRD will hold an advisory committee review of the scope of work for the hydrology study. Once data collection is completed a report will be made available and reviewed with the public. At time of plan writing OPRD anticipates this study could take up to two years, at which point the neighborhood and advisory committee will be engaged in continued conversations about potential restoration options – with comprehensive data as a reference.

OPRD feels confident that proposed recreation improvements (described in Chapter 8) are consistent with recommended natural resource management strategies. The current level of development proposed will almost certainly not be impacted by and is not irreversible in the context of larger restoration.

Potential next steps to meeting this goal:

• Develop a comprehensive hydrological analysis of the south Sand Lake Estuary
and its modelled effects on neighboring properties (see reference above).

- Evaluate the merits of habitat improvements and fish passage enhancements developed in the context of the hydrology study, including developing a clear understanding of the consequences of potentially removing the tidegate. Develop a plan with partners and the community to explore removing or permanently raising the tide gate, allowing approximately 4 feet of passage width to fish.

- Continue to work with neighboring land managers to understand OPRD’s responsibility to the entire estuary.

- Continue to study current and potential upstream habitat values along Beltz, Reneke and other creeks that feed the estuary.

- Work with partners on options for fish passage that optimize benefits to fish, in relation to other habitat values while retaining botanical and wildlife diversity.

- Agency representatives and stakeholders will consider precedent projects to understand how benefits of restoration performed at other locations on the coast, can potentially be applied at Sand Lake.

- Understand the expected life cycle of the dike. The next time it needs major repairs, it will have to be brought into compliance with current fish passage laws, as defined in Oregon Fish Passage Statute (ORS 509.580-.910 and OAR 635-412-0035). The proposed recreation projects in this plan are considerate of and not permanent in regards to potential restoration.

- Continue to communicate with park neighbors to ensure there will be no adverse impacts or negative consequences to the local community from any habitat restoration projects OPRD is considering.

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**Cultural Resource Management**

A cultural resource inventory of the park and a review of report findings were conducted in consultation with the State Historic Preservation Office (SHPO) to inform potential impacts during development. A 41 acre survey of park property was conducted in late 2015. As described in Chapter 3, Beltz Cabin is eligible for the National Register of Historic Places. Given the history of use by Native American tribes, there is an overall high likelihood of archaeological resources present in the park. Under OPRD’s Cultural Resources Policy, archeology staff will be consulted prior to any ground disturbance in all areas of the park where projects are planned. For each project, archeology staff recommends protocols based on likelihood of encountering significant artifacts at the site. The protocol may involve a surface survey prior to ground-breaking followed by monitoring during construction, or in certain cases, subsurface testing prior to ground breaking followed by monitoring during construction.

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**Interpretive Themes and Message Framework**

OPRD supports high quality interpretation and environmental education programs that enhance visitor experiences through trained staff, volunteers, and cooperating organizations. These programs also help OPRD achieve its mission of preserving and protecting natural and cultural resources by raising visitor understanding and awareness and promoting stewardship. A number of these programs help strengthen relationships between the park and the local community through the direct involvement of community organizations and volunteers.

It was recognized through the planning process that this park will be an extremely important
Key to Management Recommendations

1. Address fish passage needs. Continue to work with stakeholders group and Waterways Inc to investigate options and assess potential impacts to the full range of ecological, social, and private property aspects of the dikes' area of influence.

2. Consider restoration to forest or coastal prairie.

3. Continue to investigate restoration options for Raineke Creek. Once a stream alignment is determined, provide appropriate riparian vegetation for shading and woody debris recruitment. If the option selected involves moving the stream channel to another location, some portions of the existing channel may need to be decommissioned through plantings or grading.

4. Control ammendian blackberry.

5. Control bentgrass. Restore tufted hairgrass high salt marsh.

6. Control bitteroot nightshade.

7. Control blackberry and weeds.

8. Control creeping buttercup.

9. Control creeping buttercup, ammendian blackberry.


11. Control evergreen blackberry.

12. Control evergreen blackberry, ammendian blackberry.

13. Control evergreen blackberry, reed canarygrass.


15. Control invasive bentgrass.

16. Control reed canarygrass.

17. Control scotch broom and other invasives. Consider restoration to coastal prairie.

18. Determine appropriate agricultural usage. Should ongoing farming not continue to occur, appropriate restoration targets would be coastal prairie or mixed hardwood-conifer forest.

19. Eradicate smooth cordgrass.

20. Improve Beltz Creek crossing for fish passage.

21. Maintain and enhance native herbaceous dune community.

22. Maintain and restore kinnikinnick and herbaceous dune habitats. Manage european beachgrass and scotch broom. Prevent excessive tree and shrub density. Tree encroachment into these areas is very recent.

23. Maintain and restore kinnikinnick and herbaceous dune habitats. Manage european beachgrass. Prevent excessive tree and shrub density. Tree encroachment into these areas is very recent.


25. Maintain and restore kinnikinnick habitat. Prevent excessive tree and shrub density. Manage european beachgrass. Tree encroachment into these areas is very recent.

26. Maintain and restore kinnikinnick habitat. Prevent excessive tree and shrub density. Tree encroachment into these areas is very recent.

27. Maintain and restore semi-native herbaceous dune habitat. Prevent further tree and shrub encroachment. Remove european beachgrass where feasible. Prevent significant invasion by scotch broom. Seed in or transplant in desirable native species.


29. Maintain high quality tufted hairgrass high and intermediate saltmarsh. Monitor for weed invasion and control both existing and incoming invasive species. Consider introducing the rare species Siskiyoua henderoni.


31. Maintain salka sedge communities and encourage further colonization. If hydrology changes as a result of fish passage improvement, existing salka sedge sites can serve as source material for transplantation to more hydrologically appropriate areas.

32. Manage and prevent significant invasion of scotch broom.

33. Manage scotch broom for benefit of snowy plover. Consider introduction of rare plant species pink and yellow sand verbena.

34. Manage for ecological diversity and habitat value. Depending on any fish passage improvement actions taken that alter hydrology inside the dikes, action may need to be taken to manage for appropriate ecological succession and for persistence of sensitive habitat types.

35. Manage for persistence of native American dune grass plant community. Manage european beachgrass.

36. Manage scotch broom.

37. Monitor and maintain rare big-headed sedge dune/beach community for persistence.

38. Monitor for smooth cordgrass.

39. Plant mixed hardwoods, conifers, and shrubs to restore forest and establish vegetated buffer with adjacent landowner.

40. Plant riparian trees and shrubs to shade stream and provide woody debris. Control evergreen blackberry.

41. Plant riparian trees and shrubs to shade stream and provide woody debris. Manage creeping buttercup, ammendian blackberry.

42. Plant riparian trees and shrubs to shade stream and provide woody debris. Manage creeping buttercup.
Figure 8.3 Composite Natural Resource Management Recommendations (OPRD)

Legend
- - - - OPRD Park Boundary
- - Roads
- - Stream/Surface Flow
- - Existing Social Paths
- - - Proposed Trails

Sitka Sedge
State Natural Area

Natural Resource Management Recommendations

Clay Myers
State Natural Area at Whalen Island

Whalen Island County Park

Sand Lake Estuary

Tierra Del Mar
resource to the local community in providing educational experiences, and facilitating stewardship for natural resources among the younger generations. While there are potential opportunities to utilize park facilities to enable these programs (Beltz Cabin, trails, etc.) that have yet to be fully realized, OPRD recognizes the local community will play a large part in achieving visions for park programs and interpretive efforts. Some of the ideas generated through the public process have been included in Chapter 5 and 7 of this Plan. While it is not the role of the Plan to detail park programs and interpretive features, the following educational and interpretive themes have been developed utilizing surveys with OPRD staff, citizens, and historical information:

**Primary Interpretive Theme**

*Sitka Sedge State Natural Area provides a rare and valuable view into one of the estuaries of the Oregon Coast, offering perspective on how both natural and cultural elements have – and continue to – shape our ecosystem.*

**Supporting Messages and Related Content**

1. As a relatively unspoiled and undeveloped estuary on the Oregon Coast, Sitka Sedge provides a unique and ever-evolving habitat for a diverse population of native plants and wildlife.
   - One of the least undeveloped sections of Oregon coast
   - What is an estuary and what is its value/role to the area? (e.g. support fish cycles, location of large woody debris)
   - Importance estuaries for wildlife
   - Important natural resource of high conservation value
   - Constant shifts/changes due to human and natural effects

2. Sitka Sedge has a rich cultural history that has played an active role in shaping the estuary and surrounding area, from Native American use and early dairy farming to Coast Guard Beach Patrol and current day efforts by public/private groups to support conservation of the estuary.
   - How people have interacted with the landscape over time
   - How farming played a role in shaping the landscape and community
   - How partnerships with local residents, agencies, etc. helped bring SSSNA into public ownership (vs development)
   - Ongoing shifts/changes due to human and natural effects

3. Sitka Sedge offers a rare and multi-faceted opportunity for visitors of all ages and abilities to experience a rare ecosystem of the Oregon Coast.
   - Sitka Sedge provides unique access points to explore the estuary via trails, viewpoints, the dike, and remote beach access.
   - How the dike shaped the natural space and local environment, including changes to natural hydrology.
   - Many OPRD recreation sites on the coast are restricted to the shoreline. This area is unique as it extends inland covering the coastline, dunes, estuary, and upland areas in a very short distance.
   - This site is unique compared to other estuarine park habitats because it is bisected by a human-built dike that serves as a travel way across wetland habitats that otherwise would be unreachable on foot.

These themes provide a basis for establishing interpretive features throughout the park.
Sitka Sedge State Natural Area Visitor Experience

The table below summarizes planned and existing visitor experiences at Sitka Sedge SNA supported by park resources and facilities, park rangers, volunteers and community partners.

<table>
<thead>
<tr>
<th>Visitor Experiences Planned or Existing</th>
<th>Status</th>
<th>Visitor Support Facilities Planned or Existing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day Use Recreation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trail hiking, walking</td>
<td>New</td>
<td>Hiking trails</td>
</tr>
<tr>
<td>Beach activities</td>
<td>New</td>
<td>Beach Access Trails</td>
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<tr>
<td>Equine trail riding</td>
<td>Existing</td>
<td>On beach only</td>
</tr>
<tr>
<td>Bicycling</td>
<td>Existing</td>
<td>On beach only</td>
</tr>
<tr>
<td>Picnicking</td>
<td>New</td>
<td>Picnic area and facilities</td>
</tr>
<tr>
<td>Wildlife Viewing</td>
<td>New</td>
<td>Trail system and viewing platforms or blinds</td>
</tr>
<tr>
<td><strong>Park Resource Interpretation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-guided natural &amp; cultural interp. sites</td>
<td>New</td>
<td>Interpretive features, trailhead, trail system, viewing areas</td>
</tr>
<tr>
<td>Self-guided nature trails</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
<tr>
<td>Ranger or volunteer-guided interp. hikes</td>
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</tr>
<tr>
<td>Natural /cultural interp. programs</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
<tr>
<td>Roving interpretation by park rangers/volunteers</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
<tr>
<td><strong>Environmental Learning Programs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural and Cultural History programs</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
<tr>
<td>Botanical and wildlife learning programs</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
<tr>
<td>Stewardship learning programs</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
<tr>
<td>Wildlife/Botanical surveys</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
<tr>
<td>Multi-day classes taught by rangers/community partners</td>
<td>New</td>
<td>Trail System, trailhead, viewing areas</td>
</tr>
</tbody>
</table>

Figure 8.4 Proposed Visitor Experience Activities Table for Sitka Sedge State Natural Area
Visitor Capacities

The tables below quantify maximum peak day occupancy by day use visitors assuming all visitor facilities are filled. For day use visitors, the numbers are based on maximum buildout of day use parking and assumed average numbers of visitors per vehicle. Facilities available only for pre-arranged group use or special use permit are not included in the estimates.

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Description</th>
<th># of Parking Spaces</th>
<th>Max. # Vehicles/Day</th>
<th>Assumed Avg. # of People</th>
<th>Assumed Avg. Stay</th>
<th>Ave. Max. Day Vehicle Trips</th>
<th>Max. Peak Day Occupancy (max # of people at one time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitor Day Use</td>
<td>Main Trailhead. Designed for standard size vehicles. Vehicle trips per space include arrival &amp; departure of 2 vehicles per space per day.</td>
<td>2 per space</td>
<td>25 standard vehicle spaces (Incl 2 ADA)</td>
<td>2.5</td>
<td>half day (3-4 hours)</td>
<td>4 per space per day</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Main Trailhead. Designed for larger vehicles. Vehicle trips per space include arrival &amp; departure of 2 vehicles per space per day.</td>
<td>2 per space</td>
<td>2.5</td>
<td>half day (3-4 hours)</td>
<td>2 per space per day</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administrative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 total</td>
</tr>
<tr>
<td></td>
<td>Staff. Staff private vehicle parking does not include parking for park vehicles, which are used for work trips in addition to daily arrival &amp; departure. Vehicle trips per staff include arrival &amp; departure plus 1 additional work trip to &amp; from per staff per day.</td>
<td>1 staff parking spaces</td>
<td>2 per space</td>
<td>1</td>
<td>half day (3-4 hours)</td>
<td>4 per space per day</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 total</td>
<td>108 Total Max. Day Trips Per Day</td>
<td>68 Total Max People at One Time</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 8.5. Estimated Day Use Capacities for Sitka Sedge State Natural Area

These numbers are consistent with attendance averages at nearby park properties, Clay Meyers at Whalen Island and Bob Straub as shown in Chapter 4. While OPRD expects numbers may spike in the time after park opening, these numbers expected typical use.
Park Administrative Program Considerations

These management considerations are not exhaustive to all typical duties for park staff. These recommendations reflect unique considerations for this property for park management.

Emergency Response

Emergency preparedness is a top priority among park operations. OPRD will prepare and regularly update a plan for emergency management in cooperation with area emergency response planners and providers. The plan will address staff and volunteer training, provision and maintenance of related facilities and equipment, response protocols and coordination with affected emergency response agencies, and media for conveying safety messages to park visitors.

Because of the park’s proximity to coastal communities and the higher elevations of the park east of Sand Lake Road, this part of park may serve as a refuge in a tsunami or major storm event requiring evacuation from surrounding areas.

Weed Control

Despite a majority of native plants present in the park, invasive weeds are a problem in various areas of the park, and of particular concern in and around the estuary and areas where at-risk native plant species may be threatened. Measures to control invasive weeds will be implemented to the extent feasible using best management practices. Efforts to control weed infestations of concern will focus first on controlling the spread at the perimeters, prioritizing areas in the best ecological condition with the highest conservation rankings to prevent further deterioration. Ongoing maintenance will involve monitoring, removing and controlling the spread of weeds along avenues of dispersal - streams, ditches, trails, roads, and parking areas – and at the perimeters of significant infestations.

Trail Maintenance

While trail maintenance is important to the experience of trail users, at some locations the erosion that accompanies deteriorating trail conditions can affect water quality in nearby streams and wet areas. Monitoring and maintenance of trail conditions will focus on known and potential problem areas with particular attention to sites where stream sedimentation caused by erosion may occur, and on sites most vulnerable to creation of social trails. Seasonal trail closures will be implemented where needed to prevent problems not otherwise manageable through periodic trail maintenance. Trails will be designed and constructed using best management practices.

Trail maintenance will include trimming vegetation to clearance standards once a year, possibly more on dike, depending on growth. Every 3-5 years trails should be checked for erosion. Grading, drainage measures and other maintenance improvements should follow OPRD Trail Management guidelines.

Refuse Management

For aesthetic reasons, management of human refuse is important to the experience of park visitors. Refuse management is a key concern as it relates to declining populations of wildlife species that may be present in the park. Refuse management is therefore important wherever
humans are present. OPRD will carefully manage refuse through placement and regular maintenance of receptacles and prompt clean up as needed. Information on the importance of management and stewardship responsibilities will be provided at key locations.

Ocean Shores

Under the Beach Bill enacted in 1967, the public has free and uninterrupted use of the beaches along Oregon’s 362 mile-long coastline. The Beach Bill also directed that the ocean shore be administered as a state recreation area. The Oregon Parks and Recreation Department is charged with the protection and preservation of the recreation, scenic, and natural resource values found on Oregon’s ocean shore. Through ocean shore Administrative Rules (Division 20-30; 80), OPRD regulates vehicle use, camping, and other recreational activities on the ocean shore. In addition to administering a permit program for ocean shore alterations, OPRD reviews application permits for special events, commercial filming, and beach salvage activities. This part of the park will be managed under these rules, and ocean shore rules will likely apply to proposed improvements where trails in the State Natural Area cross over the vegetation line. Please refer to: https://www.oregon.gov/oprd/RULES/pages/oceanshores.aspx for additional information.

Snowy Plover

Division 21 states the following for occupied western snowy plover sites:

(12) A person may not use any vehicle in western snowy plover-management areas as provided in OAR 736-021-0090.
(B) A person may harvest non-living seaweed and marine plants all year. However, in any western snowy plover-managed area, a person may not harvest non-living seaweed and marine plants during seasonal closures beginning March 15 and ending September 15.
(h) A person may not prospect in any western snowy plover-managed area, during seasonal closures beginning March 15 and ending September 15;

(a) Occupied Sites: In areas the department designated as occupied sites for western snowy plovers, the following apply:

(A) All recreation is restricted within dry sand demarked areas beginning March 15 and ending September 15. The department may declare restrictions ended on July 15 due to a discontinuation of nesting. The boundaries of “dry sand” areas may be identified with symbolic fencing (roping), signs, or both.
(B) A person may not operate a motorized or non-motorized vehicle or flying apparatus, including but not limited to kites, gliders and air balloons on the wet sand adjacent to demarked dry sand areas, except persons the department has approved to perform administrative, enforcement or scientific duties.
(C) Dogs are prohibited on the wet sand adjacent to demarked dry sand areas.
(D) Other recreational activities, such as camping and recreational fires, that could not typically occur on wet sand due to waves are also prohibited.
(E) Walking and any other passive activity not otherwise mentioned here are allowed on the wet sand.
(F) Horseback riding on the wet sand of beaches with occupied sites is allowed, unless horseback riding is otherwise restricted by special rules that pertain to areas adjacent to coastal cities and detailed in division 30.
(4) Beach fires are prohibited in western snowy plover-management areas as provided in OAR 736-021-0090.
This section provides a complete project list for implementing the planning proposals described in Chapter 8: Park Plans and Management Recommendations. Projects are listed by phase of construction. Development projects benefit from multidisciplinary input and consideration of the project effects the several layers of infrastructure, natural resources, and visitor experiences present in a park. Project details, summarized conceptual cost estimates, potential permitting requirements, funding sources, and operations and maintenance strategies are described for each project. These projects are prioritized by project phasing.

Note: Construction costs are conceptual and totals do not fully reflect natural resource project costs.
### Park Development Phase I

#### Project

**1A - Existing Trail Clearing & Maintenance**

Cost: $22,000

**1B - General Park Improvements & Maintenance**

Cost: $11,500

**1C - Restoration of Meadow near Parking Area**

Cost: $17,000

**1D - Host Site Improvements**

Cost: $39,000
15% Permitting: $6,000
30% Contingency: $12,000
Total: $57,000

**1E - Dike Improvements, Gravel Trail**

Cost: $32,500
15% Permitting: $5,000
30% Contingency: $10,000
Total: $47,500

**Phase I Total** $155,000

### Park Development Phase II

#### Project

**2A - Parking Lot/Park Access**

Cost: $250,000
15% Permitting: $38,000
30% Contingency: $76,000
Total: $364,000

### Park Development Phase III

#### Project

**3A - Knoll Viewing Area & Trail**

Cost: $40,000
15% Permitting: $6,000
30% Contingency: $12,000
Total: $58,000

**3B - Dunal-Pond Viewing Area**

Cost: $9,000
15% Permitting: $1,000
30% Contingency: $3,000
Total: $14,000

**Phase III Total** $72,000

### 2B - New North Loop Trail & Dike Viewing Platform

Cost: $102,000
15% Permitting: $15,000
30% Contingency: $30,000
Total: $147,000

**Phase II Total** $511,000

### Park Development

**Total All Projects** $525,000
**Total All Projects** $725,000
(Incl. 15% Permitting & 30% Contingency)
## Sitka Sedge State Natural Area Conceptual Cost Estimate

### Park Development Projects: Phase I

<table>
<thead>
<tr>
<th>Project</th>
<th>Status</th>
<th>OPRD / Contractor</th>
<th>Conceptual Cost</th>
<th>Parameters &amp; Permitting</th>
<th>Operations &amp; Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project 1A - Existing Trail Clearing &amp; Maintenance</strong></td>
<td></td>
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<tr>
<td><strong>Circulation: Trails</strong></td>
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<td></td>
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<tr>
<td>New</td>
<td></td>
<td></td>
<td>5,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.10 mile new trails, connection over dune off beach to Tierra Del Mar - Core Paths - 6’ wide: natural surface</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Graded, compacted soil</td>
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</tr>
<tr>
<td>Rehabilitation</td>
<td></td>
<td></td>
<td>17,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair existing 1-1.5 miles of trail - Core Paths - 6’ wide: dirt</td>
<td>Main-</td>
<td>OPRD</td>
<td></td>
<td>Graded, compacted soil, run machine to 4-6 foot width, 3-4 reroutes, some surfacing, pending GIS assessment or project leader walkthrough</td>
<td></td>
</tr>
<tr>
<td><strong>Sitework</strong></td>
<td></td>
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<tr>
<td>Wayfinding signage</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Information signage on wood post</td>
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</tr>
<tr>
<td>Wayfinding signage</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Information signage on wood post</td>
<td></td>
</tr>
<tr>
<td>Wayfinding signage</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Information signage on wood post</td>
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<td><strong>PROJECT TOTAL</strong></td>
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<td><strong>Project 1B - General Park Improvements &amp; Maintenance</strong></td>
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<tr>
<td>Rehabilitation</td>
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<tr>
<td>Equipment rental for debris removal, cable, etc.</td>
<td>New</td>
<td>OPRD</td>
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<td>OPRD staff projects to remove debris on site in several areas, dune</td>
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<td><strong>Buildings, Structures and Major Features</strong></td>
<td></td>
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<td>10,000</td>
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<tr>
<td>Wood Fencing</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Wood fencing</td>
<td></td>
</tr>
<tr>
<td>Gates</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Free standing wood structures, signage nic</td>
<td></td>
</tr>
<tr>
<td><strong>PROJECT TOTAL</strong></td>
<td></td>
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<td>11,500</td>
<td>Tillamook County</td>
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</tr>
<tr>
<td><strong>Project 1C - Restoration of Meadow near Parking Area</strong></td>
<td></td>
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</tr>
<tr>
<td>Planted Buffer/Landscaping</td>
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<td></td>
<td>17,000</td>
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<td>Day use area trees</td>
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<td>OPRD</td>
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<tr>
<td>Landscaping - Screening</td>
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<td>OPRD</td>
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<tr>
<td><strong>PROJECT TOTAL</strong></td>
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<td>Project</td>
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<td>OPRD / Contractor</td>
<td>Conceptual Cost</td>
<td>Parameters &amp; Permitting</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>-------------------</td>
<td>-----------------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Project 1D - Host Site Improvements</strong></td>
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<td></td>
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<tr>
<td>Demo</td>
<td>New</td>
<td>Contractor</td>
<td>$19,000</td>
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<tr>
<td>Asbestos and Abatement</td>
<td>New</td>
<td>Contractor</td>
<td>Likely Fire Dept. training project, costs for disposal fees</td>
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<tr>
<td>Existing House</td>
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<td>Contractor</td>
<td></td>
<td></td>
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<td><strong>Buildings, Structures and Major Features</strong></td>
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<td>$10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Prep for Host Site</td>
<td>New</td>
<td>Contractor</td>
<td>Incl. disposal fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
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<td></td>
<td>$10,000</td>
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<tr>
<td>Electrical service</td>
<td>New</td>
<td>Contractor</td>
<td>To host site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water service</td>
<td>New</td>
<td>Contractor</td>
<td>To host site</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROJECT TOTAL</strong></td>
<td></td>
<td></td>
<td>$39,000</td>
<td>Tillamook County</td>
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</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$39,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15% Permitting</td>
<td></td>
<td></td>
<td>$6,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30% Contingency</td>
<td></td>
<td></td>
<td>$12,000</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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<td>$57,000</td>
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<tr>
<td><strong>Project 1E - Dike Improvements, Gravel Trail</strong></td>
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</tr>
<tr>
<td>ADA Improvements to Dike</td>
<td></td>
<td></td>
<td>$25,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Paths - 5’ wide (ADA-accessible) (Parking Lot to Middle of Dike)</td>
<td>New</td>
<td>OPRD</td>
<td>Graded, 4-6” aggregate base, resin rein, soil surface. Cost to include gravel 60” wide, compactor rental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day Use Viewing Area</td>
<td></td>
<td></td>
<td>$2,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benches</td>
<td>New</td>
<td>OPRD</td>
<td>6’ wood benches, no back set in ground</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree Limbing</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planted Buffer Along Dike and Property Boundary</td>
<td></td>
<td></td>
<td>$2,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td>New</td>
<td>OPRD</td>
<td>Shrub beds and understory trees, hooker willow, natives, alder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fencing on Boundary</td>
<td></td>
<td></td>
<td>$2,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood Fencing</td>
<td>New</td>
<td>OPRD</td>
<td>Wood fencing</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROJECT TOTAL</strong></td>
<td></td>
<td></td>
<td>$31,000</td>
<td>Tillamook County</td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>15% Permitting</td>
<td></td>
<td></td>
<td>$5,000</td>
<td></td>
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</tr>
<tr>
<td>30% Contingency</td>
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<td></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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<td>$46,000</td>
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</table>
## Project Development Projects: Phase II

<table>
<thead>
<tr>
<th>Project</th>
<th>Status</th>
<th>OPRD / Contractor</th>
<th>Conceptual Cost</th>
<th>Parameters &amp; Permitting</th>
<th>Operations &amp; Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asphalt Parking Area</strong></td>
<td>New Contractor</td>
<td>$18,000</td>
<td>Ac paving 3” Depth 10,000 sf</td>
<td>For Gravel Lot Cost, subtract $18,000 from total cost</td>
<td></td>
</tr>
<tr>
<td>Main Parking lot (incl. walks, stalls, road) - Asphalt</td>
<td>New Contractor</td>
<td>$18,000</td>
<td>Ac paving 3” Depth 10,000 sf</td>
<td>For Gravel Lot Cost, subtract $18,000 from total cost</td>
<td></td>
</tr>
<tr>
<td><strong>Gravel Base</strong></td>
<td>New Contractor</td>
<td>$21,250</td>
<td>370 cy gravel at 12” depth, 10,000 SF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Parking lot (incl. walks, stalls, road) - Gravel</td>
<td>New Contractor</td>
<td>$21,250</td>
<td>Geo-tech fabric for gravel lot</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Circulation: Roads and Parking</strong></td>
<td>New Contractor</td>
<td>$72,000</td>
<td>KPFF Estimate 6/30/15, Includes roadway entrance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intersection</td>
<td>New Contractor</td>
<td>$72,000</td>
<td>KPFF Estimate 6/30/15, Includes roadway entrance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt road and base from entry to day use area - 20’ wide</td>
<td>New Contractor</td>
<td>$72,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking lot landscaping/Stormwater management</td>
<td>New Contractor</td>
<td>$72,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Entrance Day Use</strong></td>
<td>New OPRD</td>
<td>$30,000</td>
<td>6’ wood benches w/back</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benches</td>
<td>New OPRD</td>
<td>$30,000</td>
<td>6’ wood benches w/back</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picnic tables</td>
<td>New OPRD</td>
<td>$30,000</td>
<td>Wood picnic tables w/attached benches</td>
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</tr>
<tr>
<td>Bike Parking</td>
<td>New OPRD</td>
<td>$30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boulders/Curb stops</td>
<td>New OPRD</td>
<td>$30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood Fencing</td>
<td>New OPRD</td>
<td>$30,000</td>
<td>Wood fencing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education/Visitor Experience</td>
<td>New OPRD</td>
<td>$30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trails</strong></td>
<td>New OPRD</td>
<td>$12,000</td>
<td>Graded, 4-6” aggregate base, resin rein. soil surface</td>
<td></td>
<td></td>
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<tr>
<td>Trail from parking to dike - 5’ wide (ADA-accessible)</td>
<td>New OPRD</td>
<td>$12,000</td>
<td>Graded, 4-6” aggregate base, resin rein. soil surface</td>
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<tr>
<td><strong>Day Use Landscaping</strong></td>
<td>New OPRD</td>
<td>$17,000</td>
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<tr>
<td>Day use area trees</td>
<td>New OPRD</td>
<td>$17,000</td>
<td>2” caliper</td>
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<tr>
<td>Landscaping in day use area</td>
<td>New OPRD</td>
<td>$17,000</td>
<td>Shrub beds and understory trees</td>
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<tr>
<td><strong>Signage</strong></td>
<td>New Contractor</td>
<td>$22,000</td>
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<tr>
<td>Directional Signage</td>
<td>New Contractor</td>
<td>$22,000</td>
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<tr>
<td>Advanced Signage</td>
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<tr>
<td>Custom Entrance Sign</td>
<td>New OPRD</td>
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<tr>
<td>Wayfinding signage</td>
<td>New OPRD</td>
<td>$22,000</td>
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<tr>
<td>Permanent Parkwide Wayfinding signage</td>
<td>New OPRD</td>
<td>$22,000</td>
<td>3 foot post, park map</td>
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<tr>
<td><strong>Buildings, Structures and Major Features</strong></td>
<td>New OPRD</td>
<td>$55,000</td>
<td>Free standing wood structures, signage nic</td>
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<tr>
<td>Restroom (Double Vault)</td>
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<tr>
<td>Information kiosks</td>
<td>New OPRD</td>
<td>$55,000</td>
<td></td>
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</tr>
</tbody>
</table>

Chapter 9: Cost Estimates & Phasing 93
<table>
<thead>
<tr>
<th>Project 2A CONTINUED - Parking Lot/Park Access</th>
<th>OPRD / Contractor</th>
<th>Conceptual Cost</th>
<th>Parameters &amp; Permitting</th>
<th>Operations &amp; Maintenance</th>
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<tbody>
<tr>
<td>Sitework</td>
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<td>$6,800</td>
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<td></td>
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<tr>
<td>Parking (site prep)</td>
<td>New Contractor</td>
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<tr>
<td>Trailhead (site prep)</td>
<td>New Contractor</td>
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<tr>
<td><strong>PROJECT TOTAL</strong></td>
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<td>Tillamook County</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>$250,000</strong></td>
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</tr>
<tr>
<td>15% Permitting</td>
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<td><strong>$38,000</strong></td>
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<tr>
<td>30% Contingency</td>
<td></td>
<td><strong>$76,000</strong></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>$364,000</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Project 2B - New North Loop Trail &amp; Dike Viewing Platform</th>
<th>OPRD / Contractor</th>
<th>Conceptual Cost</th>
<th>Parameters &amp; Permitting</th>
<th>Operations &amp; Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitework</td>
<td></td>
<td>$102,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viewing Deck</td>
<td>New OPRD</td>
<td></td>
<td>Approx. 20’ x 20’</td>
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</tr>
<tr>
<td>Education/Visitor Experience</td>
<td>New OPRD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trailhead</td>
<td>New OPRD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New trails, connection to main trail - Core Paths - 3’ wide: dirt</td>
<td>New OPRD</td>
<td></td>
<td>Graded, compacted soil</td>
<td></td>
</tr>
<tr>
<td>Wayfinding signage</td>
<td>New OPRD</td>
<td></td>
<td>Information signage on wood post</td>
<td></td>
</tr>
<tr>
<td>Wood Fencing</td>
<td>New OPRD</td>
<td></td>
<td>Wood fencing</td>
<td></td>
</tr>
<tr>
<td>Benches</td>
<td>New OPRD</td>
<td></td>
<td>6’ wood benches w/back</td>
<td></td>
</tr>
<tr>
<td>Planted Buffer</td>
<td>New OPRD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROJECT TOTAL</strong></td>
<td></td>
<td><strong>$102,000</strong></td>
<td>Tillamook County</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$102,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15% Permitting</td>
<td></td>
<td><strong>$15,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30% Contingency</td>
<td></td>
<td><strong>$30,000</strong></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$147,000</strong></td>
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## Park Development Projects: Phase III

<table>
<thead>
<tr>
<th>Project</th>
<th>Status</th>
<th>OPRD / Contractor</th>
<th>Conceptual Cost</th>
<th>Parameters &amp; Permitting</th>
<th>Operations &amp; Maintenance</th>
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</thead>
<tbody>
<tr>
<td>Project 3A - Knoll Viewing Area &amp; Trail</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sitework</td>
<td></td>
<td></td>
<td>$40,000</td>
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<tr>
<td>Viewing Deck</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New trails, Loop connection to ridge trail - Core Paths - 3’ wide: dirt</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Graded, compacted soil</td>
<td></td>
</tr>
<tr>
<td>Trailhead</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wayfinding signage</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Information signage on wood post</td>
<td></td>
</tr>
<tr>
<td>Wood Fencing</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Wood fencing</td>
<td></td>
</tr>
<tr>
<td>Benches</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>6’ wood benches w/back</td>
<td></td>
</tr>
<tr>
<td><strong>PROJECT TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>$39,490</strong></td>
<td>Tillamook County</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td><strong>$40,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15% Permitting</td>
<td></td>
<td></td>
<td><strong>$6,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30% Contingency</td>
<td></td>
<td></td>
<td><strong>$12,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$58,000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project 3B - Dunal Pond Viewing Area</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sitework</td>
<td></td>
<td></td>
<td>$9,290</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New trails, Loop connection to ridge trail - Core Paths - 3’ wide: dirt</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Graded, compacted soil</td>
<td></td>
</tr>
<tr>
<td>Wayfinding signage</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Information signage on wood post</td>
<td></td>
</tr>
<tr>
<td>Wood Fencing</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>Wood fencing</td>
<td></td>
</tr>
<tr>
<td>Benches</td>
<td>New</td>
<td>OPRD</td>
<td></td>
<td>6’ wood benches w/back</td>
<td></td>
</tr>
<tr>
<td><strong>PROJECT TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>$9,000</strong></td>
<td>Tillamook County</td>
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</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td><strong>$9,000</strong></td>
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<td></td>
</tr>
<tr>
<td>15% Permitting</td>
<td></td>
<td></td>
<td><strong>$1,000</strong></td>
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</tr>
<tr>
<td>30% Contingency</td>
<td></td>
<td></td>
<td><strong>$3,000</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$14,000</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Park Development Projects: Total All Phases

| Total All Projects | | | **$525,000** | | |
| Total All Projects (Includes 15% Permitting and 30% Contingency) | | | **$725,000** | | |
Natural Resource Projects

As OPRD will continue to work with conservation partners on adaptive natural resource management strategies with a long term goal of restoring fish passage to the estuary, Beltz Creek, and Reneke Creeks, project costs and funding partners have not yet been identified for this project. Similarly, adaptive management approaches will help determine the extent and level of improvements necessary to enhancing plover habitat in proximity to the park. These projects will continue to be developed in scope prior to implementation but are included for planning purposes.

Priority Natural Resource Projects (See Figure 8.3 For locations)

- Plover Habitat Improvements involved in establishing shorebird conservation area, managing beach grass for plover and possible dunal restoration.
- Retain and maintain open dune lands and red fescue communities.
- Restoration of Beltz Creek
- Restoration of Reneke Creek to its historic alignment, including revegetation.
- Fish Passage and Marine Estuary Improvements to Beltz Dike and Sand Lake Estuary.
- Control priority weeds in upland areas.
- Consider restoration to coastal prairie when developing knoll viewing area. Control invasives in area and other high visitation areas.
- Control invasives that threaten the estuary and marsh habitat.
- Retain and maintain open Kinnikinnik habitat.
- Establish native vegetation on dike

<table>
<thead>
<tr>
<th>Natural Resource Projects</th>
<th>Status</th>
<th>OPRD / Contractor</th>
<th>Conceptual Cost</th>
<th>Parameters &amp; Permitting</th>
<th>Operations &amp; Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish Passage Improvements</td>
<td>New Contractor</td>
<td>TBD</td>
<td>Tillamook County, Possible USACOE, ACOE, DSL, ODFW, NOAA</td>
<td>Includes improving fish passage at the dike, Beltz and Reneke Creeks.</td>
<td></td>
</tr>
<tr>
<td>Plover Habitat Improvements</td>
<td>Enhance &amp; manage OPRD/ Contractor</td>
<td>$20,000 - $40,000 per biennium</td>
<td>Tillamook County,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Resource Project Implementation</td>
<td>Maintainance OPRD/ Contractor</td>
<td>$25,000 - $50,000 per biennium</td>
<td>Tillamook County,</td>
<td>Projects based on prioritized natural resource management strategies and recommendations in Chapter 8</td>
<td></td>
</tr>
</tbody>
</table>

The prioritization of these projects will be determined in relation to additional OPRD Coastal Region natural resource priorities.
Land use regulations are the legal and practical means by which Oregon’s natural heritage is preserved for public enjoyment. Almost every significant alteration to the physical landscape within parks requires approval from a local government in the form of a land use permit, whether it is construction of a new interpretive center or a trail realignment alongside a creek. State rules require master plans for OPRD parks to be compatible with local government plans and zoning codes, however, projects must still be approved on a case-by-case basis before they can be implemented. This chapter summarizes the regulatory structure of Oregon State Law and how it pertains to the park plan, also outlining key aspects of the Tillamook County development code as it relates Sitka Sedge State Natural Area.
Land-Use Authority

Development of the park uses and facilities described in this plan for Sitka Sedge State Natural Area is regulated by Tillamook County under the provisions of the Tillamook County Comprehensive Plan. The County’s plan is acknowledged by the Land Conservation and Development Commission (LCDC) pursuant to the Statewide Land Use Goals and related statutes and administrative rules. This plan for Sitka Sedge State Natural Area has been formulated through the planning process described under OAR 736 Division 18 and OAR 660 Division 34. The planning process includes procedures for coordinating with affected local governments to assure that planned park uses and facilities are compatible with local government comprehensive plans.
Land-Use Compatibility Review

Review of a park plan for compatibility with affected local government comprehensive plans is required prior to OPRD’s adoption of the plan for the park. When a draft park plan is ready for OPRD’s adoption, OPRD requests that the local planning official provide written confirmation that the draft park plan is compatible with the local comprehensive plan. “Compatible” means that development permits may be approved for all of the planned park projects without first amending the local government’s comprehensive plan, or that the plan for the park specifically states that a local plan amendment will be needed prior to construction of any project that is not compatible. If the draft park plan is determined to be incompatible, it may need to be changed to achieve compatibility before it is adopted by OPRD. The plan for Sitka Sedge State Natural Area will be reviewed for local land use compatibility by Tillamook County planning officials.

Tillamook County Zoning

Under Tillamook County’s Comprehensive plan, three primary zones apply to different areas of the park: Recreation Management (RM), Estuary Natural Zone, Management Unit 2 (2EN), and Small Farm & Woodlot (SFW-20). There are also two overlay zones that apply to certain resource areas: the Coastal Shorelands (CS), and Flood Hazard Overlays. The overlay zone requirements apply in addition to requirements of the underlying primary zones.

RM Zone: This zone covers most of the property west of Sandlake Road, south and west of the Beltz Dike.

2EN Zone: This zone applies to estuary north of the dike. In a conversation with Tillamook County planning, language defines the boundary of this zone, not the line indicated on the map: ‘mean high water line or line of non-aquatic vegetation, whichever is most landward’.

SFW-20 Zone: This zone applies to all of the park property east of Sandlake Road.

CS Overlay Zone: This zone covers the area of the property west of Sandlake Road.

Excerpt from Tillamook County Goal 17 Coastal Shoreline Element, page 35:

Site Sandlake Park Sandspit
Location T 3S, R 10W, S 30
Classification Exceptional aesthetic resource (Map 3, Site 15)
Significant wildlife habitat (Map 8, Site 3)
Discussion: This area was identified as an area with potential for Exceptional Coastal Experience in the Visual Resource Analysis of the Oregon Coastal Zone, and has been identified by the ODFW as a significant habitat for the Snowy Plover.

Flood Hazard Overlay Zone: This overlay covers all of the area mapped as 100-year floodplain by FEMA, as represented by the Flood Insurance Rate Map (FIRM) for this area. FEMA flood map 4101960305A shows that A0 Zone or A3 applies to most of site west of Sandlake Road. Proposed parking improvements appear to be outside of this area.

Development Permits for State Park Projects

Development permits will be required for most of the development projects described in the plan for the park. Prior to beginning construction of any project, the project manager is responsible for consulting with the affected local government planning department and obtaining the necessary development permits. The specific requirements for obtaining development permits for a project, and the kind of local permitting process required may vary from one project to another.

The time required for completing the
development permitting process may also vary, so the project manager will consult with the local government planning department to assure the permitting process is completed prior to the target date for beginning construction. Prior to issuance of development permits the local government will review the project plans and specifications to assure the project proposed for construction is consistent with the description of the project in the park plan and with any applicable development standards in the local government’s development code.

**Variations from the Park Plan**

Under the provisions of OAR 736-018-0040, OPRD may pursue development permits for a state park project that varies from a state park plan without first amending the park plan provided that the variation is minor, unless the park plan language specifically precludes such variation. Any specific elements of planned projects that cannot be changed by applying the “Minor Variation” rule are indicated in the plan.

The OPRD Director must determine that a proposed variation from the park plan is “minor” using the criteria in OAR 736-018-0040. A minor variation from the plan, which is approved by the Director, is considered to be consistent with the plan contingent upon the concurrence of the affected local government.

**Rehabilitation of Existing State Park Uses**

State laws allow OPRD to continue any state park use or facility that existed on July 25, 1997. (See ORS 195.125 and OAR 660-034-0030(8).) The laws allow the repair and renovation of facilities, the replacement of facilities including minor location changes, and the minor expansion of uses and facilities. Rehabilitation projects are allowed whether or not they are described in a state park plan. These projects are subject to any clear and objective siting standards required by the affected local government, provided that such standards do not preclude the projects.

Prior to applying for development permits for a project involving a minor location change of an existing facility or minor expansion of an existing use or facility, the OPRD Director must determine that the location change or expansion is “minor” using the criteria in OAR 736-018-0043. A determination by the Director that a proposed location change or expansion is minor is contingent upon the concurrence of the affected local government.

**Natural Resource Review and Approvals**

In consultation and coordination with local, state, and federal agencies and partners, OPRD has determined the need for natural resource stabilization and restoration in the park. Under the authority of OPRD Commission Policy 20-0 Natural Resource, and OP 50-09 Invasive Species Management, natural resource projects will be undertaken to manage and restore the landscape to benefit the natural resources. OPRD staff work with conservation agencies and interest groups and surrounding land owners to implement specific resource projects. Projects are developed and implemented under OPRD management as budget and staff allow. Implementation of natural resource projects are subject to applicable permitting requirements of local, state, and federal authorities.
Cultural Resource Review and Approvals

OPRD recognizes that preservation and protection of cultural resources is an important aspect of land management. Management of historic and archeological resources is in accordance with OPRD Commission Policy 20-02. OPRD has worked with tribal interests and local heritage organizations to identify how proposed park development could potentially affect cultural resources. OPRD works with the State Historic Preservation Office in determining measures needed to protect any important cultural resources. OPRD will continue to work with tribal and local interests to ensure the cultural resources of Sitka Sedge State Natural Area are preserved and protected.

Emergency Management

OPRD strives to provide a recreation experience that is safe for staff, visitors, and the surrounding community. The life-safety aspects of facility and infrastructure development are reviewed during the local government land use permitting process. OPRD has additional responsibility beyond the local planning jurisdictions. Park management is responsible for the development of an emergency management plan under OPRD policy 70-04. The development of this emergency management plan will occur after land use review of the park plan has been completed. Development of the emergency management plan is done through consultation and coordination with affected emergency service providers.
Now that you have had a chance to review the plan, is there an idea that you are particularly compelled by that you just cannot wait to see put into action? This plan is full of great ideas and visions for Sitka Sedge State Natural Area, some of which were directly initiated by citizens during the public process. This chapter aims to provide resources for you to become involved in implementing the concepts presented in this plan. These projects do not just build themselves! In an era of decreased funding for new park projects, contributions of time and money have been extremely successful in supporting exciting new parks and repairs at Crown Point, Kam Wah Chung and Fort Yamhill, to name a few. If you are interested in getting involved as a volunteer, financial benefactor, or recreation advocate the following pages provides some starting points to help you make a connection at any level you choose.
Volunteering at Oregon State Parks

Why Volunteer?

Volunteers are motivated by many things, but ultimately, most volunteers want to be part of something they value. Here are some other reasons we often hear: Repay or “give back” to a park system you’ve enjoyed and benefitted from over the years. Stay in a park and experience a behind-the-scenes look at what we do and work alongside park rangers to welcome visitors and make a difference. Play and have fun in a new area, and stay active in Oregon’s beautiful parks all around the state. Pay it forward and become part of the stories and traditions. Through your service, you are able to make a personal mark on the landscape and preserve parks for future generations.

Benefits of Volunteering

Along with the praise and thanks from staff and visitors, here are some of the benefits you can enjoy at many of the parks:

- Develop new skills
- Specialized training
- Leave a legacy
- A unique experience to broaden your enjoyment of state parks

Ways to Volunteer

- We have tons of possibilities! You can volunteer as an individual, part of a group, with your family—whatever works best for you. And you can spend as much or as little time as you want. We will try to match you to the location and opportunity of your choice.
- Become a volunteer Park Host and help keep parks clean and in good condition. In return for your generous efforts, you’ll receive a free campsite.

- Join our network of volunteer partners. Public/private partnerships help us work efficiently, and collaborate with people in the community. Volunteers support our partners and our partners support Oregon State Parks. You can become an Adopt A Park Partner and assist us with operations and maintenance at a specific park location or join one of our 16 Cooperative Associations, whose efforts raise awareness, consciousness and appreciation for the protection, preservation and improvement.

How to Apply


- When you apply, describe your experience, education, talents, skills and interests. Each park has unique needs and looks for volunteers with particular skills. The more thoroughly you describe your knowledge, skills and abilities, the better a match we can make.
- Regardless of your experience and skills, park staff can nearly always find a job that suits you. Many of the jobs, naturally, are outdoors and mean “getting your hands dirty,” but there is indoor business as well, such as various administrative and guest relations work.

What’s available?

You can search for volunteer opportunities at:

Website - www.oregonstateparks.org
Email - vol.info@oregon.gov
Phone - toll free 1-877-225-9803
Park Hosts

Our park hosts are literally some of the most visible faces of our agency, helping visitors feel welcome, answering their questions and orienting them to the park and area. Common duties include selling ice and firewood, cleaning yurts or cabins, conducting tours, educating young campers through our Junior Ranger program, mowing lawns, repairing equipment and more. In return, parks provide hosts with a free campsite, usually with full hookup, for those who host for a minimum of one month.

The Hosting Lifestyle

Many of our park hosts volunteer at their favorite parks over the summer, then go home. But for many, full-time hosting has become a lifestyle. Full-time RV users arrive at one park, then travel around Oregon, volunteering at other parks over a longer period. Whether this is for you or not, we value whatever commitment you can make.

Friends Groups

Cooperating Associations, also known as “Friends Groups” are private 501(c)3 nonprofit organizations formed by citizens to provide and support the educational and interpretive services of the park.
The Oregon State Parks Foundation

The Oregon State Parks Foundation is proud to be the statewide nonprofit organization dedicated to supporting Oregon’s state parks. The foundation works to enrich the state park experience for generations to come.

Since 1995, the Foundation has provided more than $8.5 million to preserve and enhance Oregon State Parks. The Foundation is the only 501-(c)-3 nonprofit in Oregon dedicated to improving and protecting your state park system, and they are a crucial way to channel your financial support. These funds have supported many vital projects such as restoring Vista House at Crown Point, helping to maintain Oregon’s Lighthouses, and purchasing important property at Iwetemlaykin State Heritage Site near Wallowa Lake.

The Oregon State Parks Foundation strives to connect all Oregonians with their state parks, to enrich the visitor experience through interpretation and education, and to promote an active and healthy lifestyle. Oregonians treasure their state parks. We need your support to ensure that these natural and historic wonders remain strong — today and well into the future.

More information is available at: www.oregonstateparksfoundation.org.
Appendix A: Supporting Documents and Reports

This is an index of all documents that are referenced, or were created in preparation for this plan. These documents are available for viewing at:

Oregon Parks and Recreation Department
North Mall Office Building
725 Summer Street NE, Suite C
Salem, OR 97301

OPRD Background Documents and Reports

- Beltz Farm Acquisition Project Sand Lake Estuary; A Proposal to the National Coastal Wetlands Conservation Grant Program, OPRD June 2014
- Beltz Property Existing Trail Survey, OPRD 2015
• Centennial Horizon Vision, OPRD, 2009
• Clay Myers State Natural Area At Whalen Island Master Plan, OPRD 2003
• GIS Database, OPRD, 2016
• Historic Resource Report, Beltz Property, OPRD, 2015
• OPRIS Database, OPRD, 2016
• Oregon’s Highway Park System 1921-1989 An Administrative History, 1992
• Oregon Natural Areas Plan, OPRD, Salem, 2010
• Park Attendance Data, OPRD 2015
• Park Survey Data, OPRD (collected in-person and online), 2015-16
• Public Meeting Summaries, OPRD 2014-16
• State Park System Plan, OPRD, December 2012
• State Park Systems Plan, OPRD, 1995
• Statewide Trails Plan, OPRD 2016
• Summary of Current Coastal Interpretive Programs, OPRD, 2015
• Summary of Current Cape Lookout Management Unit Operating Costs, OPRD, 2015
• Technical Memorandum (DRAFT) - Tierra Del Mar Groundwater and Flood Risk Assessment, Waterways Inc., May 2016
• Sitka Sedge State Natural Area Wildlife Assessment, OPRD 2016
• Vegetation Inventory and Botanical Resource Assessment for Sitka Sedge State Natural Area: Existing Conditions and Modeled Future Conditions Under Two Potential Dike Alteration Scenarios, OPRD, 2016
• Visitor Experience Assessments, Prepared by Dialogue Consulting, 2016

### Additional Documents and Reports

This is an index of documents that are referenced in or informed this plan.

• Beltz Farm Property Proposed Project (Pacific Gailes), Applications for Conditional Use, August 2003, (Several Authors)
• Oregon Progress Board: Salem, OR.
• Fish Passage Restoration Project, Conceptual Alternatives and Hydrology Data Reference, Waterways Consulting, Inc., 2016 (In process at time of plan writing)
• Testimony For Preservation of the Beltz Farm, Date Unknown, Lynda Steiner
• Tierra Del Mar Tales, Diana Sears, 2005
Appendix B: Master Plan Amendments

Once the park master plan is adopted as a state rule, any development in the park must be consistent with the master plan. Minor variations from the adopted master plan may be allowed if such variations are determined by the OPRD Director and the affected local government to be consistent with the master plan in accordance with OAR 736-018-0040. Any use that is not consistent with the master plan requires a master plan amendment. Master plan amendments must follow the same process used to adopt the master plan, which includes re-adoption as a state rule and a determination of compatibility with local government comprehensive plans.

Park master plans are amended when changes in circumstances are significant enough to warrant plan changes. The OPRD Director considers the recommendations of OPRD staff and outside interests in prioritizing the park master plans to be adopted or amended each biennium. The director’s decisions are based on considerations of various factors, such as:

- Recreation demands that affect the park, and opportunities in the park to help meet the demands;
- The need for significant changes in park uses or facilities to improve park functions;
- Significant changes in the conditions of, or threats to, natural, cultural or scenic resources within or surrounding that park where a master plan amendment is needed to address the changed conditions or threats;
- Conflicts or potential conflicts between park uses and neighboring land uses where a master plan amendment is needed to address the conflicts;
- Opportunities to establish partnerships to implement previously unplanned projects that fit the park setting; or
- Alternatives to amending the master plan that would adequately address needed changes, such as interagency management agreements, partnerships, and so forth.