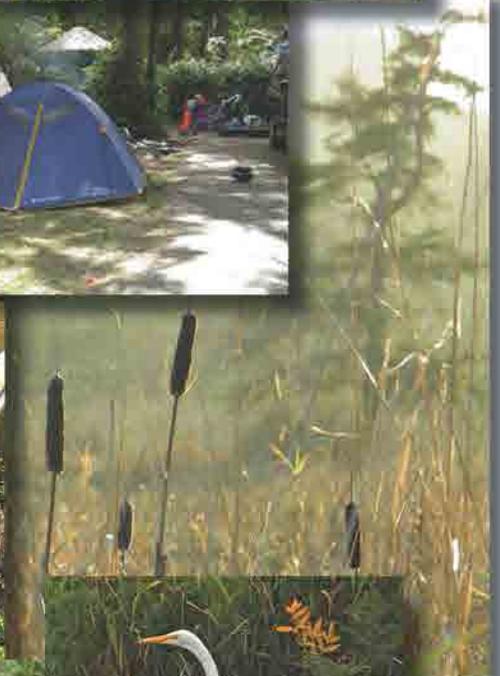
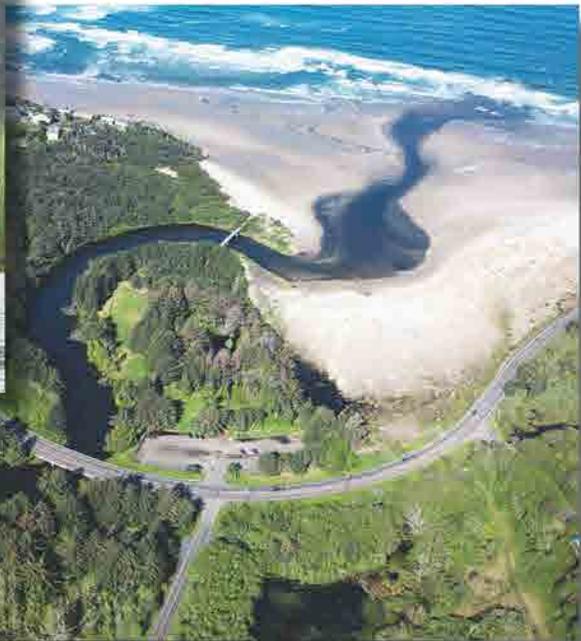


Brian Booth State Park Comprehensive Plan

DRAFT

January 2014



Brian Booth State Park. Embracing the Past and the Future.

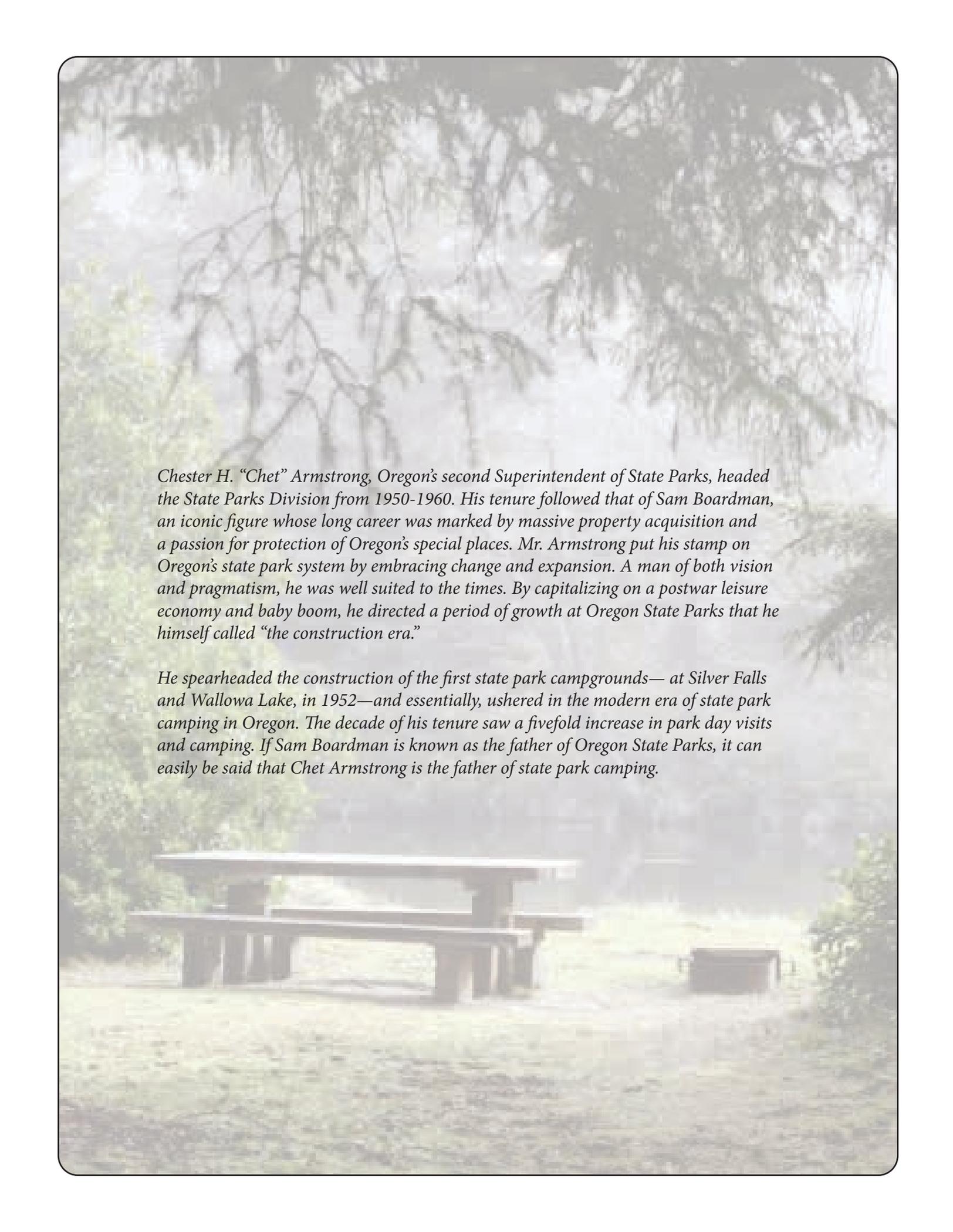
In many ways, the creation of Brian Booth State Park represents the mission of Oregon State Parks, in that it looks both to the past and the future in its creation and direction. It is a park created from properties new and old: it represents a link to much-cherished legacy properties such as Ona Beach, and also embraces newer property acquisitions including Beaver Creek Natural Area. Together, Brian Booth State Park forms a commitment to their future.

The park honors both Brian Booth and Chester H. Armstrong, two men who shaped Oregon State Parks at key moments in time.

Brian Booth's contributions to the state of Oregon span virtually every arena of public service and philanthropy. Luckily for Oregonians and for Oregon State Parks, that long list of passions and achievements includes state parks, recreation, the ocean shore and the public policy and funding that underpins all of it.

In 1990, Brian Booth became the first Chairperson of the Oregon State Parks and Recreation Commission, and served as Chair under three governors as the department became established as a separate and respected state agency. His leadership and advocacy for maintaining the financial health of the organization resulted in permanent, stable funding from state lottery earnings.

This work epitomized Mr. Booth's underlying belief that "the public beaches and parks are the soul of Oregon," and are thus worthy of state investment and support. Mr. Booth was a founding trustee of the Oregon State Parks Trust (now the Oregon State Parks Foundation), as well as a leading advocate for many other defining aspects of the state. His philanthropy and public service enlarged every component of a well-rounded, healthy society: the literary arts, health and education, natural resource conservation, and outdoor recreation.

A misty forest scene with a picnic table in the foreground. The background is filled with tall, thin trees and a thick layer of fog or mist. The picnic table is made of dark wood and is positioned in the lower third of the frame. The overall atmosphere is serene and quiet.

Chester H. “Chet” Armstrong, Oregon’s second Superintendent of State Parks, headed the State Parks Division from 1950-1960. His tenure followed that of Sam Boardman, an iconic figure whose long career was marked by massive property acquisition and a passion for protection of Oregon’s special places. Mr. Armstrong put his stamp on Oregon’s state park system by embracing change and expansion. A man of both vision and pragmatism, he was well suited to the times. By capitalizing on a postwar leisure economy and baby boom, he directed a period of growth at Oregon State Parks that he himself called “the construction era.”

He spearheaded the construction of the first state park campgrounds— at Silver Falls and Wallowa Lake, in 1952—and essentially, ushered in the modern era of state park camping in Oregon. The decade of his tenure saw a fivefold increase in park day visits and camping. If Sam Boardman is known as the father of Oregon State Parks, it can easily be said that Chet Armstrong is the father of state park camping.

TABLE OF CONTENTS

Chapter 1	INTRODUCTION	1
Chapter 2	THE PARK IN CONTEXT.....	5
Chapter 3	PARK RESOURCE ASSESSMENTS.....	13
Chapter 4	VISITOR EXPERIENCE ASSESSMENT	45
Chapter 5	AGENCY MANDATES.....	53
Chapter 6	ISSUES AND IDEAS	59
Chapter 7	OPPORTUNITY AREAS	67
Chapter 8	VALUES, GOALS AND STRATEGIES	75
Chapter 9	PARKWIDE MANAGEMENT STRATEGIES.....	85
Chapter 10	MANAGEMENT BY ZONES	115
Chapter 11	REVIEWS AND APPROVALS	171

SEPARATE DOCUMENTS:

APPENDIX A SUPPLEMENTAL NATURAL RESOURCE DATA

APPENDIX B VEGETATION INVENTORY & BOTANICAL RESOURCE ASSESSMENT

APPENDIX C WILDLIFE ASSESSMENT

APPENDIX D INTERPRETIVE ASSESSMENT

APPENDIX E CULTURAL HISTORY OF BRIAN BOOTH STATE PARK VICINITY

TABLE OF FIGURES

Figure 2.1	Central Coast Vicinity	9
Figure 2.2	Local Context	10
Figure 2.3	Existing Conditions	11
Figure 3.1	Stream System	31
Figure 3.2	Vegetation Cover Groups / Habitat Types.....	33
Figure 3.3	Scenic Assessment.....	35
Figure 3.4	Composite Natural Resource Values	37
Figure 4.1	Mid-Coast Recreation Context	51
Figure 7.1	Opportunity Areas.....	73
Figure 9.1	Primitive Road Conversion to Park Roads & Trails.....	102
Figure 9.2	Priority Wildlife Habitat Preservation & Movement Corridors	105
Figure 9.3	Natural Resource Management Actions.....	107
Figure 9.4	Elevation and Distance Profiles 1 - 3.....	109
Figure 9.4	Elevation and Distance Profiles 4 - 6.....	111
Figure 9.5	General Plan: Visitor Experience Support Facilities	113
Figure 10.1	Management Zones	117
Figure 10.2	Ona Beach Access and Picnic Area	123
Figure 10.3	Beaver Creek Natural Area	129
Figure 10.4	Ona Hills Entrance and Administration Area	137
Figure 10.5	Equine Area and Central Trailhead	143
Figure 10.6	Chester Armstrong Campground Central Unit.....	153
Figure 10.7	Chester Armstrong Campground Upper Unit	161

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CHAPTER 1: INTRODUCTION

A Vision for the Park

Oregon's State Parks system is nearing its first centennial birthday in 2022. As the Department plans for the next 100 years, it is guided by its mission: *"To provide and protect outstanding natural, scenic, cultural, historic and recreational sites for the enjoyment and education of present and future generations."* This Comprehensive Plan for Brian Booth State Park holds the State Parks mission as its guiding principle, recognizing the great natural values of the park's rural landscape and the opportunities it provides for recreation, education, and environmental stewardship.

The original oceanfront park known as Ona Beach has attracted visitors from Portland, the Willamette Valley and the mid-coast communities for several decades offering beach access, picnicking, fishing, and boating. Picnic grounds by the beach and boating access to Beaver Creek near its outlet to the ocean were established more than 50 years ago, and the pedestrian bridge over Beaver Creek to the beach has been in place for over 40 years. A new era for the park began with the opening three years ago of nearby Beaver Creek Natural Area, adding hiking

trails, a Welcome Center, interpretive displays, a paddlers' launch for marsh access, and more opportunities to see wildlife. Interests in providing environmental learning programs closely followed the opening of Beaver Creek Natural Area, and a few such programs have since begun with the help of local organizations and volunteers. More land has since been added, narrowing the gap between the two original parks and providing additional opportunities for visitor support facilities and land conservation. In 2013 Ona Beach, Beaver Creek Natural Area and other newly added properties became one park named after Brian Booth, the late first Chair of the Oregon Parks and Recreation Commission.

This Plan prepares the Department for the continued evolution of the park. Changes in the years to come will benefit land stewardship, ecological health, the recreating public and the local community. Land stewardship will benefit from elevated public awareness and careful responsibility inspired by interpretive and educational opportunities provided by the park and its staff, volunteers and community partners. Ecological health will benefit from

the restoration and management efforts of the Department, partner agencies and conservation groups. The recreating public will benefit from enhanced support facilities carefully fitted to the landscape that expand trail-based recreation opportunities and offer overnight stays with a variety of camping styles and amenities. The local community will benefit from the park's contributions to healthy lifestyles, community livability and the local economy.

For the ecological resources, the park offers a chance to give back to the land that has supported human subsistence and quality of life over the generations. For the visitors, the park offers a chance to address the growing unmet demands for outdoor recreation experiences so highly valued by the public, including camping, trail uses, wildlife viewing and environmental learning in addition to the established activities already enjoyed by many. While changes that enhance visitor recreation and program opportunities may be realized over the course of several biennia, improvements to ecological health and related benefits to recreation settings will take hold more gradually. The park's three major landscape types – the beach and dune, the Beaver Creek marsh and floodplain, and the forested hills – all need management to reverse the changes of past land use practices and promote succession toward a healthier and fully functioning coastal ecosystem. As native populations of flora and fauna grow and flourish over time, so will the experiences of visitors seeking the benefits of connecting to the natural setting in their recreational pursuits.

Outdoor recreation in Oregon state parks relies on natural and cultural resource management — protecting examples of Oregon's heritage — to establish quality settings for recreation. Recreation can simply be a physical experience, but it also has the power to spark a deeper understanding and appreciation of the place. For some,

appreciation of the place dates back as far as a half century, for many others it is just being discovered.



Need for a Plan

Now is the time to plan for the park's future. 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 Comprehensive Plan for Brian Booth State Park accomplishes four tasks:

1. It establishes the vision, goals, concepts and actions to guide park development, management and operation.

2. It meets OPRD’s legal obligation to adopt a Plan for the park through the state administrative rule-making process.
3. It meets OPRD’s legal obligation to present a Plan for the park to Lincoln 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. It 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 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 Department 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, interest groups. A written comment period follows the meetings.

Preliminary Concept Formulation: Based on identified issues and ideas for the park’s future, a preliminary concept is prepared that geographically represents proposed types, locations and sizes of recreation support facilities in the context of park areas where natural resource protection and enhancement will be emphasized.

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, and the 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 web site 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 asks 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.

Land Use Compatibility Review: The Comprehensive Plan for Brian Booth State Park 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 rule-making 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.



CHAPTER 2: THE PARK IN CONTEXT

Brian Booth State Park is located along the Central Oregon Coast in Lincoln County approximately seven miles south of Newport and about midway between Newport and Waldport. Properties that comprise Brian Booth State Park include the two former parks named Ona Beach State Park and Beaver Creek State Natural Area, as well as recently acquired and formerly unnamed forestland southeast of Ona Beach. The park properties are non-contiguous, clustered around the alluvial floodplain of Beaver Creek, a mid-size stream that drains from the east into the Pacific Ocean at Ona Beach. Much of the park, including the disconnected portion that was formerly Beaver Creek State Natural Area, reaches inland as far as three miles from the coastline. The Oregon Coast Highway 101 passes through the northwest end of the park, providing regional access from the north and south and direct access to parking at Ona Beach. Beaver Creek Road, a county road, connects with Highway 101 directly across the highway from the Ona Beach access and extends eastward to Beaver Creek Natural Area along the broad Beaver Creek floodplain. The county road provides

access to a Welcome Center at Beaver Creek Natural Area before continuing farther east to meet U.S. Forest Service roads in the Siuslaw National Forest. Recently acquired forestlands southeast of Ona Beach reach from Highway 101 roughly two miles into the hills of the Coast Range. The only developed road access into this area reaches a short distance inland from its connection with the highway at a point about a half mile south, and uphill from, the Ona Beach access. This access road serves property with office and maintenance facilities currently owned by the Oregon Department of Transportation (ODOT) surrounded on three sides by park land.

The park is characterized by a diverse landscape that includes beach and foredune, broad marsh and floodplain along Beaver Creek, and forested hills with steep topography incised by multiple small streams. Most of the parkland drains to Beaver Creek, a smaller portion drains to Deer Creek which flows directly to the ocean, and a very minor portion flows to the ocean by other small unnamed streams.

The Neighborhood

Most of the land in the vicinity of Brian Booth is forestland, either private or federally owned. Upland areas immediately north, east, south and southwest of the park are mostly privately owned commercial timberlands. The Siuslaw National Forest, which has been managed largely for natural resource values since adoption of the 1994 Northwest Forest Plan, begins about two miles to the east of the park and extends inland to the crest of the coast range. Much of the Beaver Creek bottomland and some of the toe slopes are used for farming, mainly for livestock pasture. Properties near or adjacent to the park include a mix of residential, farmland, and private commercial timberlands. Scattered rural dwellings occur along North and South Beaver Creek Roads and south of the park. A number of platted subdivisions are located along the highway corridor, and some of these lots are directly adjacent to the park. Two notable state parks are located near Brian Booth. South Beach State Park is a popular beachfront park with a large campground at the south end of Newport, approximately six miles north. Seal Rock State Recreation Site, well-known for its tidepools, is about a mile and a half to the south.

Park History

Ona Beach State Park

When Ona Beach State Park was first established, the state park system was administered by the Oregon State Highway Commission's Parks and Recreation Division, which later became the Oregon Parks and Recreation Department. The Highway Commission began acquiring land in and around Ona Beach in the 1930s. Lands aggregated over time for what eventually became Ona Beach State Park began being acquired in 1938. Ona Beach officially became a state park in 1958.

- 1938 – Purchase of 3.41 acres of land from the Anglo California National Bank Corporation adjacent to the Spruce Production Railroad (also known as Alsea-Southern Railroad).
- 1944 – Purchased of 1.57 acres from Charles Hart.
- 1946 – Beaver Crest Development Company filed a subdivision plat consisting of 49 parcels on both sides of Highway 101. Parcels on the east side of the highway were never developed.
- 1956 – Purchase of two parcels east of the highway totaling 6 acres from Lester and Jeanette Anderson, president and secretary of the Beaver Crest Development Company.
- 1958 - Purchase of three parcels totaling 126.84 acres from Lorraine Randall.
- 1958 – The Highway Commission approved the development of the area at the mouth of Beaver Creek as a state park named “Ona Beach.” Historic aerial photos suggest that the picnic area with a small parking lot was developed at that time.
- 1963 – Lincoln County donated 10 acres to the park. Historic records indicate that the boat launch on the east side of Highway 101 was in place at that time.
- More parcels totaling 25.66 acres were purchased from Beaver Crest subdivision through 1966.
- 1968 – Purchase of 64 acres from Boise Cascade, making a total of 237.17 park acres.
- 1970 – Pedestrian bridge constructed over the Beaver Creek channel to facilitate beach access.
- 1999 – OPRD transferred ownership of 17 acres east of Highway 101 to ODOT for construction of ODOT office and maintenance facilities.

- 2001 – William and Joyce McHolick donated their lot consisting of .56 acres.

Beaver Creek State Natural Area

In 2007, OPRD began purchasing lands a few miles inland from Ona Beach that soon after opened as “Beaver Creek State Natural Area, 2010 Park of the Year.” A house built in 1995 on one of these properties became the Beaver Creek Welcome Center.

- 2007 – Purchase of 318.67 acres from Terrence and Laraine Keady.
- 2009 – Purchase of 30.4 acres from Freda Fuller.
- 2009 – Purchase of 25.27 acres from Rodney and Sheridan Price included the house that is now the Welcome Center.
- 2010 – Official opening of Beaver Creek State Natural Area.

Brian Booth State Park

OPRD has continued purchasing lands to add to the Ona Beach and Beaver Creek complex. These additional lands were without an official park name or designation until 2013 when the Oregon Parks and Recreation Commission combined the entire complex into a one state park with a new name, “Brian Booth State Park.”

- 2010 – Purchase of 583 acres mostly southeast of Ona Beach from LaMinora Properties.
- 2011 – 75.15 acres acquired in a land exchange with the Department of State Lands.
- 2012 – Purchase of 8.01 acres from Jacquelyn Oakes.

- 2013 – Adoption of the new name “Brian Booth State Park” for the entire park complex. In adopting the new name, the Commission recognized the public interest in retaining the identities of “Ona Beach” and “Beaver Creek” within the larger park.

Ona Beach 1958



The Park Today

Brian Booth State Park now encompasses a total of 1261 acres which include the former Ona Beach State Park (303 acres), former Beaver Creek State Natural Area (374 acres), and the recently acquired commercial timberland property (583 acres).

OPRD will soon re-acquire the 17-acre parcel transferred to ODOT in 1999 which includes ODOT’s office and maintenance facilities. An agreement between OPRD and ODOT has recently been established for this acquisition. The park acreage will then total approximately 1278 acres.

The focus of park management has evolved over the years. Originally, Ona Beach State Park served primarily as a beach access, boating access and picnic area. With the addition of Beaver Creek Natural Area, the park's management and visitor experience emphasis shifted toward natural resource management, wildlife observation and related environmental interpretation and education in addition to the recreational attractions of the beach and the Beaver Creek estuary. The park has become a unique natural resource attraction for the region.

Visitors to Brian Booth are presented with a range of visitor experience opportunities. Ona Beach continues to serve picnickers and beachgoers, boaters and fishermen. The Welcome Center at Beaver Creek Natural Area is staffed by rangers or volunteers and offers interpretive activities focused primarily on native plants and wildlife. Kayak and canoe trips can now begin and end at upstream and downstream launch sites, and popular kayak tours help facilitate exploration of the marsh. There are miles of hiking trails through scenic landscape settings, and rangers and volunteers enthusiastically lead guided hikes and birding tours. The existing facilities at Ona Beach and Beaver Creek are summarized below.

At Ona Beach:

- Picnic area
- Beach access and picnic area walkways
- Beach access and picnic parking with 85 spaces
- Pedestrian bridge over Beaver Creek
- Boat ramp
- Boat ramp parking with 9 spaces

At Beaver Creek State Natural Area:

- Welcome Center with interpretive activities
- Parking for Welcome Center, 22 spaces
- Kayak launch

- Parking for kayak launch, 6 spaces
- Approximately 7 miles of hiking trails
- Home site for undefined future use (currently occupied under life estate provision)
- Pole barn site for undefined future use

An average of around 200,000 people visited Ona Beach State Park annually between 2008 and 2012. Since it opened in 2010, yearly visitors to Beaver Creek Natural Area have numbered between 20,000 and 30,000. 7,645 people visited the Beaver Creek Welcome Center between October 2010 and April 2012.

Managing Agencies

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 State Marine Board – boating facilities, safety and licensing
- Oregon Dept. of State Lands – wetland fill or removal
- Army Corps of Engineers – wetland fill or removal
- Oregon Dept. of Environmental Quality – activities involving pollutant discharges
- Oregon Water Resource Dept. – water rights and permitting, water diversions
- Lincoln County – county roads, land uses and development
- Oregon Dept. of Transportation – Highway 101 and ODOT administrative facilities
- Oregon Dept. of Fish and Wildlife – fishing regulation, riparian area development, activities affecting state ESA listed species
- US Fish and Wildlife Service – activities affecting federal ESA listed species
- National Marine Fisheries Service - activities affecting federal ESA listed aquatic species

Figure 2.1
Central Coast Vicinity

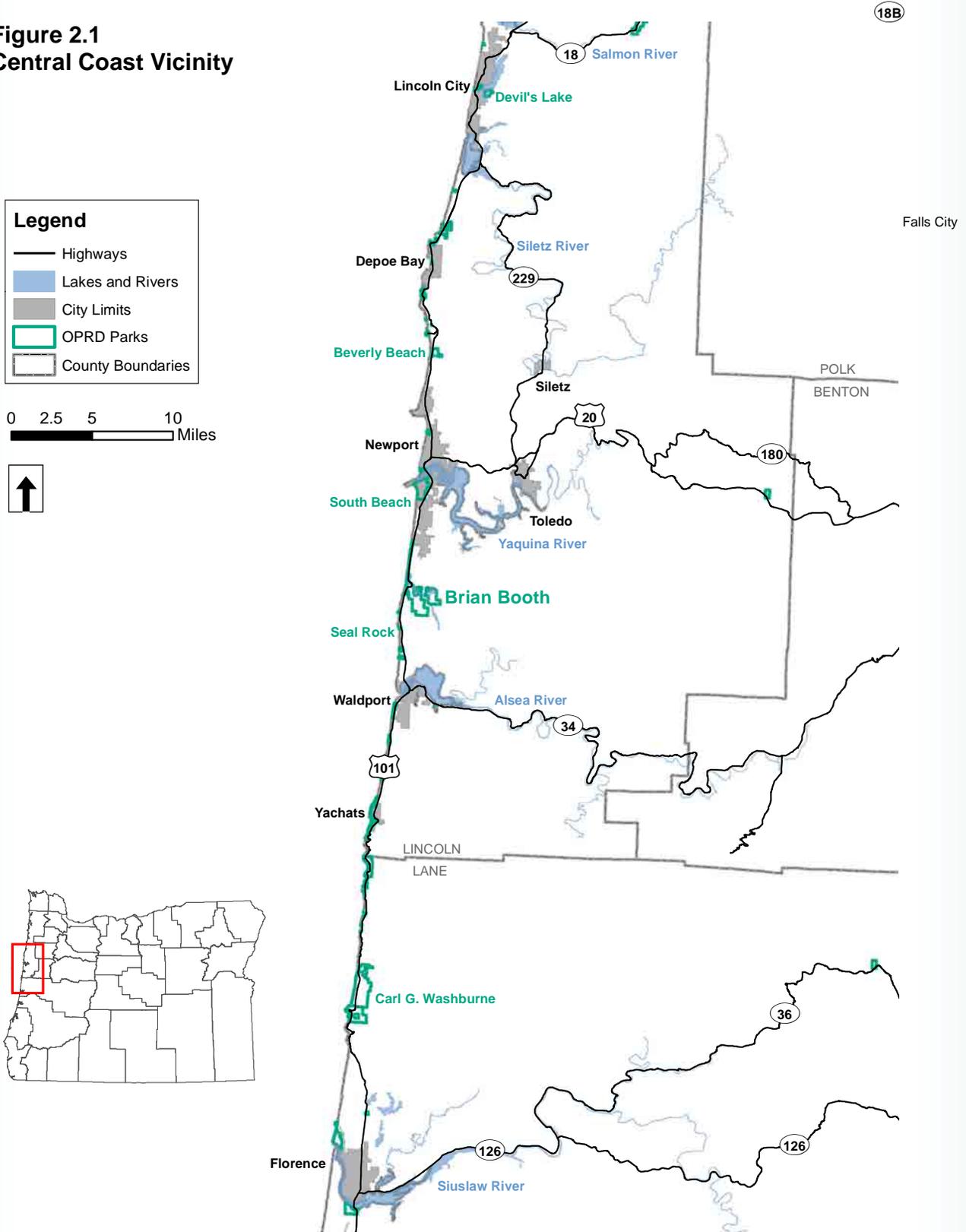
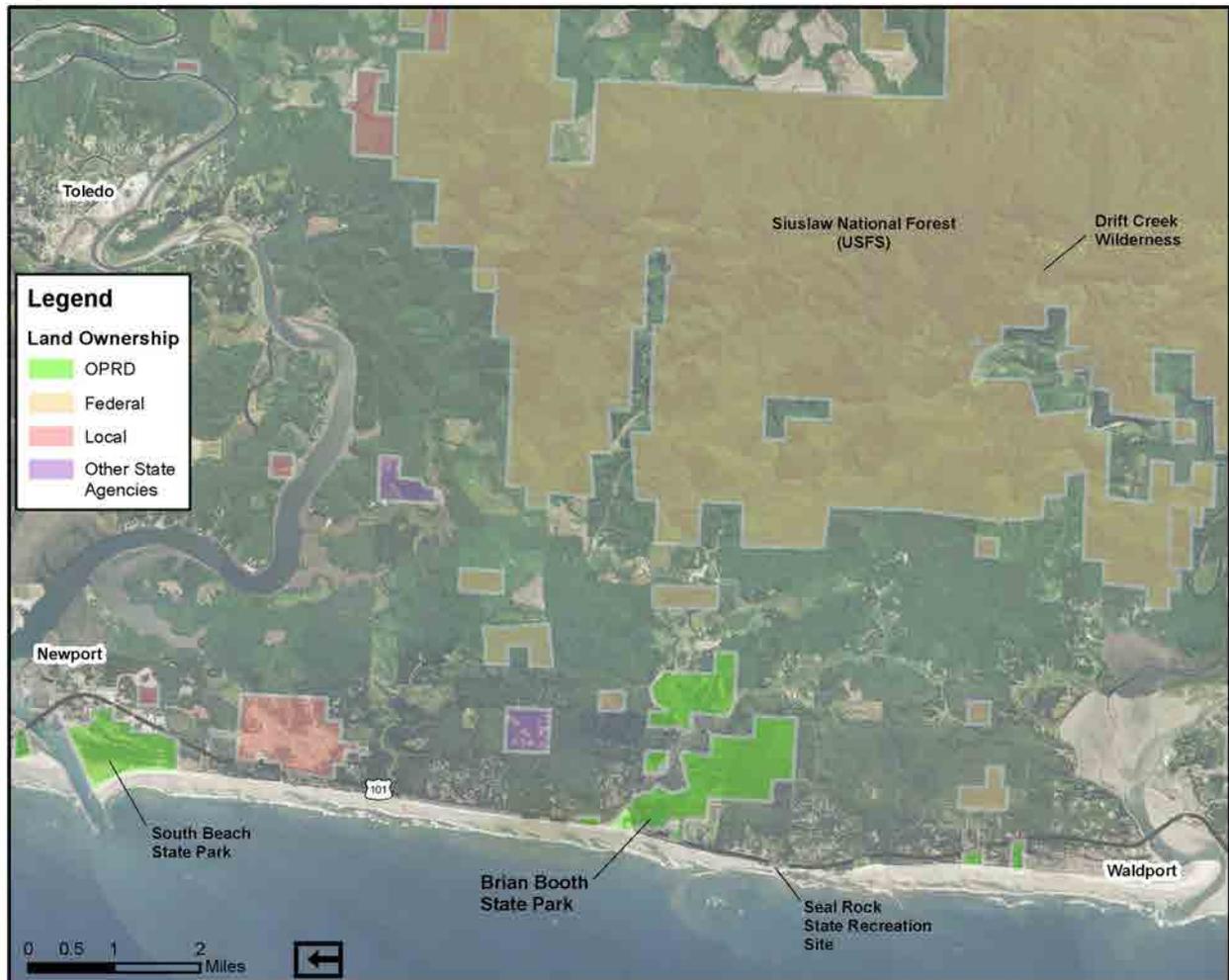


Figure 2.2, Local Context





CHAPTER 3: PARK RESOURCE ASSESSMENTS

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

Physiographic Setting

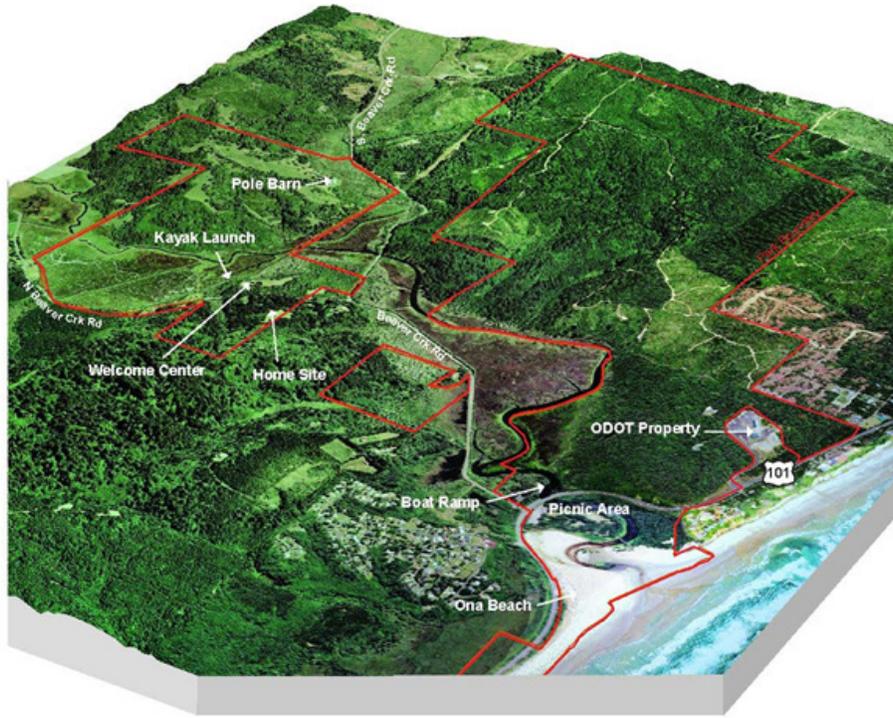
Brian Booth State Park is located midway between the coastal cities of Newport and Waldport, within the Oregon Coast Range physiographic province which includes the coastal mountains and plain between the Columbia River to the north and the Klamath Mountains to the south. The Coast Range is

characterized by rugged, heavily forested mountains up to 4,000 ft. tall interrupted by winding river valleys. A narrow coastal plain broken by periodic cliffs and headlands runs between the mountains and the ocean.

Ona Beach is approximately in the center of the Newport littoral cell (Oregon's littoral cells have been defined by the Department of Geology and Mineral Industries and the Department of Land Conservation and Development), which reaches from Yaquina Head to Cape Perpetua. Seal Rock, the only basalt rock headland between Newport and Yachats, lies just south of Ona Beach.

Brian Booth State Park Landscape

The park is composed of several disconnected pieces of property clustered around the lower reach of Beaver Creek and extending from the ocean beach 2.5 miles inland. Beaver Creek flows through and along the edges of the park properties for the east-west length of the park. The landscape is topographically varied, ranging from the broad flat estuarine and floodplain bottomlands around the creek to low hilly forested uplands with numerous ridges



and canyons. Beaver Creek empties into the ocean at a picturesque white-sand beach with sweeping views to the north and south. While most of the park property drains to Beaver Creek, less than one fourth of the park drains to Deer Creek which flows to the ocean south of the Beaver Creek mouth.

Elevations in the park range from sea level to over 300 feet at several points in the hills. The highest point in the park is just over 350 feet elevation. Slopes in the upland areas exceed 50 percent along major stream drainages. Level to moderately-sloping areas are dispersed along the hilltops. Figure A.1 in Appendix A illustrates the park landscape by steepness of slopes.

Climate

The marine climate of the central Oregon Coast is typical of continental west coast regions between 40 and 50 degrees latitude. Summers

are usually quite cool, often windy and foggy, due to onshore winds bringing air cooled by ocean upwelling. Prevailing winds are from the southwest during the winter and from the northwest during the summer. On occasion, an east wind pattern allows warm sunny days in the summer. The warm Japanese current brings moist air south along the Pacific Coast, rising and cooling as it meets the Coast Range, resulting in average annual precipitation of 90 inches, with most falling as rain. Precipitation is highly seasonal, with an average of 8 inches or more per month between November and March and only 1 inch per month during July and August. Average temperatures range from 42 degrees F in January to 59 degrees F in July. During the coldest months of December and January, average temperatures range from a high of 51 degrees F to a low of 38 degrees F. In the warmest months of August and September, average temperatures range from a high of 65 degrees to a low of 50 degrees F in July and August.

Geology and Soils

Most of the rocks that underlie the central coast region consist of marine sediments laid down in ancient seas. At various times in geologic history the strata were uplifted, gently folded, faulted and intruded by basalt flows. The old marine beds and basalts are now overlain in places by terrace deposits, dunes and river silts of more recent age.

Bedrock underlying the coastal plain at the park is sedimentary rocks of the Yaquina formation overlain by Nye mudstone. Recently formed sand dunes are present at the mouth of Beaver Creek where the alluvial plain interrupts a series of marine terraces. Seal Rock to the south of Ona Beach is a surface expression of basalt intruded between beds of the Yaquina formation, part of the massive lava flows that reached several hundred miles from volcanic vents in the Columbia Plateau region of eastern Oregon and Washington. This formation is marked offshore by numerous reefs and small sea stacks present around Seal Rock.

Soils of the park's upland areas are primarily deep to moderately deep, well-drained soils formed from ancient marine terraces. Most of the low-lying plain around Beaver Creek is characterized by mucky peat and silt loam soils, which are very deep and very poorly drained soils formed from mixed alluvium and partially decomposed herbaceous plant materials.

Appendix A includes brief descriptions of the soil types that occur in the park accompanied by a soils map (Figure A.2).

Hydrology

Brian Booth State Park is mostly within the Beaver Creek Watershed. Approximately 990 acres of the watershed's roughly 32,500 total acres are within the park boundaries.

Outside of the Beaver Creek Watershed, approximately 245 acres of the park property are in the Deer Creek Watershed. Deer Creek flows across the southwest part of the park on its way to the ocean. Minor portions of the park drain directly to the ocean by other, smaller unnamed streams.

The park encompasses a portion the Beaver Creek estuary's lower reach and adjacent uplands, including the outlet to the ocean. The lower reach of the Beaver Creek system extends upstream as far as the area of tidal influence and includes interconnected estuarine, tidal, and non-tidal freshwater wetlands and adjacent uplands. The upper extent of tidal influence, occurring in storm surges, is roughly 4.5 miles upstream from the mouth. While the watershed includes a comparatively small portion of park property, the estuary's lower reach is also mostly outside of the park. The Beaver Creek marsh and floodplain account for about 231 acres of park property. The Wetlands Conservancy ownership adjacent to the park adds another 80 acres to the area of marshland protected by conservation missions and policies. Other portions are privately owned.

Several tributary drainages flow through the park to Beaver Creek. The south fork of Beaver Creek is the largest, although only a minor portion of the south fork and its adjacent marshland are within the park. The next largest tributary that touches the park is Simpson Creek, which flows from the north and empties into Beaver Creek within the park a short distance upstream from its confluence with the south fork. Several other small unnamed stream drainages contained partially or entirely within the park flow to the marsh from the park uplands. The largest of these is over a mile in length and contained entirely within the Ona Hills area of the park.

The hydrology of the lower estuary has been altered by past land use practices in various places by channelization, diking and road construction. Evidence of diking and channelization on lands now within the park is most apparent along Beaver Creek's main channel, and along Simpson Creek which flows through a straight ditch to its confluence with Beaver Creek. Figure 3.1 in this chapter illustrates the Beaver Creek Watershed area and streams in the park.

Hydrology Study

Since 2010 the Beaver Creek Estuary has been the subject of a hydrology study conducted by the US Geological Survey (USGS) funded by OPRD with matching USGS funds. Baseline hydrologic data on stream flow, stream stage and water quality are being compiled for representative sites for the four year period between 2010 and 2013. The purpose is to develop a better understanding of the estuary hydrology including the extent of tidal influence and salinity of stream water, the effects of storm-surges, and water temperature variations in the system. This information is needed to support planned estuarine restoration efforts. Ongoing monitoring is a cooperative effort between OPRD, USGS and the Lincoln County Soil & Water Conservation District (SWCD).

Preliminary findings of the study have confirmed that a sand bar at the mouth of Beaver Creek largely controls the frequency and magnitude of inundation of ocean water into the estuarine system. Salinity and stage of the estuary appear to be largely unaffected by the tide until storm surges raised water levels above the sand bar. The preliminary findings suggest that storm surge conditions occurring with tides above 9.5 feet are required for higher salinity conditions to move upstream into the estuary. These conditions occurred 13 times during the months of September through May for the period of 2010-2012. The preliminary findings also

indicate that standards for maximum water temperatures (based on a 7-day moving average of maximum daily temperature) are exceeded in the estuary during low flow periods.

A more complete report from the USGS study is expected to be available in the near future following analysis that includes data gathered through water year 2012-2013. The report will include more complete data on stream stages and discharges including flood conditions, tidal influence and salinity as affected by storm surge, and water quality. Data gathered to date on the Beaver Creek system, and related data used in the study, are currently available in technical detail at the web sites below:

http://or.water.usgs.gov/proj/beaver_creek/

Data can be plotted or tabled at the USGS Data Grapher page at:

<http://or.water.usgs.gov/grapher/>

Nearby NOAA tidal stage data at Yaquina Harbor is being tabulated for comparison to Beaver Creek stage levels.

<http://tidesandcurrents.noaa.gov/tsunami/#>

Nearby precipitation data from the NOAA Yaquina River at Newport is being used to detect upland Beaver Creek runoff patterns.

<http://www.wrh.noaa.gov/mesowest/gmap.php?map=pqr>

Natural Hazards

Beaver Creek Floodplain

The official flood insurance rate map (FIRM) produced by FEMA for the park area has been examined in the planning process. The FIRM map is relevant as it applies to land use regulations that affect park development in the FEMA-defined 100-year floodplain. Other data compiled in the planning process provide better indicators of the likely extent of flooding

and potential impacts on the park, including accurate mapping of the topography based on lidar imagery, the USGS hydrology study currently nearing completion, and photos taken in the park area during flood events. Major floods covering the Beaver Creek bottomlands result from storm surges at high tide and the combined effects of ocean flooding and heavy rainfall, sometimes also involving snowmelt.

Catastrophic Storms and Tsunamis

Portions of Brian Booth are at risk of damages caused by rare but catastrophic ocean floods. The Department of Geology and Mineral Industries (DOGAMI) recently released data produced from updated models of tsunami inundation that could occur with distant and near source earthquakes. Tsunamis generated by earthquakes across the Pacific Ocean could cause waves up to 30 feet high at the mouth of Beaver Creek, inundating facilities at Ona Beach as well as Highway 101. A large earthquake along the Cascadia Subduction Zone could cause waves up to 80 ft. high which could be funneled up the Beaver Creek floodplain several miles inland, inundating the pole barn site and any lower elevation facilities. Flooding would most likely not reach the Beaver Creek Welcome Center, the ODOT facilities or planned campground areas. These facilities would likely become refuge areas in such an event. DOGAMI has released maps showing recommended areas of evacuation in a tsunami event, and these maps identify the Welcome Center and ODOT facilities as recommended assembly areas. The modeled extent of flooding potentially caused by a Cascadia Subduction Zone earthquake is depicted by Figure A.3 in Appendix A.

Plant Communities

The following is a summary of the assessment of plant communities conducted for the planning process. Details of the assessment are provided



in the background document prepared for this Plan, titled “Vegetation Inventory and Botanical Resource Assessment for the Beaver Creek Natural Area and Ona Beach State Park Complex of Properties.”

The inventory of plant communities and their conditions serves as a basis for assessing the natural resource values of the plant communities themselves, as well as their values for wildlife habitat. Assessments of both the botanical and the habitat values of the plant communities present in the park are summarized in this chapter. Figure 3.2, “Vegetation Cover Groups / Habitat Types,” included in this chapter illustrates the vegetation cover groups and associated habitat types park wide. The related discussion of fish and wildlife in the park follows this section.

Plant Community Types and Historical Changes

Historically, the upland areas of the park were dominated by three general forest types – red alder, sitka spruce-shore pine, and sitka spruce-douglas fir-western hemlock-western redcedar – while the bottomlands were covered in marshy swamps and wetlands. Much of the forest was probably old growth, but natural disturbances such as wildfires periodically created younger stands in some places. Native American land management practices in the area are largely unknown, but may have included prescribed burning and other methods of encouraging the growth of culturally

important plants in lowland areas. Figure A.4 in Appendix A depicts historic vegetation patterns for the park landscape.

Beginning in the mid-19th century, Euro-American settlement, logging, and agricultural practices impacted much of the landscape. Logging in the upland areas has expanded the range of hardwood forest because red alder and associated hardwoods readily colonize clearcuts. Virtually all of the upland areas have been logged, and portions of the uplands within the Beaver Creek Natural Area were cleared and cultivated as grasslands to support livestock. The hydrology of Beaver Creek and its associated marshlands has been altered by the construction of drainage channels, dikes, and causeways to aid transportation and agriculture. Even the beach areas have not escaped significant change; the introduction of European beachgrass has stabilized sandy areas and promoted the formation of dunes and woody shrublands.

Taking into account anthropogenic changes over the past 150 years, vegetation in the Park can be grouped into six major categories: marshlands, spruce-cedar swamps, upland conifer forests, grasslands, littoral strand, and hardwood forest.

Marshlands: Marshy and wet meadow habitats associated with Beaver Creek have been altered by hydrological changes with construction of roads and dikes, invasive species, and prior management practices aimed at keeping the creek free of blockages. These habitats consist primarily of native sitka sedge, slough sedge, rushes, and degraded slough sedge-reed canary grass communities. The marshes immediately to the east of Highway 101 are in excellent condition and harbor a diversity of native species. Farther to the east, however, reed canary grass has invaded marshlands and significantly degraded the habitat, forming near monocultures in some places. Reed canarygrass is likely to expand

in areas that do not receive growing-season inundation on a periodic basis. In general, marshes and other wetland areas are of high conservation importance for their multiple hydrological, botanical and habitat values, and are heavily regulated under federal and state laws.

Spruce-cedar Swamps: Spruce and cedar swamps are characterized by wet, mucky soils and an understory of wetland species like skunk cabbage, slough sedge, and water parsley. They occur in very wet microsites at the margins of marshy bottomlands. Although some communities are still present in the park, many have been replaced by red alder forest in areas that have been logged. Those that remain are of very high conservation value. Many of the stands are second growth, but there are a few later seral stage communities of this type that are of the highest conservation priority in the park.

Upland Conifer Forest: The majority of the upland conifer forest within the park has an overstory of mixed Sitka spruce, Douglas fir, western hemlock, and western redcedar. Shore pine is also present along marine terraces or in areas with sandy soil. Logging has dramatically impacted these communities. Scattered stands of pristine late seral forest remain, particularly along the slopes descending to Beaver Creek in the eastern portion of Ona Hills, but most of the forest cover is second growth or third growth plantation. Many of the younger areas have been replanted with artificial densities of douglas fir and shore pine, leading to high levels of Swiss needle cast disease. Some of these areas are being overgrown by aggressive shrubs and broadleaf trees. Second or third growth conifer forests have moderate botanical value, while late seral communities are of high value.

Grasslands: Portions of the upland area of Beaver Creek NA were seeded by settlers with non-native forage grasses and

actively maintained against tree and shrub encroachment. These grasslands have since been colonized by invasive species like Armenian blackberry and scotch broom. It is unclear whether any natural grasslands existed within the park prior to European settlement. Grasslands have the lowest botanical value of any plant community in the park.

Littoral Strand: The littoral strand occurs at the edge of the ocean and includes the beach, dunes, and associated woody vegetation. Introduction of European beachgrass has significantly altered this community through stabilization of dunes and subsequent colonization of dunes by dense, woody vegetation. In some places European beachgrass is nearly a monoculture, but in others American dunegrass, yellow sand-verbena, and other native species continue to have a significant presence. Pink sand-verbena, a state listed threatened species, has been found in this habitat in the past. Areas dominated by beachgrass have moderate botanical value; areas that still support native species are of high value.

Hardwood Forest: Hardwood forests are generally found in areas subject to disturbance. Their range in the park has increased due to logging, but species composition has not changed dramatically. Red alder dominates these areas, along with Scouler's willow, pacific crabapple, and cascara. A variety of understory species like salmonberry, salal, or swordfern may be present depending on localized conditions. Scattered patches of invasive species like Armenian blackberry and reed canary grass are also present in some places. Most of these communities are of moderate botanical value.

Rare and At-Risk Plant Species

Only one at-risk plant species, yellow sandverbena, was confirmed in the park during surveys for the vegetation assessment

conducted for the planning process. Pink sandverbena, a federally listed threatened species, has been noted on the beach at the mouth of Beaver Creek in the past but was not detected during the most recent survey. In addition, an area of what may be big-headed sedge, another at-risk species, was located but not conclusively identifiable due to a lack of flowering parts. There is potential habitat for a number of other rare or at-risk species, primarily in the beach littoral zone and marshy bottomlands, as reported in background assessment report cited above. Surveys for at-risk species presence are recommended on a site-specific basis once areas of future development are known.

Wetland Communities

Much of the area within the park is wetland. The most obvious wetland areas are located in the marshy bottomlands associated with Beaver Creek, but there are also many smaller, seasonal wetlands associated with canyons, draws, and benches in the more hilly areas. Some are rich and important habitats, while others are degraded by past land use. As part of the vegetation assessment, a map of wetland indicators was produced using surface indicators which resulted in depiction of broader areas of possible wetlands than probably exist outside of the bottomland communities, stream drainages and other wetlands that are unquestionable. Development planned in and around potential wetlands will need official wetland determination and delineation.

Invasive Species

Exotic plants are widespread and abundant throughout portions of the study area. The above descriptions of plant community types allude to significant infestations of invasive plants. Figure A.6 in Appendix A shows these areas. State listed and high priority noxious weeds found in the study area are listed below.

The background vegetation assessment report cited above lists several other noxious invasive weed species that could be present now or in the future in wetland, forested and grassland areas.

Noxious Invasive Plants Identified in the Park

- Armenian blackberry	- Evergreen blackberry
- Bittersweet nightshade	- Herb Robert
- Bull thistle	- Reed canarygrass
- Canada thistle	- Robert geranium
- Common St. Johnswort	- Scotch broom
- English holly	- Tansy ragwort
- English ivy	- Yellow flag iris

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. Botanical resource value ratings for the park are depicted in Figure A.7 in Appendix A. 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 fish and wildlife habitat resource values discussed below. The Composite Natural Resource Values for the park are depicted by Figure 3.4 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 9.3 in Chapter 9, “Natural Resource Management Actions,” illustrates priority projects for the management and restoration of botanical communities for their combined botanical and habitat values. These include projects to remove or control invasive species, promote health, succession and diversity of early seral and young plantation forests, and restore wetland communities, as well as other projects that will improve the ecological conditions of the park over time.

Fish and Wildlife

The following discussion of wildlife and related habitat conditions and values is based on the background report prepared for this Plan titled



“Brian Booth State Park Wildlife Assessment.” The background report provides substantially more detail than this summary. A primary basis for assessing habitat conditions and values is the botanical resource assessment discussed in the previous section of this chapter. Habitat types in the park are represented by Figure 3.2 “Vegetation Cover Groups / Habitat Types” in this chapter.

The park is a haven for many species of native wildlife, and it offers substantial opportunities for improving habitat conditions. With careful management, many acres of diverse habitat can be preserved and enhanced for the benefit of a wide range of wildlife including certain at-risk species. A comprehensive list of fish and wildlife species using or relying upon the park habitats is currently not available. A significant amount of information on avian species that frequent, or have been sighted in the park has been compiled through volunteer efforts coordinated by Yaquina Birders and Naturalists. These data are available in a separate background report.

Existing Habitat Types

For purposes of determining potential species using the park, habitat types are categorized into seven broad habitat groups following the Wildlife Habitat Relationships of Oregon and Washington (WHRO, Johnson and O’Neil 2001) and more specific habitat types adapted from Oregon GAP Analysis (Kagan et al. 1998). Habitats listed in ODFW’s Conservation Strategy (2005) provide a basis for identifying management priorities for the park. The Conservation Strategy determined what habitats have experienced the most loss compared to historic levels, and selected habitats based on their historic importance, ecological similarity, remaining habitat managed for conservation, limiting factors, and importance to declining wildlife species.

Disturbed Habitats include developed areas such as paved roads and structures and undeveloped areas largely denuded of vegetation. They can provide limited foraging opportunities for small mammals, reptiles, deer, and, elk as well as nesting opportunities for ground-nesting songbirds; however, few native species are associated with disturbed habitats.

Herbaceous Wetlands include the two subtypes discussed below. They have saturated soils with floating or rooting aquatic vegetation, grasses, sedges, and other plants. When connected to stream systems, they can provide fish rearing habitat; amphibians and macroinvertebrates also utilize herbaceous wetlands. A suite of species are reliant specifically on herbaceous wetlands.

Emergent wetlands are standing or slow-moving water with erect, rooted vegetation. Brian Booth contains numerous seasonal wetlands as well as a large expanse of marsh. Many species use the marsh including juvenile salmonids, waterfowl, herons, elk, and songbirds; the marsh also likely provides breeding habitat for lentic amphibians such as red-legged frog, rough-skinned newt, and pacific chorus frog. The marsh has some tidal influence, and provides foraging and sheltering for juvenile salmonids.

Wet meadows have seasonally flooded soils. Sedges are the predominant plant species, with rushes and grasses present depending how moist the soil remains through the season. Deer and elk may browse on new shoots, frogs and salamanders can remain moist during warm days, and wet meadows can provide structure and a prey base for grassland birds. The streaked horned lark may use wet meadows for breeding if they are dry enough May through August. At Brian Booth, wet meadows are most likely small and surrounded by forest. Species benefitting from these meadows are primarily amphibians, insects, and forest species using them for a water source.

Dunes and Beaches range from non-vegetated beaches to dense shrublands. Beaches may be sparsely vegetated with herbaceous plants and forbs. This habitat is of prime importance to wintering shorebirds foraging along the tidal zone. Rare insects like the Oregon plant bug and tiger beetles exclusively live in this habitat.

Scrub-Shrublands are early successional habitats where the vegetation is dominated by small woody plants such as shrubs and young trees. They often occur within a mosaic of forested habitats where mature trees have been removed by disturbance, but may also occur in abandoned fields or disturbed areas. Scrub-shrubland communities are often characterized by willows, redosier dogwood, nootka and multiflora rose, and are often underlain by moist-site herbs. The scrub-shrublands in the park tend to be non-native. Black-tailed deer and elk will forage in scrub-shrublands, and a suite of songbirds such as yellow warbler, orange-crowned warbler, and willow flycatcher nest within the denser thickets. Songbirds also use these habitats for foraging and loafing areas during seasonal migration.

Grasslands are predominantly herbaceous. In the park the grasslands are non-native remnants of pasture, comprised primarily of blue wildrye. They are too small to provide much benefit to grassland nesting birds. The local elk herd uses these areas for calving, loafing, and forage.

Lowland Conifer-Hardwood Forest is dominated by evergreen conifers, deciduous broadleaf trees, or both. Late seral stands have an abundance of large diameter trees, multi-layered canopies, large snags, and downed wood. Forest understory is structurally diverse, and composition varies widely. Sensitive wildlife species that rely on late-seral coniferous forests that might occur in the park are American marten, fisher, Oregon slender salamander, marbled murrelet, and northern spotted owl.

The spotted owl is unlikely present due to the small size of late seral forest patches.

In the Douglas-fir forest, Douglas-fir dominates the canopy. Western hemlock, western red cedar, and grand fir are often present and sometimes co-dominant. Red alder and big-leaf maple are common but subordinate. The understory is often complex with shrubs and herbaceous foliage.

Sitka spruce forest occurs in a narrow band along the coast. Western hemlock, western redcedar, Douglas-fir, big leaf maple, and red alder may also be present, with western hemlock the most common. The understory is full of down wood, ferns, and moss with a thick, complex structure. Late seral Sitka spruce forest is of critical importance to marbled murrelet and northern spotted owl nesting, as well as fisher natal dens and resting areas.

Hemlock forest is similar to Sitka Spruce and Douglas-fir forest, but dominated by western hemlock. Forest structure, understory, and functions provided for wildlife are similar to Sitka spruce forest.

Shore pine forest tends to be of shorter height than other forested communities, with irregular canopy. Evergreen huckleberry is sometimes dominant, and pacific rhododendron is sometimes prominent. Minor depressions and areas with higher soil moisture often have slough sedge in modest amounts, and moist soils are common. Huckleberry, when present, provides ample forage for wildlife. Rodents feed on shore pine seeds, and porcupine will consume the cambium, or inner layer of bark. Conifer plantation forests, which cover much of the Ona Hills, have previously been cleared and replanted, typically with douglas-fir. Density is usually high, with trees in similar age classes, a single canopy layer, and a lack of understory structure. Plantations have very little wildlife value compared to forest stands the multiple canopy layers and

structural complexity. Quail often utilize young plantations when the short trees with dense canopy mimic shrubland structure.

Red alder forests include mature alder with some emerging young to mid-aged mixed conifers, mid-aged alder forest, and young alder forest. This is an early successional habitat type in upland areas, converting to coniferous canopy with a sub-canopy of alder and maple. In riparian and wetland areas, red alder forest is the late successional stage. These forests provide foraging and loafing habitat for many songbirds, red-legged frogs, and many other species.

Riparian-Wetland habitats are characterized by wetland hydrology with periodic flooding or perennial freshwater and comprised of mesic shrubland and scrub-shrub wetland vegetation communities with dense shrub cover, woodland, or forest. The vegetation is very important to aquatic systems, maintaining water quality, providing shade, bank stabilization, and fish and wildlife habitat. The shrublands are a dense, dominated by willow, red alder and other hydrophilic shrub species, occurring either as early successional habitat after disturbance, or as more permanent shrub habitat where water levels and flooding preclude tree species. Riparian forests are comprised of black cottonwood, red alder, and Oregon ash in the canopy, and the understory is a mosaic of willows and hydrophyllic herbaceous plants. Large woody debris is common in late seral forests and adjacent streams. Riparian areas are used by a multitude of wildlife species as breeding and wintering habitat and movement corridors during migration and dispersal to other locations.

Habitat Connectivity

Assessing habitat connectivity is complex and depends on the needs of individual species. For example, to disperse to a different habitat patch, a songbird may need to visually see the patch while a salamander may require a

corridor of appropriate vegetation between the two patches. Without habitat connectivity individuals may be unable to move between patches, and the population is more susceptible to disease, population pressures, predation, and extirpation from natural events like fires. Continuing land-use changes as well as the emerging threat of climate change make the need for habitat connectivity even more critical, as many species will need to adapt to a changing landscape.

Retaining a low disturbance corridor for both terrestrial and aquatic species through the park is recommended. A corridor 300' wide is optimal, although exact boundaries are mutable provided the width is maintained as much as possible. Many wildlife species may choose to move through the park outside of a specific reserved corridor through other areas where habitat management and enhancement is emphasized in park planning and development.

Highway 101 and concentrated human activity close by the highway limit the number of species that are likely to move between the beach and inland habitats. Some wildlife may use a tunnel under the highway, which suggests giving due consideration to wildlife in designing a highway underpass.

Figure 9.2 in Chapter 9 depicts proposed upland and wetland corridors for wildlife movement.

Desired Future Habitat

Determining desired future habitat is a necessary step in developing a management plan. It establishes goals for natural resource management from which land management prescriptions are derived. To provide greater benefit to wildlife in the next decade and encourage development of rare habitats, OPRD should prioritize certain habitat types in managing for desired future conditions. Three top priorities are:

- Late-seral mixed coniferous forests: These forests, primarily where hemlock and Sitka spruce dominate the forest structure, are exceedingly rare. Because of a diverse mosaic of land ownership and land use, late-seral forest stands are often left isolated and too small to support important wildlife.
- Emergent marsh: The marsh provides breeding grounds for sensitive amphibians and rearing grounds for sensitive salmonids, as well as habitat for a wide range of bird species and several small mammals. Large expanses of marsh that are not completely overrun by reed canarygrass are uncommon, making Beaver Creek marsh more valuable in the landscape.
- Riparian shrublands and forests: Both of these riparian habitat types are critical for neotropical migrant birds which travel hundreds of miles during migration and heavily utilize riparian corridors, especially habitats with a large canopy and complex understory. Many species of bats rely on riparian areas, although less research has been conducted on bat use and distribution. Riparian vegetation also lowers stream temperatures, a critical factor for salmonids.

vegetation, undercut banks, pools, submerged logs and rocks, and connected floodplains provide needed protection to juveniles while they remain in freshwater streams. Stream complexity and water quality are the two major limiting factors for coho.

Once federally endangered, the bald eagle has recovered to delisting, but remains state threatened and federally protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Nests are usually found in large conifers and snags. A known eagle nest exists on park property.

Several other species known to occur in the park are included on federal and/or state sensitive species “watch lists,” as indicated by the table below. In addition, numerous other species either protected under ESAs or included on watch lists under federal and/or state programs have the potential to occur in the park. Potential at-risk species occurrences in the park are listed in Appendix A. At-risk species surveys are recommended prior to initiation of development projects.

At-risk Fish & Wildlife

At-risk species are experiencing population declines otherwise at risk. Two species occur in the park, coho salmon eagle, are currently protected federal and/or state Endangered (ESA).

Coho salmon is a federally and state vulnerable anadromous Juvenile Coho are present the Beaver Creek complex, emergent marsh. Complex stream the form of overhanging and



Known At-risk Species at Brian Booth

Common Name	Scientific Name	Federal Listing	State Listing
Coastal cutthroat	<i>Oncorhynchus clarki clarki</i>	SOC	
Coho salmon (Oregon Coast ESU)	<i>Oncorhynchus kisutch</i>	FT	SV
Steelhead (Oregon Coast ESU, winter run)	<i>Oncorhynchus mykiss</i>	SOC	SV
Pacific lamprey	<i>Lampetra tridentate</i>	SOC	SV
Northern red-legged frog	<i>Rana aurora</i>	SOC	SV
Bald Eagle	<i>Haliaeetus leucocephalus</i>	XXX	ST, CS
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	SOC	CS
Bufflehead	<i>Bucephala albeola</i>	XXX	CS
Chipping sparrow	<i>Spizella passerine</i>	XXX	CS
Olive-sided flycatcher	<i>Contopus cooperi</i>	SOC	SV, CS
Peregrine Falcon	<i>Falco peregrinus</i>	XXX	SV, CS
Pileated woodpecker	<i>Dryocopus pileatus</i>	XXX	SV, CS
Purple martin	<i>Progne subis</i>	SOC	SC, CS
Western bluebird	<i>Sialia Mexicana</i>	XXX	SV, CS
Willow flycatcher	<i>Empidonax traillii adastus</i>	SOC	SV, CS

FE: Federally endangered SC: State critical
 FC: Federal candidate for listing ST: State threatened
 FT: Federally threatened SV: State vulnerable
 SOC: Federal Species of Concern
 CS: Conservation Strategy

Focal Species

Based on desired future habitats, a number of key habitat attributes are of management importance. Managing and monitoring all species that utilize these attributes is costly and time-intensive; however, certain species are closely associated with important attributes and can be used as focal species for describing desired future conditions. While conservation is directed towards focal species, maintaining

habitat attributes favorable for them will benefit a wider group of species with similar requirements. Focal species have not been identified for all habitat conditions, such as the deeper channels of Beaver Creek and its tributaries, due to insufficient information on this system.

The focal species for the park listed in the table below were selected based on regional conservation plans, conservation status, recreation value, degree of association with important habitat attributes, and detectability. Focal species may change based on adaptive management strategies, changes in conservation status, and other factors.

Focal Species for Brian Booth State Park

Common Name	Scientific Name	Associated Attribute
Northern red-legged frog	<i>Rana aurora</i>	Wetlands
Marbled murrelet	<i>Brachyramphus marmoratus</i>	Large, open grown conifers
Pacific wren	<i>Troglodytes pacificus</i>	Complex forest floor
Downy and hairy woodpecker	<i>Picooides pubescens, P. villosus</i>	Soft snags, cavities
Pileated woodpecker	<i>Dryocopus pileatus</i>	Large snags
Varied thrush	<i>Ixoreus naevius</i>	Mid-story tree layers
Yellow warbler	<i>Dendroica petechial</i>	Riparian shrub foliage and subcanopy
Roosevelt elk	<i>Cervis canadensis roosevelti</i>	Late seral forest with openings



Northern Red-legged Frog: Amphibians are a prime indicator species of wetland health. Amphibian egg mass surveys in the park in 2013 documented Pacific tree frog and northern red-legged frog egg masses in the emergent marsh, and rough-skinned newt breeding in isolated wetlands. The red-legged frog is a federal species of concern and state vulnerable species. Adults are prevalent in the park uplands in close proximity to suitable breeding habitat and upland foraging habitat.

Marbled Murrelet: This is a federal and state-threatened species associated with open grown large conifers, nesting on large diameter limbs. Murrelets may potentially nest in the mature forest patches in the park, although no surveys have been done. Threats to this species are habitat loss, predation, and potentially declining food quality. Corvids such as American crow and Steller's jay depredate murrelet nests, and their attraction to food waste and trash at recreation areas can draw them to nearby murrelet nests. Surveys for this species are recommended prior to initiation of development projects.

Pacific Wren: A fairly common resident of Oregon, Pacific wren is a ground and understory insectivore associated with forest floor complexity. It nests inside crevices and cavities in a wide variety of substrates. Nests have been found most commonly in nooks and crannies within downed logs or rock piles.

Downy and Hairy Woodpeckers: This is a common bird that utilizes many habitats, including urban areas. Downy woodpeckers excavate in soft snags and branches in advanced stages of decay, while hairy woodpeckers can excavate in harder woods. Both species are associated with the presence of snags.

Pileated Woodpecker: This species utilizes large snags and decadent live trees for nesting and foraging. They are associated with large

snags, and are one of the few animals that will begin excavating in live trees, providing cavities to many other species.

Varied Thrush: Varied Thrush is a secretive songbird of densely forested habitat. It is a permanent resident of Oregon, and uses a broad range of habitats during the winter. During breeding season, varied thrushes migrate to coastal and montane forests where they nest in shrubs, saplings, and other mid-story vegetation with which the thrush is associated.

Yellow Warbler: Populations of this species in Oregon have declined due to habitat loss and fragmentation that supports increased brown-headed cowbirds (*Molothrus ater*), which parasitize the nests. Yellow warbler is associated with tall shrub foliage and subcanopy in riparian woodlands.

Roosevelt Elk: Elk require late-seral forest with ample understory plants for forage, breaks that allow sunlight to penetrate the forest floor, as well as more open areas where they can calve and rest. The park provides a safe haven free of hunting pressure.

Invasive Fish and Wildlife

Next to habitat loss, invasive species are considered to be one of the primary causes of species becoming threatened and endangered. Non-native and invasive wildlife pose a threat to native species by predation and outcompeting for resources. In the Coast Ecoregion there are 29 documented invasive, non-native fish and wildlife species and another 20 non-native, potentially invasive species that have not yet been observed but have the potential to pose a serious threat to native species should they establish populations. A list of invasive species known to occur or potentially occurring in the Coast Ecoregion is provided in Appendix A.

While not all the invasive wildlife species listed in Appendix A are present in Brian Booth State Park, a few are already problematic. Nutria (*Myocastor coypus*) are increasing in density, damaging native vegetation, and have been known to show aggressive behavior toward kayakers. In 2010 and 2011 OPRD implemented management actions to control nutria populations. This effort was costly and time-intensive, and was discontinued. In addition, the boat ramp, kayak launch and fishing areas on Beaver Creek can serve as gateways for aquatic invasive species, such as Quagga mussels, New Zealand mudsnail, and parrotfeather. These system-altering species are hard to control, and prevention is the best form of management.

Wildlife Habitat Value Ratings

Wildlife Habitat Value ratings were developed for use in producing the Composite Natural Resource Values for the park illustrated by Figure 3.4 in this chapter. Habitat Value ratings were merged with the Botanical Value ratings discussed above in producing the Composite map.

Wildlife Habitat Values are illustrated by Figure A.8 in Appendix A. 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 Fish and Wildlife Assessment report cited above.

Wildlife Management Recommendations

The background Fish and 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 called out in Chapter 9. These include:

Habitat Restoration and Enhancement Projects:

Figure 9.3 in Chapter 9, “Natural Resource Management Actions,” illustrates priority projects for the management and restoration of botanical communities for their combined botanical and habitat values, and projects for improvements to the marsh hydrology.

Wildlife Reserve Areas: Five types of proposed wildlife habitat reserve areas are presented in Chapter 9 and illustrated geographically by Figure 9.2, “Priority Wildlife Habitat Preservation and Movement Corridors.”

Habitat Connectivity: As the title suggests, Figure 9.2 in Chapter 9 titled “Priority Wildlife Habitat Preservation and Movement Corridors” identifies key corridors for connecting high priority habitats and providing for movement of terrestrial and aquatic wildlife.



Composite Natural Resource Values

The assessment of “Composite Natural Resource Values,” reflected in Figure 3.4 at the end of this chapter, is based on a merging of Botanical Resource Value ratings and Wildlife Habitat Value ratings reflected in Figure A7 and A8 in Appendix A. For each site in the park, the composite rating represents the highest of the two ratings assigned in the botanical and wildlife assessments. Composite Value 1 represents the most valuable natural resource areas, while Composite Value 4 represents the least valuable natural resource areas under current conditions.

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 meadow views, potential for creating narrow or screened views through forest vegetation, and the qualities of various scenic settings.

There are three prominent and readily accessible scenic corridors that attract the attention of park visitors. The ocean beach

with its sweeping views of the coastline and open ocean is generally regarded as the most prominent scenic attraction. Visitors traveling Beaver Creek Road from Highway 101 to the east and southeast ends of the park enjoy the open landscape views across the marshlands to the forest hills. Beaver Creek offers a particularly unique opportunity for boaters to experience changing views of the park, alternating between open vistas of marsh and forested hills and areas enclosed by the marsh vegetation.

A number of accessible or potentially accessible viewpoints offer broad views overlooking the landscape from existing or potential upland trails. The Welcome Center is known for its view overlooking the marsh and across to the south Beaver Creek Hills. Two points east of the Welcome Center are suited for wildlife viewing blinds at the edge of the marsh. In the Beaver Creek hills, two high-elevation viewpoints, Snaggy Point and Cougar Ridge, offer views of the distant marsh and hillsides. Snaggy Point offers a distant view of the ocean. A high point in the Ona Hills potentially offers potential 360 degree views with development of an elevated structure. A high point overlooking the Highway – Beaver Creek Road intersection offers an upstream view of the Beaver Creek channel and marshlands.



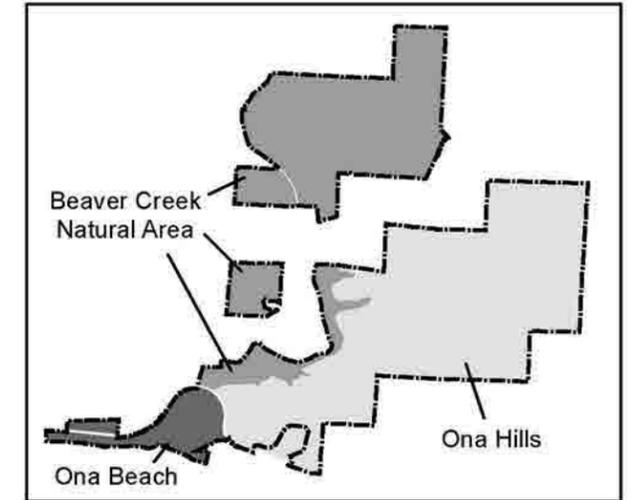
Narrow or screened views of the marsh and hills are possible with strategic management of the forest and shrub vegetation along existing or potential upland trails, and corridors where these opportunities appear promising have been identified. Along existing trails in the south Beaver Creek hills, views across open meadows can be retained with management of these small but scenic open landscape features.

The different landscape settings in the park are currently variable in their scenic qualities, but over time, all of the settings managed for natural resource values will develop into valuable scenic settings. While the beach and marshlands are currently the most valued settings, in the forested areas the settings vary in scenic appeal. Older forests with well-developed understories, mixed forests with multi-layered canopies, and forest patches dominated by deciduous trees all have their own scenic appeal in the forest landscape. Much of the upland areas of Ona Hills are recently logged and replanted conifer forests in need of management to promote healthy succession, and these forests will take time to develop into highly valued settings that characterize other areas of the park.

Figure 3.3 in this chapter illustrates the various existing and potential scenic corridors, viewpoints and settings identified in this assessment.

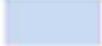
**Figure 3.1
Stream System**

Brian Booth State Park



October 2013

Legend

-  Park Boundary
-  Beaver Creek Watershed
-  Emergent Marsh
-  Streams

Beaver Creek Watershed

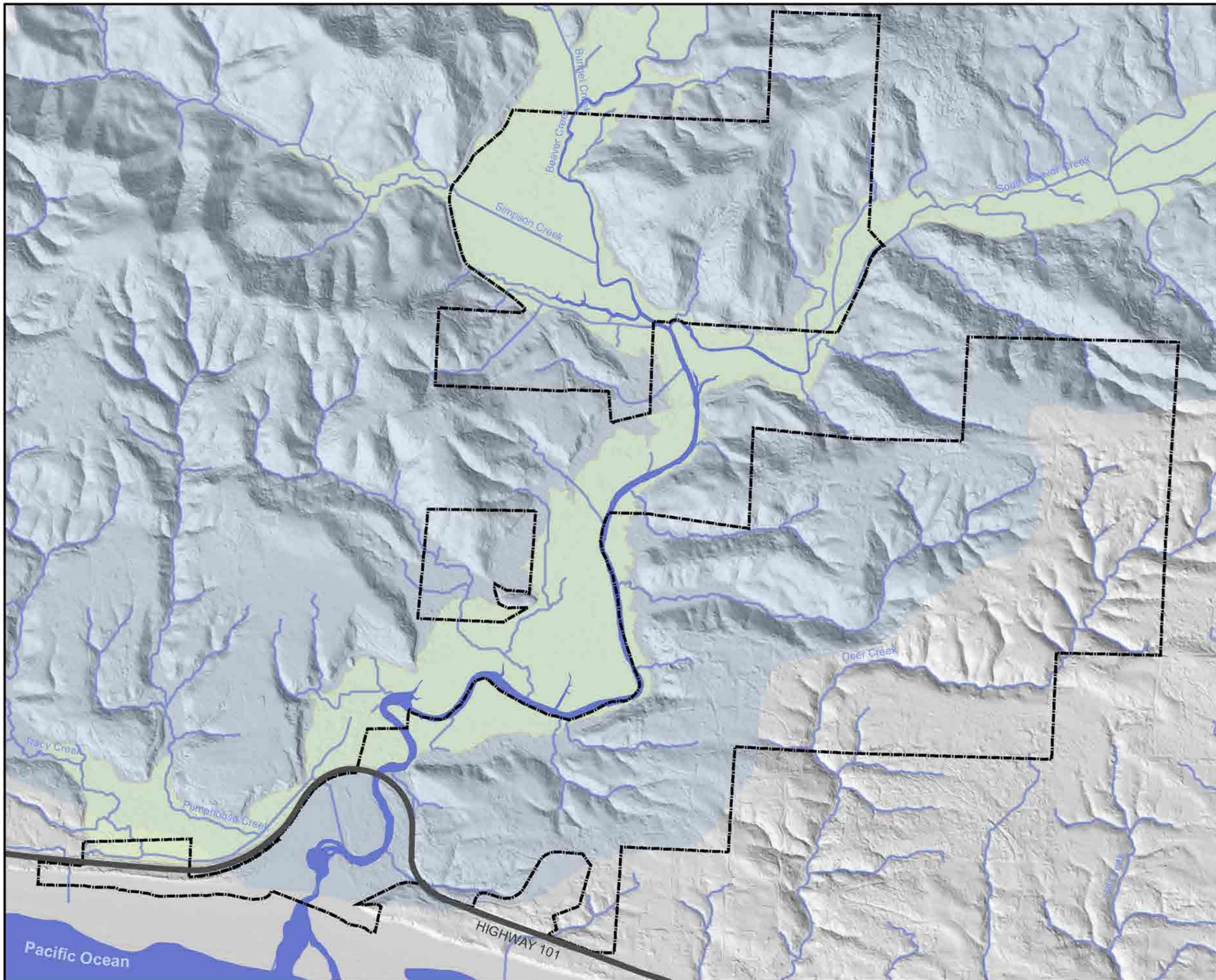
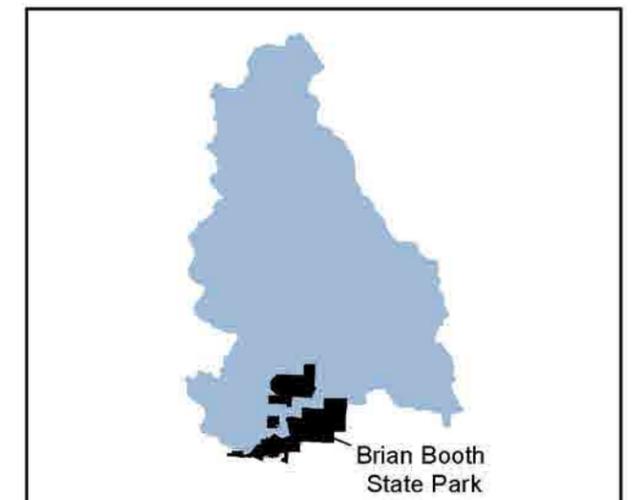
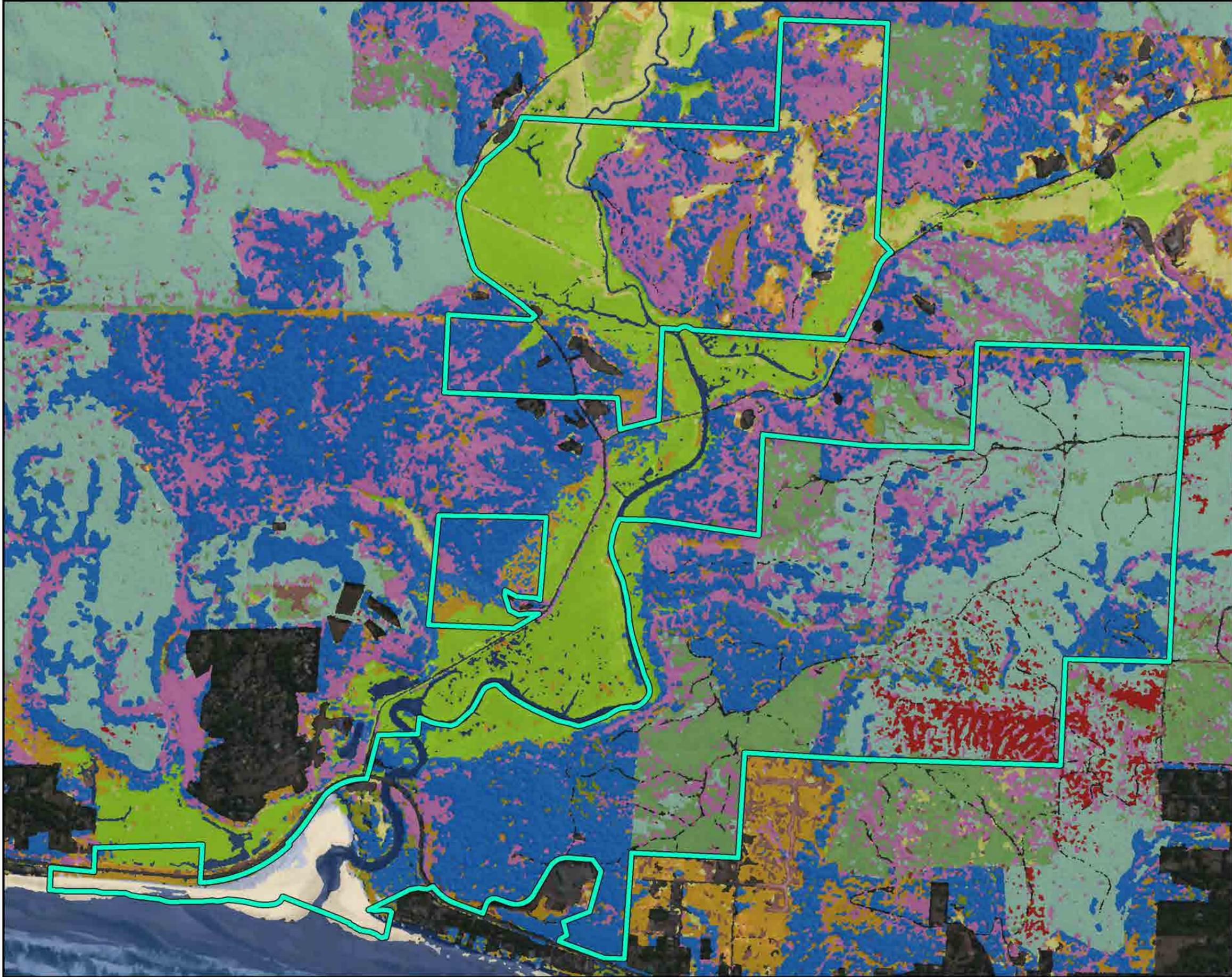


Figure 3.2 Vegetation Cover Groups / Habitat Types

Brian Booth State Park
September 2013



0 600 1,200 2,400 Feet

-  Approximate Park Boundary
- Habitat Types**
-  Bare ground
-  Broadleaf forest
-  Conifer plantation forest
-  Developed/Hard surface
-  Emergent marsh
-  European beachgrass
-  Grass/weeds
-  Mixed coniferous forest
-  Sand
-  Shore pine
-  Shore pine dominated plantation forest
-  Shrub-dominated young conifer plantation
-  Shrubland
-  Water



Note:
This product was produced for informational purposes. It was not prepared for, and may not be suitable for legal, engineering, or surveying purposes. Users of this information should review the primary data and information sources to ascertain the usability of this Map.

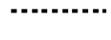


Figure 3-3 Scenic Assessment

Brian Booth State Park

October 2013

Legend

-  Park Boundary
-  Roads and Parking
-  Primitive Roads
-  Existing Trails
-  Streams
-  Viewpoint Opportunity
-  Screened View Opportunity
-  Meadow View Opportunity
-  Beaver Creek Scenic Corridor
-  Ona Beach Scenic Corridor
-  County Road Scenic Corridor

Landscape Settings

-  Emergent Marsh
-  Low Vegetation, 0-20 ft.
(clearcuts, beach, meadows, and low shrubby areas)
-  Young Plantation Forest, 20-50 ft.
-  Mid-age Forest, 50-85 ft.
-  Mature Forest, 85-200 ft.

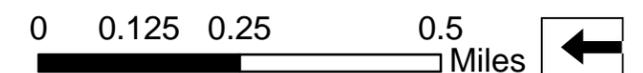
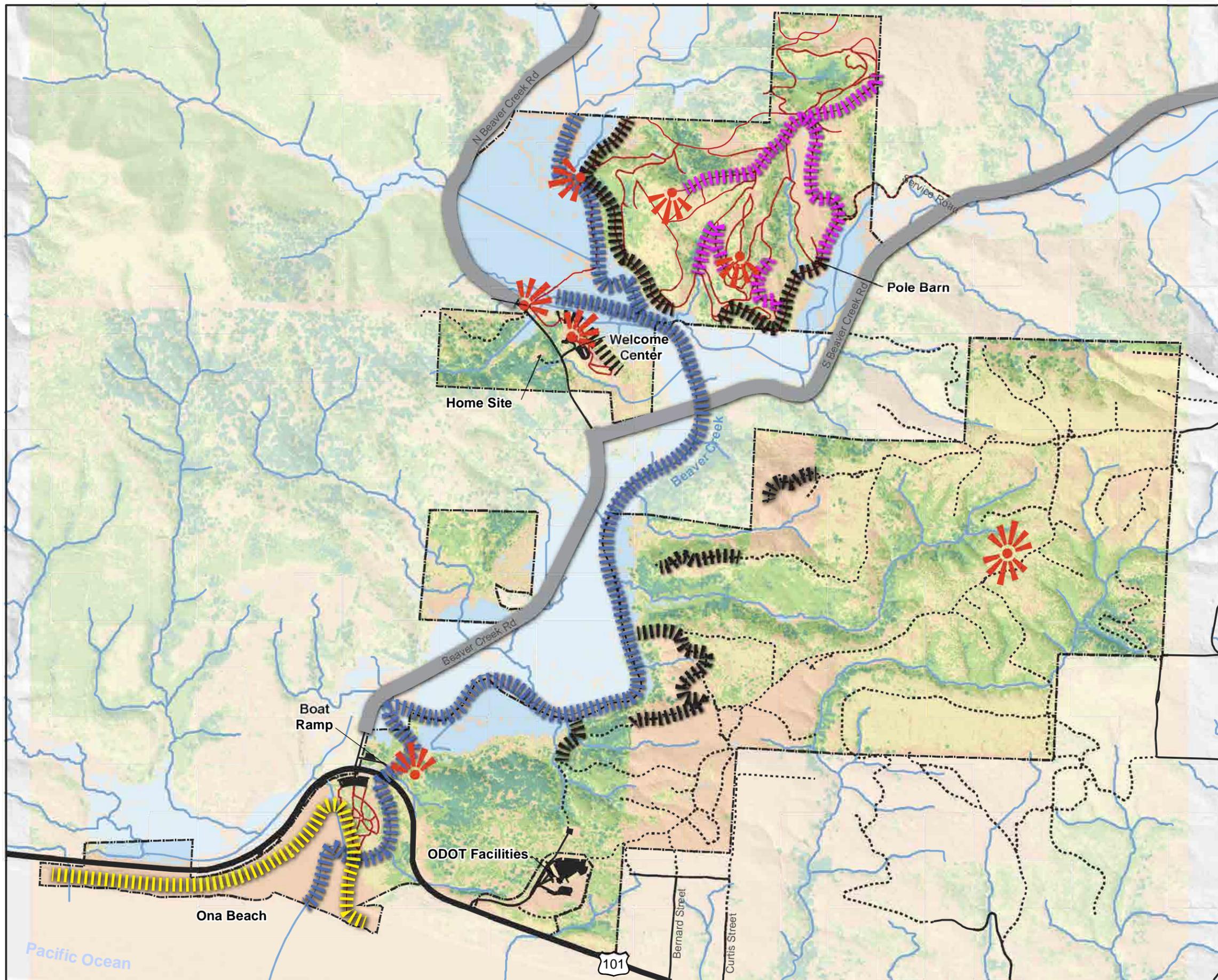
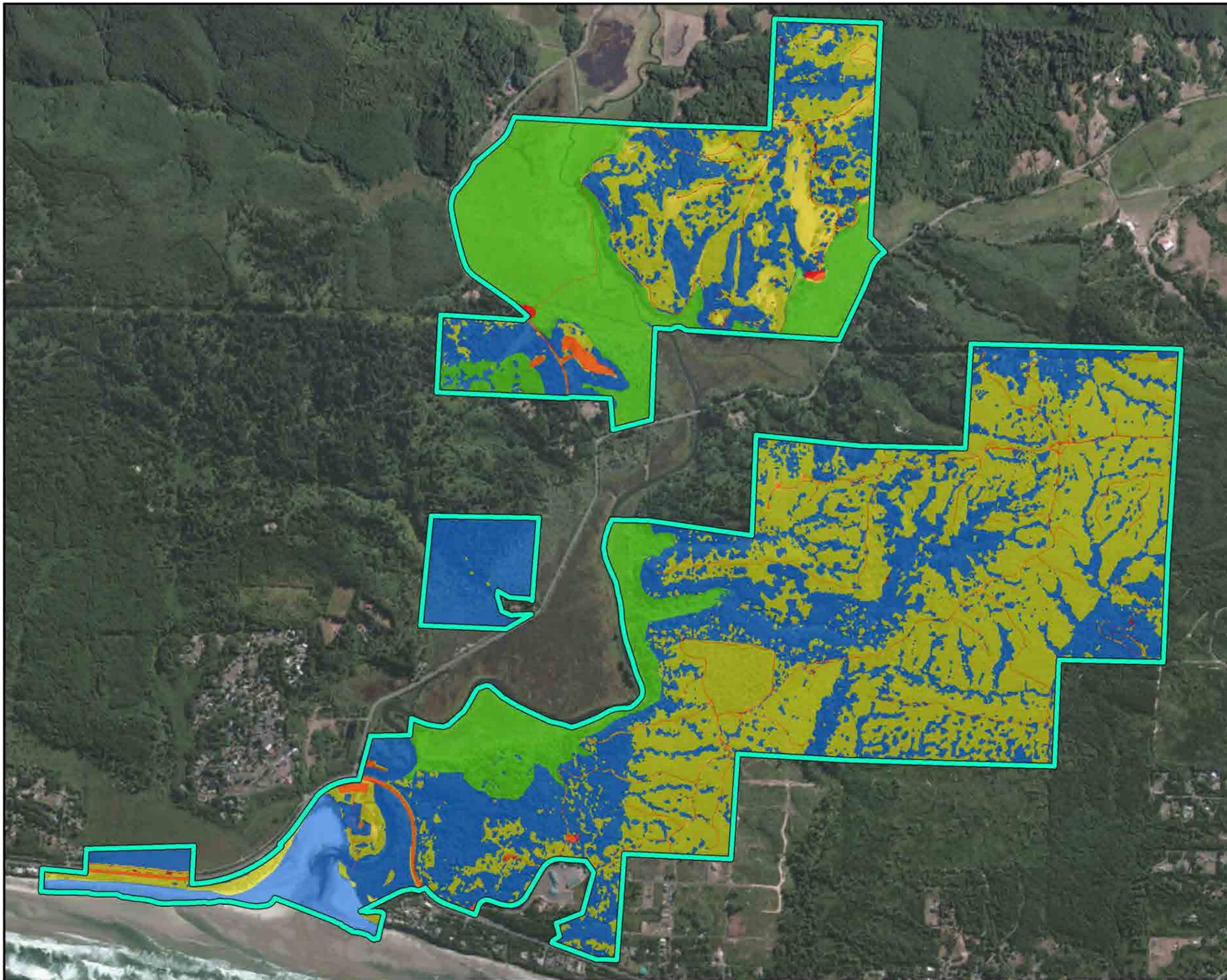


Figure 3.4 Composite Natural Resource Values

Brian Booth State Park
September 2013



0 600 1,200 2,400 Feet

Legend

 Approximate Park Boundary

Composite Natural Resource Values

-  1 - Protected Allocation
-  2 - High Resource Value
-  3 - Moderate Resource Value
-  4 - Low Resource Value



State
HISTORY
Discovery

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legal, engineering, or surveying purposes. Users of
this information should review the primary data and
information sources to ascertain the usability of this Map.



Cultural Resources

Cultural History of the Brian Booth State Vicinity

A background assessment report on the park's cultural resources, titled "Cultural History of the Brian Booth State Vicinity," was prepared for this Plan by the State Historic Preservation Office (SHPO). Below is a condensed but comprehensive version of the report, also prepared by SHPO.

The park area has an abundance of resources that have drawn people here for thousands of years. The flora and fauna have provided food, a way to make a living, and opportunities for recreation. Cultural activities including forestry, agriculture and recreation have made imprints on the landscape that have changed over time.

Native American History:

- The Yaquina and Alsea tribes occupied the coast between the present-day communities of Newport and Yachats. The most populous villages were along Yaquina Bay and Alsea Bay.
 - Beaver Creek is the only major salmon stream between Yaquina and Alsea bays. It contains a large Tule marsh. This area was likely a seasonal Alsea community given that both fish and plant resources were extensively used by the tribes.
 - Seal Rock was the site of an Alsea village (perhaps a seasonal village) known as Kitau.
 - The area is within the ancestral territory of the Confederated Tribes of the Siletz Indians.
 - o The Coast Reservation was established by an Executive Order signed by President Franklin Pierce November 9, 1855, however, the Senate failed to ratify the treaty.
- o Originally, it was located between Cape Lookout and Dunes City, for a distance of more than 100 miles along the coast, and 20 miles inland.
 - o During the mid-1800s, the lands were opened to settlement through the Donation Land Act and several executive orders, and by 1900 the reservation was down to five square miles; the Siletz Agency reported in 1892 that there were 568 people remaining from 28 different tribes, farms had been established, and a boarding school had been constructed.
 - o The way in which occupation of the land changed over time was gradual with a slow infiltration of European influence that began in earnest with the fur trappers.

Hudson Bay Company:

- Trappers employed by the Hudson Bay Company (HBC) were Canadian, and European, and Native American.
- Coastal areas north of the Umpqua River were apparently of low priority for HBC expeditions because small groups of trappers wintering on the coast were unlikely to bring large returns. This helps explain why many of the conflicts with the Native Americans were not as great as those along the southern coast.
- Fur trappers were known to have wintered at the lake inland of where Seal Rock is located, getting beaver skins.
- Alexander McLeod of the HBC led an expedition from Fort Vancouver to Florence and set up an encampment on Beaver Creek on June 29, 1826 for twelve days. The intense fur trapping and introduction of contagious illnesses of the McLeod party probably precipitated the animosity of at least some indigenous people toward the fur trappers.

- Significant losses were incurred by the Yaquina Nation beginning in 1832. After two trappers had been killed, a retaliatory expedition was intended to send a message to Native people throughout the region that harming HBC employees could mean death for innocent people. The reports of this conflict vary from the killing of six men, to destroying nearly an entire Yaquina community, including men, women and children.

Pioneer Settlement:

- A.W. Chase was with the Coast Survey and assigned to lead the mapping of Yaquina Bay in 1868-69. Behind the rocky cliff at Seal Rock, he found an Indian warrior grave with a head board that contained elk horns and sixty half dollars nailed to a post.
- During the summer of 1868, a great fire developed in this area. It covered a distance of about 200 miles, and lasted for several weeks.
- The Coast Reservation lands were opened to settlement through the Oregon Donation Land Act (ODLA) of 1850 which promised title to large parcels of land to United States emigrants.
- Families and Development in the Seal Rock area included:
 - In 1882, John S. George purchased a land patent in Seal Rock from the U.S. Bureau of Land Management as a result of the Homestead Act.
 - In 1885, John Buckley purchased a large plot of land in the hope of seeing the eventual expansion of the timber industry in Seal Rock.
 - Seal Rock was platted in 1887 with promoters, such as T. Egerton Hogg, advocating the need for a passenger train line to extend the length of the coast.
- In 1890, Seal Rock established a post office. Mail came in along the beach at low tide, as did stage coaches with visitors.
- Oregon Governor William P. Lord bought land and built a cottage at Seal Rock.
- The construction of the Roosevelt Military Highway and later named the Oregon Coast Highway (101) occurred in 1919 through Seal Rock. Previous travel was by ferry boat across the Yaquina and Alsea Bays.
- The Seal Rock General Store began serving the community in 1923 and continues to this day.
- Families and Development in the Brian Booth area included:
 - Lemuel Davis homesteaded 160 acres at what is now Ona Park.
 - Sam Warfield heard about the area from Davis and also settled near Beaver Creek.
 - Ephemus and Jennie Fanno came to area in 1878 and used a cabin left by the HBC as their first home.
 - The William Hulse family purchased the Warfield homestead in 1890 and opened a post office on Beaver Creek, naming it Ona, the nick-name of Sam Warfield's granddaughter.
 - The John Guilliams family came to the south Beaver area and set up a blacksmith shop, farmed and raised cattle.
 - Fred Muir (from Switzerland) produced lumber from old growth trees, and raised dairy cows and churned cream into butter to ship to San Francisco from Yaquina.

- o Residences, schools and churches were constructed of local materials by the homesteading families.
- o A socialist colony was formed on South Beaver in 1899, and a small building was erected as a meeting hall; later it was used as a school building.
- o Chaney Ohmart formed “The Ona Good Roads Club” where on the first Monday of each month every settler would take his team and equipment and donate the day working on the roads. They built the North Beaver Creek Road, and the County helped with the south part of the road.

WWI - Spruce Production Division and Labor Union Movement:

- When WWI broke out, the Siletz people showed their patriotism. In 1913, native people had hosted the Wanamaker Expedition on Government Hill, in an early attempt to gain U.S. citizenship for all the Indian people. Many of Siletz men and boys signed up for the armed forces, and women and girls did their part for the war effort.
- During the early 1900s, airplanes were being designed with increased engine size, speed, carrying capacity, maneuverability, and operating altitude. Internally, they were made from spruce wood, as were the wing spans, fuselage frames, and propellers. In 1916 the European aircraft makers discovered that Sitka spruce, available only in the coastal areas of Oregon, Washington, British Columbia and Alaska, was the very best material for airframe construction.
- When WWI began, a draft system was instituted and men were encouraged to enlist in special military units, such as Forestry Engineers and Army and Marine flying. The Spruce Production Division was

implanted on the Central Oregon Coast to harvest Sitka Spruce timber for building airplanes.

- o The Pacific Northwest supplied Western Sitka spruce and cedar and Douglas-fir to Great Britain, France, and Italy.
- o Sitka spruce was number one, combining the necessary qualities of lightness, strength, resilience, and long and tough fibers that would not splinter when struck by a rifle bullet.
- The labor union movement, beginning with the Industrial Workers of the World and expanding to the Lumber Workers Industrial Union, was organized in 1917.
 - o Colonel Brice P. Disque, commander of the Spruce Production Division, diplomatically handled the situation by first placing soldiers into the camps and mills to undermine the threat of a strike. Then he established an 8-hour day and improved health and safety conditions so that the “radicals” would lose their strongest arguments for reform. Finally, he created the Loyal Legion of Loggers and Lumbermen as a surrogate union which included both management and labor.
- The soldiers had to develop new methods for extraction and transportation due to the sheer size of the large old-growth spruce trees. They split (rivet lengthwise) the fallen spruce into smaller (about one-sixth the size), more manageable pieces for easier transportation.
 - o The pieces were hauled from the forests by trucks or teams on wooden plank roads to existing highways and railways for shipment to sawmills.
 - o The Spruce Division’s use of trucks and cars was the first large scale use of motor vehicles in the Pacific Northwest.

- o The Division also initiated selective logging of the scattered spruce trees as the best way of securing great quantities of high grade spruce in the largely inaccessible stands.
- o They developed temporary railroads. To minimize cost and construction time, sections were built entirely on logs, piles, or stringers supported by log cribbing.
- o Various camps, about two miles apart with about 200 men in each camp, were located along the railroad line for service men.
- o The Spruce Production Division constructed about 60 temporary military camps, scores of roads and bridges, and 13 railroads with approximately 139 miles of track.
- When the armistice was signed on November 11, 1918, the timber activities in Lincoln County came to an abrupt halt. Everything laid idle during 1919 and most of 1920, when the Alsea Southern Railroad, the Toledo Mill, and the Blodgett Tract were sold to a group in San Francisco; the Pacific Spruce Corporation was incorporated in 1920.
- The Spruce Production Division had a lasting impact on the lumber industry and aircraft industries. Northwest forests and wartime technological developments stirred new interest in potential military and civilian uses of the airplane. The Boeing Company set up headquarters in Seattle, and other airplane manufacturers were established in the Midwest and East.

Recreation:

- Beginning in the 1880s, many visited the Oregon Coast for their health, believing that the climate was good for treating

various ailments. Beaver Creek, Ona Beach and Seal Rock areas have a long history of being an area for people to come for retreats and recreation.

- o In 1887, the Brasfields opened the “Seal Rock Resort Hotel, a popular resort destination.
- One of the first major recreational developments in Beaver Creek was a sportsmen’s club (c.1912-1917) established by a group of businessmen and professionals from Portland and Corvallis, Oregon, and Washougal and Seattle, Washington.
 - o In addition to a small building they constructed on the south side of Beaver Creek for use as a dining and assembly hall, they erected tents facing the creek, which at that time flowed into the ocean in a nearly straight line.
 - o A number of circumstances including losing their water rights and members leaving to serve during WWI, discouraged the owners, they lost interest in the Club, and the site was abandoned I 1917.
- The Beaver Crest Lodge and Coffee Shop located along Highway 101 opened on July 1, 1950 by I.B. Solberg of Corvallis, Oregon and Lester Anderson of Vancouver, Washington.
 - o The main building was 7,000 square feet, with a large lobby, a large dining room, a coffee shop, an office, and 16 double guest rooms. There was a large playground and picnic areas on the property.
 - o A home for a caretaker was constructed, and a duplex building south of the Lodge was used as residences for the owners, with an adjoining cottage for an office.

- o Plans for a gasoline service station, a large moorage to accommodate private craft as well as boats for rent and a swimming pool, did not reach fruition. The Lodge reportedly burned down in the late 1950s.

Historic Features

The Brian Booth State Park area has been shaped by the many uses of the land. The area represents a beautiful modified natural landscape that has been home to Native Americans, trappers, timber harvesters, farmers, and recreational uses over time. There are no known significant cultural resources eligible for the National Register of Historic Places in the park. However, cultural associations with the site and the scenic setting indicate that telling its stories is important and will help explain how the natural landscape has been transformed over time.

Archaeological Features

An inventory of the park and a review of report findings were conducted in consultation with the State Historic Preservation Office (SHPO). At this time, there are no known archaeological sites recorded within the area. A pedestrian survey of 3.5 acres of the park property revealed no archaeological resources.

Historic Beach Highway

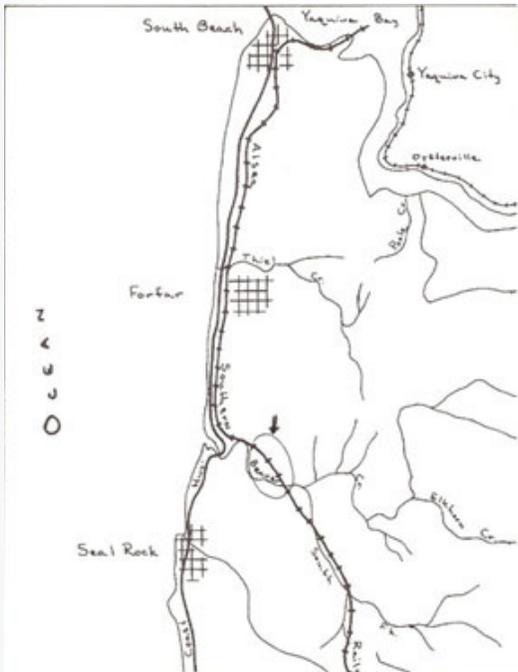


The entire park property was mapped with ratings representing the relative probability of finding archeological resources. Most of the park is rated as “high probability,” certain isolated areas are rated as “very high probability,” and some of the property is rated as “low probability.” Given the history of use by Native American tribes, there is an overall high likelihood of archaeological resources present in the park.

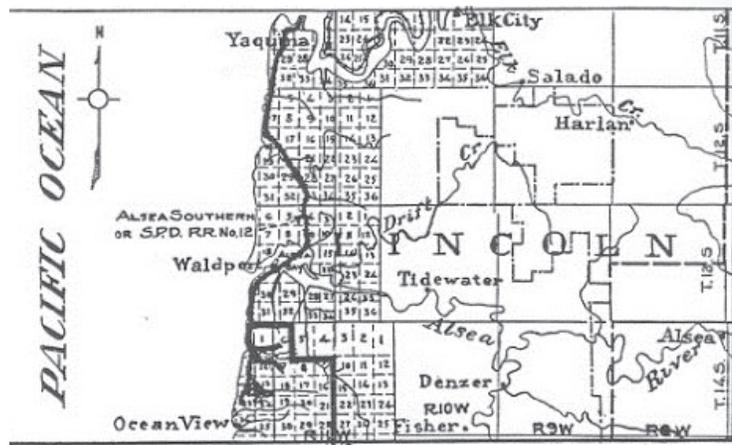


Railroad Trestle

Railroad Map



Historic Spruce Company Camp Near Waldport



SOUTH YAQUINA DISTRICT
SPRUCE PRODUCTION RAILROAD No. 12



CHAPTER 4: VISITOR EXPERIENCE ASSESSMENT

The summarized information presented in this chapter serves as a basis for evaluating needs for and opportunities to provide recreational, educational and interpretive experiences for visitors to Brian Booth State Park. Included are summaries of key information relevant to the mid-coast sub-region on participation and trends in various visitor experiences now or potentially offered at the park, as well as information on the activities offered by the various recreation lands and providers in the sub-region. The information sources relied upon for this chapter include studies completed for, or referenced by, the recently updated Statewide Comprehensive Outdoor Recreation Plan (SCORP), the Oregon Trails Statewide Action Plan, the web sites of agencies managing the sub-region's various recreation lands, and the Interpretive Assessment report prepared by OPRD as background information for this Plan.

Visitor Experiences Currently Offered at Brian Booth State Park

Visitor experiences at the park are currently centered around the facilities at long-established Ona Beach and the more recently established Beaver Creek Natural Area. Beach activities, picnicking and barbecuing, motor and non-motor boating, fishing and sightseeing are the traditional activities supported at Ona Beach. Beaver Creek Welcome Center, which is staffed full time, offers park information, limited natural resource interpretive displays, and views across the marsh to the south Beaver Creek uplands. Non-motor boating on the Beaver Creek Water Trail is supported by a temporary floating launch a short distance from the Welcome Center, about 2 ½ miles upstream from the boating access at Ona Beach. A hiking trail system with over 5 miles of trails takes hikers through the forest and meadows of the south Beaver Creek hills, although this activity is currently not well supported by available parking. The upland trail system and the water trail provide opportunities to see a multitude of bird species, occasionally a beaver or otter, as well as the local elk herd that frequents the Beaver Creek hills.

Interpretive and educational programs at, or supported by, the park are just beginning to grow through the efforts of park rangers supported by volunteers and outside partner organizations. Through the collective efforts, the park offers ranger led programs mostly with natural resource themes, guided hikes, birding tours and kayaking tours, as well as opportunities for community service projects and community outreach.

Visitor Audiences

A diverse demographic has been present in at the park, engaged in a variety of activities. Fishermen, hikers, kayakers, canoeists, picnickers, beach goers, local families and tourists all have a significant presence. Large contingents of birders and naturalists have been present, and large clubs and groups have repeatedly asked for presentations and guided hikes. The park is becoming an outdoor learning laboratory for environmental education. Other Public Recreation Lands, Facilities and Programs in the Sub-Region

Other Public Recreation Lands, Facilities and Programs in the Sub-Region

The Central Oregon Coast sub-region is roughly defined by various sources as the coastal portions of Lincoln and Lane Counties, from Lincoln City in the north to Florence in the south. Brian Booth State Park falls roughly in the middle of this area, near the southern border of Lincoln County. Outdoor recreation opportunities in this area are provided primarily by Oregon State Parks, Lincoln and Lane County Parks, and the U.S. Forest Service.

Figure 4.1 in this chapter geographically illustrates public lands and outdoor recreation areas and facilities in the Central Coast sub-region. The discussion below highlights the major providers and facilities.

Other Oregon State Parks

In addition to Brian Booth State Park, 35 other state parks are located within the Central Coast sub-region. The majority of these parks are viewpoints or recreation sites that provide access to the beach; all of the parks are within several miles of the coast. Hiking opportunities at these sites are primarily along portions of the Oregon Coast Trail. There are numerous whale watching, tidepooling, birding, and other wildlife observation opportunities.

Five state parks with campgrounds are located along the coast between Lincoln City and Florence.

- Beverly Beach State Park has over 278 campsites – 51 full hookup, 75 electrical, 128 tent, 21 yurts, 3 group camps, and a hiker/biker camp.
- South Beach State Park has over 317 campsites – 227 electrical, 60 tent, 27 yurts, 3 groups camps, and a hiker/biker camp.
- Beachside State Recreation Site has over 76 campsites – 32 electrical, 42 tent, 2 yurts, and a hiker-biker camp.
- Carl G. Washburne Memorial State Park has over 67 campsites – 7 electrical, 51 full hookup, 7 walk-in tent, 2 yurts, and a hiker/biker camp.
- Devil's Lake State Recreation Site has over 90 campsites - 25 full hookup, 5 electrical, 50 tent, 10 yurts, and a hiker/biker camp.

Recreation Indicators from South Beach State Park

Indicators of need or demand for recreation opportunities can be gleaned from recent survey data for state parks in the vicinity of Brian Booth. The following statements are based on findings from 2011 survey results for South Beach State Park:

- Nearly all overnight visitors and more than two-thirds of day use visitors live more than 31 miles from the park. Most non-local visitors come from out-of-state, the Portland Metropolitan area, or the Willamette Valley.
- The majority of overnight visitors feel that campsites are too crowded, with too little screening.
- More than a third of visitors brought dogs.
- Approximately two-thirds of visitors would like to see more opportunities for wildlife observation and hiking.
- Nonwhite populations are underrepresented.
- The vast majority of visitors arrive in a personal motorized vehicles. Bicyclists account for around 2% or less of visits, while hikers account for even less.
- About one-fifth of visitors are over the age of 60. Around ten percent have disabilities related to walking.

Lincoln County Parks

Lincoln County maintains 12 parks, including 5 day use parks, 3 campgrounds, and 2 waysides, covering a total area of approximately 100 acres. Most of the parks are located in the coast range interior and provide boating access to major rivers like the Siletz. The County park system has a total of 2.5 miles of hiking trails. Three of the parks have or provide access to a nature trail, but only one, Mike Miller Park near Newport, caters primarily to hiking and wildlife observation. Overall, the park system appears to be focused on providing fishing, boating, and other river-access opportunities, with an additional focus on camping and day use opportunities. Elk City Park, Jack Morgan Park, and Moonshine Park have campgrounds. Elk City, 22 miles inland on the Yaquina River, has 12 campsites with no RV hookups. Jack Morgan,

inland along Hwy 229, has 13 campsites with no RV hookups. Moonshine Park is located on the upper Siletz River and has 42 campsites, including 2 group sites and 2 RV/trailer drive-through sites, with no RV hookups.

Lane County Parks

Lane County operates 14 parks within the area of interest, including 11 day use parks, 2 campgrounds, and 1 wayside. The parks are clustered around Florence on the coast and inland near Deadwood and Mapleton. Seven of the parks provide boating access to the Siuslaw River. None of the parks have hiking trails, with the exception of Heceta Beach outside Florence, which has a short trail to the beach. Harbor Vista Campground, on the coast just west of Florence, has 38 campsites with some electric and water hookups. Camp Lane, east of Mapleton, features a historic lodge with dormitory style sleeping quarters as well as Adirondack campsites, tree house sleeping structures, and a yurt.

U.S. Forest Service

The Siuslaw National Forest encompasses a large portion of the coast range in the Central Oregon Coast and provides a number of opportunities for hiking, horseback riding, camping, wildlife watching, and wilderness exploration. Most of the recreation opportunities in the Siuslaw are concentrated along the coast between Florence and Yachats. There are very few developed facilities between Waldport and Lincoln City. The Siuslaw has two scenic areas and three wilderness areas. The following summarizes Siuslaw National Forest recreation lands and facilities in the sub-region:

- Cascade Head Scenic Research Area: 2 trailheads and 9 miles of hiking trails. Excellent wildlife observation including whale watching.

- Cape Perpetua Scenic Area: 2 campgrounds, one with 37 sites, and a group campground. Several day use areas and numerous hiking trails with access to old growth forests, rock features, and wildlife viewing including whale watching.
- Drift Creek Wilderness: 6,000 acres, 8.5 miles of hiking / biking trails. Features one of the coast range's largest remaining old-growth stands, northern spotted owls, bald eagles, spawning Coho and Chinook salmon, resident steelhead and cutthroat trout.
- Cummins Creek Wilderness: 9,000 acres, 6.5 miles of hiking, biking, and horse trails. Features old growth Sitka spruce forest, northern spotted owls, salmon, steelhead, and cutthroat trout.
- Rock Creek Wilderness: 7,500 acre wilderness with no developed facilities or trails.
- Cape Mountain Trails Area: 2 horse camps and 17 miles of horse trails.
- Alder Dune and Sutton campgrounds: 2 campgrounds with associated day use areas, several miles of hiking trails accessing the beach, dunes and coastal forest.
- PAWN trail: One-mile hike through old growth douglas-fir forest along the North Fork of the Siuslaw River.
- Self-guided trail near Mapleton with historic interpretation of pioneer settlement.
- Archie Knowles campground east of Mapleton.
- Blackberry Campground. Nearby day use area.
- River Edge Campground: Group campground only. Nearby day use area.
- Canal Creek Campground: Group campground only.

- Drift Creek Falls Trailhead: 1.5 mile hiking trail to Drift Creek Falls.

The Nature Conservancy

Cascade Head Preserve, a 270-acre preserve owned by The Nature Conservancy, offers hiking trails and nature observation within the Cascade Head National Scenic Research Area.

National and Statewide Recreation Indicators

The following relevant national and statewide indicators were taken from in the State Comprehensive Outdoor Recreation Plan 2013-18 (SCORP):

- Walking, hiking, visiting nature centers and viewing wildlife and natural scenery are among the fastest growing outdoor recreation activities in the U.S. according to 2009 results from the National Survey on Recreation and the Environment.
- Equestrian activities are expected to increase significantly across the U.S. over the next 50 years.
- In Oregon, activities like walking, hiking, biking, and wildlife and nature observation are increasing in popularity across a variety of demographics including youth and the aging population.
- Among Hispanics, the fastest growing ethnic group in Oregon, walking and camping are the top two activities that people would like to do more often.
- In providing for universally accessible recreation, findings from the SCORP suggest prioritizing accessible trails, picnic areas, sightseeing areas and historic sites.
- RV permit sales have declined in Oregon by 20 percent over the last decade and a half.

- Motorized boat registrations have declined in Oregon by 15 percent since 2003. In 2011, there were more instances of non-motorized boating than motorized boating.
- Hunting and fishing license sales have been in steady decline since the mid-1980s. Even among rural youth, activities like horseback riding, camping, and biking appear to be more popular than hunting or fishing.

Indicators from Statewide Trail Plans

Two components of the Oregon Statewide Trails Action Plan 2005-2014 are relevant to planning for Brian Booth State Park: The Non-motorized Trails Plan and the Water Trails Plan.

The Oregon Non-motorized Trails Plan included statewide and regional-level analyses to identify priority projects for distribution of Recreational Trail Grant Program funds.

- Statewide priorities identified in the plan include needs for trail connectivity, trail maintenance, more trails in close proximity to where people live, additional non-motorized trails, trail accessibility information, and regional interagency coordination and cooperation in trail management.
- Priorities identified for the northwest region of the state include needs for trail connectivity, additional non-motorized trails, and additional funding for trail acquisition and development.

The Oregon Water Trails Plan proposed a state administered water trails program to better manage the growing demand for paddle sports. According to recreation providers, statewide needs for water trail development include water access sites and support facilities, overnight camping facilities, directional

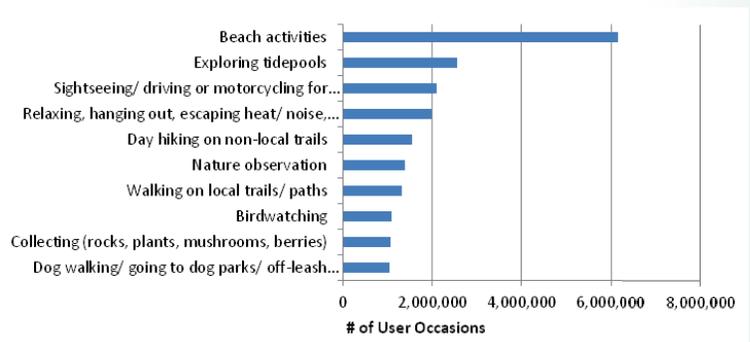
signage, maps, brochures and other marketing tools to properly market new water trail opportunities.

County-Level Recreation Indicators

Recreation Participation in Lincoln County

As reported in the SCORP, the 2011 Oregon Outdoor Recreation Survey asked residents across the state to describe their outdoor recreation activities. Participation in each activity was measured by “user occasions,” defined as the number of times an individual participates in a recreation activity. The graph below summarizes the top outdoor recreation activities in Lincoln County:

Top Recreation Activities in Lincoln County (2011)



Recreation Facility Need Indicators for Lincoln County

The 2013-2017 SCORP data included two methods for identifying priority park improvements at the county level. The first method uses surveys of public recreation providers to identify priority projects in urban/suburban and rural areas. The second method uses responses from the statewide survey of Oregon residents rating their perceived need for investment in different recreation facilities. The top priorities among Lincoln County recreation providers and residents are listed below in order of priority:

Top Priorities Among Recreation Providers in Lincoln County (in order of priority):

- Group campgrounds and facilities
- RV / trailer campgrounds and facilities
- Tent campgrounds and facilities

Top Priorities Among Residents of Lincoln County (in order of priority):

- Dirt / other soft surface walking trails and paths
- Public access sites to waterways
- Nature and wildlife viewing areas
- Children’s playgrounds and play areas made of natural materials (Natural Play Areas)
- Picnic areas and shelters for small visitor groups

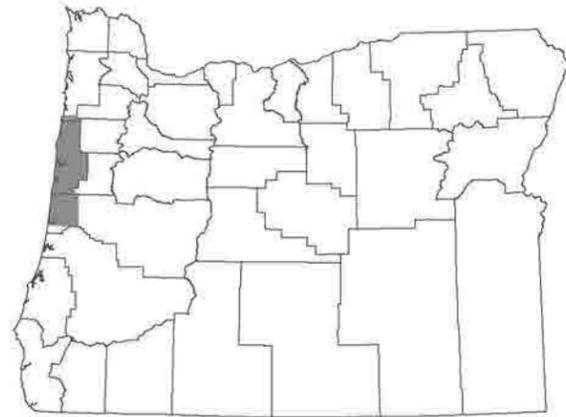
- Off-street bicycle trails and pathways
- Community gardens
- Paved / hard surface walking trails and paths
- Designated paddling routes for canoes, kayaks, rafts, drift boats
- Off-leash dog areas

Camping Preferences in Lincoln County

The 2011 Oregon Outdoor Recreation Survey completed for the SCORP also asked residents to rate their camping preferences, asking how likely they are to use different types of campsites and what they perceive as needs for different types of campsites near home. The following summarizes campsite priorities among Lincoln County residents:

Priority	Likely to use	Need close to home
1	Drive-in tent sites	Drive-in tent sites
2	Cabins or yurts with electricity	Cabins or yurts with electricity
3	Cabins or yurts with plumbing & electricity	Cabins or yurts with plumbing & electricity
4	RV sites	Hike-in tent sites
5	Hike-in tent sites	RV sites
6	Other type (undefined)	Tied: hiker biker & other type(undefined)
7	Hiker biker sites	

Central Coast Region



Land Manager

- BLM
- Local Government
- Oregon Department of Forestry
- USFS
- The Nature Conservancy
- OPRD

Recreation Facility

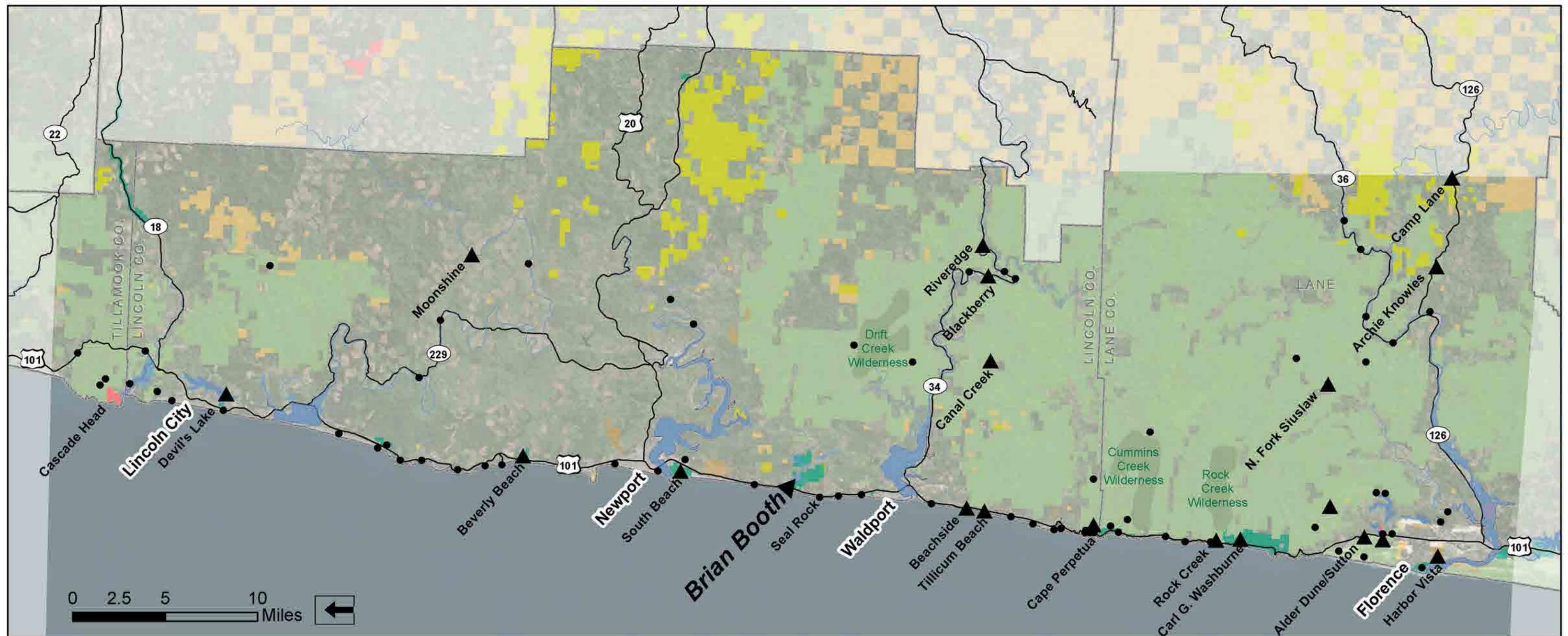
- Campground
- Day Use / Trailhead

Figure 4.1 Mid-Coast Recreation Context

September 2013



Nature
HISTORY
Discovery





CHAPTER 5: AGENCY MANDATES

The Mission

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.

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.

Each of our parks is an individual place where people play, picnic, camp, rest, hike, renew and everything in between. They are an everyday reminder of the things that make Oregon great, and their very 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 opens by stating 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 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 Centennial Horizon

The Centennial Horizon—a vision document that looks ahead to 2022 and the 100th anniversary of the state park system—is a series of principles developed to guide the work and priorities of the Oregon Parks and Recreation Department in fulfillment of its mission. Eight principles compose the Centennial Horizon:

- Principle One – Save Oregon’s Special Places
- Principle Two – Connect People to Meaningful Outdoor Experiences
- Principle Three – Taking the Long View
- Principle Four – Engage People Through Education and Outreach
- Principle Five – Build the State Park System with Purpose and Vision
- Principle Six – Attract and Inspire Partners
- Principle Seven – Prioritize Based on the Vision
- Principle Eight – Oregon’s Parks will be Tended by People Who Love Their Work

The first three principles play a substantial role in park acquisition, planning and development. The remaining five principles support the first three by offering more specific direction for park operations and programs. Each principle is more fully defined by a series of strategies and actions that change over time as opportunities arise. The full document is available at the department web site: <http://www.oregon.gov/OPRD/>.

The State Park System

Three criteria define different kinds of state

parks: the 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 doesn’t own scenic waterways, but works cooperatively with the property owner 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.

2012 Park System Plan

The Oregon State Parks and Recreation Commission has been engaged in doing long term business planning for the state park system. They have focused on developing a greater understanding of how the park system functions and what financial opportunities and challenges are likely over the next ten years. The Commission has reviewed the current business model; the relative mission impact and economic viability of various park system activities; the ways in which the park system creates value and wealth for the state; and projections of future revenues and expenditures. A number of strategies have been examined and refined about how best to sustain the park system and to continue and improve its valuable contributions to the state economy and to the quality of life for Oregonians. These are summarized in a set of policy directions in the following areas: service delivery, park system maintenance, park system enhancement, workforce maintenance, and park system funding. This park system plan summarizes this work, and is intended to be

used to guide investment, decision-making, and staff effort. The state park system generates significant wealth and value in Oregon, and good decisions today can keep this source active and contributing.

System Maintenance Strategy

The strategy for maintenance of the park system is to:

- Maintain up-to-date land and facility condition and mission effectiveness assessments;
- Consider profitability, mission impact, and economic activity prior to every
- maintenance investment decision to reduce under-performing assets and
- related activities;
- Complete preventive maintenance on facilities with high mission impact; and
- Reserve and dedicate a portion of earned revenues to a fund to be used for preventive maintenance.

Determinations about system maintenance investments should rely on many of the criteria provided in the section above. Where maintenance can bring a lower performing property more in line with these criteria, then they are better maintenance projects to consider. The system maintenance metrics for consideration are:

- Percent of scheduled preventive maintenance tasks completed;
- Ratio of facility-closure months to total park facility program months;
- Percent of lands and facilities with condition assessments less than five years old;
- Asset condition index; and
- Ratio of under-performing assets to total assets.

System Enhancement Strategy

The strategy for enhancement of the park system is:

- Create new projects, parks, programs, and services without expanding existing department staff;
- Focus land acquisitions on improving performance of existing parks and addressing under-served markets; and
- Create opportunities for new trails, water access sites, nature viewing, and learning about history by finding internal savings and generating external support.

Determinations about system enhancement investments should rely on many of the criteria provided in the section above. Where enhancements can bring a lower performing property more in line with these criteria, then they are better enhancements to consider. The system enhancement metrics for consideration are:

- Current operating expenditures for previous biennium enhancements;
- Change to park system staffing levels;
- Percent of parks with significant in-holdings, adjacent unprotected natural areas, or access problems;
- Percent and density of Oregonians within a 60 minute drive of five or more destination parks; and
- Value of external support towards capitalization of enhancements.

Resource Management Role

The natural resources staff of the Oregon Parks and Recreation Department is responsible for land stewardship, marine conservation and the rocky intertidal shores, several permit programs, department-wide resource policies, and park plants and animals. We strive to

provide a safe environment 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 conducts management to balance resource protection with recreation use; resources are the essential foundation for nearly all forms of recreation.

The following categories best sum up OPRD's approach to resource stewardship:

- Forest Health
- Fish & Wildlife
- Ecosystems
- 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

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, between the needs of today and tomorrow, has always defined the mission of Oregon State Parks. ORS 390.010 declares 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:
 - o Oregon's scenic landscape
 - o Outdoor recreation
 - o Oregon history, archaeology and natural science
 - o Scenic roads to enhance recreational travel and sightseeing
 - o Outdoor festivals, fairs, sporting events and outdoor art events
 - o Camping, picnicking and lodging
 - o Tourist hospitality centers near major highway entrances to Oregon
 - o Trails for hiking, horseback riding, bicycling and motorized recreation
 - o Waterways and facilities for boating, fishing and hunting
 - o Developing recreation in major river basins
 - o Access to public lands and waters having recreation value
 - o Development of winter sports facilities
 - o Recreational enjoyment of mineral resources.

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 Brian Booth.

- 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 comprehensive plan.

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.

Values that have been identified for Brian Booth State Park are:

Value 1 - Natural Resources: We value the park as a unique and predominantly natural place.

Value 2 - Cultural Resources: We value the cultural history of the park setting, forces that have shaped the landscape and its inhabitants, and features that represent these dynamics.

Value 3 - Visitor Experience: We value the park landscape and the benefits it brings to those who experience it through recreational, interpretive and educational activities.

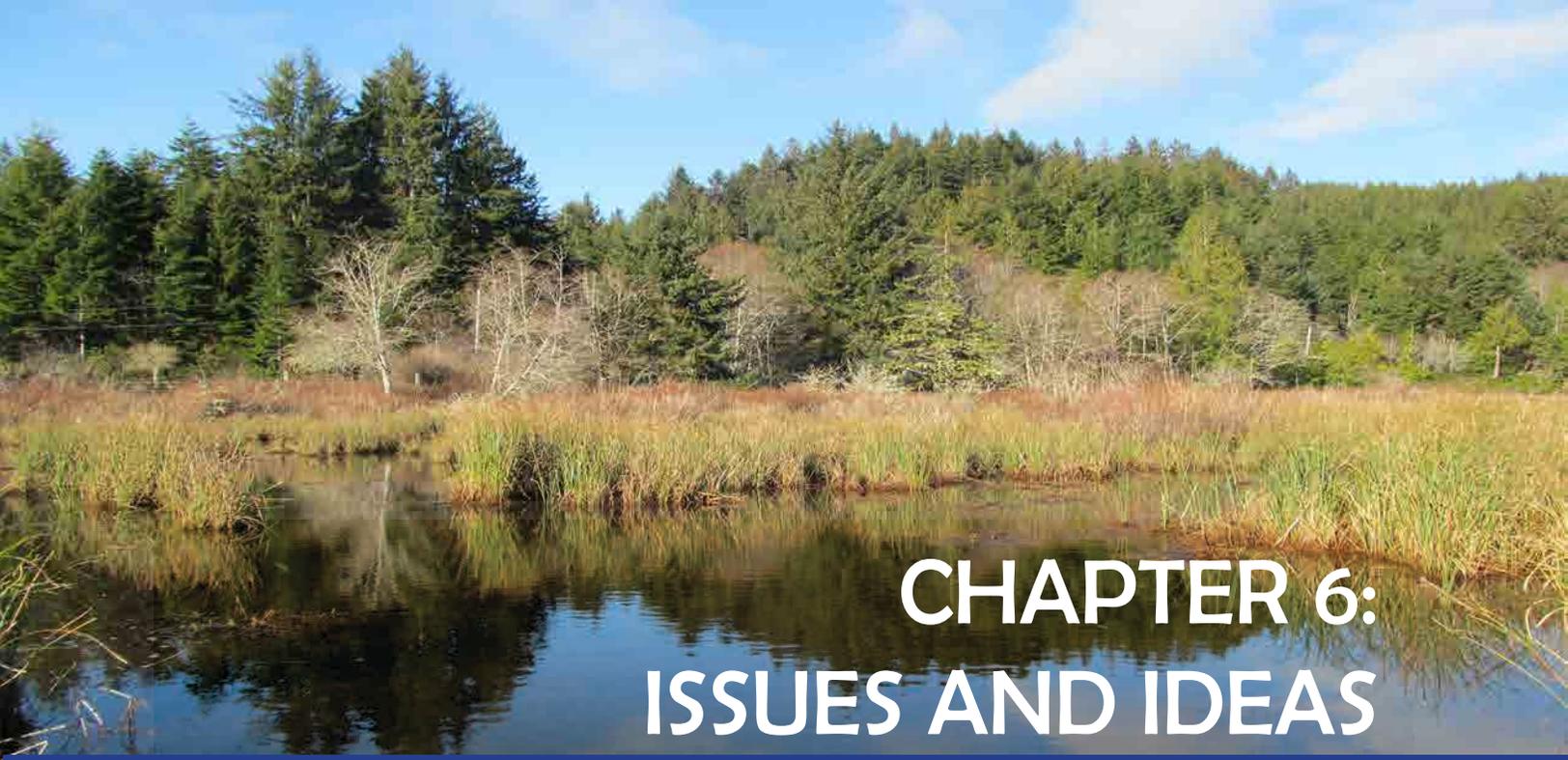
Value 4 - Community: We value how the park helps strengthen the local community through its contributions to public health, livability and the local economy, and how community relations also benefit the park and its visitors.

These values have close ties to the elements of the OPRD mission that relate to natural, cultural, scenic and recreational resources. These values, explored further in Chapter 8, provide another layer of analysis to interpret the existing conditions and future potential of the property.

Summary

The Oregon Parks and Recreation Department staff is continually involved in the long-range review of state park system properties. A Comprehensive Plan is an assessment of resource and recreation opportunities, and management recommendations. The plans include management guidelines for each park's natural, cultural, visitor experience and community values, goals, strategies, and actions.

In the following sections the layers of analysis will be developed and discussed in greater detail, so peoples' values and park goals as well as management strategies and actions can be understood in terms of the agency mission, landscape condition, and public needs and values.



CHAPTER 6: ISSUES AND IDEAS

Opportunities for Public Input

Understanding public concerns, perceptions and desires related to park use and management is essential in formulating a park plan. At key times during the planning process, OPRD held meetings with a stakeholder committee, park neighbors and the general public to ask for input on issues and ideas related to the future of the park. Multiple meetings were also held with OPRD's Planning Core Team and Executive Team during the process to hear the ideas of agency staff with experience and expertise related to the park. The following is a summary of key concerns and suggestions raised in the planning process.

Natural Resources

- √ The park is an important part of a multi-partner effort to preserve and restore ecological functions and values of the lower Beaver Creek Watershed. The park is also an important link in broader restoration efforts for the larger watershed.
- √ Significant natural habitats are present in the park. Invasive plants are widespread and abundant in some areas, however, much of the park retains a natural character and provides valuable habitat for wildlife. Marshlands and patches of late seral forest are highly significant. Mature conifer and hardwood swamps and scrub-shrub wetlands are also notable.
- √ Most of the Beaver Creek marsh and adjacent floodplain in the park is a dedicated Natural Area under the state Natural Heritage Act.
- √ Much of the park landscape shows the effects of past forestry and agricultural practices. There are numerous opportunities for restoration of botanical and habitat values.
- √ Conifer plantation forests of young to moderately young age cover the largest share of the Ona Hills uplands. These forests need thinning, disease removal and under-planting to promote healthy succession. Currently, the natural resource values of these forests are marginal.

- √ Former pastures in the Beaver Creek uplands contribute to scenic values, and also contribute to habitat diversity. While most pastures should be restored to native forest, a few are particularly valuable for their scenic and habitat contributions.
- √ There may be some opportunities for improving hydrologic functions altered by past practices of ditching, diking and stream channelizing in the marshlands. The merits of such projects need to be explored in cooperation with interested conservation groups and agencies. Culverts need to be assessed for fish passage and hydrologic obstructions.
- √ Invasive non-native plant species have taken over certain areas of the marsh. Certain other areas of the marsh where natural resource values remain largely intact are at risk from invasive plants. Controlling the spread of invasive species is a top priority.
- √ Two at-risk native plant species, one identified and another tentatively identified, are present along the open dune. Yellow sandverbena was positively identified. Plants that appear to be big-headed sedge will need positive identification when flowering. These are priority sites for management of invading European beachgrass and scotch broom.
- √ Possible introduction of invasive wildlife is a concern, especially invasive aquatic species potentially introduced at boating access facilities.
- √ The Nutria population is rapidly growing, causing damage to native vegetation and reportedly showing aggressive behavior toward kayakers.
- √ Native wildlife species are abundant in the park, especially in the biologically rich marsh and floodplain environment. This presents opportunities related to wildlife observation, interpretation and environmental education. However, an appropriate balance is needed between visitor uses and wildlife management to prevent unwanted, unintended impacts on important wildlife resources.
- √ Salmonid species are present in the Beaver Creek system, including federally and state listed coho salmon.
- √ The steep topography limits opportunities for facility development over much of the park's upland area.
- √ Ocean flooding occurs over the marshlands in storm surges. Blockage at the mouth of Beaver Creek from sand accretion limits tidal influence in the marsh at other times.
- √ Flooding in the Ona Beach picnic area is a frequent occurrence which has caused trail damage and killed native vegetation.
- √ Stream temperatures exceed standards in the Beaver Creek system during the summer months. Opportunities to improve stream shading may be limited in the park due to the expanse of marshland adjacent to the stream channel through most of this reach.
- √ The federally and state listed marbled murrelet may inhabit late seral conifer forest patches in the park. A bald eagle nest is located in one of these forests. Protocols set out under state and federal ESAs must be followed for any park management actions near these areas. Special care must be taken to manage refuse in the park to avoid attracting corvids that raid murrelet nests.
- √ Generous upland forest buffers between park facility development areas and the marshlands have been recommended by conservation interest groups. Development sites have been chosen based on relevant factors that affect the development suitability of different sites, which include natural resource constraints, size of

contiguous area, distance from needed infrastructure and management feasibility. Between the chosen development sites and the marsh, a minimum horizontal buffer of 350 feet can be maintained, supplemented by the vertical separation dictated by steep topography.

- √ Comments also addressed the siting, design, and densities of trails, which are important considerations with regard to potential impacts on natural resource values. Minimizing trail impacts along riparian corridors and other key wildlife areas is recommended. Trails that reach into these resource areas should be limited to a few places where they cross through them, and a few carefully designed sites intended to bring visitors to the edges of resource areas for visitor experience.
- √ The park is rich in scenic resources associated with the landscape. While certain scenic corridors are obvious to visitors, mainly the beach and the Beaver Creek marshlands, there are multiple existing and potential viewpoints along existing or potential trail corridors. The scenic settings associated with upland forests are variable, most of which could be improved through natural resource management prescriptions needed for botanical and habitat reasons.

Natural Hazards

- √ Emergency response operations and public information are key concerns for park management. One of the highest management priorities will be to establish an emergency management plan in cooperation with local emergency response planners and providers. The park would serve as a refuge in an emergency such as a tsunami or major storm requiring evacuation from surrounding areas.

Cultural Resources

- √ There are no significant historic structures in the park, and no significant archeological sites have been identified. However, over most of the park there is a high probability of finding archeological resources. Protocols for preventing impacts on important archeological resources set out under OPRD's Cultural Resources Policy will need to be followed for all ground disturbing activities.

Vehicular Access

- √ Highway safety is a concern as it relates to proposed visitor vehicle access to the Ona Hills. This concern prompted a traffic study conducted by consultants in coordination with ODOT early in the planning process. The study found that the accident rate along this reach of the highway is mostly related to road conditions and driver behaviors through the highway curves, rather than vehicles turning on and off the Highway through this reach. Still, highway safety improvements in the 101 right-of-way will be needed to establish the park entrance. ODOT has approved a plan prepared by the traffic consultants for improvements in the highway right-of-way needed for park development, based on estimated traffic generation related to types and capacities of park facilities proposed. The traffic study also found that the intersection of Beaver Creek Road and the Highway is functioning within standards, and will continue to function appropriately with park development and future increases in traffic.
- √ The existing trail system in the south Beaver Creek hills, which attracts a number of hikers, currently has no designated parking area. Currently, visitors park in

an unimproved, undesignated area off the shoulder of South Beaver Creek Road outside of the park property to access the trail system. OPRD is exploring possible property acquisition to establish a south trailhead parking area.

Recreation Development Potential

- √ A key concern raised in public meetings is that park popularity and the level of visitation could degrade the natural resource qualities and outdoor experiences that people come to enjoy. An appropriate balance is needed between resource protection and visitor capacities provided by park development.
- √ Areas suitable for development of visitor facilities in the park are limited due to the valuable and sensitive natural resources in lowland areas and certain upland forests, and the steep topography over much of the upland areas. Opportunities for new park development are located in the Ona Hills, generally along the existing main primitive road corridor.
- √ Although natural resource constraints and issues related to highway access safety limit the potential capacity of the park, a range of camping styles and related amenities are suited for the Ona Hills area, including drive-in and walk-in tent sites, all-season camping structures (camper cabins or yurts), a small equine camp and a hiker biker camp. A few remote Adirondack campsites are also being considered.
- √ Because of highway safety concerns, visitor campsites designed for large RVs are not being proposed. To accommodate numerous large vehicles turning on and off the highway would require highway improvements beyond what has been approved by ODOT.
- √ All-season camping units (cabins or yurts), while generally popular, were mentioned

as facilities that could support outdoor education groups engaged in multi-day learning activities.

- √ Some comments suggested providing a limited number of primitive campsites in Beaver Creek Natural Area. Hike-in sites and paddle-in sites were suggested. Other comments were opposed, based on concerns about the difficulties of managing the campsites, the risk of fires and possible impacts on wildlife.
- √ A few Adirondack campsites served by an upland trail have been proposed on a narrow ridge in the Ona Hills. This proposal has also drawn a few opposing comments related mainly to difficulties of management.
- √ One or two comments questioned the need for more campground facilities, pointing out that other campgrounds in the vicinity are closed seasonally for lack of use.
- √ Beaver Creek Natural Area is generally regarded as an area that should be kept free of new park facility development and managed with emphasis on natural resource protection, allowing certain facility improvements supporting environmental education and interpretation. Some people feel that the more recently acquired commercial timberlands in the Ona Hills should also be managed as part of the Natural Area despite OPRD's intentions in acquiring the property for campground development.

Administrative Facilities

- √ OPRD has an opportunity to acquire the ODOT administrative facilities adjacent to the park in the Ona Hills. An agreement has been established for OPRD's eventual acquisition of the facilities, which offer enough space for the administrative needs of Brian Booth State Park and OPRD's surrounding Coast Region.

Trails

- √ Suitable development areas in the Ona Hills are separated from Ona Beach by Highway 101. There is no designated highway crossing for safe access to the beach from Ona Hills by trail. ODOT has clearly indicated that establishing a designated at-grade highway crossing is not an option. A study completed by engineering consultants has identified alternatives for crossing the highway with a trail involving construction of an underpass or overpass.
- √ There is currently no trail connection from the Beaver Creek Welcome Center to the south Beaver Creek upland trail system, which are separated by marshlands. OPRD is exploring alternatives to provide a trail connection, which involves either developing a trail along the county road right-of-way, developing a boardwalk trail across the marsh, or a combination of these.
- √ Local equestrians have requested that OPRD provide horse trails in the park. Reportedly, the trail riding opportunities are limited in the Lincoln County area.
- √ Opportunities for new trail development in the park are mostly in the Ona Hills area. A well-designed trail system would substantially add to the desirability of the Ona Hills area for camping. A range non-motorized trail uses are possible, including hiking, biking and equestrian uses.
- √ The existing trails in the south Beaver Creek uplands are too many and too dense for the area they cover, which affects trail experience and discourages much of the wildlife that may otherwise be present. Some trails need to be decommissioned and allowed to revert to natural habitat.
- √ To enhance visitor experience opportunities, nature trails have been proposed that would reach into patches of late seral forest. Care must be taken in locating, designing and managing such trails to avoid unwanted impacts on the sensitive wildlife they now or potentially support.
- √ Any trails that reach across the Beaver Creek floodplain up to or across the marsh, although desirable for visitor experience, wildlife viewing opportunities and interpretation, need to be carefully designed and limited to a few locations to minimize disruption of wildlife.
- √ The current park ownership does not connect between Ona Hills and Beaver Creek Natural Area. Opportunities for property acquisition or easement are being explored for purposes of establishing a trail connection and to facilitate more efficient land management.
- √ A couple of comments suggested providing trails for mountain bikers. A mountain biking single track loop trail is being considered in a remote area of the park where forest conditions have deteriorated to a point where clearing and replanting is needed. This trail could be designed in conjunction with forest restoration. The length of trail allocated to exclusive mountain biking would be relatively short, but would be connected to the multi-use trail system. As an alternative use of this area, a disc golf course has also been proposed and is also under consideration. This alternative could also be designed in conjunction with forest restoration.
- √ The Corvallis-to-the-Sea (C2C) Trail Partnership continues to seek a connection from its North Beaver Creek Road trail route past the Beaver Creek Welcome Center to campground facilities in the park using a route that avoids Highway 101.

- √ The Seal Rock Trails Group has expressed interest in establishing a trail connection between the park and the Seal Rock community across private properties of willing landowners. A general location has been identified for a connection to the park.
- √ The Beaver Creek Water Trail is a popular feature of the park. The possible need for managing potential conflicts between motor and non-motor boating access at the boat ramp should be explored. A safer and easier to use floating kayak launch is needed to replace the temporary launch near the Welcome Center. No additional parking for the Water Trail is being proposed.
- √ A few comments pointed out the need to close some trails seasonally during wet conditions.

Visitor Programs

- √ The opportunities for environmental education and interpretation at the park are many, and various groups have expressed interests in this aspect of park development. Comments pointed out the value of interpreting the rich cultural history of the region and vicinity and how it has influenced landscape changes. An assortment of biological, geological and hydrological features within and around the park are worthy of interpretation.
- √ The park offers multiple opportunities for facilities supporting visitor programs, including the existing Welcome Center (proposed to be renamed the “Beaver Creek Nature Center”), two sites for potential future use as learning extension facilities (existing pole barn site and home site) and development of a program amphitheater and a Junior Ranger gathering shelter. In addition to daytime

learning activities, the two learning extension facilities under consideration could potentially allow pre-arranged overnight camping by special use permit for organized groups.

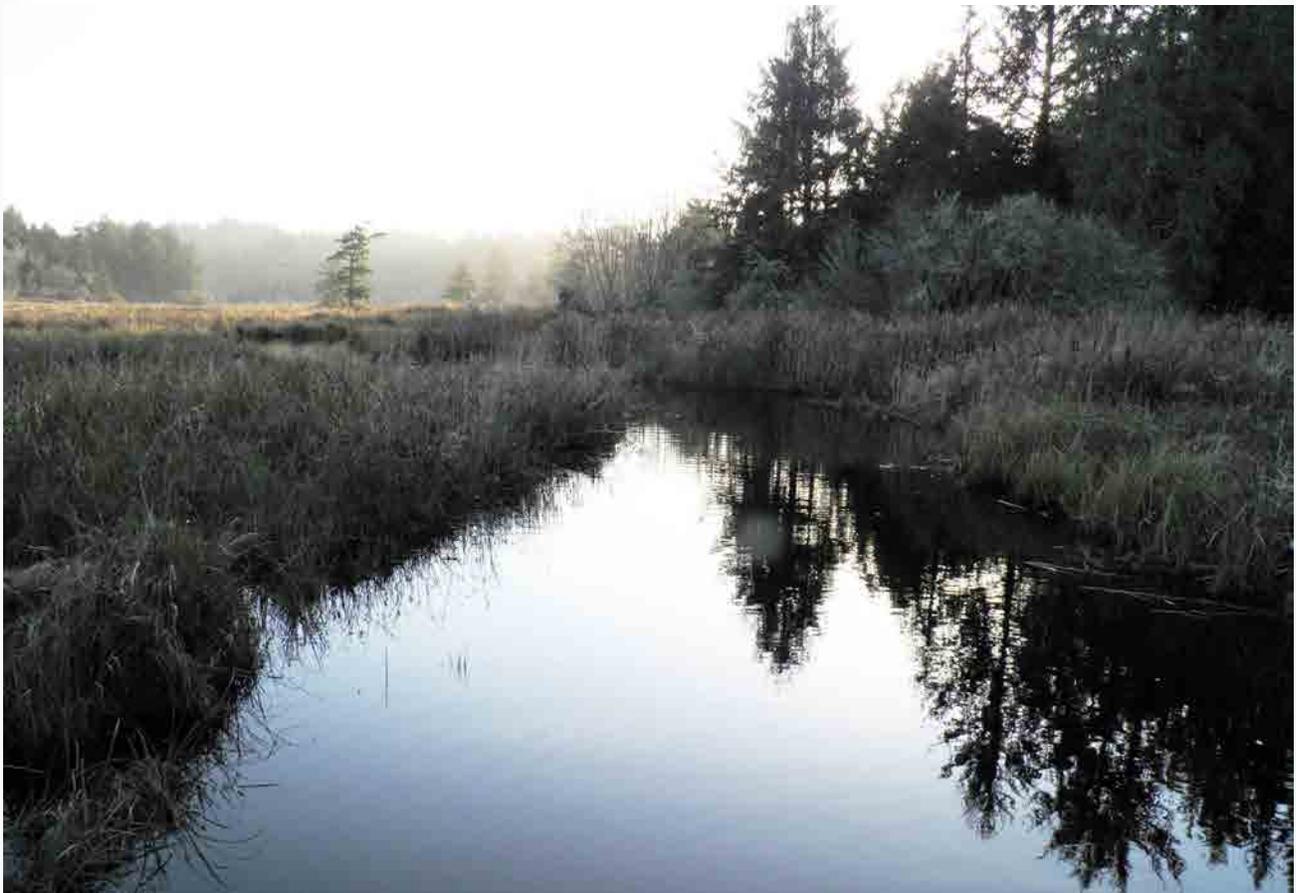
- √ There are various opportunities for establishing partnerships, or building on existing partnerships, with local organizations for purposes of offering visitor programs at the park and engaging park staff in public outreach activities. There is significant interest among local partner organizations in establishing cooperative educational programs, using the park for teaching environmental education and outdoor skills.

Neighborhood Concerns

- √ A few of the park’s closest neighbors raised concerns about possible impacts on neighboring properties with the proximity of park facilities and visitors. Concerns were raised about the potential for trespass, visual impacts, traffic noise along the park road, campground noise and air pollution from campfires, suggesting a need to optimize the forested buffer next to this neighborhood.
- √ A park neighbor reported seeing human waste near the small parking area that serves the kayak launch in Beaver Creek NA, suggesting that a restroom be installed there.
- √ The potential for trespass onto private property was raised as a concern related to visitor use of upland trails, the Water Trail, and in general. Clear signage at key locations was suggested as a solution.
- √ One or two comments reported unauthorized camping at Ona Beach near private property, asking for information on who to contact for enforcement.

Miscellaneous Other Public Comments

- √ Several meeting participants raised concerns about dogs. A common concern is that dogs harass wildlife. Some suggested that dogs be disallowed, at least in Beaver Creek Natural Area. Others stressed the need to enforce rules requiring dogs to be leashed. One or two comments suggested providing a fenced off-leash dog area.
- √ One person recommended that waterfowl hunting be allowed in the park, pointing out that hunting has been a traditional recreational use in the rural area that should be supported.
- √ A couple of people asked whether the shooting range would be removed, and to where. OPRD is working with Oregon State Police to relocate this facility.
- √ Fire protection was mentioned as a high priority for park management. Fire protection measures will be a key part of OPRD's planning for emergencies and for park operations in general.
- √ Common concerns were raised about the potential for increased noise and traffic, littering and other unwanted consequences of park development and use.
- √ One or two comments suggested offering more wilderness solitude among park visitor experiences.





CHAPTER 7: OPPORTUNITY AREAS

Strategies for a successful park arise from understanding the park's opportunities and constraints. This chapter characterizes the park by its opportunities for managing and enhancing natural resources and opportunities for providing places and facilities that support visitor experiences. Opportunities are summarized for separate but related areas of the park that represent different landscape features. The separate areas are considered collectively to determine how they can be managed as a whole to protect or improve the integrity of important park resources while providing for recreational uses and other visitor

experiences. On the basis of opportunities and constraints, this Plan defines areas that will be managed with emphasis on natural resources and areas where the emphasis will be on visitor support facilities. A successful park plan blends resource management and visitor uses in a way that sustains or improves the quality of both.

The following table summarizes management intentions by opportunity areas, followed by narrative summaries of what the seven areas offer. Figure 7.1 depicts opportunity areas geographically.

Opportunity Areas	Ona Beach	Beaver Creek Natural Area	Ona Hills
Natural Resource Opportunity Emphasis			
1. Beach & Dune	– At-risk dunal plant community management – Invasive plant control	None	None
2. Estuary & Floodplain	– Priority habitat protection – Invasive plant control	– Priority habitat protection – Invasive plant control – Priority hydrologic improvements – North-south trail connection – Paddler launch improvement – Wildlife viewing blinds	None
3. Forest	– Forest health maintenance – Invasive plant control – Beach access trail	– Priority habitat protection – Mixed forest management – Trail density reduction	– Priority habitat protection – Mixed forest management – Trails
4. Young Plantation Forest	None	None	– Forest succession & diversity management – Park facility access roads – Trails
5. Managed Grassland	None	– Priority open grassland management	None
Visitor Experience Opportunity Emphasis			
6. Development Opportunity Areas	None	– Home site future use – Pole barn site future use	– Priority developable sites for new visitor facilities: campgrounds & amenities, trail parking, visitor program facilities
7. Existing Development	– Beach access & picnic area enhancement	– Boating access improvement – Learning facility improvements	– Administrative facility conversion for park use

1. BEACH & DUNE -

Natural Resource Opportunity Emphasis
(Ona Beach area only)

In the beach and dune environment, natural resource management will focus on actions designed to prevent reductions in, or increase populations of two at-risk plant species found on site, yellow sandverbena and big-headed sedge, and control invasive weeds.

Existing support facilities for beach visitors are part of the adjacent beach access and picnic area discussed below under “Existing Facilities.” Proposed trail access to the beach, crossing the highway from Ona Hills, reaches the beach through the Ona Beach area forest, and is discussed below under “Forest.”

2. ESTUARY & FLOODPLAIN –

Natural Resource Opportunity Emphasis
(Ona Beach and Beaver Creek Natural Area)

The estuary and its floodplain reach from Ona Beach to Beaver Creek Natural Area. The natural resources present here are paramount among the park’s ecological values as well as visitor experience opportunities, which include birding and other wildlife viewing and nature study, fishing, canoeing and kayaking. Natural sensitivities and values of the estuarine and floodplain environment allow only very limited development of carefully located and designed structures that support hiking, interpretive, environmental education and water trail uses.

Most of the OPRD-owned portion of the estuary and floodplain, as well as the adjacent Wetlands Conservancy ownership, is a registered State Natural Area Reserve under the Natural Heritage Act. Similar protective designation is recommended for the entire OPRD-owned portion. Management actions are needed to control the spread of priority invasive plants, mainly yellow flag iris, reed canary grass and colonial bentgrass. Past

actions that have altered the marsh hydrology, including diking, ditching, and placement of culverts for road construction, are being considered for their impacts and possible restoration.

Visitor support facilities suggested for the marsh and floodplain environment include two or three wildlife viewing blinds in strategic locations, a kayak and canoe launch replacing the existing temporary launch near the Beaver Creek Welcome Center, and a north-south trail connection between the Welcome Center site and the south Beaver Creek uplands. This trail is the most substantial of these proposals. Boardwalk trails will be required where trails cross valuable wetlands. The locations and designs of all of these facilities will require careful attention to potential impacts on the estuarine and floodplain resources.

3. FOREST –

Natural Resource Opportunity Emphasis
(Ona Beach, Beaver Creek NA & Ona Hills)

The upland forest environment is described as two types of opportunity areas. The first, described here as the “Forest” area, requires less intervention for management purposes as compared to the second area, described below as the “Young Plantation Forest.” The “Forest” also contains certain areas particularly valued for their botanical and habitat features. While the largest portion of the park’s hillside forests are in early stages of succession and currently not of high botanical conservation value, certain areas warrant protection either for botanical conservation values or for their contributions to wildlife habitat diversity and connectivity. Most of the park’s upland forests will be managed with an emphasis on preserving and improving natural resource values over time, and a much smaller portion will be allocated to recreation facility development. Within areas intended primarily for natural resource management, several upland forest areas have been identified among the highest priorities for preservation.

(See Figure 9.2 in Chapter 9.) Two patches of late seral forest, one in the Ona Hills area and the other in Beaver Creek NA, are particularly uncommon in their age and condition and provide habitat suitable for sensitive species such as at-risk marbled murrelet and red tree vole. A comparatively remote, mixed forest with adjacent former pasture in Beaver Creek NA is proposed for preservation with minimal human disturbance as refuge for elk. Similarly, a comparatively remote area identified in Ona Hills is suited for preservation as habitat with low human disturbance for bear, elk, deer and other wildlife. Hillside area directly adjacent to the Beaver Creek floodplain is recommended for preservation as upland extension of habitat important to species such as adult red-legged frogs, and for elk that find shelter from winter storms along the toe slope. The longest tributary stream valley in the park has been recommended for preservation as a corridor for wildlife movement between the estuary and high priority upland habitats, and potentially supporting wildlife movement between Ona Hills and the Beaver Creek NA uplands.

Through natural processes, forest areas currently in various stages of succession will eventually mature to old growth forest. However, management actions to accelerate succession are proposed in certain young, mixed conifer and deciduous forests that are otherwise in good condition, where such management is feasible. In certain other areas, younger mixed forest communities will continue contributing to botanical and habitat diversity as succession occurs naturally over time. (See Figure 9.3, Chapter 9.)

Although most of the proposed trail development in the Ona Hills forests is in young plantation forest areas, some trails will cross the conifer or mixed conifer and deciduous forests that are in better condition, described here. With limited exceptions, only hiking trails will cross the highest value habitats. A proposed beach access trail will cross through

the Ona Hills forest to a highway underpass before crossing the Ona Beach forest to the beach. In the Beaver Creek NA forest, some of the existing network of trails will be decommissioned to reduce trail density.

4. YOUNG PLANTATION FOREST –

Natural Resource Opportunity Emphasis
(Ona Hills area only)

The young plantation forest covers the largest share of Ona Hills. Some of this area has been identified as the most suited area for new recreational development and is described below as “Development Opportunity.” Most of the young plantation is proposed for active forest management to promote forest health and habitat diversity through actions that will accelerate succession and promote development of multi-layered canopy and understory growth. Much of the area needs thinning of overstocked young conifers, and in some locations thinning will be accompanied by under planting of desired species. Some areas are infected with Swiss needle cast, a disease that attacks Douglas fir, which need removal. One area is over grown with dense shore pine that cannot be saved and must be removed and replaced with desired species.

Outside of the “development opportunity” areas discussed below, visitor support facilities proposed in the plantation forest include improvement of the existing main primitive road for use as a park road, and trail development to serve a range of non-motorized uses.

5. MANAGED GRASSLANDS –

Natural Resource Opportunity Emphasis
(Beaver Creek Natural Area only)

A number of former pastures exist in Beaver Creek NA. Most of these are targeted for forest restoration. Some are particularly desirable as open grassland because they enhance visitor hiking experience with the scenic views they provide along the trail system. Some are frequented by elk and other species that use open meadows. Two of the former pastures

are proposed for management as open grasslands for their scenic values and their contributions to habitat diversity. One former pasture in a location less disturbed by human use is proposed to be managed as grassland and early successional habitat desirable to elk for foraging, resting and calving.

Visitor support facilities in managed grasslands are limited to existing hiking trails that cross into the open areas from adjacent forest, and a single picnic table in the grassland called Snaggy Point. Aside from possibly adding one or two more picnic tables, no new facilities are being proposed for these areas.

6. DEVELOPMENT OPPORTUNITY AREAS –

Visitor Experience Opportunity Emphasis
(Beaver Creek Natural Area & Ona Hills)

Most of the opportunities for new development in the park are in the Ona Hills Area, discussed below. Within Beaver Creek NA, there are two small, previously developed sites identified as “development opportunity” areas for future park uses not yet defined. One is a home site currently occupied under life estate provisions established by property purchase agreement, located across the county road from the Welcome Center. Because of its proximity to the Welcome Center, the home site is likely to become a learning extension of the Welcome Center. The other site, located in the southern part of Beaver Creek NA, is currently occupied by a pole barn. This site, and the barn itself, may also become a learning extension of the Welcome Center. Currently the pole barn site as well as the larger south Beaver Creek upland area has no useable vehicular access for visitors.

In the Ona Hills area, sites identified for new recreational development are currently undeveloped, except one small site near the ODOT maintenance area currently occupied by a shooting range. The shooting range will be relocated by its user group, and this site will become available for future park use currently

undefined. Most likely, future use of this site will be associated with park administration to be centered at the office and maintenance facilities currently owned and operated by ODOT.

The currently undeveloped sites in the Ona Hills area chosen as priority sites for new recreation facilities were selected from a larger group of possible sites initially identified based on their relatively low quality or common natural resources, level to gently sloping topography, and size of contiguous developable area. Final selection of sites also took into account the comparative costs of infrastructure development and maintenance and visitor management, considering relative distances from existing infrastructure. Selected sites keep new development reasonably confined and closer to existing development than would be the case using more remote and otherwise suitable areas, while continuing to avoid steep slopes, stream drainages and other important natural resources. Most of the development opportunity area is for campground facilities potentially serving a range of camping preferences and related camper amenities. A lesser portion is for trailhead parking areas serving a range of non-motorized trail uses, and the smallest portion is for facilities that support park administration.

Natural resource management in development opportunity areas will involve forest thinning, removal of diseased and hazard trees and planting understory vegetation as needed, emphasizing enhancement of the recreation settings together with enhancement of forest health.

7. EXISTING FACILITIES –

Visitor Experience Opportunity Emphasis
Ona Beach, Beaver Creek Natural Area &
Ona Hills

Infrastructure supporting current or planned recreational uses exists in all three areas of the park. Existing infrastructure in the Ona Beach

area serves the picnicking and beach related activities that have been in place for many years. The boating access facilities across the highway from the picnic area were originally part of Ona Beach, but are now considered part of Beaver Creek NA and are described in this Plan as the water trail entrance facilities. The larger part of Beaver Creek NA has been open for only three years with infrastructure centered around the Welcome Center. In the Ona Hills area, the existing infrastructure was established by ODOT for their uses, and includes the office and maintenance facilities that will become the administrative center for the park.

In the Ona Beach area, opportunities for the existing facilities include possible minor improvements to the parking that serves the picnic area and beach access, and improvements to the picnic grounds and its trail system. The parking lot needs reconfiguration to improve vehicular circulation and parking efficiency. There may also be opportunities to add landscaped areas at the edges of this lot. In the picnic area, flooding on the picnic grounds and some of the trails occurs frequently. Plans are already underway to remove some frequently flooded trails and restore these sites to wetland habitat.

In Beaver Creek NA at the water trail entrance, the boat ramp and parking may need minor reconfiguration to address conflicts between motorized and non-motorized launching, landing and staging that can sometimes occur during high use periods. This problem can be exacerbated by parking overflow from the Ona Beach parking across the highway.

The Beaver Creek Welcome Center is proposed in this Plan to be renamed the “Beaver Creek Nature Center.” Facility development opportunities here mainly involve interior remodeling of the existing building. The existing garage space now used for storage, and other small rooms currently unused or under

used, offer opportunities to expand program uses. A small, separate storage building could easily be constructed on the site. Parking at the Welcome (Nature) Center could use more definition with wheel stops or pavement with striping. Currently only a portion of the parking lot has spaces designated by wheel stops. As discussed above under “Development Opportunity” areas, there are two other locations in Beaver Creek NA, the pole barn site and nearby home site, which may also be used for learning extensions of the Nature Center in the future.

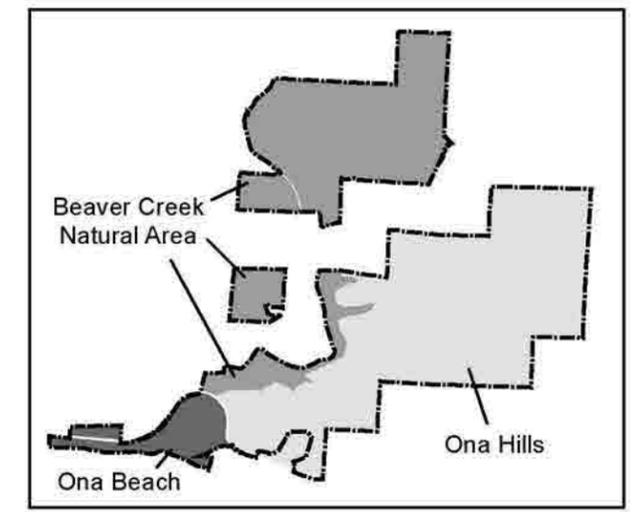
The lower parking lot near the Welcome (Nature) Center currently serves the water trail launch and the existing seasonal trail across the marsh. There is no bathroom near this parking lot, and according to neighbors, sanitation problems have occurred as a result. A self-contained toilet facility should be installed here.

The lower parking lot has only six parking spaces and no room for expansion because of its proximity to the marsh. This is potentially problematic, because in the future this parking site is expected to serve additional visitor use associated with an improved water trail launch, a planned wildlife viewing blind, and a planned north-south trail connection. A logical solution may be to rely on the upper parking lot by the Welcome (Nature) Center to support most of the planned use of these facilities. However, this will require an improved trail connection from the upper lot to these facilities. The most direct connections will involve boardwalk construction where trails cross wetlands at the edge of the estuary. If a universally accessible trail from the upper lot is needed, the existing trail where it connects to the Welcome (Nature) Center grounds will need improvement to meet the required grade for accessibility. Optimally, well developed trails should connect both the upper and lower parking to the launch site, north-south trail and wildlife viewing blind.

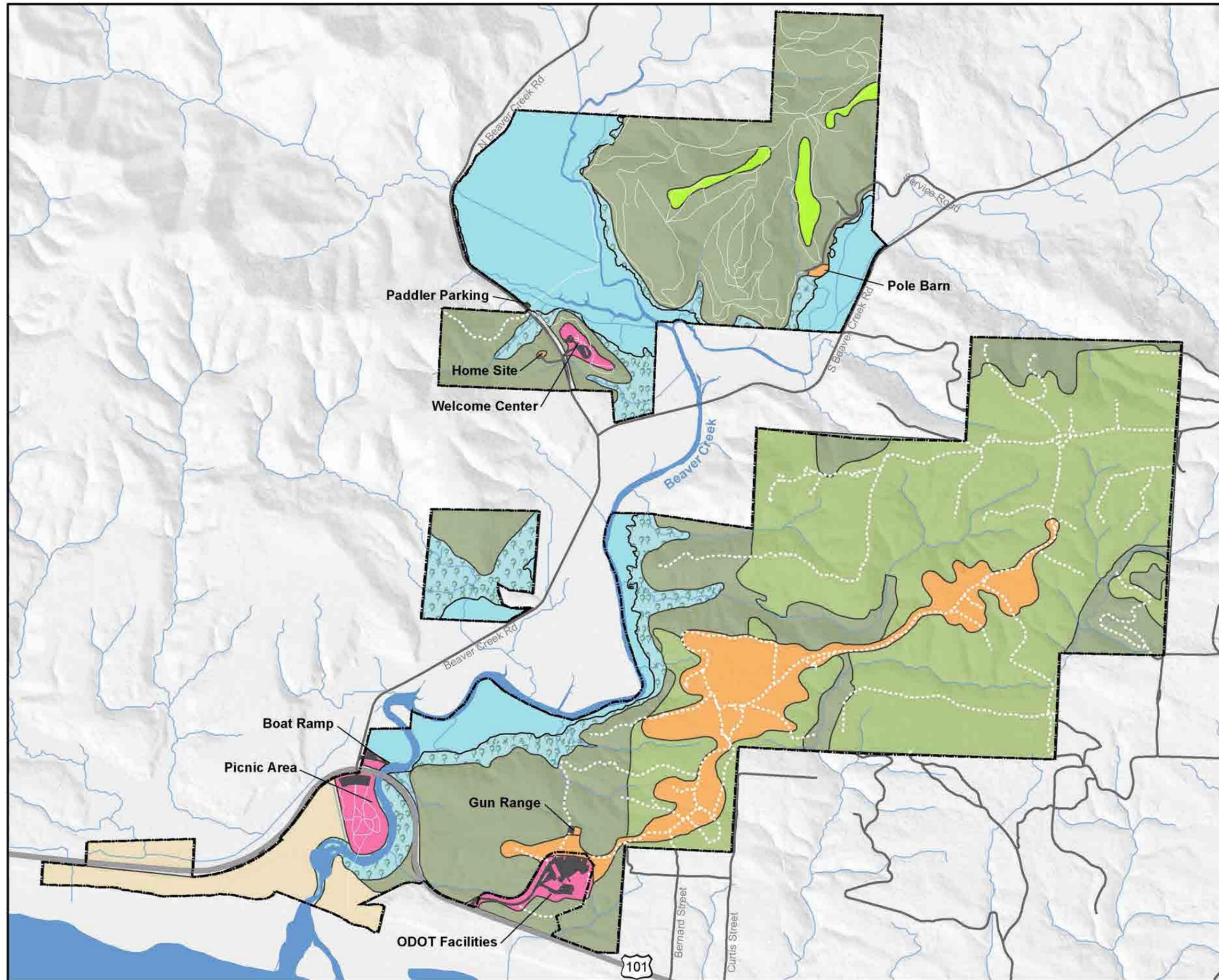
In the Ona Hills area, OPRD has a unique opportunity to eventually acquire ODOT’s existing office and maintenance complex. This complex and its entrance from Highway 101 are situated in the only area where vehicular access to the Ona Hills portion of the park is currently feasible. The existing ODOT entrance is suitable as the future park entrance, and the office and maintenance facilities provide more than ample space to serve the administrative needs of Brian Booth State Park, including visitor registration, and to serve as a new central office for OPRD’s Coastal Region. Some remodeling of the office building’s interior space will be needed. Reconfiguration of the parking will also be needed, along with development of road access through the site and into the park interior where campground and trail access facilities are planned. Substantial landscaping will be needed to enhance the grounds and visually buffer the large maintenance buildings from view along the park visitor access corridor. The maintenance yard is oversized for OPRD’s needs, so downsizing the yard and restoring some paved area to vegetation is also proposed. OPRD and ODOT have established an agreement for OPRD to eventually acquire the complex, and to share the facilities during an interim period.



Figure 7.1
Opportunity Areas
Brian Booth State Park



October 2013



Legend

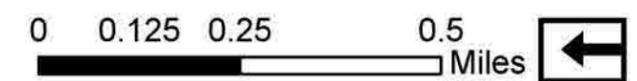
- Park Boundary
- Streams
- Existing Trails
- Logging Roads

Natural Resource Opportunity Emphasis

- 1 - Beach and Dune
- 2 - Estuary and Floodplain
- 3 - Forest
- 4 - Young Plantation Forest
- 5 - Managed Grassland

Visitor Experience Opportunity Emphasis

- 6 - Development Opportunity
- 7 - Existing Facilities





CHAPTER 8: VALUES, GOALS AND STRATEGIES

This chapter outlines the basic Goals and Strategies for the future use and management of the park. Using the “Values Based Approach” to planning discussed in Chapter 5, the Goals and Strategies are formatted around the basic Values associated with the park’s natural and cultural resources, visitor experiences and community connections.

Natural Resources

Value 1: We value the park as a unique and predominantly natural place.

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 health, recreation settings and visitor experience.

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” and the “Wildlife Assessment” for the park.
- > 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 the Mid-Coast Watershed Council, Wetlands Conservancy, Lincoln County Soil and Water Conservation District, ODFW, groups such as Yaquina Birders and Naturalists, and potentially others.

- > Conduct more detailed follow-up assessments where needed to refine development and management plans for particular sites.
- > Continue to study the park's natural resources over time to increase understanding of resource conditions and management needs with support from expert agencies and volunteer citizen science groups.

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 ecological health.
- > Where the emphasis of management is on recreational development or a balance of natural resource conditions and recreation, management practices to support ecological health will be 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 and habitats of particular importance to the life cycles of at-risk species and focal species.

1.4 Habitat connectivity: Designate corridors where suitable contiguous habitat conditions facilitate terrestrial and aquatic wildlife movement through the park.

- > Identified wildlife movement corridors will connect areas identified as the highest priority habitat preservation areas.

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

- > Habitat management will be guided by desired future ecological conditions and the habitat needs of identified focal species.
- > Management for enhancement of three major habitat types will be emphasized: late seral coniferous forests, streams and emergent marshlands, and riparian shrublands and forests.
- > Habitat enhancement priorities will focus first on 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.
- > 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.
- > Areas formerly managed as conifer plantations and other early seral forests in accessible locations will be managed to promote healthy succession by prescribed thinning, removal of diseased trees and under planting of native species as needed. In plantation forest areas set aside for recreational development, forest conditions will be improved for desired recreation settings in combination with improved habitat values.
- > Most of the former pastures will be restored to healthy native forests over time by planting native trees and shrubs and controlling invasive weeds. A few pastures will be retained as open 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.

1.6 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.

- > 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.

1.7 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.
- > Major weed eradication projects will prioritize areas of best ecological condition with highest conservation value.
- > Implement measures to prevent the introduction of invasive aquatic wildlife species at boating access facilities.

1.8 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.

1.9 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.

Cultural Resources

Value 2: We value the cultural history of the park setting, forces that have shaped the landscape and its inhabitants, and features that represent these dynamics.

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.

2.1 Archeological sites: Preserve the integrity of any identified archeological sites 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 interested historians to identify sites and settings that are important in promoting understanding and appreciation of the area's cultural history.

Visitor Experience

Value 3: We value the park landscape and the benefits it brings to those who experience it through recreational, interpretive and educational activities.

Interaction with natural, scenic and cultural settings through involvement in the park's recreational, interpretive and educational activities promotes and revitalizes physical and mental well-being.

Goal 3: Provide and support opportunities for quality visitor experiences in outdoor recreation and interpretive and educational activities that are compatible with, and showcase, the park resources and setting while maintaining a high level of natural resource quality and character.

3.1 Traditional Ona Beach activities: Continue supporting the traditional beach activities and picnicking offered at Ona Beach.

- > Implement improvements to the beach access parking to improve vehicular circulation.
- > Reconfigure the picnic grounds as needed in conjunction with restoration of wetlands in areas subject to frequent flooding.
- > Consider the merits of adding a small shelter to enhance the use of the picnic grounds for groups.

3.2 Camping opportunities: Develop a new campground in the Ona Hills area offering a range of camping styles and amenities and multi-season camping opportunities.

- > Camping by vehicle access will emphasize traditional sites for tents or small RVs or trailers with no site utilities.
- > All-season camping opportunities will be provided in camper cabins or yurts. Explore the merits of adding simple 3-sided tent

shelters that support more off-season camping in some campsite clusters.

- > Provide group gathering shelters for campers.
- > Support equine use with development of a small equine campground. Prior to developing an equine camp, explore the availability of other possible locations in the vicinity that would better serve equine interests with more trail riding or better beach access opportunities.
- > Provide a small hiker biker camp with amenities that meet the needs of those traveling to or along the coast by bike or on foot.
- > Explore the merits and feasibility of providing a small remote Adirondack camp available by reservation. This camp could be useful for teaching outdoor skills among the programs offered at the park.

3.3 Trail opportunities: Expand the park's trail system to include a range of non-motorized trail uses.

- > Develop a highway underpass or overpass trail connecting Ona Beach to Ona Hills. An underpass is the preferred alternative. This trail will serve pedestrians and bicycles. Explore the merits and feasibility of the crossing also serving equestrians.
- > Trails from camping areas toward the highway corridor will only be developed with completion of the highway crossing trail.
- > At Ona Beach, decommission certain trails within and around the picnic grounds that are subject to frequent flooding, and restore these sites to wetland plant communities.
- > In the south Beaver Creek upland area, the density of the existing hiking trails will be reduced by decommissioning some trails.

- > Explore alternatives for construction of a trail connecting the Beaver Creek Nature Center site to the south Beaver Creek uplands, considering alternatives that are feasible and responsible from economic, environmental, engineering, and visitor experience perspectives.
- > Explore the merits of developing a nature trail through the mature forest in the north part of Beaver Creek NA across the county road from the Nature Center after the life estate on this property expires. Consideration will be given to potential effects on sensitive species and measures necessary to prevent unwanted impacts.
- > In the Ona Hills area, develop a trail system that serves a range of uses including pedestrians and hikers, bicycles and horses.
- > The spine of the Ona Hills trail system will be a multi-use trail that extends in a northwest-southeast direction along the higher elevations for the length of Ona Hills. Reaching outward from the spine, the multi-use trail loops will offer the most remote trail experiences in the park.
- > Hiking and bicycling trails will be developed within and around the edges of the central and upper campgrounds.
- > Trail access to the edge of the marsh from Ona Hills will be limited to two hiking trails that descend the hillside from the central campground trail system to the floodplain, each with a short spur trail that will terminate at the marsh edge. Elsewhere along the marsh abutting the Ona Hills slopes, the marsh and floodplain edges will be kept free of trail development.
- > Develop a short interpretive hiking trail loop that begins at the central campground program area designed for use by all age groups.
- > Explore the merits of offering a guided hike into the mature forest directly west of the Ona Hills entrance, considering potential

effects on sensitive species and measures necessary to prevent unwanted impacts.

- > Explore the merits of developing a mountain biking single track trail loop near the southwest edge of Ona Hills, designed in conjunction with major forest restoration needed for this area. As an alternative use of this area, a disc golf course may also be considered.
- > Development of platforms or other structures that enhance viewing opportunities may be considered at key viewpoints along the trail system. A viewpoint lookout tower with trail access from the multi-use trail spine will be considered at the top of a hill near the upper campground. Small viewing blinds for marsh wildlife observation will be considered at a few key locations.

3.4 Trailhead parking areas: Develop trailhead parking at locations that best serve the different types of trail uses.

- > Develop a beach access trailhead parking area near the proposed highway crossing trail with connections to the multi-use trail system. This parking will only be developed with completion of the highway crossing trail.
- > Develop a small central trailhead parking area for hikers and bicyclists along the main park road. This parking will only be developed with completion of the highway crossing trail.
- > Develop a small trailhead parking area for mountain bikers near the proposed mountain bike single track trail loop; or use this trailhead parking to support the proposed alternative disc golf use.
- > Develop a small equine trailhead parking area near the proposed equine camp. This parking will only be developed with completion of the highway crossing trail.

- > Explore alternatives for providing a small trailhead parking area that serves the south Beaver Creek upland trail system.
- > Parking for the proposed trail connecting the Nature Center site with the south Beaver Creek uplands will be managed within existing parking lots at the Nature Center and its nearby lower parking area that serves the kayak launch.

3.5 Trail connectivity: Continue exploring alternatives for establishing an upland trail connection between Ona Hills and Beaver Creek NA, and continue cooperating with outside interests in establishing trail connections to community and regional trail systems.

- > Continue exploring potential land acquisitions or easements that would connect the park properties.
- > Work with Seal Rock Trails Group and other groups interested in trail connections from the park to community and regional trails.
- > Support the Corvallis-to-Sea Trail group in exploring alternatives for connecting this regional trail to the park and its amenities.

3.6 Beaver Creek Water Trail: Continue to support existing uses of the water trail from the existing boating access site by Highway 101 and from the kayak/canoe launch site near the Nature Center.

- > Replace the temporary floating kayak/canoe launch near the Nature Center with a permanent floating launch that is low impact visually and environmentally.
- > Improve trail connections from the Nature Center and lower parking lot to the floating launch site. No additional parking is proposed at the Nature Center or lower parking area.
- > Implement minor improvements at the boat ramp and its parking area to facilitate efficient use and minimize conflicts between users groups.

3.7 Park visitor program support facilities:

Provide facilities to support the park’s interpretive and educational programs.

- > Develop a camp talk amphitheater near the central campground.
- > Develop a junior ranger gathering shelter near the central campground and the camp talk amphitheater.
- > Change the name of the Beaver Creek Welcome Center to “The Beaver Creek Nature Center.” This facility will serve as the base for interpretive and educational programs. Remodel the interior of the Nature Center as needed to support expanded use for interpretive and educational programs and related staff.
- > Consider improving the pole barn site and home site near the Nature Center as extension facilities that support learning activities.
- > In designing group gathering shelters and all-season camping areas, consider the use of these facilities to support groups engaged in park program activities.

3.8 Interpretive and educational programs:

Continue to support and expand the visitor programs offered at the park.

- > Use information provided in the “Interpretive Assessment” completed for the planning process for reference in designing interpretive and educational programs.
- > Use visitor programs to promote understanding of the historic relationships between the natural resource setting and human interventions for subsistence, employment and recreation, and the importance of land stewardship in sustaining the natural resources and protecting important cultural resources.
- > Use visitor programs to teach about the park’s natural resources in the context of natural processes.

- > Use visitor programs to promote understanding and support of OPRD's management actions to protect and restore natural resources.
 - > Use visitor programs to promote understanding of the values of outdoor recreation and interaction with natural settings.
 - > Use visitor programs to promote and facilitate visitor safety in recreation activities.
 - > Use visitor programs to teach outdoor skills that add to visitor enjoyment of outdoor recreation settings.
 - > Offer Junior Ranger programs for youth conducted by OPRD staff or volunteers.
 - > Retain and build on the interpretive, environmental education and outdoor skills programs offered by park staff, volunteers and by outside partners, and pursue additional program partnership opportunities.
- 3.9 Self-guided interpretive opportunities:**
Enhance visitor awareness and appreciation of the park's natural and cultural history, resources and settings with self-guided interpretive trails, displays and signage.
- > Add to the park's self-guided interpretive opportunities with signage and displays at key locations.
 - > Develop short interpretive trails designed to accommodate all ages that enhance environmental learning opportunities.
 - > Use the "Interpretive Assessment" completed for this Plan as a reference in choosing interpretive subject matter and formulating themes and prescriptions.
- 3.10 Vehicular circulation:** Provide for safe, efficient and understandable vehicular access and circulation.
- > Provide clear orientation to the park's multiple points of entry, access roads and facilities with appropriate signage and information provided in brochures and online.
 - > Implement improvements to the Ona Beach parking lot that provide for more efficient traffic circulation.
 - > Explore alternatives for improving circulation and preventing user conflicts at the boat ramp and its parking lot.
 - > At the Beaver Creek Nature Center, define parking spaces in currently undefined parking areas using wheel stops or striping (which may require paving).
 - > Explore alternatives for providing visitor parking for the south Beaver Creek NA upland trail system, considering alternatives that are feasible and responsible from economic, environmental, engineering, and visitor experience perspectives.
 - > Providing vehicular access to Ona Hills from Highway 101 will require implementation of improvements in the highway right-of-way described in the highway access design exception produced by KIA for this Plan and approved by ODOT.
 - > The entrance to Ona Hills will be the existing entrance to the ODOT administrative complex. With acquisition of the ODOT facilities or other agreement with ODOT, this access road will be reconfigured as needed to provide efficient and aesthetically pleasing visitor access to and through the park registration office and administrative complex and on to planned day use and overnight facilities. The parking and circulation within the complex will be reconfigured to accommodate express check-in and walk-in registration and visitor contact.
 - > The main road through Ona Hills will provide visitor vehicle access as far as the extent of drive-in campsites, where it

will be gated at a turnaround. This road beyond the campground to the southeast end of Ona Hills will be used for park maintenance access.

- > Where consistent with the park concept designs presented in this Plan, the Ona Hills access roads and parking will be developed using existing primitive road alignments. Where consistent with the planned trail system in this Plan, trails will be developed along existing primitive road alignments not used for road or parking development.
- > Park roads and parking will be developed only to minimum standards necessary for their planned level of use.

3.11 Park administration: Support safe and enjoyable visitor experiences and efficient park management through well-designed and appropriately located park administrative facilities, well-managed administrative programs, sufficient levels of staffing and volunteers and cooperation with the area's providers of necessary support services.

- > With property acquisition or other agreement with ODOT, the existing office and maintenance facilities in Ona Hills will become the park administrative area where park registration, pre-registration check-in and other visitor contact, and most other park operations and maintenance will be centered. This office will also serve as the central office for the OPRD Coast Region. The registration and visitor contact area of the complex will be staffed during normal walk-in registration hours.
- > The Beaver Creek Nature Center will serve as a base for the park's interpretive and educational programs. The visitor contact area in this facility will be staffed during normal business hours.

- > Year-round and seasonal staffing levels for the park, including volunteer hosts, 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.
- > Develop and maintain a landing pad for helicopters.
- > Maintain close coordination with state and local law enforcement agencies.

Community

Value 4: We value how the park helps strengthen the local community through its contributions to public health, livability and the local economy, and how community relations also benefit the park and its visitors.

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 4: Create opportunities for community involvement with park programs.

- > Build on existing partnerships and establish new partnerships for providing natural and cultural resource interpretive, educational and outdoor learning programs at the park.
- > Expand 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.
- > Continue supporting programs that use the park as an environmental learning laboratory for schools.





CHAPTER 9: PARKWIDE MANAGEMENT STRATEGIES

This chapter provides an overview of key strategies for managing the park resources and providing for visitor experiences consistent with the Values and Goals outlined in the previous chapter. While strategies for meeting the park Goals are presented in abbreviated form in the previous chapter, this chapter expands on key strategies that need more explanation describing intent. In the chapter that follows (Chapter 10), more details are provided on specific visitor support facilities and resource management actions that further describe how the park will be managed.

Park Identity

In 2013 the Oregon Parks and Recreation Commission combined Ona Beach State Park and Beaver Creek State Natural Area, together with additional property acquisitions, into a single state park that honors the memory of Brian Booth, the late first Chair of the Commission. (Read about Brian Booth and his contributions to the state park system at the front of this Plan.)

In naming the new park, the OPRD Commission and Director recognized a public interest, especially among local citizens, in retaining

the former identities of the two original parks. The place known as Ona Beach is not only long standing in the state parks system, it is also an important part of the local community's identity, and the name "Ona" itself has meaning in the local history. (See discussion in Chapter 3 under "Cultural Resources.") Beaver Creek Natural Area, although part of the state park system only since 2010, is also part of the local identity by its reference to Beaver Creek, the geographic feature that ties the park properties together. This name also has long standing in the local history. The beach and estuary are two outstanding features that make the park what it is. More recently, the park property has doubled in size with the addition of property that had no meaningful identity. There are now three distinct areas of the park defined by natural and cultural geographic features and separate points of vehicular access. Although these geographic boundaries do not correspond perfectly with original property boundaries, the two traditional names "Ona Beach" and "Beaver Creek" continue to be the best fit for the two areas of the park they represent. The third area, also well defined by the geography, will be known as "Ona Hills."

- *Ona Beach* is the area of the park west of Highway 101, plus a small unused property at the far north end of the park that borders the east side of the highway.
- *Beaver Creek Natural Area* is the park area north of Beaver Creek Road and northeast of South Beaver Creek Road, and area within the Beaver Creek marshland and floodplain east of Highway 101. (The boat ramp is now part of Beaver Creek Natural Area and is recognized as the entrance to the Beaver Creek Water Trail.)
- *Ona Hills* is the area southwest of the Beaver Creek marsh and floodplain and east of Highway 101.

Chester Armstrong Campground

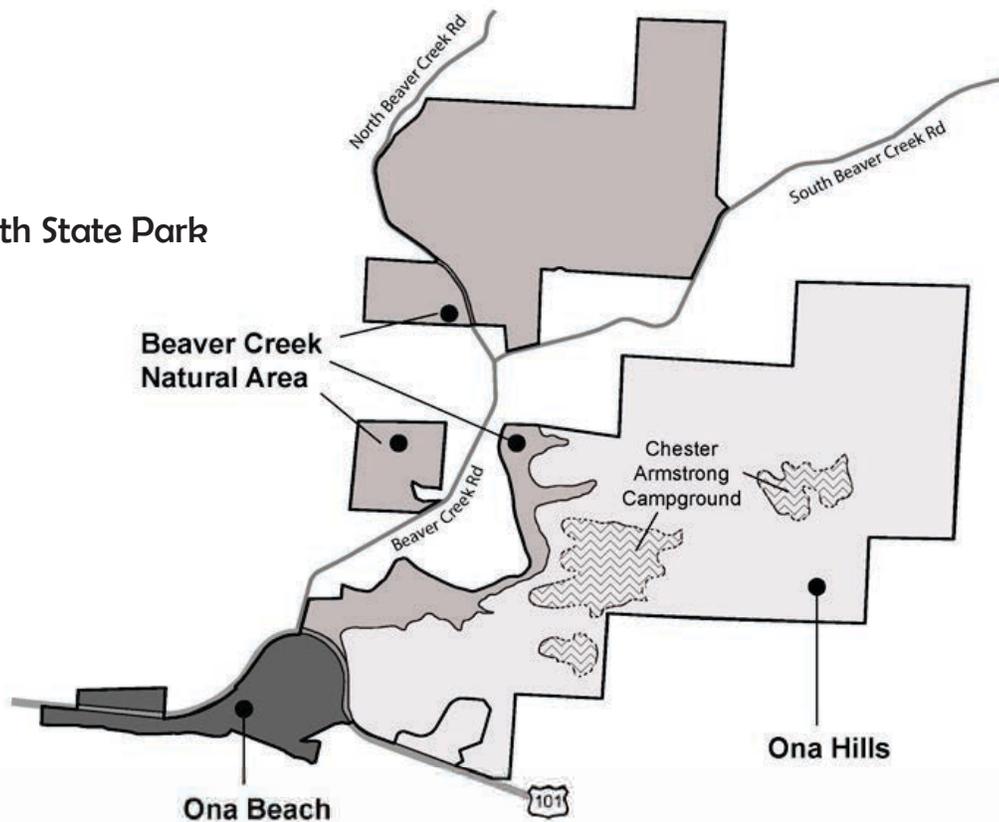
The adoption of this Plan for Brian Booth State Park will also honor the memory of a second renowned figure from OPRD’s history. The campground planned for the Ona Hills area will be named after Chester Armstrong, the late superintendent of state parks who

first introduced camping into the state park system. (Read about Chester Armstrong and his contributions to state parks at the front of this Plan.)

Opportunities to Grow

OPRD continues to explore opportunities to expand the park boundaries by acquiring neighboring properties from willing sellers. These interests include both uplands and bottomland marsh and floodplain. There are multiple objectives for acquiring additional land. One is to expand and connect more of the upland and wetland habitats under park ownership. Another is to connect the currently noncontiguous park properties for more efficient and effective land management. A third objective is to connect the park properties with an uninterrupted trail system. And fourth, OPRD is exploring alternatives for providing better visitor access to the Beaver Creek NA upland trail system in a location where development of a small trailhead parking area is feasible.

Brian Booth State Park



Respecting the Neighbors

In locating, designing and managing park uses and facilities, OPRD strives to be aware of potential affects from the park on neighboring land uses and seeks ways to prevent significant impacts on these properties, and also to prevent impacts from the neighboring uses on the park. In a coastal setting such as this park, naturally vegetated or topographic buffers along the park boundaries most often serve this purpose. It is not always feasible to provide buffers as wide as might be desired by neighbors or OPRD. Where potential problems exist, OPRD makes every effort to work with the neighbors to identify and implement workable solutions. In addition to providing physical barriers where needed, potential problems are also addressed in the way the park uses are managed, which includes visitor management under defined park rules.

Management Emphasis - Fitting the Park to the Setting

A first step in formulating strategies for managing the park is to define, geographically, the primary management emphasis for different areas of the park. Fundamentally this means geographically defining those areas where the management emphasis will be on the protection and enhancement of natural resource values, and defining those areas where a management emphasis on recreation support facilities fits within the larger natural resource context.

The process of defining management emphasis begins with the resource assessments summarized in Chapter 3, which lead to a geographic depiction of natural resource values based on botanical, wetland and wildlife resources and their conditions and relative conservation importance. (See the Composite Natural Resource Values map, Figure 3.4 in

Chapter 3.) Following this, the natural resource values, together with other factors such as topographic constraints, existing infrastructure and management considerations, are factored into the identification of “opportunity areas” for natural resource management and recreation support facilities. (See the Opportunity Areas map, Figure 7.1 in Chapter 7.)

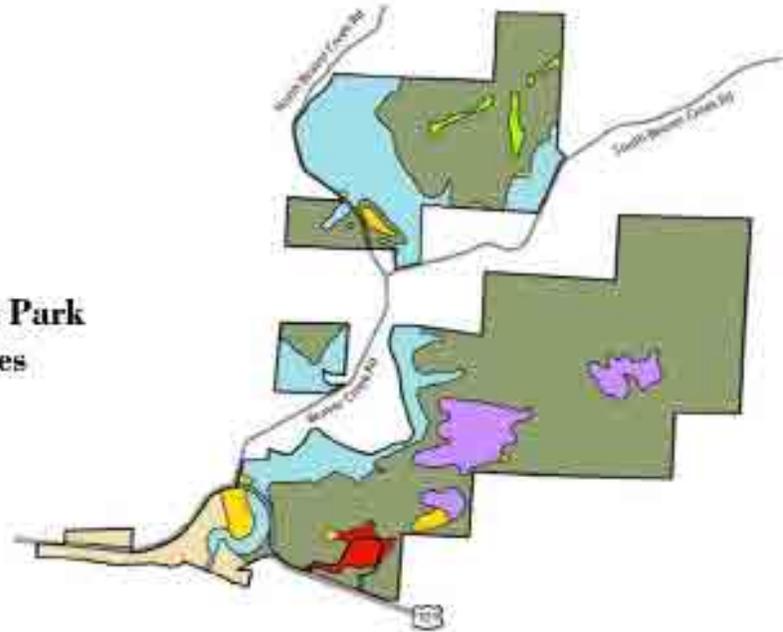
Management Zones – Further Defining Management Intent

The identification of “management zones” based on opportunity areas takes the park planning process to the next level. Management zones provide a framework for further definition of the intended uses and management of opportunity areas. Management zones with natural resource management emphasis are defined by the boundaries of four types of landscape features present in the park: *the beach and dune, estuary and floodplain, forested hills, and managed grasslands*. Management zones with recreation emphasis are based on three basic types of recreation support facilities: *campground facilities, day use facilities, and park administration facilities*.

The Management Zones framework has limits in its ability to categorize management actions. While this framework is useful for illustrating management emphasis – natural resource emphasis versus recreational development emphasis – by landscape type and recreation facility type, it cannot cleanly categorize by zone all proposed management actions for either natural resource or recreation management. Some management actions and projects for both natural resources and recreational uses cross management zone boundaries, between different zones with the same emphasis and between natural resource and recreation emphasis zones.

The table below summarizes management intentions for each Management Zone by park area. The Management Zones map that follows in the next chapter (Figure 10.1) illustrates how Management Zones overlay the General Plan for the park.

Brian Booth State Park Management Zones



Management Zones	Park Areas		
	Ona Beach – 83 acres	Beaver Creek NA – 482 acres	Ona Hills – 730 acres
Natural Resource Management Emphasis			
Beach & Dune Total Acreage: 54	<ul style="list-style-type: none"> At-risk dunal plant management Invasive plant control 	NA	NA
Estuary & Floodplain Total Acreage: 231 Ona Beach: 10 acres Beaver Creek NA: 221 acres	<ul style="list-style-type: none"> Priority habitat protection Invasive plant control 	<ul style="list-style-type: none"> Priority habitat protection Invasive plant control Priority hydrologic improvements North-south trail connection Paddler launch Wildlife viewing blinds 	NA
Forested Hills Total Acreage: 874 Ona Beach: 3 acres Beaver Creek NA: 232 acres Ona Hills: 639 acres	<ul style="list-style-type: none"> Priority habitat protection Beach access trail 	<ul style="list-style-type: none"> Priority habitat protection Forest succession & diversity management Trail density reduction 	<ul style="list-style-type: none"> Priority habitat protection Forest succession & diversity management Park facility access roads Trails, non-motorized
Grassland Total Acreage: 11	NA	<ul style="list-style-type: none"> Priority habitat protection Priority grassland management 	NA
Recreation Management Emphasis			
Park Administration Total Acreage: 16	NA	NA	<ul style="list-style-type: none"> Conversion of ODOT administrative area to park administrative area
Day Use Access Total Acreage: 23 Ona Beach: 11 acres Beaver Creek NA: 6 acres Ona Hills: 6 acres	<ul style="list-style-type: none"> Beach entrance & picnic area enhancement 	<ul style="list-style-type: none"> Boating access enhancement Learning facilities 	<ul style="list-style-type: none"> Trailheads for a range of non-motorized trail uses
Campground Total Acreage: 69	NA	NA	<ul style="list-style-type: none"> Campground facilities for a range of preferences

Natural Resource Management

This Plan describes natural resource management mostly in general terms and categories for purposes of describing intent and providing guidance at a general planning level. Designing management actions at a project level, such as detailing project prescriptions, is not a purpose of this Plan. However, management actions will be consistent with the management intentions and general project descriptions expressed in this Plan, which are based on recommendations from the botanical and wildlife resource assessments prepared for the Plan. Management actions include actions to preserve natural resources and actions to enhance them through intervention.

Watershed Management Context

Brian Booth State Park is mostly within the Beaver Creek Watershed, in its lower reach. The entire watershed has a total area of roughly 32,500 acres. Reportedly between 35 and 40 percent of the Beaver Creek Watershed is currently managed for natural resource conservation under the management direction of public and non-profit land ownerships and programs, which includes about 11,000 acres of late successional forest managed by the Siuslaw National Forest in the upper watershed.

The park is part of a multi-partner management project known as the Beaver Creek Partnership, the area of which includes the lower watershed to the upstream extent of tidal influence and the uplands that drain to this reach. The Partnership Area is characterized by a series of estuarine, tidal and non-tidal wetlands and adjacent upland forest habitats. Most of the Partnership Area is privately owned. Partners in this project include OPRD, the Wetlands Conservancy, the Mid-Coast Watershed Council and the Lincoln County

Soil and Water Conservation District (SWCD). The SWCD works with the private owners on projects that support conservation objectives, work which includes the mid-section of the watershed. Through the coordinated efforts, ecological linkages are being strengthened from the upper to lower reach. The Partnership Area also provides ecological connections that support a three-watershed biodiversity and conservation plan linking the Yaquina River estuary and watershed to the north and the Alsea River estuary and watershed to the south. These areas have been identified as priority areas in the Coast Range Eco-region in Oregon's Conservation Strategy (2006).

Natural Resource Management in the Park

Of the park's total 1278 acres, about 990 acres, or 77%, drain to Beaver Creek while most of the remaining park acreage drains to the ocean by Deer Creek. About 108 acres or 8% of the total park acreage is planned for park facility development and the remainder is planned for ecosystem health maintenance or enhancement. Likewise, in the Beaver Creek Watershed portion of the park, about 75 acres or 8% are intended for park facilities versus 92% intended for management of ecosystem health. All of the park's largely intact marshland and adjacent floodplain, and 90% of the upland forest environment (grasslands included), as well as all of the open beach and dune area, will be managed for ecological values.

Within most of the visitor support facility development areas, natural resource management will play a key role in the protection and enhancement of recreation settings. Outside of development areas, the types and levels of natural resource management will reflect the results of three types of analyses used in formulating this Plan:

- *Composite Natural Resource Values:* Figure 3.4 in Chapter 3 illustrates areas of the park with existing high value natural resources based on botanical, wetland and wildlife values, and areas currently protected under special management designation. These are represented as Composite Values 1 and 2. These values represent the first step in deciding areas to be managed with a natural resource emphasis.
- *Opportunity Areas and Management Zones:* Figures 7.1 and 10.1 illustrate the progressive analysis leading to selection of areas to be managed with natural resource versus recreation emphasis. Areas selected for management with natural resource emphasis include most of the lower quality natural resource areas, identified as Composite Natural Resource Value 3, in addition to the higher value areas, Values 1 and 2. (See Figure 3.4 in Chapter 3.) The Composite Value 3 areas are among the proposed natural resource enhancement project areas discussed below and illustrated by Figure 9.3.
- *Priority Habitat Preservation Areas:* The wildlife assessment prepared for this Plan and summarized in Chapter 3 included identification of areas of highest value to wildlife, and recommended that these areas be recognized in this Plan as the highest priorities for preservation. These are discussed in the next section.

Priority Habitat Preservation Areas

Five types of priority habitats emerged from the wildlife assessment prepared for this Plan, which are recommended for special protection beyond other management protections represented by Composite Natural Resource Values (Figure 3.4) and management emphasis associated with Management Zones (Figure 10.1). These priority habitats are illustrated by Figure 9.2. Each identified priority habitat

and its conditions are important to a range of wildlife species as summarized in the legend of Figure 9.2 in this chapter, and in Chapter 3. For simple identification, they are called Deer Valley, Elk Meadow, Rana Range, Late Seral Forest and Beaver Creek Marsh. The latter of these is already protected by special designation covering most of its area in the park. In addition, as illustrated by Figure 9.2, the wildlife assessment also identified priority wildlife movement corridors, terrestrial and aquatic corridors, connecting high priority habitats. Methods used in identifying these resource areas included consideration of types of species and habitat conditions, extent of trail development and anticipated levels of human disturbance based on proximity to recreational activity.

Habitat Enhancement Projects

The habitat enhancement projects proposed by this Plan are wide ranging. They include forest management projects that will thin overstocked areas and remove disease and invasive weeds, promote botanical and habitat diversity and accelerate forest succession,



and improve settings desired by wildlife and humans. Projects for stream and wetland habitats are focused on invasive weed control and enhancing wetland botanical communities, improving habitat structure, restoring natural hydrology where beneficial, and continuing to study the use of the stream system by aquatic species. Weed control projects are proposed in identified problem areas within all of the habitat types. A few former pastures in the Beaver Creek NA uplands are proposed for continued management as open grassland and early successional habitat for their contributions to habitat diversity and the scenic views they offer. Management of two at-risk plant species is proposed in isolated areas. Some of these proposed management actions cross boundaries between natural resource emphasis areas and recreation emphasis areas. The project areas are illustrated below by Figure 9.3 in this chapter.

Riparian Areas and Streams

In addition to the stream and wetland enhancement projects identified on Figure 9.3, riparian and stream habitats in general will be managed using professionally accepted management practices to protect habitat, water quality and floodwater detention functions. Removal of mature native trees, snags, and shrubs from viable riparian habitats will occur only as prescribed for purposes related to visitor safety or forest health. Snags and fallen trees will be left in place to benefit riparian and aquatic habitat, except as may be needed to remove obstructions or address safety concerns. New upland trails will be located outside of riparian areas except at crossings, the design of which will not impede passage of any aquatic or other species that may use these habitats. If visitors stray from designated trails causing stream bank erosion or degradation of habitat, measures to restrict access will be implemented. Redesigning and replacing culverts that impede fish passage will be a priority.

Development Proximity to Beaver Creek Marsh

The General Plan (Figure 9.5) illustrates the locations of planned visitor support facilities. Except for certain trails and trail structures identified in this Plan, sites where new visitor support facilities will be developed are buffered from the marsh by substantial distance, topography and dense forest vegetation. Planned facilities that are nearest to the marsh are at the north edge of the central campground. At its narrowest point, the forested buffer between the campground and marsh is about 340 horizontal feet and 130 vertical feet.

Figure 9.4 illustrates distance and elevation profiles for three sites near the marsh, two of which are at the north edge of the central campground, at the cabin area and walk-in tent site area. The third site is one of the two Ona Hills locations where a hiking trail will reach to the marsh.

Scenic Resources

The park has a wealth of scenic resources. Multiple scenic landscapes - the beach with its ocean views, the open expanses of marsh along the Beaver Creek channel, the steep hills covered with mixed forests, and the open meadows – all provide opportunities for viewpoints, view corridors and scenic settings highly valued by park visitors. The “Scenic Assessment” illustration (Figure 3.3) in Chapter 3 illustrates scenic corridors and opportunities for scenic viewpoints and screened views. Figure 3.3 also illustrates landscape settings associated with current conditions, including the various stages of forest succession.

View corridors: The most prominent view corridors at the park are the beach, Beaver Creek and the county road.

- Ona Beach: In addition to views of the ocean and the coastline to the north and south, the trail from the picnic area to the beach opens up to views of Beaver Creek flowing to the ocean where visitors approach and cross the pedestrian bridge over the creek channel.
- Beaver Creek Water Trail: A boat trip on the Water Trail gives visitors the close-up scenic experience of the marshland environment.
- Beaver Creek Road: Travelers along the county road enjoy views of the marshlands and forested hills along most of the distance where the road corridor passes by and through the park.

Key viewpoints: Seven key viewpoints are identified on the “General Plan” (Figure 9.5).

- Beaver Creek Nature Center: From the Nature Center visitors see the most accessible view looking over the marsh and the forested hills of Beaver Creek Natural Area.
- Two viewpoints at the marsh edge in Beaver Creek NA are being considered for wildlife viewing structures. A site near the floating water trail launch, accessible from the lower parking area, would offer an overview of the marsh habitat from an elevated structure where visitors may see flocks of migratory birds. At the other site across the marsh and next to the Beaver Creek channel, a viewing blind would offer closer viewing of many bird species that frequent this part of the marsh.
- Snaggy Point: Those who hike the trails of the south Beaver Creek hills can see a view of the Ona Hills, Beaver Creek marshlands and the ocean from an open meadow at the highest point in the park.
- Cougar Ridge: Also at a high point in the south Beaver Creek hills, this viewpoint gives hikers screened views of the surrounding

landscape looking north, south and west.

- At the north end of Ona Hills, the multi-use trail will lead to an eastward view overlooking Beaver Creek from the hill across the creek from the boat ramp.
- Also in the Ona Hills, a proposed viewpoint lookout tower with multi-use trail access is being considered at the top of a hill near the Upper Campground that could provide a 360 degree view depending of the height of the tower. OPRD may consider adding one or two similar viewpoint structures at other, currently unidentified locations along the trail system.

Meadow views: Trails through the forested south Beaver Creek hills open up to meadow views where the trails follow the edges of the former pastures. Three of the former pastures along the trail system will be retained for their scenic values and for their contributions to habitat diversity. These are represented as “managed grasslands” on the “Management Zones” map (Figure 10-1). Snaggy Point, one of the key viewpoints discussed above, is located in one of these meadows.

Screened view opportunities: At a number of locations in Ona Hills and Beaver Creek NA, there may be opportunities to create and maintain narrow views of the marshlands and distant hills through the forest or shrub cover by careful pruning of trees and shrubs. The Scenic Assessment map (Figure 3.3) in Chapter 3 illustrates areas where screened view opportunities most likely occur along existing or planned trail corridors.

Scenic settings: While the ocean beach and marshlands are generally regarded as the most highly valued settings associated with the park, the forest settings are currently more variable in scenic qualities. The older forests with well-developed understories, the mixed mid-age forests with multi-layered canopies and the patches dominated by alders, all add

to the scenic diversity of the forested hills and floodplain. In time, areas more recently logged and replanted will improve in their scenic values together with their habitat values with appropriate management and forest succession.

Visitor experience settings: Natural resource interventions for improvement of ecological values are also important for creating desirable settings for visitor experience. Visitors enjoy camping, picnicking, hiking, biking, and other activities where the surroundings offer the beauty and tranquility of nature. In areas where visitor use is emphasized, management of the natural resource values must necessarily be balanced with management for visitor uses, and the facilities supporting visitors uses must be carefully placed and designed to avoid unwanted impacts on the settings.

To optimize visitor experience, the built environment will be carefully blended with the natural settings through appropriate location, scale, architectural design, materials, colors and natural landscaping. Forest management in these areas will begin with prescriptions that promote healthy succession, followed by siting of visitor support facilities. Siting of facilities will avoid unnecessary removal of older, healthy, native trees and shrubs. Understory plantings to promote habitat diversity and enhance settings will be strategically located around visitor facilities as appropriate for desired visual quality and privacy screening.

Cultural Resource Management

The park has no known significant cultural resources eligible for the National Register of Historic Places. There are also no known archaeological sites.

Although no significant archeological sites have been identified, 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 groundbreaking followed by monitoring during construction, or in certain cases, subsurface testing prior to ground breaking followed by monitoring during construction.

Visitor Experiences

Visitor experiences offered at the park will grow substantially with planned development of support facilities and visitor programs, and with enhancement of the natural settings which, in turn, enhance the visitor facility settings. This Plan represents the future of the park including the experiences it will bring to its many visitors. The following summary represents what visitors should expect in visiting the park after the ecological communities have evolved and flourish with help from restoration efforts, and visitor support facilities and programs are in place.

Visitors seeking overnight stays at the park will find a variety of campsite types available in the Ona Hills, ranging from traditional tent camping to "lite" camping in camper cabins available year-round. Those who appreciate camping in tents or small RVs or trailers with basic campsite amenities will likely seek out this park, for the variety of park activities, the contrast from more densely developed parks, and the proximity to the many attractions within a half hour drive. Camping families may hike or bike the easy access loop trails, socialize while watching the toddlers in the play area, watch the kids become Junior Rangers, and just sit around the fire in a simple campsite in a nicely wooded setting. The evening program at the camp talk amphitheater is a short distance away from camp. A trip to the beach from the campground may be a half hour walk or 10 minute bike trip along a forest trail, or a

5 minute drive. Camping groups will have the option of using sheltered gathering space. The few visitors travelling the coast by bike or on foot will find campground amenities for their needs a short distance off the coast route. Equestrians seeking forest trail riding may camp near the trailhead in a small campground only a short distance from ocean beach riding opportunities. Off-season campers will have simple, warm and dry sleeping accommodations in the cabins.

The park's daytime activities will be as diverse as the park landscape, and to experience a range of activities will take multiple days. A day at Ona Beach will be much like it was in the past with opportunities to picnic, explore the beach and tide pools, build a beach fire and play with the kids and the dog.

Ona Hills will attract visitors looking for short or day-long forest trail experiences, whether on foot, by bike or by horse. Short trail spurs will take visitors to the marsh edge or a marsh view from the hillside. Campers may access the Ona Hills trails directly from campsites, and day visitors will have conveniently placed trailhead parking. A short distance away, the hiking trails of the south Beaver Creek hills will take visitors through mixed deciduous and conifer forests, along the edges of the Beaver Creek marsh and open grasslands, and to a hilltop view of the ocean.

If the timing is right, seeing wildlife may be a highlight of the trail experience. Elk are often seen in large numbers, black bear sightings are far less common, the elusive cougar is rarely seen, while seeing smaller mammals and amphibians is common. For the birders, the park offers chances to see a multitude of species in the biologically rich marsh and floodplain environment. Many visitors will seek out a close up marsh experience walking a boardwalk trail that may cross or skirt the edge of marsh habitat along Beaver Creek.

The Beaver Creek Water Trail offers visitors a longer, tranquil, and more exclusive marsh experience with chances of seeing beavers and otters and well as the many bird species including raptors and herons. The slow moving Beaver Creek channel, accessible at both ends of its reach through the park, allows paddling upstream or downstream in kayaks or canoes, or a peaceful sport fishing trip.

The learning opportunities in the park will be many. Visitors will stop by the Beaver Creek Nature Center to look out over the marsh and upland landscapes, look through a scope for wildlife in the distance, view the interpretive displays, watch an educational video or chat with a knowledgeable park ranger or volunteer. Self-guided interpretive experiences will be offered along certain trails and other places of interest highlighted by interpretive signs. Scheduled educational opportunities will be available to those interested in guided hikes or kayak trips, birding excursions, or outdoor classes on basic outdoor skills. The park will be an outdoor classroom for partner organizations teaching various aspects of environmental education. Cabins and group shelters in the campgrounds will accommodate groups involved in multi-day learning experiences. Organized groups may also pre-arrange day long or multi-day gatherings at either of two extension facilities in Beaver Creek NA.

Figure 9.5 at the end of this chapter represents the parkwide General Plan for Visitor Experience Support Facilities. The next chapter (Chapter 10) provides a detailed list of the existing and proposed facilities by management zone describing projects for new or enhanced facilities in each zone. Enlarged illustrations of the facility development areas accompany Chapter 10's facility descriptions.

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

Visitor Experiences Planned or Existing	Status	Visitor Support Facilities Planned or Existing
<i>Day Use Recreation</i>		
Beach activities	Maintain	Beach access parking & trails
Picnicking	Maintain	Picnic grounds & facilities
Boating, motorized	Maintain	Boat ramp & parking
Kayaking / canoeing	Maintain	Boat ramp, kayak launch, & parking
Fishing	Maintain	Boat ramp, kayak launch, & parking
Wildlife watching	Enhance	Trail system, viewing blinds
Orienteering	Enhance	Trail system
Trail hiking, walking, running	Enhance	Hike trails, hike/bike trails, multi-use trails
Bicycling	Enhance	Hike & bike trails
Equine trail riding	Enhance	Multi-use trails
Mountain bike trail riding	Enhance	Mountain bike trail, multi-use trails
Disc golf (alternative)	Enhance	Disc golf course (alt. to mountain bike trail)
<i>Overnight Recreation</i>		
Tent camping	Enhance	Central & Upper Campground campsites
RV/trailer camping, small	Enhance	Central & Upper Campground campsites
Cabin camping	Enhance	Central & Upper Campground cabins
Hiker biker camping	Enhance	Hiker biker camp
Equine camping	Enhance	Equine Campground campsites
Remote primitive camping	Enhance	Adirondack camp
Group camping	Enhance	Multi-campsite/cabin rentals, group shelters
<i>Park Resource Interpretation</i>		
Self-guided natural & cultural interp. sites	Enhance	Interpretive signs, Nature Center
Self-guided nature trails	Enhance	Interpretive nature trails
Ranger or volunteer-guided interp. hikes	Enhance	Trail system
Roving interp. by park rangers or volunteers	Enhance	
Natural /cultural interp. programs	Enhance	Program amphitheater, Nature Center
<i>Environmental Learning & Outdoor Skills Programs</i>		
Junior Ranger Program	Enhance	Junior Ranger yurt, program amphitheater
Natural history programs	Enhance	Program amphitheater, Nature Center
Cultural history programs	Enhance	Program amphitheater, Nature Center
Botanical & wildlife learning programs	Enhance	Program amphitheater, Nature Center, trail system
Stewardship learning programs	Enhance	Program amphitheater, Nature Center
Participation in birding surveys	Enhance	Bird blinds, trail system
Safety programs	Enhance	Program amphitheater
Guided kayak tours led by community partners	Maintain	Water Trail launch sites & parking
Camping skills taught by rangers or community partners	Enhance	Program amphitheater, campsites
Wilderness skills taught by rangers or community partners	Enhance	Trail system, Adirondack camp
Multi-day classes taught by community partners	Enhance	Cabins & group shelters, learning extension facilities

Visitor Capacities

The tables below quantify maximum peak day occupancy by day use and overnight 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. For overnight visitors, the numbers are based on maximum buildout of camping facilities and assumed average numbers of visitors per campsite. Facilities available only for pre-arranged group use are not included in the estimates.

DAY USE VISITOR CAPACITIES

Facilities	# Parking Spaces	Assumed Ave. Stay	Assumed Ave. # Persons / Vehicle	Max. Peak Day Occupancy (max. # people at one time)
<i>ONA BEACH</i>				
Beach Entrance & picnic Area	85	3.3 hours	3.5	297
Ona Beach Totals	85			297
<i>BEAVER CREEK NA</i>				
Water Trail Entrance (boat ramp)	9	3.0 hours	2.7	24
Paddler launch trailhead	6	3.0 hours	2.5	15
Nature Center	22	45 min.	2.8	61
S. Beaver Creek trailhead (site not identified)	12	3.0 hours	3.2	38
2 Beaver Creek learning extension facilities	Pre-arranged			
Beaver Creek NA Totals	49			138
<i>ONA HILLS</i>				
Beach Access Trailhead	26	3.5 hours	3.5	91
Central Trailhead	15	3 hours	3.2	48
Equine Trailhead	8	3.5 hours	2.4	19
Mountain Biker Trailhead	12	3 hours	2.2	26
Ona Hills Totals	61			184
Grand Totals	195			619

OVERNIGHT VISITOR CAPACITIES (*Ona Hills only*)

Facilities	# Campsites	Assumed Ave. Stay	Assumed Ave. # Persons / Site	Max. Peak Overnight Occupancy (max. # people at one time)
Equine Camp	12	2 nights	2.4	28
Central Campground – Drive-in Camp Loop	50	3 nights	3.1	155
Central Campground – Walk-in Cabins	14	3 nights	3.5	49
Central Campground – Walk-in Tent Sites	22	3 nights	3.1	68
Central Campground – Hiker Biker camp	10	1 night	1.0	10
Upper Campground – Drive-in Cabins	22	3 nights	3.5	77
Upper Campground – Drive-in Campsites	10	3 nights	3.1	31
Upper Campground – Walk-in Cabins	9	3 nights	3.5	31
Upper campground – Walk-in Campsites	10	3 nights	3.1	31
Adirondack Camp	5	2 nights	1.0	5
Grand Totals	164			485

Camping Opportunities

Camping facilities proposed for the Ona Hills area will include a wide range of styles, including camping by vehicle in traditional low amenity drive-in campsites or short-distance walk-in tent sites, all-season camping in cabins with electricity, equestrian camping, hiker biker camping and remote hike-in (Adirondack) camping. Except at the Adirondack camp, campers will have easy trail access to central restrooms with showers.

Because of highway safety concerns, campsites will not be designed for large RVs in order to minimize the number of large vehicles turning on and off the highway. RV utility hookups will not be provided to campsites, except at campground host sites and possibly at a few sites designed for disabled campers.

Trail System

The General Plan for the park, Figure 9.5, illustrates the planned trail system by type of trail use. Below, the planned trail system is discussed by the park's three areas.

Ona Beach Trails: The trails at Ona Beach consist of a network of walkways from the parking lot connecting through the picnic area grounds and to a pedestrian trail bridge that crosses the Beaver Creek channel to the beach. Removal of some walkways is planned because they are subject to frequent flooding, mostly along the northern portion of the grounds. Certain trails will be removed and these areas restored with planting of wetland vegetation. This project is currently underway in its planning, approval and funding phase. (HUB project # 30514.)

Beach Access Highway Crossing: The most significant trail project involving Ona Beach is the proposed Highway 101 trail crossing, the purpose of which is to provide safe trail access between Ona Hills and Ona Beach. Three possible crossing locations were identified

and evaluated with the help of engineering consultants from KPFF. Two of these involve construction of a trail bridge overpass. The other involves a tunnel underpass, which is the preferred alternative. The consultant's report initially included consideration of a signaled at-grade crossing at the intersection of Beaver Creek Road and the highway, but this alternative was soon rejected based on input from ODOT. The possible bridge and tunnel alternatives are illustrated in detail in KPFF's background report. Figure 10.2 in Chapter 10 shows the general location of each crossing alternative, but only shows the proposed connecting trails for the preferred tunnel alternative. The merits and related costs of designing the crossing to accommodate horses as well as pedestrians and bicycles are under consideration.

Beaver Creek NA Upland Trails: Most of the upland hiking trails planned for Beaver Creek NA are existing trails in the south Beaver Creek hills. Some of these will be decommissioned to reduce trail density. As discussed below under "Vehicular Access and Circulation," OPRD is exploring alternatives for providing a southern access trailhead parking area to serve the existing trails in the south Beaver Creek area.

Beaver Creek NA Nature Trail: A nature trail is being considered for the property located across North Beaver Creek Road from the Nature Center. A large portion of this property is high value mature forest, protected under federal and state ESAs as critical habitat for marbled murrelet. Any trail development and use in this area must follow related protocols set out under ESAs. Any trail use within the critical habitat would be discontinued during the nesting season.

Beaver Creek NA North-South Trail: A trail connecting the Nature Center site to the south Beaver Creek uplands is a key feature under consideration for the Natural Area. There is no upland connection between these two areas of the park other than the county road.

To establish a trail connection requires either following the road right-of-way for some distance, crossing the marsh with a boardwalk trail, or a combination of these. Additional land acquisition or easement could add options for locating a trail, but would not eliminate the need for a marsh crossing outside of the road corridor. A boardwalk trail crossing the marsh directly to the south Beaver Creek uplands is under consideration, but thorough analysis of alternative alignments has not been completed. In evaluating possible boardwalk alignments, careful consideration must be given to potential impacts on wildlife, visitor experiences provided, risks associated with flood events and the costs of engineering and construction.

Beaver Creek Water Trail: The Beaver Creek Water Trail reaches a total of roughly three miles from the beach to the eastern boundary of the park. Water trail use is served by the long-existing boat ramp and its parking at the intersection of Highway 101 and Beaver Creek Road, and more recently by a small, temporary floating kayak launch and its parking area near the Nature Center. The distance between these launch sites is roughly 2.2 miles. The temporary kayak launch will be replaced with a more permanent, and easier to use, low impact floating launch at the same location. Improvements to trail connections to this launch are also proposed, from the lower parking area now serving the launch and from the Nature Center parking. Improvements to the connecting trails will likely involve the need for boardwalks for some of the distance. At the boat ramp, the need for minor improvements in the parking lot to facilitate better circulation and prevent user conflicts will be explored.

Ona Hills Trails: Most of the new trails proposed in the park are in the Ona Hills area. These will include trails for pedestrian use only, some for pedestrians and bicycles, some for pedestrians, bikes and horses (also called “multi-use” trails), and some for mountain bikers only. Four trailhead parking areas serving

different trail user groups are also proposed. Many of the proposed Ona Hills trails are intended to follow old logging roads, some of which are now obscured by vegetation and may be difficult to locate. The logging roads were identified based on lidar imagery, and are illustrated by Figure 2.3 in Chapter 2. As illustrated by Figure 9.1, some sections of proposed trails follow bare dirt logging roads, including the fiber optic cable easement.

Trails from Ona Hills to Beaver Creek Marsh: With limited exceptions identified in this Plan, the Ona Hills trail system will avoid reaching into or following the edges of the Beaver Creek marsh and floodplain. Two locations where trails will reach from the central campground to the marsh edge are identified in Chapter 10 and illustrated on Figure 9.5. At these two locations, spur trails for hiking only will extend from loop trails and terminate at the marsh, possibly reaching the creek main channel. At each location, a boardwalk structure that reaches a short distance into wetlands to the trail terminus, and/or wildlife viewing blinds, may be considered.

Ona Hills - Beaver Creek NA Trail Connection: OPRD is exploring opportunities to establish a trail connection between the currently non-contiguous upland areas of Beaver Creek NA and Ona Hills, which could be accomplished either by additional property acquisition or trail easement. The General Plan, Figure 9.5, symbolizes this intent.

Trail Miles

The General Plan (Figure 9.5) illustrates planned trails parkwide. The table below summarizes different types of upland trails by approximated numbers of trail miles. Trailhead parking areas are illustrated in Chapter 10 by enlargements of development areas (Figures 10.2 through 10.6). Parking capacities at the trailheads are included in the table of “Day Use Capacities” above, and are also addressed in Chapter 10.

Trail Type	Estimated Trail Miles
Beach access / highway underpass trail - (trail uses under consideration)	0.25
Hiking only trails – Beaver Creek NA	5.25
Hiking only trails (includes interpretive trails) – Ona Hills	2.0
Hiking & biking only trails – Ona Hills	2.7
Mountain bike only trails – Ona Hills	2.6
Horse only trails – Ona Hills	0.4
Multi-use trails (hike, bike, horse) – Ona Hills	11.5
Total Trail Miles (excluding short facility access walkways)	24.7

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. As discussed below, certain potential opportunities are currently known.

The Seal Rock Trails Group is coordinating an effort to establish a trail connection from the Ona Hills area to the community of Seal Rock across private lands. With support from adjacent landowners, this group has identified an approximate location where a trail across the park boundary could be established. The approximate location is represented on the General Plan, Figure 9.5.

OPRD is also aware that trail use has been occurring between the primitive roads in Ona Hills and adjacent private land to the southeast via a utility easement at the southeast corner of Ona Hills. While OPRD would support development of a designated trail here, making this connection would require agreement from affected property owners.

The Corvallis-to-the-Sea Trail Partnership has an interest in connecting this regional trail to the

park’s trail system and camping opportunities without crossing Highway 101, and establishing a safe highway crossing to the beach. A trail connection between the eastern boundary of Ona Hills and South Beaver Creek Road, which requires property acquisition or easement, could serve this group’s camping interests. The proposed beach access highway crossing trail will connect the campgrounds to the beach.

Interpretive and Educational Programs and Facilities

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.

The background report prepared for this Plan, titled “Brian Booth State Park Interpretive Assessment Chapter for Comprehensive Plan,” provides guidance on opportunities for enhancing, creating and exploring partnerships for interpretive and educational visitor programs. The background report will be used as a reference for developing the park’s interpretive and educational programs and exploring related partnership opportunities. For resource interpretation opportunities, the report identifies potential natural and cultural interpretive themes, subthemes, supporting stories, audiences, prescriptions and media. For environmental education and resource interpretation opportunities, the report identifies potential subject matter and partnerships for offering programs at the park, and other organizations that offer similar programs within the local community.

For outdoor skills learning programs, the report identifies at least one organization interested in providing such programs at the park. The report also identifies potential opportunities for involving citizen science groups and other volunteers in natural resource enhancement, data gathering and learning projects.

The “Visitor Experiences” table above includes interpretive and educational programs that exist now, are currently planned or could potentially be provided at the park. Some of these programs are most likely to be presented by community partners. Below is a list of organizations in the local community that OPRD regards as potential partners that provide or support environmental education and/or outdoor learning programs that are now or could be offered at the park, or that otherwise complement OPRD’s educational roles in the local community.

Community Partners in Environmental Education and Outdoor Learning

Lincoln County Outdoor School Group	Oregon Department of Fish and Wildlife
Yaquina Birders and Naturalists	U.S. Forest Service
Hatfield Marine Science Center	U.S. Bureau of Land Management
Oregon Coast Aquarium	U.S. Fish and Wildlife Service
Oregon Museum of Science and Industry	Lincoln County School District

Universal Accessibility

OPRD will continue to provide for the needs of disabled visitors to the extent feasible in compliance with the Americans with Disabilities Act (ADA) in locating, designing and managing park facilities and programs.

Vehicular Access and Circulation

As discussed above under “Park Identity,” there are three areas of the park, named Ona

Beach, Beaver Creek Natural Area and Ona Hills which are defined by a combination of natural and cultural geographic features. The three areas have separate points of vehicular access, the locations of which are shown on the General Plan, Figure 9.5, and labeled as the entrances to the three areas. The General Plan also illustrates the access roads and parking for each of the areas.

Ona Beach: The entrance to Ona Beach from Highway 101 is unchanged from its original location on the west side of the highway across from its intersection with Beaver Creek Road. Vehicular access to this area reaches only as far as the parking lot just off the highway. Improvements to circulation within the parking lot are proposed, as discussed in Chapter 10.

Beaver Creek NA: The area defined as Beaver Creek NA now encompasses the floodplain west to Highway 101 and includes the boating access, so the entrance to this area now corresponds with the Beaver Creek Road entrance from the highway. From Beaver Creek Road, visitors enter the park facilities at three locations. The entrance to the boating access parking and boat ramp is immediately east of the highway and county road intersection. Vehicular access reaches only as far as the boat ramp. Minor circulation improvements are being considered for this lot as discussed in Chapter 10. Roughly 2 ¼ miles east of the highway, visitors enter the Beaver Creek Nature Center driveway and parking lot from Beaver Creek Road, and vehicular access reaches only as far as the parking lot. Minor improvements here are proposed only to define parking spaces. About 1/8 mile farther east from the Nature Center driveway is a small parking lot just off the county road which serves the existing kayak and canoe launch. Any circulation or parking improvements here are limited to reconfiguration within the existing parking lot footprint.

South Beaver Creek NA access: A fourth point of access to Beaver Creek NA, at the south end of the park property, is currently used for trail access to the upland trails. Visitors currently park at a small area off the shoulder of South Beaver Creek Road and walk along a primitive service road to reach the existing upland trail system. The undesignated parking may be partially within the county road right-of-way and partially on private property. The service road is also not on park property, and the use of this road by easement is authorized only for OPRD's maintenance activities.

OPRD is seeking to establish two types of visitor access from South Beaver Creek Road. First, pre-arranged vehicular access to the pole barn site is needed to serve groups using this site for planned park program activities with future development of this site as an extension of the park's learning facilities. The existing single lane road could serve this type of use with improvements to the road surface. Permission from the property owner would be needed unless the road corridor is acquired or the easement is upgraded to allow the use.

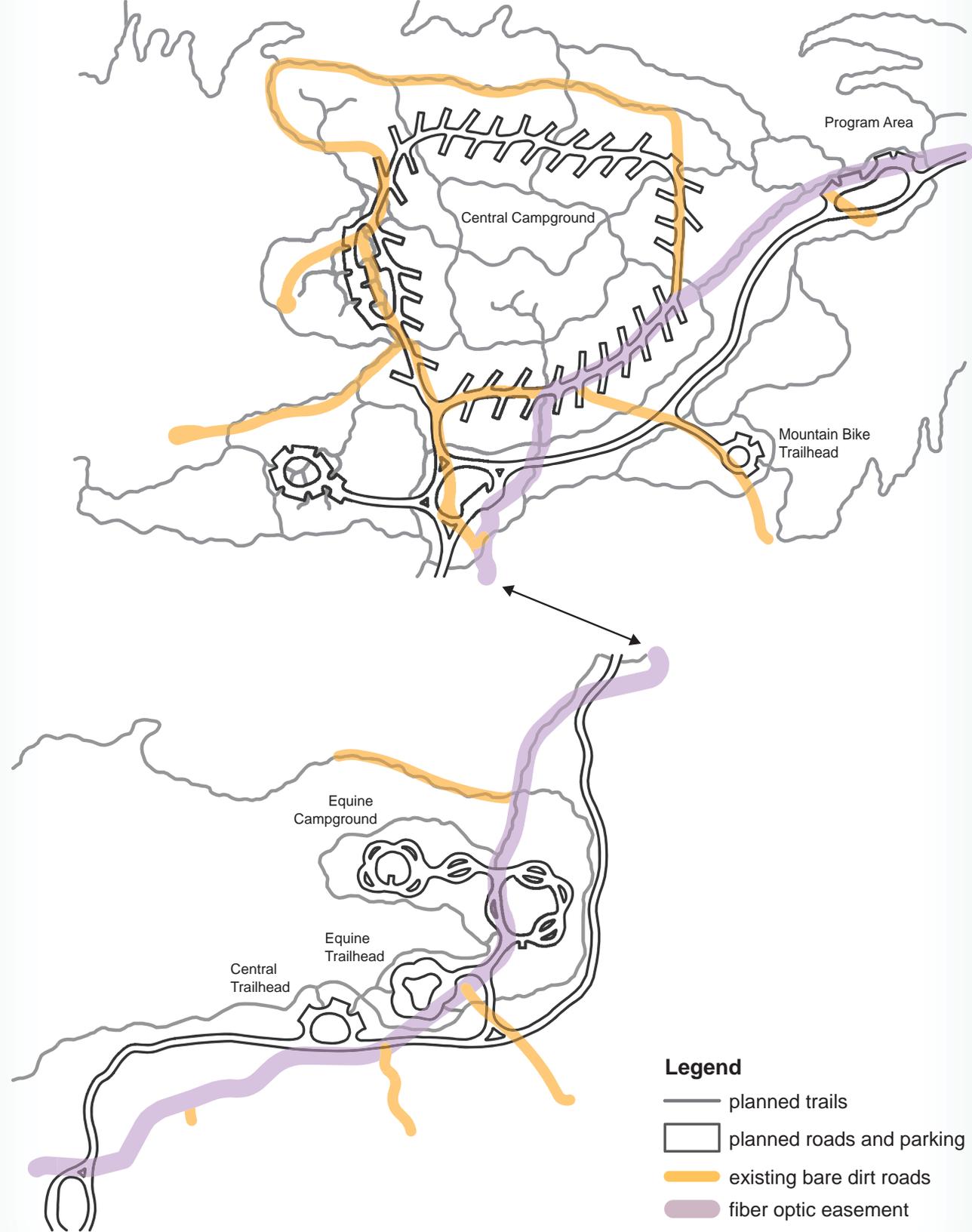
Second, OPRD's intentions are to acquire additional property to develop a small trailhead parking area outside of the current park boundary. This new parking area would serve regular visitor use of the trail system and replace the unauthorized roadside parking. A trail connection from the parking area to the park trails may be along the existing service road or established elsewhere, depending on the property acquired and location of the parking area. In order to maintain the quality of trail experience, the capacity of this parking lot must be kept to a size that does not result in overuse of the trail system, considering this point of access together with access by the proposed trail connection from the Nature Center discussed above.

Ona Hills: The entrance to Ona Hills is the current entrance from Highway 101 to the ODOT office and maintenance complex located roughly 1/3 mile south of the Ona Beach and Beaver Creek NA entrances. Upgrading the use of this entrance from ODOT use to park visitor use will require improvements within the highway right-of-way. With the help of traffic consultants at Kittelson and Associates (KIA), OPRD has obtained ODOT approval for using this entrance for park access provided that highway improvements recommended in KIA's background traffic study report are implemented.

With conversion of the ODOT complex to the park administration area, the existing entrance road will be reconfigured somewhat along with existing parking to facilitate circulation for visitor registration at the office building. (See Figure 10.4.)

From the administration area, a new park road will be developed into the Ona Hills interior to serve planned campground and trailhead facilities. Roughly half the distance of the new park road, where it reaches from the administration area to the central campground program area, will diverge from the existing main primitive road corridor along which the existing fiber optic cable easement is located. The new alignment for this section of road is important because it will make room for the planned central trailhead and equine trailhead parking areas, and the equine campground and central campground. Through this area, most of the fiber optic easement corridor will be used to develop certain sections of trails, parking loop roads and camp loop road. Figure 9.1 illustrates how the fiber optic easement and other existing primitive road corridors should line up with planned park roads and trails through this reach. The enlarged illustrations of proposed development in Chapter 10 also indicate the location of the fiber optic easement.

Figure 9-1, Primitive Road Conversion to Park Roads and Trails
 Central Campground and Equine Area



Beyond the central campground program area, the fiber optic easement road corridor will be developed as the main park road serving the upper campground area. The main road will serve visitor access to a turnaround just beyond the upper campground. Beyond the turnaround, the road will be gated and the remainder of its distance to the south end of Ona Hills will be improved for service and maintenance access only. Visitors will exit Ona Hills at the entrance.

Administrative Program Priorities

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 Ona Hills facilities, this part of park may serve as a refuge in a tsunami or major storm event requiring evacuation from surrounding areas.

Weed Control

Invasive weeds are a problem in various areas of the park, and of particular concern in and around the Beaver Creek marsh and areas where at-risk native plant species may be threatened. Figure 9.3 depicts areas where control of particular invasive weeds is most important. 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. On-going maintenance will involve monitoring, removing and controlling the spread of weeds along avenues of dispersal - streams, ditches, trails, roads, parking areas and campsites – and at the perimeters of significant infestations.

Nutria Control

The nutria population is increasing rapidly in the marsh and throughout the Beaver Creek watershed. Nutria are damaging native vegetation, and have been known to show aggressive behavior toward kayakers. Recent control measures tried in the park proved to be too expensive with limited success. To be effective, control measures should involve cooperation of surrounding marshland owners. OPRD will continue to explore management alternatives through research and consultation with natural resource agencies and organizations, and cooperate with the Mid-Coast Watershed Council and Lincoln County Soil and Water Conservation District to control nutria through cooperative efforts involving other interested land owners and managers.

Invasive Aquatic Species

The boat ramp, kayak launch and fishing areas on Beaver Creek can serve as gateways for the potential introduction of invasive aquatic species such as Quagga mussels, New Zealand mudsnail, and parrotfeather. These system-altering species are hard to control, and prevention is the best form of management. OPRD will work the Marine Board and interested natural resource agencies and organizations to identify and implement effective measures for preventing the introduction of such species into the Beaver Creek system. Information on the threats of such species to aquatic systems, the importance of prevention, and actions that visitors can take to assist with prevention will be incorporated into OPRD's visitor programs and signage.

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. 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.

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 species such as the endangered marbled murrelet, which may inhabit mature forests in the park. Problems for the survival of such species are commonly associated with corvids which raid nests and feed on the eggs and the young. Populations of corvids commonly increase with human activity because of the increase in refuse that attracts corvids. 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 refuse management and stewardship responsibilities will be provided at key locations.

Dog Control

Wildlife management must include strict adherence to park rules on management of dogs, particularly along park trails. Park rule signage located at trailheads and other key locations will inform visitors of leash rules, their importance for protection of wildlife, and the consequences of non-compliance. Dogs may be disallowed along certain trails if wildlife disturbance becomes significant or where problems of non-compliance are difficult to manage.

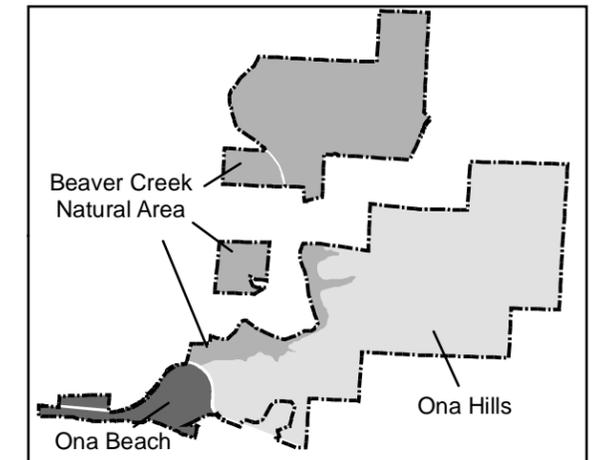
Beach Safety

Beach safety information will continue to be a priority in visitor programs and informational signage. Among the standard beach safety messages, visitors will be advised on the importance of checking tide tables before venturing northward or southward from the Ona Beach access to avoid having a return trip cut off by incoming tides.

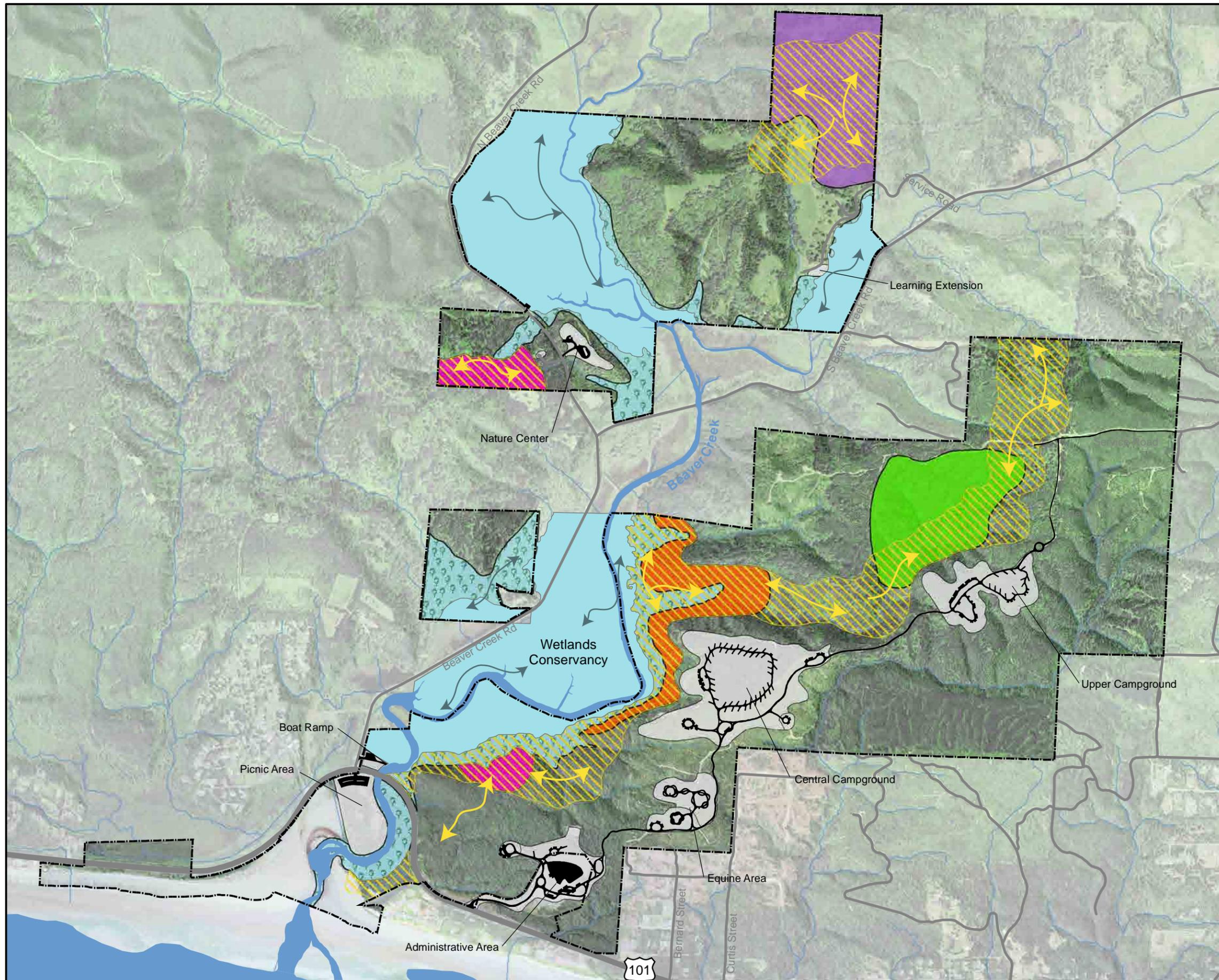


**Figure 9-2
Priority Wildlife Habitat
Preservation and
Movement Corridors**

Brian Booth State Park



December 2013



Legend

- Park Boundary
- Streams
- Development Areas

Priority Movement Corridors

- Aquatic Wildlife Corridor
- Terrestrial Wildlife Corridor

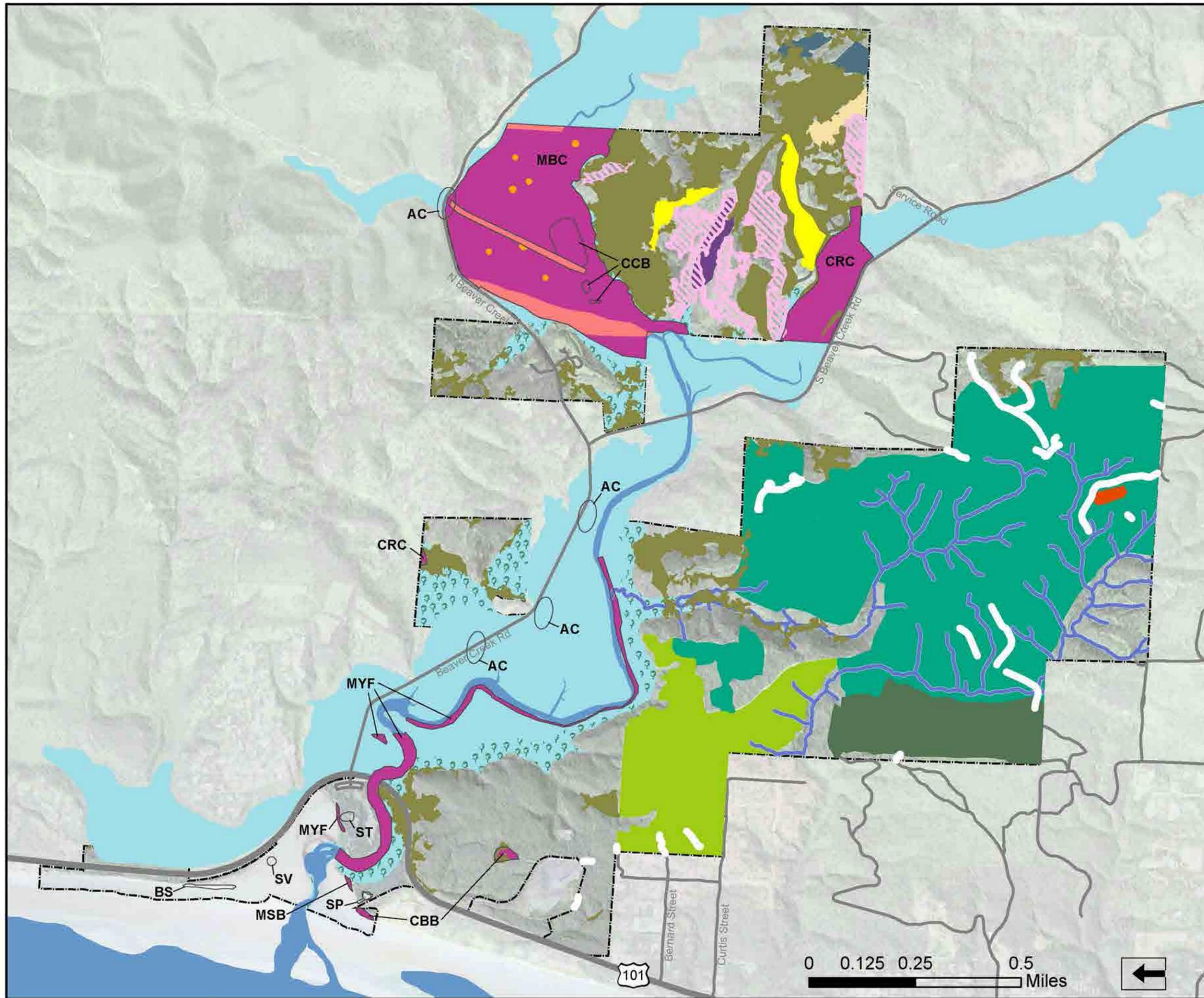
Priority Preservation Areas

- Deer Valley - young conifer and hardwood forest with developing canopy transitioning to habitat for bear, elk, deer, songbirds & other species
- Elk Meadow - meadow & early successional habitat important to elk, bear, songbirds, game birds & other species
- Late Seral Forest - rare, mature mixed conifer habitat suitable for marbled murrelet, red tree vole & other late seral species
- Rana Range - transitional habitat from floodplain to upland forest, important to song birds, elk, red-legged frogs & other amphibians
- Beaver Creek Marsh (includes floodplain) - Emergent marsh & open water habitat important to salmonids, amphibians, waterfowl & other marsh birds



Figure 9.3 Natural Resource Management Actions

Brian Booth State Park
October 2013



Legend

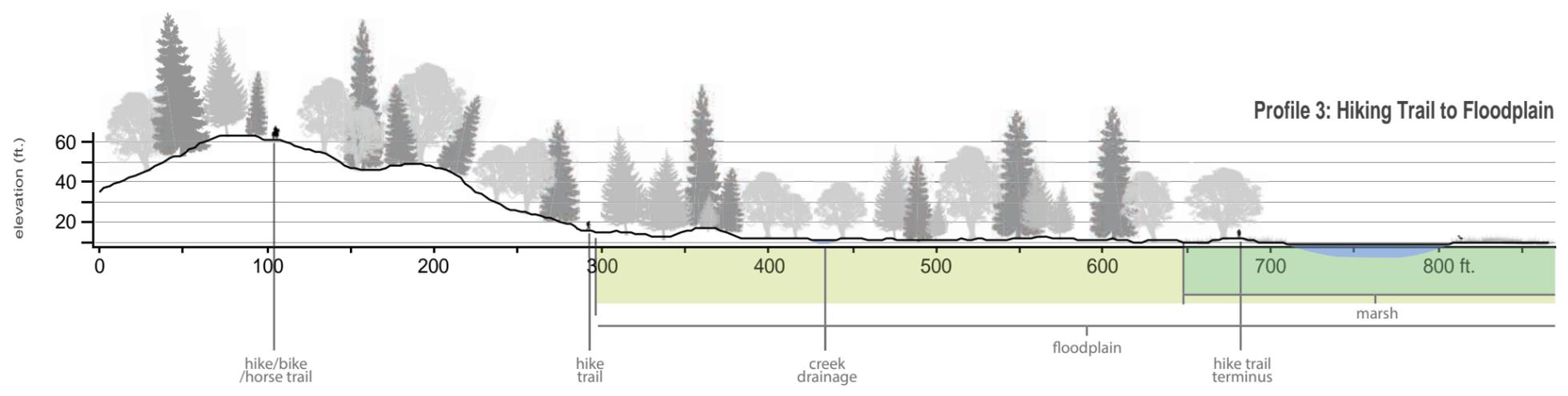
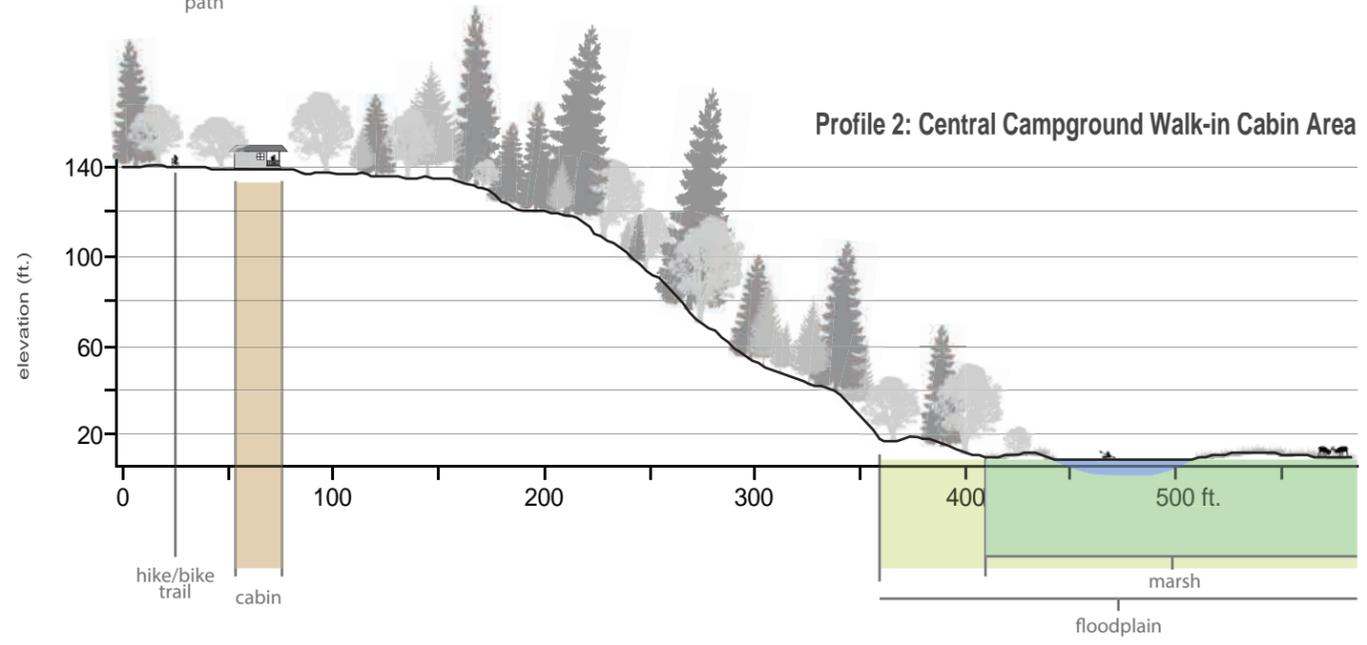
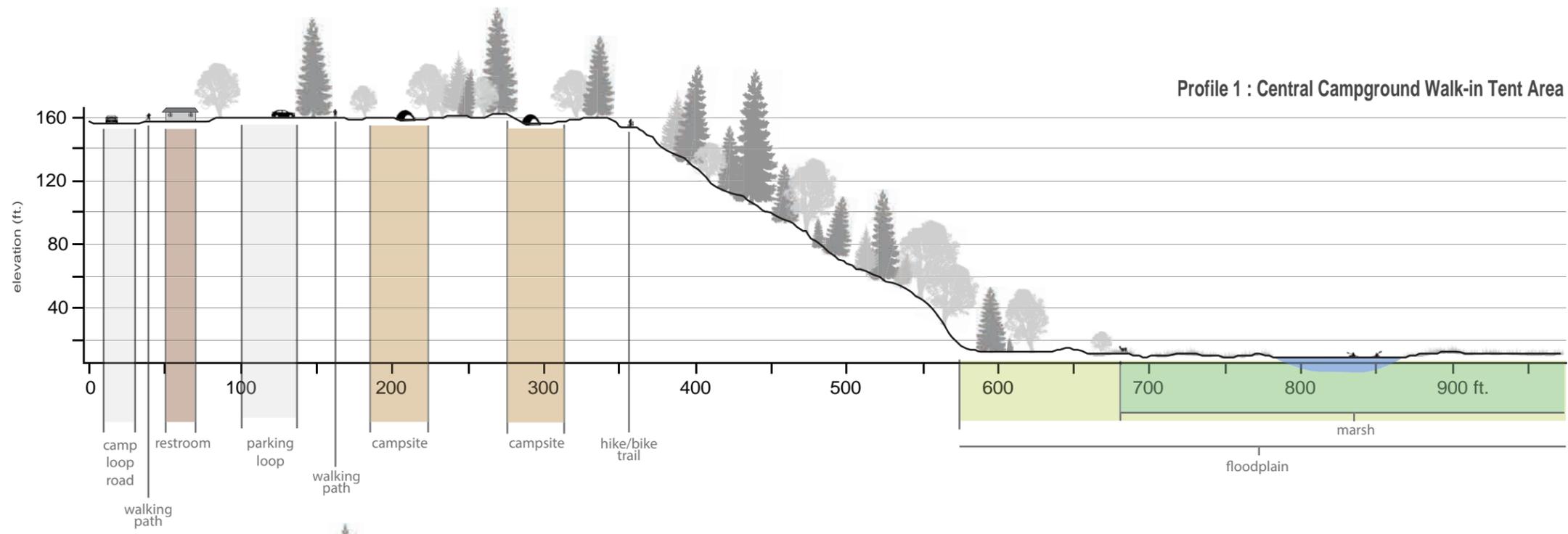
Park Boundary

Estuary / Floodplain

Management Actions

- Enhance sphagnum wetland
- Study merits and alternatives for restoring marsh hydrologic function
- Retain as alder forest
- Add habitat structure to marsh
- Retain as open meadow for views
- Retain as early successional/meadow habitat
- Commercial thin plantation forest, remove diseased Douglas fir, plant mixed conifers as needed for structure
- Pre-commercial thin plantation forest, remove widespread diseased Douglas fir, plant mixed conifers
- Remove dense shore pine, plant mixed conifers
- Convert to conifer/deciduous forest
- Assess fish use (lamprey and salmonids)
- Manage for transition to shrubland
- Control invasive plant species
- MSB** Manage Scotch broom
- MRC** Monitor reed canarygrass patches, assess options for controlling spread
- CBB** Control blackberry
- CCB** Control colonial bentgrass
- CRC** Assess options for controlling widespread reed canarygrass
- MYF** Manage yellow flag iris
- Control shrub competition to promote forest succession
- Restore dirt road to conifer forest
- AC** Assess culvert for hydro/ fish passage impacts
- ST** Plant salt-tolerant species
- BS** Preserve/enhance big-headed sedge & habitat
- SV** Preserve/enhance yellow sandverbena & habitat
- SP** Restore shore pine woodland & preserve / enhance yellow sandverbena & habitat

Figure 9.4
Elevation and
Distance Profiles 1 - 3
 Brian Booth State Park
 December 2013



- hike trail
- hike / bike trail
- hike / bike / horse trail
- walkway
- ↑

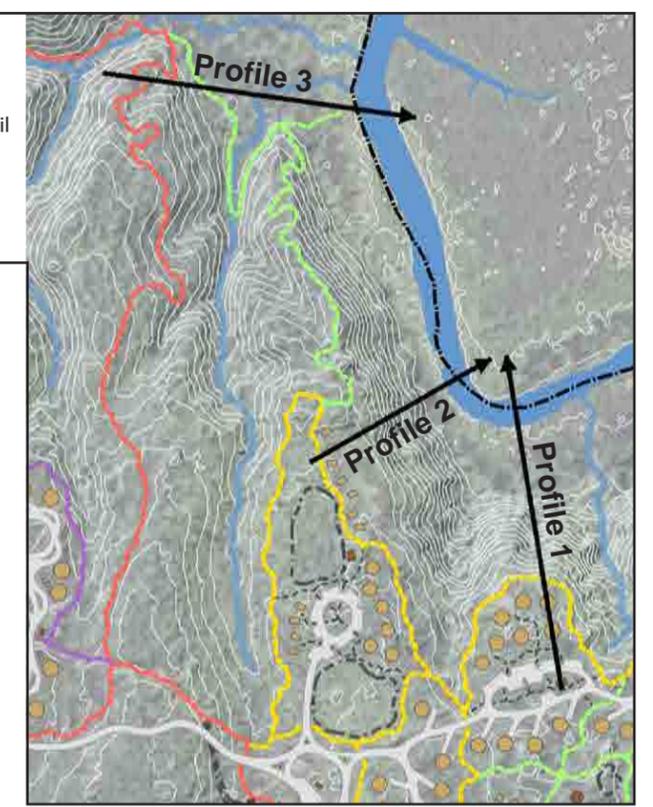
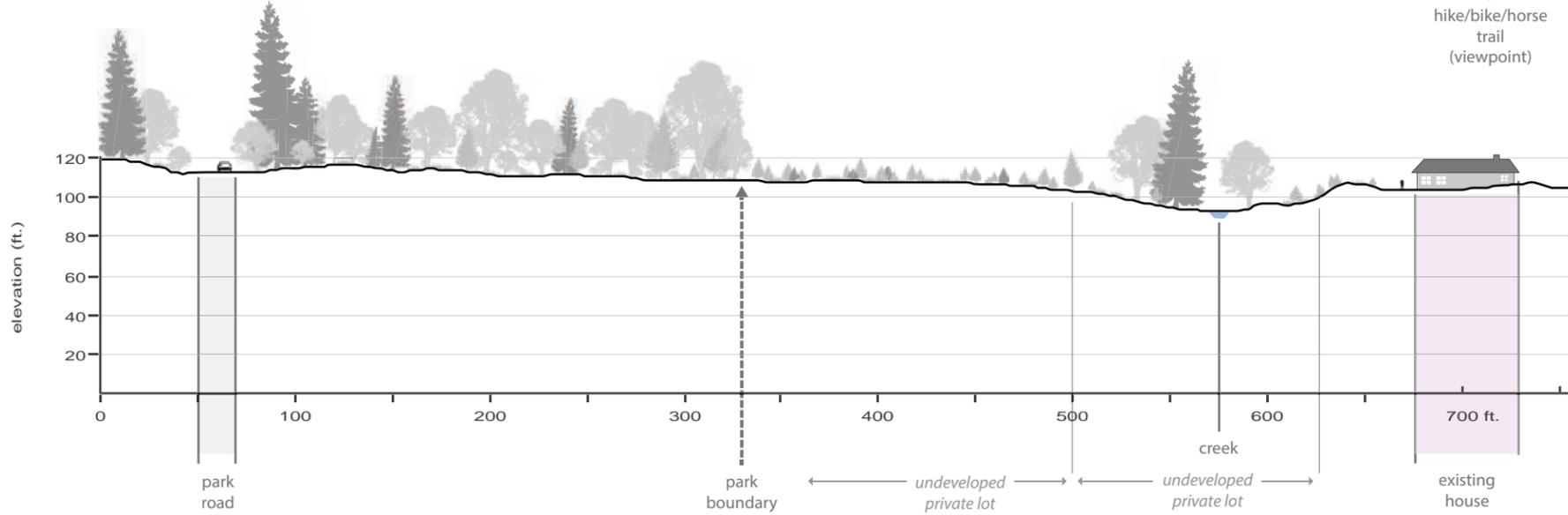
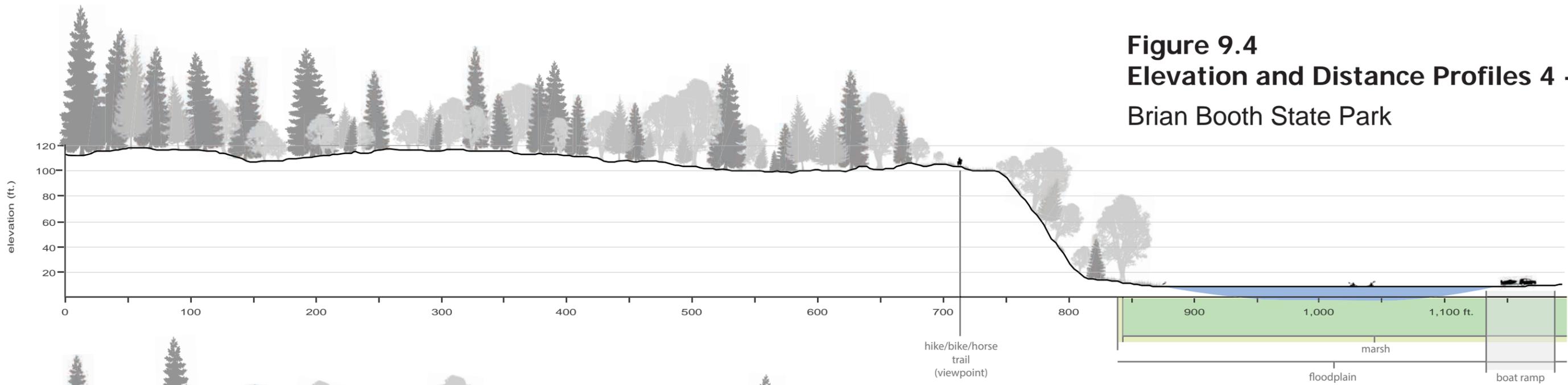


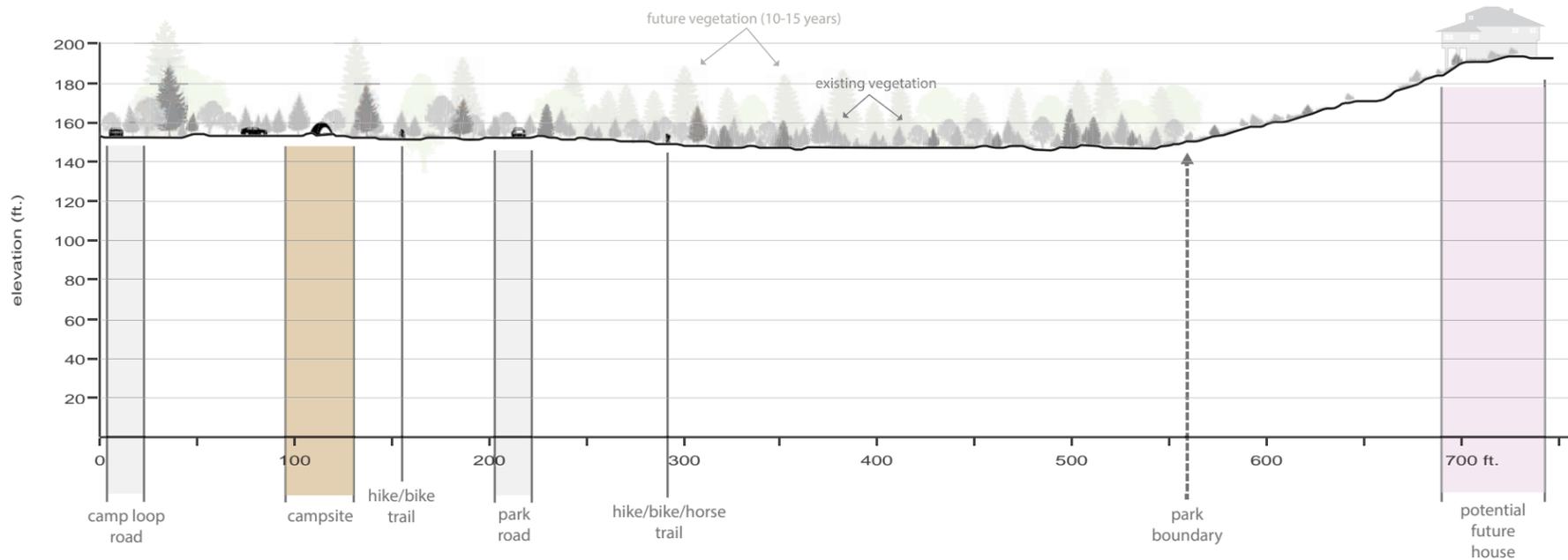
Figure 9.4
Elevation and Distance Profiles 4 - 6
 Brian Booth State Park



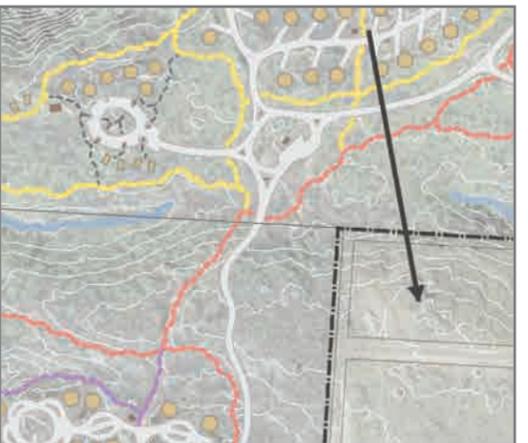
Profile 5: Park Road to Private Properties



Profile 4: Late Seral Forest to Boat Ramp



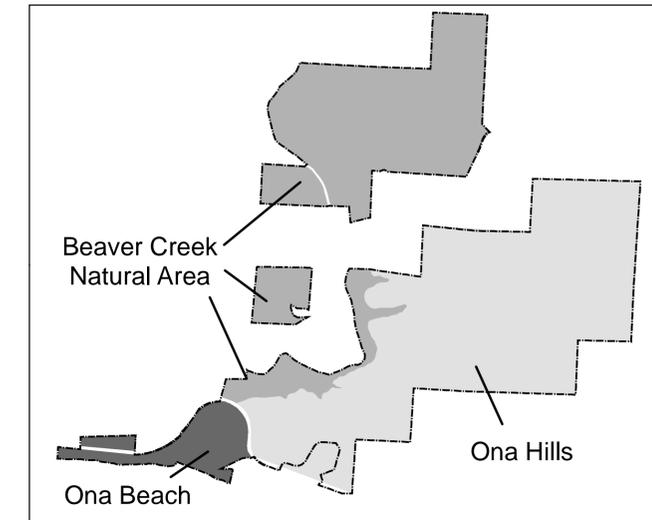
Profile 6: Central Campground to Private Property



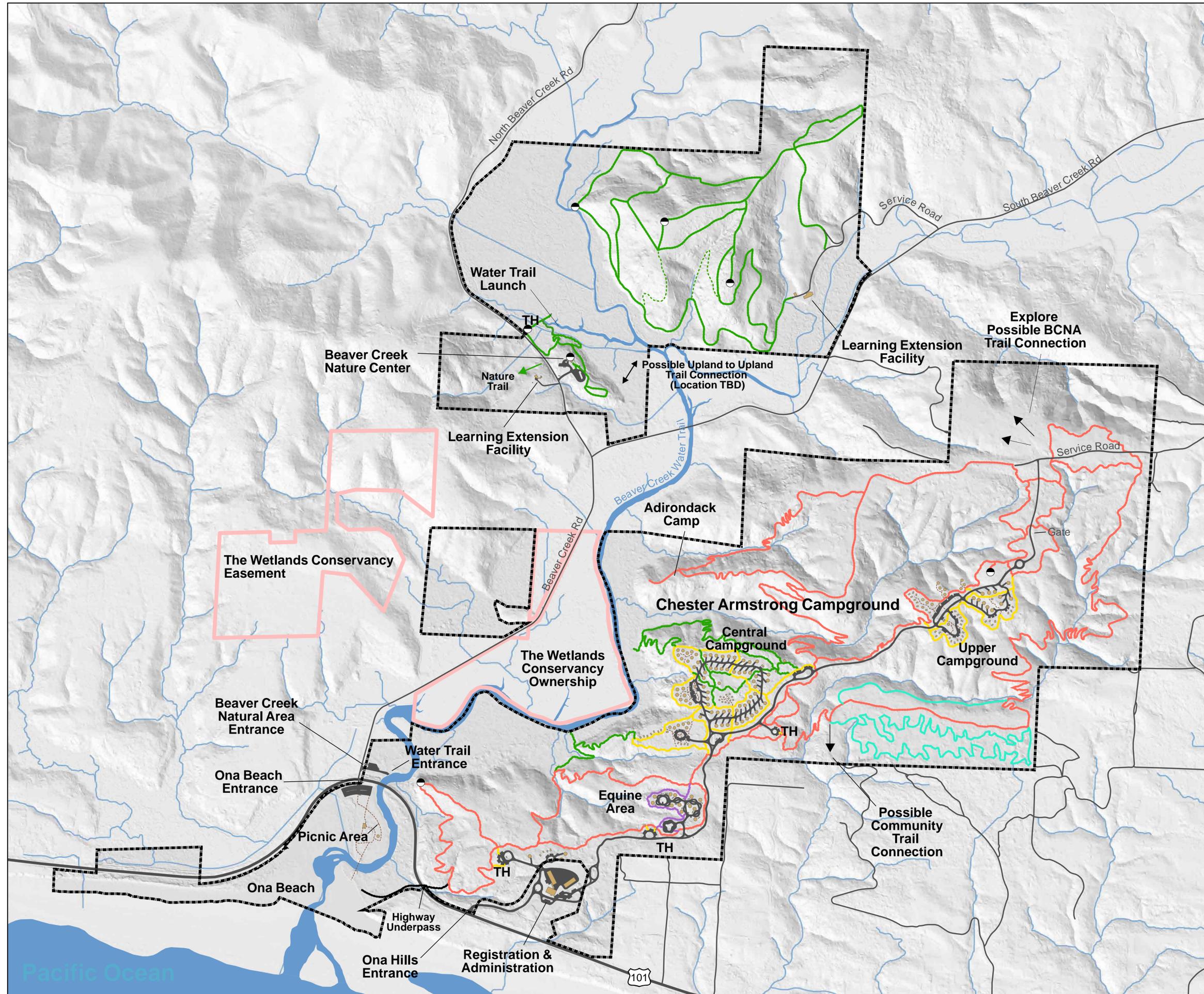
-  hike trail
-  hike / bike trail
-  hike / bike / horse trail
-  horse only trail
-  walkway
- 

Figure 9-5
General Plan:
Visitor Experience
Support Facilities

Brian Booth State Park



December 2013



Legend

- park boundary
- streams
- roads & parking
- TH** trailhead
- viewpoints

Trails

- hike
- hike (alternative)
- hike / bike
- horse only
- mountain bike
- hike / bike / horse
- walkway
- trail use TBD



Pacific Ocean



CHAPTER 10: MANAGEMENT BY ZONES

This chapter lists management actions for the park by Management Zones. Figure 10.1, which follows, illustrates the Management Zones park wide.

There are a total of seven Management Zones. Four of the Zones represent different landscape types - *beach and dune*, *estuary and floodplain*, *forested hills*, and *managed grasslands* – where the management emphasis is on natural resources. The other three Zones represent basic types of visitor support facility areas – *campground facilities*, *day use facilities*, and *park administration facilities* – where the management emphasis is on visitor uses.

In the tables following Figure 10.1, management actions are listed by Zones, grouped by the park's three areas: *Ona Beach*, *Beaver Creek NA* and *Ona Hills*.

There are 2 parts to this chapter:

1. Visitor experience support facilities, listed in the first set of tables, include both existing and planned facilities by park area and by Management Zones within each area. Visitor support facilities are proposed

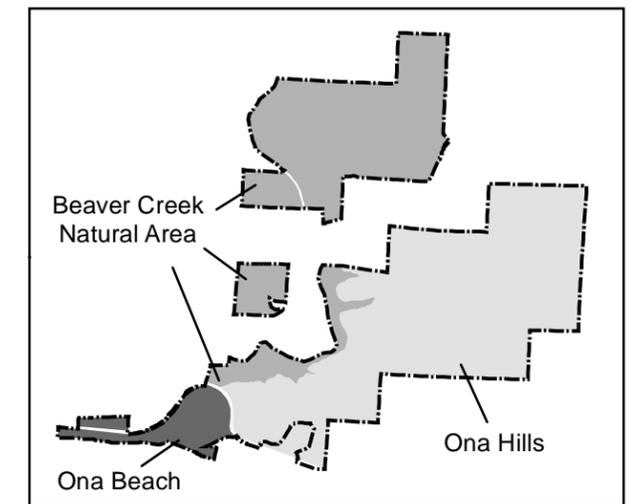
in all of the Management Zones except one (Beach and Dune). In the other three natural resource emphasis zones (Estuary and Floodplain, Forest, and Grassland), the visitor support facilities are mainly trails and trail structures.

The enlarged sites plans at the end of each section, Figures 10.2 through 10.7, illustrate facilities in the three Zones that emphasize visitor experience support (Day Use, Campground, and Park Administration). The “General Plan” illustrated by Figure 9.5, at the end of the previous chapter, illustrates locations of facilities parkwide.

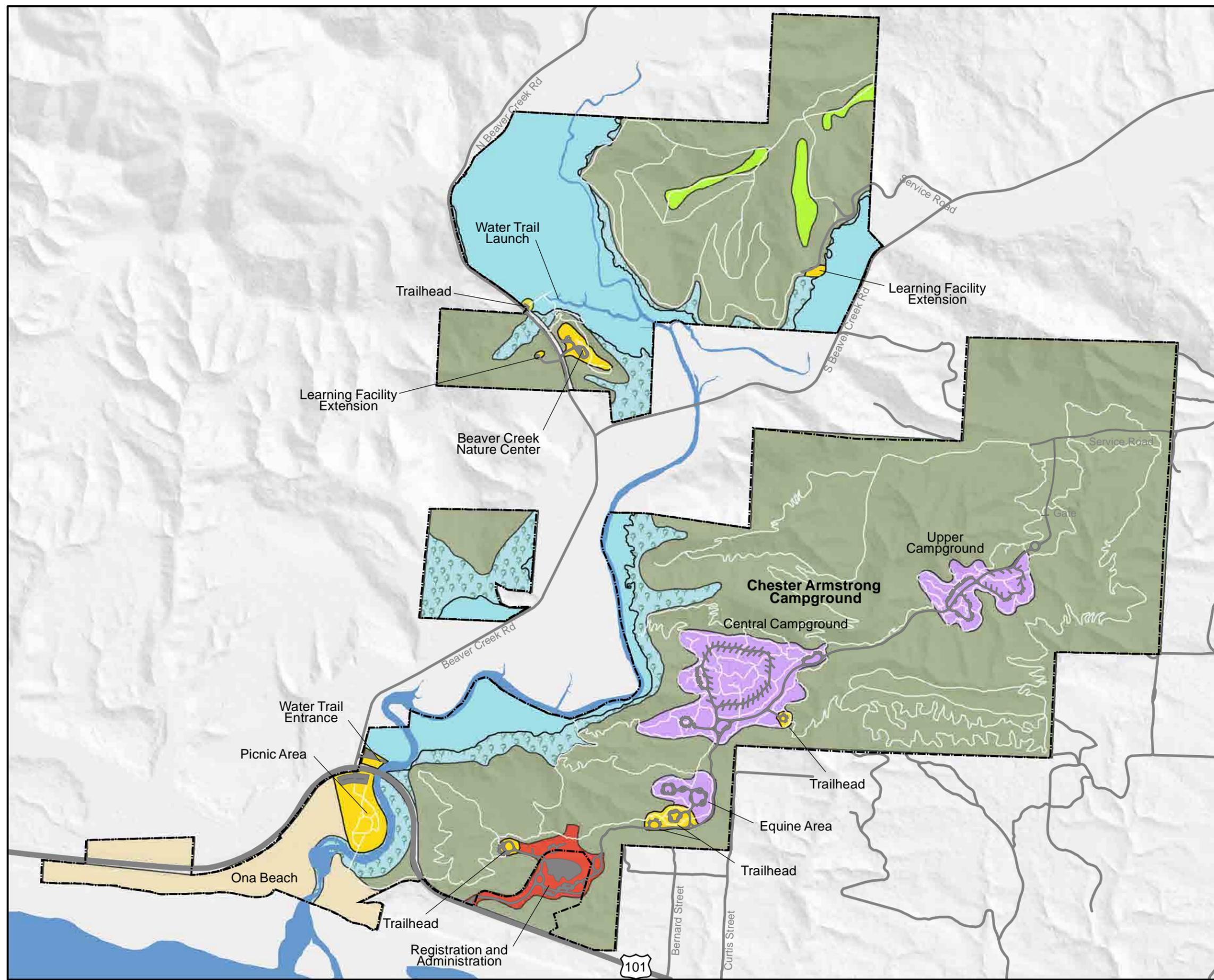
2. Natural resource management actions, listed in the second set of tables, include actions for natural resource management and interventions by park area and by Management Zones within each area. At the end of the previous chapter, Figure 9.3 illustrates “Natural Resource Management Actions” by location parkwide.

Figure 10-1
Management Zones

Brian Booth State Park



December 2013



Legend

- Park Boundary
- Trails
- Streams

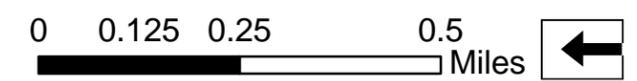
Management Zones

- Natural Resource Emphasis -

- 1 - Beach and Dune
- 2 - Estuary and Floodplain
- 3 - Forest
- 4 - Grassland

- Visitor Experience Emphasis -

- 5 - Park Administration
- 6 - Day Use Access
- 7 - Campground





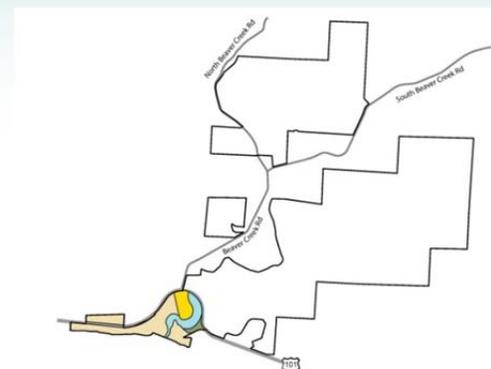
Chapter 10 – Part 1:

Visitor Experience Support Facilities

- o Ona Beach Zones
- o Beaver Creek Natural Area Zones
- o Ona Hills Zones

Visitor Experience Support Facilities - Ona Beach Zones

<i>Ona Beach Zones</i>	<i>Management Emphasis</i>
<i>Day Use Access</i>	<i>Recreation</i>
<i>Estuary/Floodplain</i>	<i>Natural Resources</i>
<i>Forest</i>	<i>Natural Resources</i>
<i>Beach/Dune</i>	<i>Natural Resources</i>

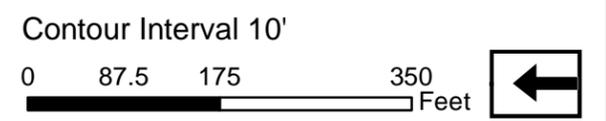


<i>Ona Beach Entrance & Picnic Area</i>							
<i>Figure</i>	<i>Projects</i>	<i>Status</i>	<i>Phase / Priority</i>	<i>Parameters/Standards</i>	<i>Reviews/Approvals</i>	<i>Cost</i>	<i>O&M</i>
	<i>Roads & Parking</i>						
10-2	Beach access & picnic area parking, 85 spaces, paved. Rehab & redesign for improved circulation. Explore adding landscaped islands.	Enhancement	Phase 1 Priority 2	No increase in parking capacity. Probably total rehab. Existing pavement needs replacement.	Lincoln County	\$260 K Assumes 30% base repair.	Temporary irrigation to establish plantings. Pavement maintenance & resurfacing as needed.
	<i>Buildings / Structures</i>						
10-2	Entrance sign	Enhancement	Phase 1 Priority 1	Sign to reflect park renaming.	ODOT Lincoln County	Funded	
10-2	Informational sign cluster replacement.	Enhancement	Phase 1 Priority 1	Orientation to expanded park. Beach safety information, risk of high tide cutting off north/south connection		\$1.2 K	
10-2	Consider adding picnic shelter.	Enhancement	Phase 2 Priority 3	Max. 75 capacity	Lincoln County	\$175 K 75 people	Routine maintenance.
10-2	Floating paddlers' launch alternative. (Other site alternative at boat ramp.)	Enhancement	Phase 1 Priority 2		DSL/ACOE		Routine
10-2	Replace restroom building	Enhancement	Phase 1 Priority 1	4 toilets/side, no showers	Lincoln County	\$175 K	Routine building maintenance & cleaning.
10-2	Add drinking fountain with fill spigot outside of restroom.	Enhancement	Phase 1 Priority 1			\$5 K	
	<i>Utilities</i>						
10-2	On-site sewer serves restroom.	Preventive maintenance					Routine
10-2	Potable water at restroom, add to exterior water fountain..	Enhancement.	Phase 1 Priority 1		Lincoln County		Routine
10-2	Electricity to restroom.	Preventive maintenance					Routine
	<i>Site Furniture</i>						

10-2	Adjust picnic sites as needed to accommodate HUB project 30514.	Enhancement	Phase 1 Priority 1	Retain optimum # picnic sites per available space.		Funded HUB project	Routine
	Grounds / Landscape / Vegetation						
10-2	Restore wetlands & plant wetland vegetation in flood prone areas per HUB project 30514.	Enhancement	Phase 1 Priority 1		DSL/ACOE Lincoln County	Funded HUB project	Monitor & control invasive weeds.
	Trails & Trail Structures						
10-2	Remove some walkways prone to flooding & restore wetlands per HUB project 30514.	Decommission	Phase 1 Priority 1	Peds only	DSL/ACOE	Funded HUB project	Routine trail maintenance.
10-2	Beach access bridge, existing.	Preventive maintenance		Peds only			Periodic bridge inspection. Bridge maintenance as needed.
Estuary / Floodplain							
Figure	Projects	Status	Phase / Priority	Parameters/Standards	Reviews/Approvals	Cost	O&M
10-2	(Highway crossing trail alternatives described under <i>Forest</i> zone reach into floodplain forest.)						
Forest							
Figure	Projects	Status	Phase / Priority	Parameters/Standards	Reviews/Approvals	Cost	O&M
	Trails & Trail Structures						
10-2	Beach access highway underpass trail. Preferred alternative. Project includes tunnel & connecting trails from beach access trailhead (in Ona Hills Forest zone) to the beach. Details in KPFF report.	Enhancement	Phase 1 Priority 1	Peds & bikes (equine being considered). 8' wide, crushed rock trail, boardwalks over wetlands. Tunnel size under consideration. ADA compliant.	Lincoln County DSL/ACOE DEQ ODOT	\$1.8-2.1 mil.	Trail maintenance. Boardwalk maintenance as needed. Periodic tunnel inspection, maintenance as needed.
10-2	Alternative beach access highway overpass trail, western crossing location. Project includes bridge & connecting trails from beach access trailhead (in Ona Hills Forest zone) to the beach. Details in KPFF report.	Secondary alternative		Peds & bikes (equine being considered). 8' wide crushed rock trail, boardwalks over wetlands. Bridge size under consideration. ADA compliant.	Lincoln County DSL/ACOE DEQ ODOT	Wood truss \$1.5-2.1 mil. Steel & concrete \$2.1-2.9 mil.	Trail maintenance. Boardwalk maintenance as needed. Periodic bridge inspection, maintenance as needed.
10-2	Alternative beach access highway overpass trail, eastern crossing location. Project includes bridge & connecting trails from beach access trailhead (in Ona Hills Forest zone) to the beach. Details in KPFF report.	Secondary alternative		Peds & bikes. (Equine being considered.) 8' wide crushed rock trail, boardwalks over wetlands. Bridge size under consideration. ADA compliant.	Lincoln County DSL/ACOE DEQ ODOT	Wood truss \$1.6-2.2 mil. Steel & concrete \$2.2-2.9 mil.	Trail maintenance. Boardwalk maintenance as needed. Periodic bridge inspection, maintenance as needed.

Figure 10-2
Ona Beach Access and
Picnic Area

Brian Booth State Park
 December 2013

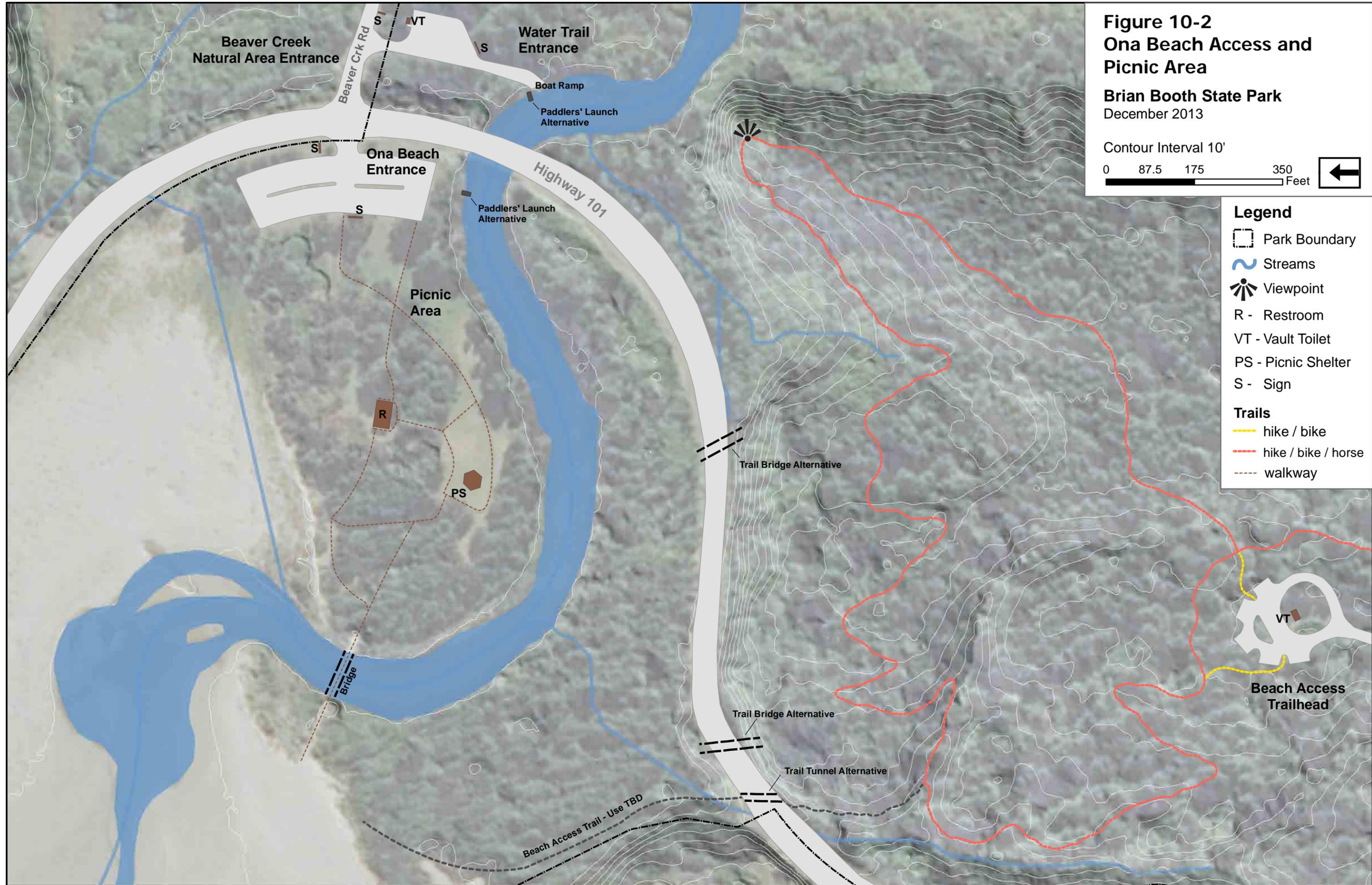


Legend

- Park Boundary
- Streams
- Viewpoint
- R - Restroom
- VT - Vault Toilet
- PS - Picnic Shelter
- S - Sign

Trails

- hike / bike
- hike / bike / horse
- walkway



Visitor Experience Support Facilities – Beaver Creek Natural Area Zones



<i>Beaver Creek NA Zones</i>	<i>Management Emphasis</i>
<i>Day Use Access</i>	<i>Recreation</i>
<i>Estuary/Floodplain</i>	<i>Natural Resources</i>
<i>Forest</i>	<i>Natural Resources</i>
<i>Grassland</i>	<i>Natural Resources</i>

<i>Natural Area & Water Trail Entrance</i>							
<i>Figure</i>	<i>Projects</i>	<i>Status</i>	<i>Phase/ Priority</i>	<i>Parameters/ Standards</i>	<i>Reviews/ Approvals</i>	<i>Cost</i>	<i>O&M</i>
<i>Roads & Parking</i>							
10-2	Boat ramp & boater parking lot. 9 parking spaces existing. Explore redesign for improved function. Separate paddler use from other boating. Add floating paddlers' launch here or at picnic area.	Enhancement	Phase 1 Priority 1		Lincoln County DSL/ACOE	\$55 K seal, stripe, paddlers' launch.	Pavement maintenance & resurfacing as needed. Manage overflow parking as needed.
<i>Buildings / Structures</i>							
10-2	Natural Area entrance sign. Along Beaver Creek Road near Hwy 101 intersection.	Enhancement	Phase 1 Priority 1	Replace sign to reflect park renaming.	Lincoln County	Funded	
10-2	Informational signage. At boat ramp parking.	Enhancement	Phase 1 Priority 1	.Information on invasive aquatic species prevention & water trail orientation.		\$1.2 K	
10-2	Vault toilet.	Preventive maintenance					Routine pump out & cleaning.
<i>Beaver Creek Nature Center</i>							
<i>Figure</i>	<i>Projects</i>	<i>Status</i>	<i>Phase/ Priority</i>	<i>Parameters/ Standards</i>	<i>Reviews/ Approvals</i>	<i>Cost</i>	<i>O&M</i>
<i>Roads & Parking</i>							
10-3	Nature Center access road & parking. Designate visitor parking spaces in unmarked portions. 10 car spaces currently designated. Regrade if needed.	Enhancement	Phase 1 Priority 2	Wheel stops and/or paving & striping. Total up to 22 car spaces & 2 long spaces.		\$100 ea. wheelstops. \$15 K re-grade.	Maintenance & resurfacing as needed.
10-3	Lower trailhead parking, 6 spaces existing. Serves water trail launch. Will serve proposed wildlife viewing structure. Reconfigure to increase # spaces.	Enhancement	Phase 1 Priority 2	Up to 10 spaces total. 1 ADA space.			Maintenance & resurfacing as needed.

10-3	Add 2 nd host at Nature Center. Utilities existing.	Enhancement	Phase 1 Priority 2				Maintenance & resurfacing as needed. Volunteer occupancy.
<i>Buildings / Structures</i>							
10-3	Nature Center Entrance Sign	Enhancement	Phase 1 Priority 1	Sign for renaming.	Lincoln County	Funded	
10-3	Trailhead kiosk. Update for modified trail system.	Enhancement	Phase 1 Priority 1	Orientation to modified trail system.			Routine
10-3	Nature Center. Interior remodel as needed to enhance functions. Convert existing garage to public use.	Enhancement	Phase 1 Priority 2		Lincoln County		Routine building maintenance. Full time staffing.
10-3	Small storage building on Nature Center grounds to replace garage storage space.	Enhancement	Phase 1 Priority 2	Up to 250 sf. Locate next to vault toilet.		\$5 K	Routine
10-3	Vault toilet at Nature Center.	Preventive maintenance					Routine pump out & cleaning.
	Vault toilet at lower trailhead parking lot, new. Use porta potty until vault toilet installed.	Enhancement	Phase 1 Priority 2	Single hole.	Lincoln County	\$20 K	Routine pump out & cleaning.
10-3	Informational kiosk at lower parking area. Update signage.	Enhancement	Phase 1 Priority 1	Information on invasive aquatic species prevention & water trail orientation.			Routine
10-3	Exterior interpretive panels at Nature Center.	Enhancement	Phase 2 Priority 3	Add more interpretive panels?			
10-3	Home site across county road from Nature Center, existing. Future use to be determined, most likely learning extension facility. Improve for intended use.	Enhancement	Phase unknown. Priority 3	Current life estate. Future use must not cause significant increase in park capacity or traffic.	Lincoln County		
10-3	Pole barn, existing. Future use to be determined, most likely learning extension facility. Improve for intended use.	Enhancement	Phase 2 Priority 3	Vehicular access currently limited to single lane road & easement restrictions. Future use must not cause significant increase in park capacity or traffic.	Lincoln County		Routine building maintenance.
<i>Utilities</i>							
10-3	On-site sewer serves Nature Center building & host site.	Preventive maintenance					Routine
10-3	Potable water at Nature Center building & host site.	Preventive maintenance					Routine
10-3	Electricity to Nature Center building & host site.	Preventive maintenance					Routine

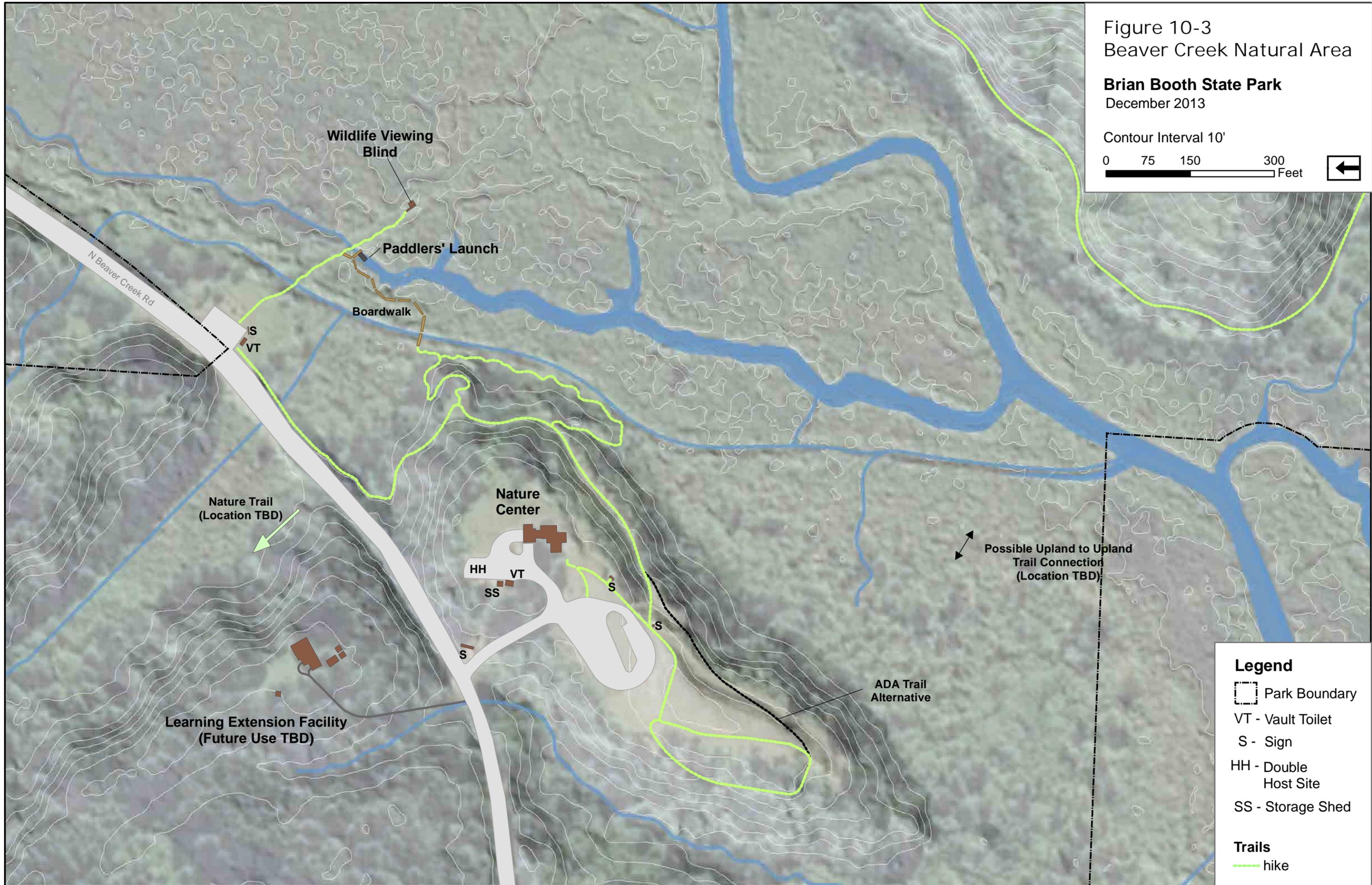
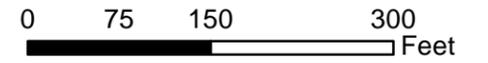
10-3	Utilities as needed at 2 future use sites described above.	Enhancement			Lincoln County		Routine
	Site Furniture						
10-3	Picnic tables on Nature Center grounds, existing. Picnic tables at lower trailhead, existing.	Preventive maintenance					Routine
	Grounds / Landscape / Vegetation						
10-3	Nature Center & lower trailhead parking grounds, groomed.	Preventive maintenance					Routine landscape maintenance. Weed management.
10-3	Pole barn site grounds.	Preventive maintenance					Mow for fire protection. Weed management.
	Trails & Trail Structures						
10-3	Short hiking loop trail around Nature Center grounds, existing.	Preventive maintenance					Routine trail maintenance. Weed management.
Estuary / Floodplain							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Trails & Trail Structures						
	Trail connecting Nature Center site to south Beaver Creek upland trail system. Location currently unknown. Alignment may include combination of floodplain upland & wetland locations. Boardwalk over wetlands where needed.	Enhancement	Phase unknown. Priority 1. Priority 2 if south trailhead developed	Locate & design based on engineering feasibility & cost, visitor experience, potential impacts on wildlife & scenic values. Design for seasonal water levels & boat passage through main channel. ADA compliant.	Lincoln County DSL/ACOE/NMFS.		Periodic inspection & maintenance.
10-3	Install permanent floating paddlers' launch replacing existing temporary launch. Must be workable for put-in & take-out relative to parking & trail accessibility.	Enhancement	Phase 1 Priority 1	Minimum footprint, low visual impact, designed to minimize impact on marsh values & allow fluctuating water level.	Lincoln County DSL/ACOE/NMFS.		Periodic inspection & maintenance.
10-3	Boardwalk trail connecting water trail launch to Nature Center connecting trail to lower parking. Short bridge over small channel.	Enhancement	Phase 1 Priority 2	Peds only. Design for seasonal water levels. ADA compliant.	Lincoln County DSL/ACOE/NMFS	\$150 K	Periodic inspection & maintenance.
10-3	Short hiking trail along marsh edge looped from connecting trail from paddlers' launch to Nature Center.	Enhancement	Phase 1 Priority 2	Peds only. Upland trail along marsh edge. 4' wide natural surface, gravel where needed.	Lincoln County		Routine trail maintenance.
10-3	Wildlife viewing structure near water trail launch.	Enhancement	Phase 2 Priority 3		Lincoln County DSL/ACOE/NMFS		Routine building maintenance.

10-3	Existing trail from lower parking to proposed wildlife viewing structure near water trail launch..	Enhancement	Phase 2 Priority 3	Improve trail surface with fill. May require boardwalk. May require wetland mitigation.	Lincoln County DSL/ACOE		Routine trail maintenance.
10-3	Wildlife viewing structure at location of old farm bridge over creek main channel.	Enhancement	Phase 2 Priority 3		Lincoln County DSL/ACOE/NMFS		Routine building maintenance.
Forest							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-3	Single lane service road from South Beaver Creek Road to pole barn site. Gated at road entrance. Explore feasibility for turnouts.	Enhancement	Phase 1 Priority 2	12' wide, single lane, possible turnouts. Gravel. Grade for runoff management. Cut & fill must avoid encroaching on marsh & 50' upland setback.	Lincoln County	\$80 K 40,000 sf \$30 K stormwater management	Maintenance & resurfacing as needed.
	South Beaver Creek trailhead parking & connecting trail to upland trail system. Site currently unknown. Pursue adjacent property acquisition for project.	Enhancement	Phase unknown. Priority 1	Max. 12 parking spaces. Gravel.	Lincoln County		Maintenance & resurfacing as needed.
	Trails & Trail Structures						
9-5 10-3	Hiking trails, south Beaver Creek uplands. Reduce trail density. Retain trails per Figure 9-5.	Decommission	Phase 1 Priority 1	Peds only on retained trails. Natural surface.			Routine trail maintenance. Monitor & control weeds along trail corridor.
10-3	Nature trail on property across county road from Nature Center.	Enhancement	Phase unknown. Priority 3	Current life estate. Trail design & use will be determined per guidance from Stewardship staff. Follow protocol for potential marbled murrelet habitat.	Lincoln County ODFW USFW		Routine trail maintenance. Monitor & control weeds along trail corridor. Careful refuse management along trail corridor.
Grassland							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Site Furniture						
10-3	Snaggy Point informal picnic site, Existing tables.	Preventive maintenance					Routine
	Trails & Trail Structures						
9-5 10-3	Retain trails illustrated by Figure 9-5.	Preventive maintenance.					Routine trail maintenance. Monitor & control weeds along trail corridor.

Figure 10-3
Beaver Creek Natural Area

Brian Booth State Park
December 2013

Contour Interval 10'



Legend

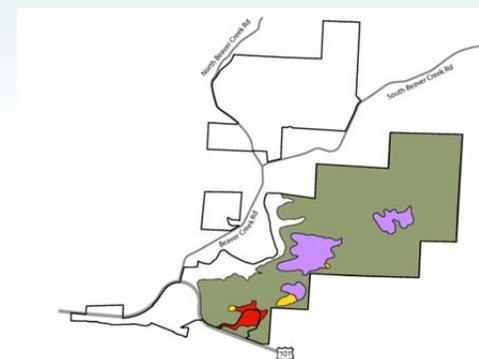
- Park Boundary
- VT - Vault Toilet
- S - Sign
- HH - Double Host Site
- SS - Storage Shed

Trails

- hike

Visitor Experience Support Facilities – Ona Hills Zones

<i>Ona Hills Zones</i>	<i>Management Emphasis</i>
Park Administration	Recreation
Day Use Access	Recreation
Campground	Recreation
Forest	Natural Resources



<i>Ona Hills Entrance & Park Administration</i>							
<i>Figure</i>	<i>Projects</i>	<i>Status</i>	<i>Phase/ Priority</i>	<i>Parameters/ Standards</i>	<i>Reviews/ Approvals</i>	<i>Cost</i>	<i>O&M</i>
	Roads & Parking						
	Improve connection to Hwy 101 per ODOT approved design exception prepared by KIA.	Enhancement	Phase 1 Priority 1	Per KIA report	ODOT Lincoln County	\$100 K	
10-4	Stormwater detention basin, existing. Assess capacity, expand as needed for projects below.	Preventive maintenance or enhance	Phase 1 Priority 1				
10-4	Stormwater management for park entrance road, registration road & parking, express check-in loop & parking, maintenance yard & seasonal staff camp, using existing detention basin.	Enhancement	Phase 1 Priority 1. Staff camp Phase 2 Priority 2		Lincoln County DEQ	\$88 K	Routine
10-4	Park entrance road to beach access trailhead road entrance. Build a roundabout into existing entrance road at the registration road junction. Realign existing road as needed beyond roundabout.	Enhancement	Phase 1 Priority 1	Existing entrance road 24' wide. New roundabout 1-way, 18' wide, minimum diameter for large vehicles. Road beyond roundabout 20' wide. All paved. Minor wetland mitigation may be needed.	ODOT Lincoln County DEQ DSL for minor wetland encroachment.	\$75 K new & realigned road 15,000 sf. Stormwater management addressed above. Wetland mitigation not included.	Maintenance & resurfacing as needed.
10-4	Host site at beach access trailhead road entrance.	Enhancement	Phase 1 Priority 1	Hardstand 15' X 50-60' Paved	Lincoln County DEQ	\$4.5 K 900 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.
10-4	Registration road & parking. Rehab existing office road & parking as needed for park registration & visitor contact, including parking loop & bypass road.	Enhancement	Phase 1 Priority 1	2-way, 24' wide through road & parking loop road. Up to 18 visitor car parking spaces & 4 or 5 long pull through spaces.	ODOT Lincoln County DEQ	\$190 K 38,000 sf. Stormwater management addressed above.	Maintenance & resurfacing as needed.

				Paved. May include 6-8 staff parking spaces in this loop. (Staff parking also behind office.)			
10-4	Consider express check-in loop road with parking. Loop off registration road with parking for walk-up electronic check-in for pre-registered visitors.	Enhancement	May not be needed.	2-way, 20' wide parking loop road. Up to 8 car parking spaces & 2 long parallel pull-through spaces. Paved.	ODOT Lincoln County DEQ	\$45 K 9000 sf Stormwater management addressed above.	Maintenance & resurfacing as needed.
10-4	Maintenance yard.	Enhancement	Phase 2 Priority 2	Down size yard, remove small buildings, remove pavement in east and southeast portions. Leave space for vehicle access around 2 large maintenance buildings. (Restoration landscaping addressed separately.)	ODOT DEQ	\$160 K Stormwater management addressed above.	Maintenance & resurfacing as needed.
10-4	Seasonal staff camp. Staff cabin parking loop & 2 host sites.	Enhancement	Phase 2 Priority 3	2-way access road 18' wide from maintenance yard entrance. 1-way staff cabin parking loop road 15' wide. Up to 8 car spaces, 2 per cabin. Host site hard stands 15' wide & 50-60' long. 1 extra vehicle space per host site. Paved or gravel.	ODOT Lincoln County DEQ	\$21 K gravel. 10,500 sf Stormwater management addressed above.	Maintenance & resurfacing as needed.
10-4	Recycling loop. Located for convenient drop-off of recyclables by visitors exiting the campground.	Enhancement	Phase 1 Priority 1	2-way, 20' wide loop road with pull out spaces next to recycling bins. Paved or gravel.	Lincoln County DEQ	\$23 K gravel 11,500 sf. \$2 K stormwater management	Maintenance & resurfacing as needed.
10-4	Sewage dump station. Location in recycling loop. (Other location alternative in central campground area.) Use existing drainfield.	Enhancement	Phase 2 Priority 3	Requires updated traffic study and review by ODOT. May require new highway 101 access permit, and may require additional improvements in highway R.O.W.	ODOT Lincoln County	\$250 K	Routine
	<i>Buildings & Structures</i>						
10-4	Ona Hills entrance sign. At intersection of entrance road and Highway 101.	Enhancement	Phase 1 Priority 1		ODOT Lincoln County	\$2.5 K	

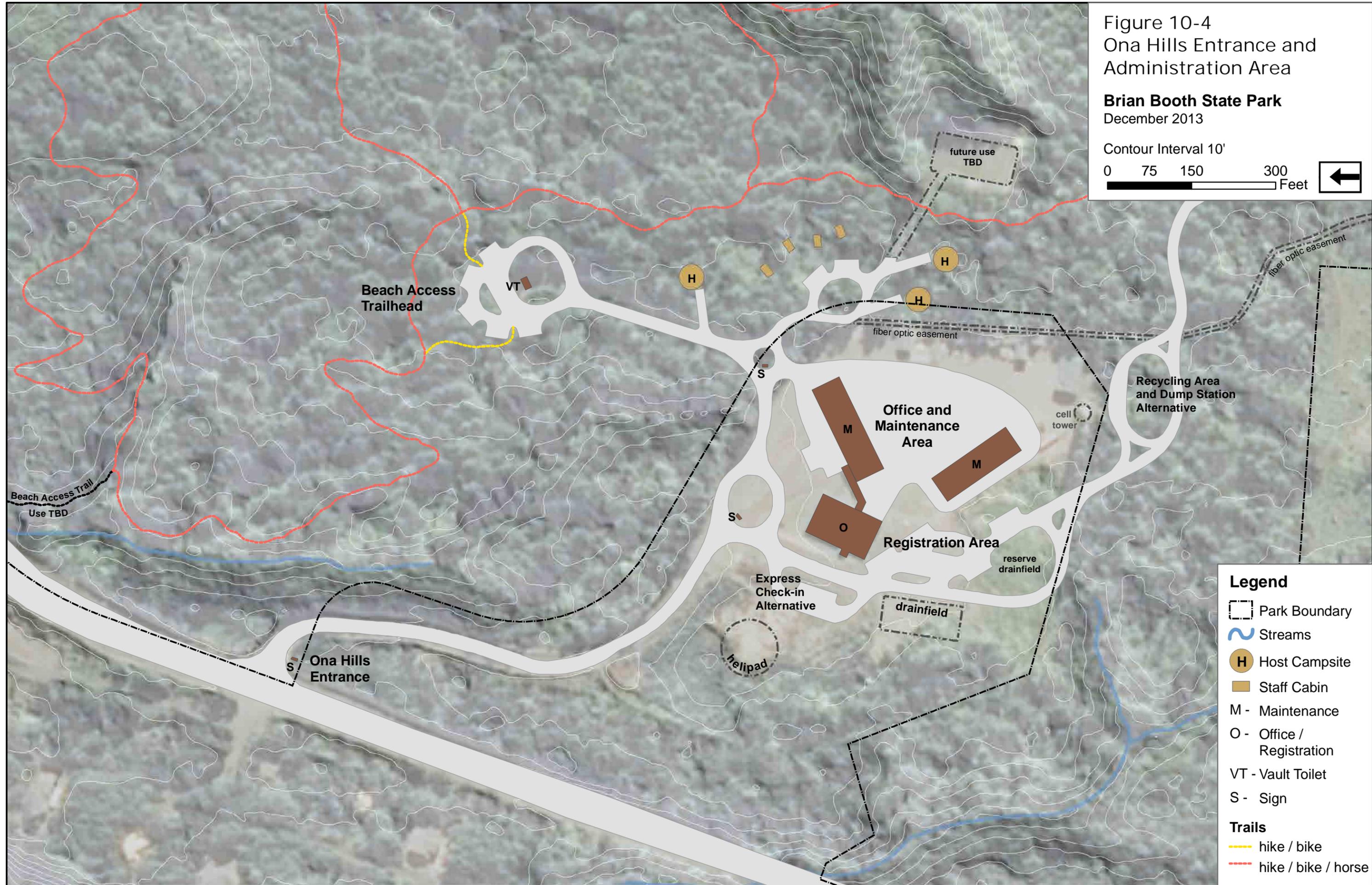
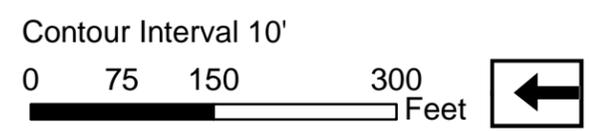
10-4	Directional sign. At junction of registration road & entrance road.	Enhancement	Phase 1 Priority 1		ODOT Lincoln County		
10-4	Directional sign. At junction of entrance road & beach access trailhead road.	Enhancement	Phase 1 Priority 1		ODOT Lincoln County		
10-4	Express check-in kiosk	Enhancement	Phase 1 Priority 1		Lincoln County	\$3 K	
10-4	Office / registration building. Remodel as needed for visitor contact, registration, staff offices.	Enhancement	Phase 1 Priority 1		ODOT Lincoln County		Routine building maintenance.
10-4	Maintenance buildings. Retain 2 large buildings. (Remove others with maintenance yard rehab.)	Preventive maintenance					Routine building maintenance.
10-4	Cell tower (Not OPRD-owned)						Update lease agreement as needed.
10-4	Seasonal staff cabins. Up to 4 double occupancy cabins.	Enhancement	Phase 2 Priority 3	2 bedroom, 1 bath, kitchen, living area.	Lincoln County	\$100 K each	Routine building maintenance.
	Utilities						
10-4	On-site sewer serves office & maintenance buildings (existing). Drainfield existing. Assess capacity	Preventive maintenance					Routine
10-4	Sewer connection to 1 host site. Use existing drainfield.	Enhancement	Phase 1 Priority 1	Check drainfield capacity.	Lincoln County	\$15 K	Routine
10-4	Sewer connections to staff cabins & 2 host sites. Use existing drainfield.	Enhancement	Phase 2 Priority 3	Check drainfield capacity.	Lincoln County	\$55 K	Routine
10-4	Sewer connection to dump station if developed.	Enhancement	Phase 2 Priority 3	Check drainfield capacity	Lincoln County	\$15 K	Routine
10-4	Potable water to office & maintenance buildings (existing).	Preventive maintenance					Routine
10-4	Potable water to 1 host site.	Enhancement	Phase 1 Priority 1		Lincoln County	\$12 K	Routine
10-4	Potable water to staff cabins & 2 host sites.	Enhancement	Phase 2 Priority 3		Lincoln County	\$ 28 K	Routine
10-4	Electricity to office & maintenance buildings.	Preventive maintenance					Routine
10-4	Electricity to 1 host site.	Enhancement	Phase 1 Priority 1		Lincoln County	\$10 K	Routine
10-4	Electricity to staff cabins & 2 host sites.	Enhancement	Phase 2 Priority 3		Lincoln County	\$40 K	Routine
	Site Furniture						
10-4	Picnic tables	Enhancement		1 table per host site		\$1.5 K	Routine
10-4	Fire rings	Enhancement		1 fire ring per host site		\$1.5 K	Routine

	Grounds / Landscape / Vegetation						
10-4	Entrance road corridor. Enhance entrance setting as needed with supplemental native plantings.	Enhancement	Phase 1 Priority 1				Vegetation maintenance. Weed management.
10-4	Office & registration area landscaping. Enhance visual setting around office & registration area & parking with landscaping & vegetation.	Enhancement	Phase 1 Priority 1	Upon approach to registration area via park entrance, visual focus will be on the office building with nicely landscaped grounds. Registration parking loop & express check-in will be visually softened by vegetation. Maintenance buildings will be obscured by vegetation or other visual enhancement.		\$50 K	Vegetation maintenance. Weed management. Temporary irrigation to establish plantings.
10-4	Heli-Pad. Clear & level.	Enhancement	Phase 1 Priority 1	___' diameter clear zone. Natural surface.		\$15 K	Mow
104	Maintenance yard restoration.	Enhancement	Phase 2 Priority 2	(Pavement removal addressed above.) Restore east and southeast portions of yard with trees & shrubs.		\$28 K	Vegetation maintenance. Weed management. Temporary irrigation to establish plantings.
10-4	Host sites. Clearing & minor grading for 3 host sites.	Enhancement		Avoid removing healthy older native trees & shrubs.		\$4.5 K	
10-4	Future use area – shooting range site. Available for undetermined use. Remove old building and clean up lead. Seed with grasses.	Decommission		Future use will not significantly increase visitor capacity or traffic.	Work with OSP & other user groups on relocation. DEQ (site cleanup).		Mow for fire safety.
Main Park Road & Utility Corridor – Administrative Area to Upper Campground (extending through multiple management zones)							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Road Sections						
10-4 through 10-6	Main park road, from administration area to central campground program area parking.	Enhancement	Phase 1 Priority 1	2-way, 20' wide. Mostly realigned from fiber optic easement road through this reach, to make room for adjacent campground & trailhead development. Paved or gravel.	Lincoln County DEQ	\$500 K paved. 100,000 sf \$25 K stormwater management	Maintenance & resurfacing as needed.

10-6 10-7 9-5	Main park road, from central campground program area parking to turnaround beyond upper campground.	Enhancement	Phase 2 Priority 1	2-way, 20' wide. Use alignment of fiber optic easement road through this reach. Turnaround design for large vehicles. Paved or gravel.	Lincoln County DEQ	\$450 K paved. 90,000 sf \$25 K stormwater management	Maintenance & resurfacing as needed.
	<i>Utilities</i>						
10-4 through 10-6	Central campground water & electric supply lines, common ditch along main park road. Administrative area to program area parking.	Enhancement	Phase 1 Priority 1		Lincoln County DEQ	\$180 K 6,000'	Routine
10-6 10-7 9-5	Upper campground water & electric supply lines, common ditch along main park road. Program area parking to upper campground host sites.	Enhancement	Phase 2 Priority 1		Lincoln County DEQ	\$90 K 3,000'	Routine
10-6	(Central campground sewage drainfield addressed under central campground drive-in camp loop utilities.)						
10-6 10-7 9-5	Upper campground drainfield & main line along park road – combined central & upper campground drainfield alternative. Assume farthest drainfield location in central campground area.	Enhancement	Phase 2 Priority 1	Central campground drainfield: capacity for central & upper campground facilities	Lincoln County DEQ	\$179 K 5,100' main. (use central campground drainfield) Assume no lift station	Routine
10-6 10-7 9-5	Upper campground drainfield & main line along park road – separate drainfield alternative. Assume nearest drainfield location in central campground area.	Enhancement	Phase 2 Main line Priority 1 Drainfield Priority 2	2nd drainfield: capacity for upper campground facilities	Lincoln County DEQ	\$200 K separate drainfield \$123 K 3,500' main. Assume no lift station	Routine

Figure 10-4
Ona Hills Entrance and
Administration Area

Brian Booth State Park
December 2013



- Legend**
- Park Boundary
 - Streams
 - Host Campsite
 - Staff Cabin
 - M - Maintenance
 - O - Office / Registration
 - VT - Vault Toilet
 - S - Sign
- Trails**
- hike / bike
 - hike / bike / horse

Beach Access Trailhead							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-4	Trailhead road & parking. Improve existing primitive road, realign as needed.	Enhancement	Phase 1 Priority 2	Build only with operational highway crossing trail. 20' wide road. Up to 26 car spaces, 6 of these paired end to end for long vehicles. Paved or gravel.	Lincoln County DEQ	\$44 K gravel \$110 K paved 22,000 sf \$1.5 K stormwater management	Periodic maintenance & resurfacing as needed.
	Buildings & Structures						
10-4	Trailhead Kiosk.	Enhancement	Phase 1 Priority 2			\$2 K	
10-4	Vault toilet.	Enhancement	Phase 1 Priority 2	2 hole.	Lincoln County	\$35 K	Routine pump out & cleaning.
	Trails & Trail Structures						
10-4	Connecting trails from trailhead parking to multi-use trail.	Enhancement	Phase 1 Priority 2	Hike & Bike only. 8' wide, crushed rock.	Lincoln County	\$7.5 K contractor	Routine trail maintenance.
	Grounds/Landscape/Vegetation						
10-4	Manage vegetation to buffer parking from multi-use trail.		Phase 1 Priority 2				Vegetation maintenance. Weed management.
Central Trailhead							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-5	Trailhead road & parking.	Enhancement	Phase 1 Priority 2	Build only with operational highway crossing trail. 18' wide road. 15 car spaces. Paved or gravel.	Lincoln County DEQ	\$33 K gravel \$83 K paved 16,500 sf \$1.5 K stormwater management	Maintenance & resurfacing as needed.
	Buildings / Structures						
10-5	Trailhead signage.	Enhancement	Phase 1 Priority 2			\$2 K	
	Vault toilet.	Enhancement	Phase 1 Priority 2	2 hole.	Lincoln County	\$35 K	Routine pump out & cleaning.
	Trails & Trail Structures						
10-5	Connecting trails to multi-use trail.	Enhancement	Phase 1 Priority 2	Bike & hike only. 8' wide, crushed rock.		\$7.5 K contractor	Routine trail maintenance.
	Grounds/Landscape/Vegetation						
10-5	Manage vegetation to buffer parking from multi-use trail & road.		Phase 1 Priority 2				Vegetation maintenance. Weed management.

Equine Trailhead							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-5	Trailhead road & parking.	Enhancement	Phase 1 Priority 2	Build only with operational highway crossing trail. Gravel surface. 20' wide road. Up to 8 pull through spaces, 50-75' long, 20' wide.	Lincoln County DEQ	\$55 K 27,500 sf \$5 K stormwater management	Maintenance & resurfacing as needed.
	Buildings / Structures						
10-5	Trailhead signage.	Enhancement	Phase 1 Priority 2			\$2 K	
	Trails & Trail Structures						
10-5	Connecting trails from parking to multi-use trail & equine campground.	Enhancement	Phase 1 Priority 2	Horse only. 8' wide, gravel.		\$30 K contractor	Routine trail maintenance.
	Grounds/ Landscape/Vegetation						
10-5	Manage vegetation to buffer parking from multi-use trail & road.		Phase 1 Priority 2				Vegetation maintenance. Weed management.
Equine Campground - Up to 12 campsites. Phase in campsites based on use.							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-5	Camp loop road and pull through spaces. Develop split loop in 2 halves, second half if needed based on use.	Enhancement	Phase 2 Priority 1 first half.	Total both halves: 20' wide loop road, up to 12 pull through spaces, 20' wide, 50-75' long. Gravel surface.	Lincoln County DEQ	Both halves: \$100 K 50,000 sf \$20 K stormwater management	Maintenance & resurfacing as needed.
	Buildings / Structures						
10-5	Equine camp directional sign.	Enhancement	Phase 2 Priority 1				
10-5	Trailhead signage.	Enhancement	Phase 2 Priority 1			\$2 K	
10-5	Self-registration station.	Enhancement	Phase 2 Priority 1			\$3 K	Regular fee collection.
10-5	Vault toilet	Enhancement	Phase 2 Priority 1	Double hole.	Lincoln County	\$35 K	Routine pump out & cleaning.
10-5	Corrals	Enhancement	Phase 2 Priority 1	2 small corrals per site.		\$2 K each	Routine
10-5	Manure bins	Enhancement	Phase 2 Priority 1			\$2.5 K each	Routine
10-5	Wood bin	Enhancement	Phase 2 Priority 1			\$3.5 K each	Routine

	<i>Utilities</i>						
10-5	Potable water at central water stations.	Enhancement	Phase 2 Priority 1	Up to 3 water stations conveniently spaced.	Lincoln County	\$35 K	Routine
10-5	Gray water disposal stations.	Enhancement	Phase 2 Priority 1	Locate at potable water stations.	Lincoln County	\$ 1.5 K each	Routine
10-5	Possible electric to campsites.	Enhancement	Phase 2 Priority 1		Lincoln County	\$40 K	Routine
	<i>Site Furniture</i>						
10-5	Tables	Enhancement		1 table per standard campsite, 2 for double site.		\$5.5 K	Routine
10-5	Fire Rings	Enhancement		1 fire ring per campsite.		\$5 K	Routine
	<i>Grounds/Landscape/Vegetation</i>						
10-5	Clearing & minor grading for up to 12 campsites.	Enhancement		Avoid removing healthy, older native trees & shrubs.		\$35 K	
10-5	Manage vegetation to buffer campground from multi-use trail & road, & for campsite privacy.	Enhancement	Phase 2 Priority 1				Vegetation maintenance. Weed management.
	<i>Trails & Trail Structures</i>						
10-5	Connecting trails to multi-use trail & equine trailhead parking.	Enhancement	Phase 2 Priority 1	Horse only. 6-8' wide, gravel.		\$40 K contractor	Routine trail maintenance & weed management.

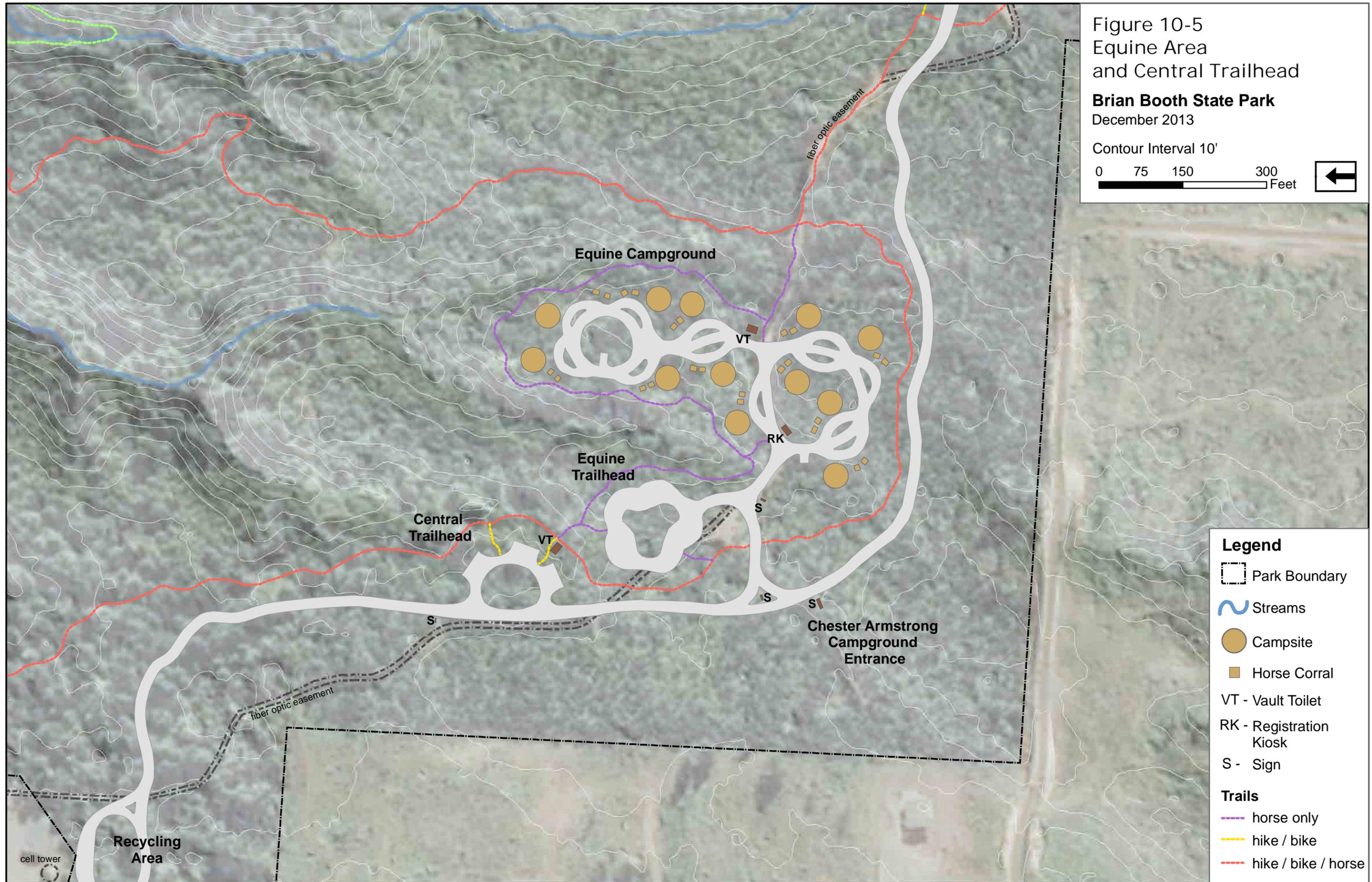
Figure 10-5
Equine Area
and Central Trailhead

Brian Booth State Park

December 2013

Contour Interval 10'

0 75 150 300 Feet



Legend

Park Boundary

Streams

Campsite

Horse Corral

VT - Vault Toilet

RK - Registration Kiosk

S - Sign

Trails

horse only

hike / bike

hike / bike / horse

Mountain Biker Trailhead							
Figure	Projects	Status	Phase / Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-6	Access road & parking loop.	Enhancement	Phase 2 Priority 2	18' wide road. 12 car spaces. Gravel.	Lincoln County DEQ	\$28 K 14,000 sf \$2.5 K stormwater management	Maintenance & resurfacing as needed.
	Buildings & Structures						
10-6	Trailhead signage.	Enhancement	Phase 2 Priority 2			\$2 K	
10-6	Vault toilet.	Enhancement	Phase 2 Priority 2	Single hole.	Lincoln County	\$20 K	Routine pump out & cleaning.
	Trails & trail Structures						
10-6	Connecting trails from parking to multi-use trail.	Enhancement	Phase 2 Priority 2	Hike & bike only. 8' wide, crushed rock.		\$5 K contractor	Routine trail maintenance.
	Grounds/Landscape/Vegetation						
10-6	Establish / maintain vegetation to buffer parking from multi-use trail & neighboring properties.	Enhancement	Phase 1 Priority 1			(See Nat. Res. Mgt. Actions, this chapter)	Vegetation maintenance. Weed management.
Central Campground - Entrance							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-6	Campground registration station loop. One-way loop with parking.	Enhancement	Phase 1 Priority 1	18' wide loop road, paved. 8 standard diagonal parking spaces opposite parallel pullout for long vehicle.	Lincoln County DEQ	\$50 K 10,000 sf \$1.5 K stormwater management	Maintenance & resurfacing as needed.
	Buildings / Structures						
10-5	Chester Armstrong Campground entrance sign.	Enhancement	Phase 1 Priority 1	Locate immediately east of & visible from equine camp entrance.		\$3 K	
10-6	Registration station. Enclosed small building with covered porch for staff or host contact & self-registration. Walk-up access with limited short-term parking.	Enhancement	Phase 1 Priority 1	Incorporated into campground entrance loop. Suggested 10'x12' interior space. Self-service registration drop box on porch.	Lincoln County	\$45 K	Staffed by volunteer host or park ranger during normal business hours. Routine building maintenance.
	Utilities						
10-6	Electricity, internet & phone service to registration station.	Enhancement	Phase 1 Priority 1		Lincoln County	\$75 K	Routine

	Grounds / Landscape/Vegetation						
10-6	Entrance corridor. Enhance setting with supplemental native plantings as needed.	Enhancement	Phase 1 Priority 1			\$10 K	Vegetation maintenance. Weed management.
Central Campground - Drive-in Camp Loop. Up to 50 visitor campsites.							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-6	Central campground loop road.	Enhancement	Phase 1 Priority 1	2-way, 20' wide. Paved or gravel.	Lincoln County DEQ	\$300 K paved \$120 K gravel 60,000 sf \$40 K stormwater management	Maintenance & resurfacing as needed.
10-6	Visitor campsite hardstands. Up to 50 visitor sites.	Enhancement	Phase 1 Priority 1	12' wide, 35-45' long. 1 extra vehicle allowed per site. Paved or gravel. ADA compliance for required # sites. Avoid removing healthy, older native trees & shrubs.	Lincoln County DEQ	\$125 K paved \$50 K gravel 25,000 sf Stormwater management addressed above	Maintenance & resurfacing as needed.
10-6	Bumper logs						
10-6	2 host site hardstands	Enhancement	Phase 1 Priority 1	15' wide, 50-60' long. 1 extra vehicle allowed per site. Paved or gravel.	Lincoln County DEQ	\$9 K paved \$3.6 K gravel 1800 sf Stormwater management addressed above	Maintenance & resurfacing as needed.
10-6	Restroom/shower parking off campground loop road.		Phase 1 Priority 1	4-6 parking spaces at each restroom/shower building. Paved or gravel.	Lincoln County DEQ	\$12 K paved \$4.8 K gravel 2,400 sf Stormwater management addressed above	Maintenance & resurfacing as needed.
10-6	Dump station loop alternative, illustrated along main park road. (Other alternative in administrative area.)	Enhancement	Phase 2 Priority 3	Requires updated traffic study and review by ODOT. May require new highway 101 access permit, and may require additional improvements in highway R.O.W.	ODOT Lincoln County DEQ	Loop road: \$20 K paved \$8 K gravel 4000 sf	Maintenance & resurfacing as needed.

	<i>Buildings / Structures</i>						
10-6	2 restroom / shower buildings	Enhancement	Phase 1 Priority 1	4 toilets/side & showers	Lincoln County	\$275 K each	Routine building maintenance & cleaning.
10-6	3 or 4 vault toilets as needed to supplement plumbed restrooms.	Enhancement	Phase 1 Priority 1	Double hole.	Lincoln County	\$35 K each	Routine pump out & cleaning.
10-6	Group shelter	Enhancement	Phase 2 Priority 2	Up to 100 person capacity. Enclosed. Equipped with kitchen & wood stove or fireplace.	Lincoln County	\$500 K	Routine building maintenance & cleaning.
10-6	Child play structure	Enhancement	Phase 1 Priority 2	Designed to blend with setting.	Lincoln County	\$2.5 K	Periodic inspection & maintenance as needed.
10-6	Wood bin	Enhancement	Phase 1 Priority 1			\$3.5 K	Routine
	<i>Utilities</i>						
10-6	Campground drainfield. Multiple possible locations shown.	Enhancement	Phase 1 Priority 1	Capacity for central campground facilities. May potentially serve both central and upper campgrounds, which requires added capacity.	Lincoln County	\$200 K	Routine
10-6	Sewer connections to host sites, restroom/shower buildings & group shelter. Possible drainfields shown, depending on soil suitability.	Enhancement	Phase 1 Priority 1		Lincoln County	\$75 K	Routine
10-6	Sewer connection to dump station if developed. 2 alternative sites illustrated along main park road.	Enhancement	Phase 2 Priority 2			\$15 K	Routine
10-6	Potable water at restroom /shower buildings, group shelter, host sites, & central water stations.	Enhancement	Phase 1 Priority 1	Provide 1 water station per 6 campsites along campground loop road.	Lincoln County	\$75 K	Routine
10-6	Gray water disposal stations.	Enhancement	Phase 1 Priority 1	Locate at potable water stations.	Lincoln County	\$1.5 K each	Routine
10-6	Electricity to host sites, restroom /shower buildings & group shelter. Consider 15 amp to visitor campsites.	Enhancement	Phase 1 Priority 1	Max. 15 amp to visitor campsites.	Lincoln County	\$75 K	Routine
	<i>Site Furniture</i>						
10-6	Tables	Enhancement	Phase 1 Priority 1	1 table per campsite & host site.		\$27 K	Routine
10-6	Fire rings	Enhancement	Phase 1 Priority 1	1 fire ring per campsite & host site.		\$27 K	Routine
10-6	Site markers						
	<i>Grounds/ Landscape/ Vegetation</i>						
10-6	Clearing & minor grading for up to 50 visitor campsites & 2 host sites.	Enhancement	Phase 1 Priority 1	Avoid removing healthy older native trees & shrubs.		\$75 K	

10-6	Manage vegetation to buffer campground from road, & for campsite privacy.		Phase 1 Priority 1				Vegetation maintenance. Weed management.
Central Campground - Walk-in Cabin & Tent Camp. Up to 14 cabins & 6 tent sites, potentially with tent shelters.							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-6	Cabin & tent site parking loop with access road from central campground entrance loop.	Enhancement	Phase 1 Priority 1	20' wide access & parking loop road. Paved or gravel.	Lincoln County DEQ	\$88 K paved \$35 K gravel 17,500 sf \$25 K stormwater management	Maintenance & resurfacing as needed.
10-6	Cabin & tent site parking.	Enhancement	Phase 1 Priority 1	Up to 40 car spaces, 2 per cabin/tent site. Paved or gravel.	Lincoln County DEQ	\$43 K paved \$17 K gravel 8600 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.
	Buildings / Structures						
10-6	Up to 14 camper cabins	Enhancement	Phase 1 Priority 2	Electricity, no plumbing. No slab or stem wall foundations. ADA compliance for required # cabins.	Lincoln County	\$75 K each 2 room	Routine building maintenance & cleaning.
	3-sided tent shelters. May be installed in tent sites.	Enhancement			Lincoln County	\$4 K each	Routine building maintenance.
10-6	Restroom/shower building	Enhancement	Phase 1 Priority 1	4 toilets/side & showers	Lincoln County	\$275 K	Routine building maintenance & cleaning.
	Utilities						
10-6	Sewer connection to restroom/shower building. Possible drainfields shown, depending on soil suitability.	Enhancement	Phase 1 Priority 1		Lincoln County	\$75 K	Routine
10-6	Potable water at restroom /shower building and central water stations.	Enhancement	Phase 1 Priority 1	4 potable water stations, conveniently spaced.	Lincoln County	\$75 K	Routine
10-6	Gray water disposal stations.	Enhancement	Phase 1 Priority 1	Locate at potable water stations.	Lincoln County	\$1.5 K each	Routine
10-6	Electricity to camper cabins & restroom/shower building.	Enhancement	Phase 1 Priority 1		Lincoln County	\$45 K	Routine
	Site Furniture						
10-6	Tables	Enhancement	Phase 1 Priority 1	1 table per cabin / tent site.		\$10 K	Routine

10-6	Fire rings	Enhancement	Phase 1 Priority 1	1 fire ring per cabin / tent site.		\$10 K	Routine
10-6	Site markers						
Grounds/ Landscape/ Vegetation							
10-6	Drainfields serve as open play fields	Enhancement	Phase 1 Priority 2	Plant with turf grass.	Lincoln County		Mow for fire protection.
10-6	Clearing & minor grading for up to 14 cabins & 6 tent sites.	Enhancement	Phase 1 Priority 1&2	Avoid removing healthy, older native trees & shrubs.		\$35 K	
10-6	Manage vegetation to buffer campground from road & parking, & for campsite privacy.	Enhancement	Phase 1 Priority 1				Vegetation maintenance. Weed management.
Central Campground - Walk-in Tent Camp. Up to 16 sites in 2 sections.							
Figure	Projects	Status	Phase / Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
Roads & Parking							
10-6	Parking loop road. 1 parking loop serves 2 connected sections.	Enhancement	Phase 1 Priority 1	1-way, 15' wide loop road. Paved or gravel.	Lincoln County DEQ	\$33 K paved \$13 K gravel 6500 sf. \$2.5 K stormwater management	Maintenance & resurfacing as needed.
10-6	Tent site parking.	Enhancement	Phase 1 Priority 1	Up to 32 car spaces, 2 per site. Paved or gravel.	Lincoln County DEQ	\$33 K paved \$13 K gravel 6500 sf Stormwater management addressed above	Maintenance & resurfacing as needed.
Buildings / Structures							
(Campers use nearby restrooms & showers in drive-in camp loop.)							
Utilities							
10-6	Potable water at central water stations.	Enhancement	Phase 1 Priority 1	At least 2 water sta- tions, 1 for each area, in addition to stations in drive-in camp loop.	Lincoln County	\$45 K	Routine
10-6	Gray water disposal stations.	Enhancement	Phase 1 Priority 1	Locate at potable water stations.	Lincoln County	\$1.5 K each	Routine
Site Furniture							
10-6	Tables	Enhancement	Phase 1 Priority 1	1 picnic table per site		\$8 K	Routine
10-6	Fire rings	Enhancement	Phase 1 Priority 1	1 fire ring per site		\$8 K	Routine
10-6	Site markers						

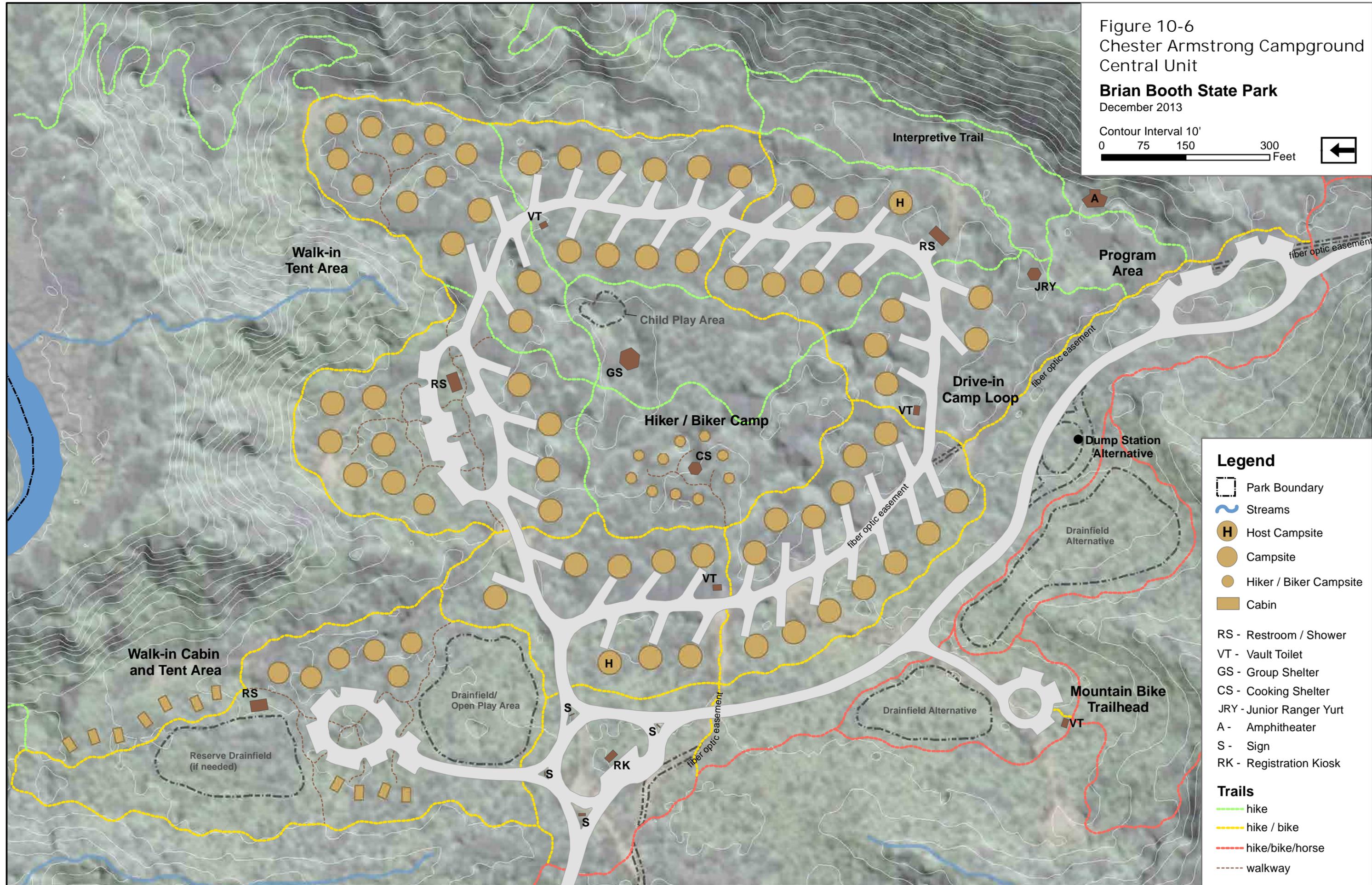
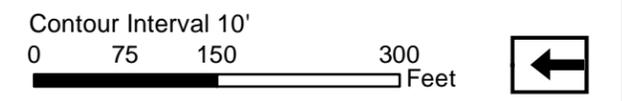
	Grounds/ Landscape/ Vegetation						
10-6	Clearing & minor grading for up to 16 tent sites.		Phase 1 Priority 1	Avoid removing healthy, older native trees & shrubs.		\$18 K	
10-6	Manage vegetation to buffer campground from road & trails, & for campsite privacy.		Phase 1 Priority 1				Vegetation maintenance. Weed management.
Central Campground - Hiker Biker Camp. Up to 10 tent sites.							
Figure	Projects	Status	Phase / Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Buildings / Structures						
	(Campers use nearby restrooms & showers in drive-in camp loop.)						
10-6	Cooking shelter	Enhancement	Phase 2 Priority 1	10 person capacity. Open sided. With wood stove or fire place, sink, 2-3 tables, & lockers with electric outlets.	Lincoln County	\$50 K	Routine building maintenance.
	Utilities						
10-6	Potable water at cooking shelter.	Enhancement	Phase 1 Priority 1		Lincoln County	\$10 K	Routine
10-6	Gray water disposal station at cooking shelter site	Enhancement	Phase 1 Priority 1		Lincoln County	\$1.5 K each	Routine
10-6	Electricity at cooking shelter site	Enhancement	Phase 1 Priority 1		Lincoln County	\$10 K	Routine
	Site Furniture						
10-6	Tables	Enhancement	Phase 1 Priority 1	1 table per 2 campsites.		\$2.5 K	Routine
10-6	Fire rings	Enhancement	Phase 1 Priority 1	Up to 3 fire rings total.		\$1.5 K	Routine
10-6	Site markers						
	Grounds/ Landscape/ Vegetation						
10-6	Clearing & minor grading for up to 10 small tent sites.		Phase 1 Priority 1	Avoid removing healthy older native trees & shrubs.		\$8 K	
10-6	Manage vegetation to buffer from trails & for campsite privacy.		Phase 1 Priority 1				Vegetation maintenance. Weed management.
Central Campground – Program Area.							
Map	Projects	Status	Phase	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						

10-6	Program parking loop road.	Enhancement	Phase 1 Priority 1	1-way, 18' wide loop road. Paved or gravel. Design loop for large vehicle turnaround.	Lincoln County DEQ	\$33 K paved \$13 K gravel 6500 sf, \$2 K stormwater management	Maintenance & resurfacing as needed.
10-6	Program parking.	Enhancement	Phase 1 Priority 1	15 car spaces. (Plus 5 spaces for remote Adirondack camp.) Paved or gravel.	Lincoln County DEQ	\$20 K paved \$8 K gravel 4000 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.
	<i>Buildings / Structures</i>						
10-6	Junior ranger gathering shelter.	Enhancement	Phase 1 Priority 1	At least 12 person capacity. Yurt in phase 1. Plumb for drinking water. Consider replacing with wood building with roll up sides.	Lincoln County	\$29 K yurt	Routine building maintenance & cleaning.
10-6	Camp talk amphitheater	Enhancement	Phase 1 Priority 1	100 person capacity. Audio/ visual equipped. Rustic wood.	Lincoln County	\$75 K	Routine building maintenance.
	<i>Utilities</i>						
	Potable water to junior ranger shelter.						
10-6	Electricity to junior ranger shelter & camp talk amphitheater.	Enhancement	Phase 1 Priority 1		Lincoln County	\$15 K	Routine
	<i>Site Furniture</i>						
10-6	Tables	Enhancement	Phase 1 Priority 1	Tables at junior ranger shelter.		\$1 K	Routine
	Stone fire place at camp talk amphitheater.	Enhancement	Phase 2 Priority 2			\$20 K	Routine
	<i>Grounds/Landscape/Vegetation</i>						
10-6	Manage vegetation for desired visitor experience setting. Plant native vegetation as needed for interpretive trail experience.	Enhancement	Phase 1 Priority 1	Avoid removing healthy older native trees & shrubs.			Vegetation maintenance. Weed management.
10-6	Nature play area (not illustrated). Locate and design on-site.	Enhancement	Phase 2 Priority 2	Locate and design to avoid potential conflicts with other visitor uses.			

Central Campground - Trails							
<i>Figure</i>	<i>Projects</i>	<i>Status</i>	<i>Phase/ Priority</i>	<i>Parameters/ Standards</i>	<i>Reviews/ Approvals</i>	<i>Cost</i>	<i>O&M</i>
10-6	Walkways	Enhancement	Phase 1 Priority 1	6' wide. Natural surface unless crushed rock needed for ADA.		\$60 K natural \$100 K crushed. Contractor	Routine trail maintenance.
10-6	Program area interpretive trail	Enhancement	Phase 1 Priority 2	8' wide. Easy 1/4 -1/2 mile loop. Natural surface unless crushed rock needed for ADA.		\$30 K natural \$50 K crushed. Contractor	Routine trail maintenance. Monitor & control weeds along trail corridor.
10-6	Hiking trails	Enhancement	Phase 1 Priority 1	8' wide. Natural surface unless crushed rock needed for ADA.		\$40.5 K natural \$67.5 K crushed. Contractor	Routine trail maintenance. Monitor & control weeds along trail corridor.
10-6	Biking & hiking trails	Enhancement	Phase 1 Priority 1	8'-10' wide. Paved or crushed rock.		\$280 K crushed. Contractor	Routine trail maintenance. Monitor & control weeds along trail corridor.

Figure 10-6
 Chester Armstrong Campground
 Central Unit

Brian Booth State Park
 December 2013



Legend

- Park Boundary
- Streams
- Host Campsite
- Campsite
- Hiker / Biker Campsite
- Cabin
- RS - Restroom / Shower
- VT - Vault Toilet
- GS - Group Shelter
- CS - Cooking Shelter
- JRY - Junior Ranger Yurt
- A - Amphitheater
- S - Sign
- RK - Registration Kiosk

Trails

- hike
- hike / bike
- hike/bike/horse
- walkway

Upper Campground - Cabin Loop. Up to 15 cabins.							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-7	Cabin loop road	Enhancement	Phase 2 Priority 2	2-way, 20' wide. Paved or gravel.	Lincoln County DEQ	\$75 K paved \$30 K gravel 15,000 sf \$4 K stormwater management	Maintenance & resurfacing as needed.
10-7	Cabin parking	Enhancement	Phase 2 Priority 2	Up to 30 car spaces, 2 per cabin. Paved or gravel.	Lincoln County DEQ	\$30 K paved \$12 K gravel 6,000 sf	Maintenance & resurfacing as needed.
10-7	Restroom/shower parking	Enhancement	Phase 2 Priority 2	4 car spaces next to restroom along main park road. Paved or gravel.	Lincoln County DEQ	\$4 K paved \$1.6 K gravel 2000 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.
	Buildings / Structures						
10-7	Up to 15 camper cabins	Enhancement	Phase 2 Priority 2	Electricity, no plumbing. No slab or stem wall foundations. ADA compliance for required # cabins.	Lincoln County	\$75 K each 2 room	Routine building maintenance & cleaning.
10-7	Restroom / shower building	Enhancement	Phase 2 Priority 2	4 toilets/side & showers	Lincoln County	\$275 K	Routine building maintenance & cleaning.
10-7	Group shelter		Phase 2 Priority 3	50 person capacity. Enclosed. With kitchen & wood stove or fireplace.	Lincoln County	\$250 K	Routine building maintenance & cleaning.
	Utilities						
10-7	Sewer connections to restroom/shower building & group shelter.	Enhancement	Phase 2 Priority 2		Lincoln County	\$25 K	Routine
10-7	Potable water at restroom /shower building, group shelter & central water stations.	Enhancement	Phase 2 Priority 2	3 potable water stations along loop road.	Lincoln County	\$30 K	Routine
10-7	Gray water disposal stations.	Enhancement	Phase 2 Priority 2	Locate at potable water stations.	Lincoln County	\$1.5 K each	Routine
10-7	Electricity to camper cabins, restroom/shower building & group shelter.	Enhancement	Phase 2 Priority 2		Lincoln County	\$30 K	Routine

	Site Furniture						
10-7	Tables		Phase 2 Priority 2	1 table per cabin.		\$7.5 K	Routine
10-7	Fire rings		Phase 2 Priority 2	1 fire ring per cabin.		\$7.5 K	Routine
	Grounds/ Landscape/ Vegetation						
10-7	Clearing & minor grading for up to 15 cabins.		Phase 2 Priority 2	Avoid removal of healthy older native trees & shrubs.		\$20 K	
10-7	Manage vegetation for optimal privacy & visitor experience setting.		Phase 2 Priority 2				Vegetation maintenance. Weed management.
Upper Campground - Cabin & Drive-in Campsite Loop. Up to 7 cabins & 10 visitor campsites.							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-7	Campground / cabin loop road.	Enhancement	Phase 2 Priority 1	2-way road, 20' wide. Paved or gravel.	Lincoln County DEQ	\$125 K paved \$50 K gravel 25,000 sf. \$10 K stormwater management	Maintenance & resurfacing as needed.
10-7	Cabin parking	Enhancement	Phase 2 Priority 1	Up to 14 car spaces, 2 per cabin. Paved or gravel.	Lincoln County DEQ	\$14 K paved \$5.6 K gravel 2800 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.
10-7	Campsite hardstands. Up to 10 visitor campsites.	Enhancement	Phase 2 Priority 1	12' wide, 35-45' long. 1 extra vehicle allowed per site. Paved or gravel. ADA compliance for required # campsites.	Lincoln County DEQ	\$25 K paved \$10 K gravel 5,000 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.
10-7	3 host site hardstands along main park road.	Enhancement	Phase 2 Priority 1	15' wide, 50-60' long. 1 extra vehicle allowed per site. Paved or gravel.	Lincoln County DEQ	\$13.5 K paved \$5.4 K gravel 2,700 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.

10-7	Bumper logs						
	Buildings / Structures						
10-7	Camper cabins. Up to 7 cabins.	Enhancement	Phase 2 Priority 1	Electricity, no plumbing. No slab or stem wall foundations. ADA compliance for required # cabins.	Lincoln County	\$75 K each 2 room	Routine building maintenance & cleaning.
10-7	Restroom / shower building.	Enhancement	Phase 2 Priority 1	4 toilets/side & showers	Lincoln County	\$275 K	Routine building maintenance & cleaning.
10-7	Self-registration station.	Enhancement	Phase 2 Priority 1	Locate to serve entire upper campground.		\$3 K	Regular fee collection.
10-7	Wood bin	Enhancement	Phase 2 Priority 1			\$3.5 K	
	Utilities						
10-7	Sewer connections to restroom/shower building & host sites.	Enhancement	Phase 2 Priority 1		Lincoln County	\$20 K	Routine
10-7	Potable water at restroom /shower building, host sites & central water stations.	Enhancement	Phase 2 Priority 1	Provide at least 3 water stations along loop road.	Lincoln County	\$20 K	Routine
10-7	Gray water disposal stations.	Enhancement	Phase 2 Priority 1	Locate at potable water stations.	Lincoln County	\$1.5 K each	Routine
10-7	Electricity to camper cabins, restroom/shower building & host sites.	Enhancement	Phase 2 Priority 1		Lincoln County	\$25 K	Routine
	Site Furniture						
10-7	Tables.	Enhancement	Phase 2 Priority 1	1 table for each cabin, campsite & host site.		\$10 K	Routine
10-7	Fire rings.	Enhancement	Phase 2 Priority 1	1 fire ring for each cabin, campsite & host site.		\$ 10 K	Routine
10-7	Site markers						
	Grounds / Landscape / Vegetation						
10-7	Clearing & minor grading for up to 7 cabins, 10 visitor campsites & 3 host sites.		Phase 2 Priority 1	Avoid removal of healthy older native trees & shrubs.		\$12 K	
10-7	Manage vegetation for optimal privacy & visitor experience setting.		Phase 2 Priority 1				Vegetation maintenance. Weed management.

Upper Campground - Walk-in Cabin & Tent Site Area. Up to 9 cabins & 10 tent sites, potentially with tent shelters.							
Figure	Projects	Status	Phase/ Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
	Roads & Parking						
10-7	Parking loop road.	Enhancement	Phase 2 Priority 2	2-way, 20' wide road. Paved or gravel.	Lincoln County DEQ	\$60 K paved \$24 K gravel 12,000 sf \$4 K stormwater management	Maintenance & resurfacing as needed.
10-7	Cabin & tent site parking.	Enhancement	Phase 2 Priority 2	Up to 38 car spaces, 2 for each cabin or tent site.	Lincoln County DEQ	\$38 K paved \$15.2K gravel 7,600 sf. Stormwater management addressed above	Maintenance & resurfacing as needed.
	Buildings / Structures						
10-7	Camper cabins. Up to 9 cabins.	Enhancement	Phase 2 Priority 2	Electricity, no plumbing. No slab or stem wall. ADA compliance for required # cabins.	Lincoln County	\$75 K each 2 room	Routine building maintenance & cleaning.
10-7	3-sided tent shelters. May be installed in tent sites.	Enhancement		Rustic	Lincoln County	\$4 K each	Routine building maintenance.
10-7	Restroom building.	Enhancement	Phase 2 Priority 2	2 toilets/side, no showers	Lincoln County	\$80 K	Routine building maintenance & cleaning.
10-7	Group shelter	Enhancement	Phase 2 Priority 3	35 person capacity. Enclosed. With kitchen & wood stove or fireplace.	Lincoln County	\$175 K	Routine building maintenance & cleaning.
10-7	Wood bin	Enhancement	Phase 2 Priority 2			\$3.5 K	Routine
	Utilities						
10-7	Sewer connections to restroom building and group shelter.	Enhancement	Phase 2 Priority 2		Lincoln County	\$20 K	Routine
10-7	Potable water at restroom building, group shelter & central water stations.	Enhancement	Phase 2 Priority 2	Provide at least 3 potable water stations conveniently spaced .	Lincoln County	\$20 K	Routine
10-7	Gray water disposal stations.	Enhancement	Phase 2 Priority 2	Locate at potable water stations.	Lincoln County	\$1.5 K each	Routine
10-7	Electricity to camper cabins, restroom building & group shelter.	Enhancement	Phase 2 Priority 2		Lincoln County	\$25 K	Routine

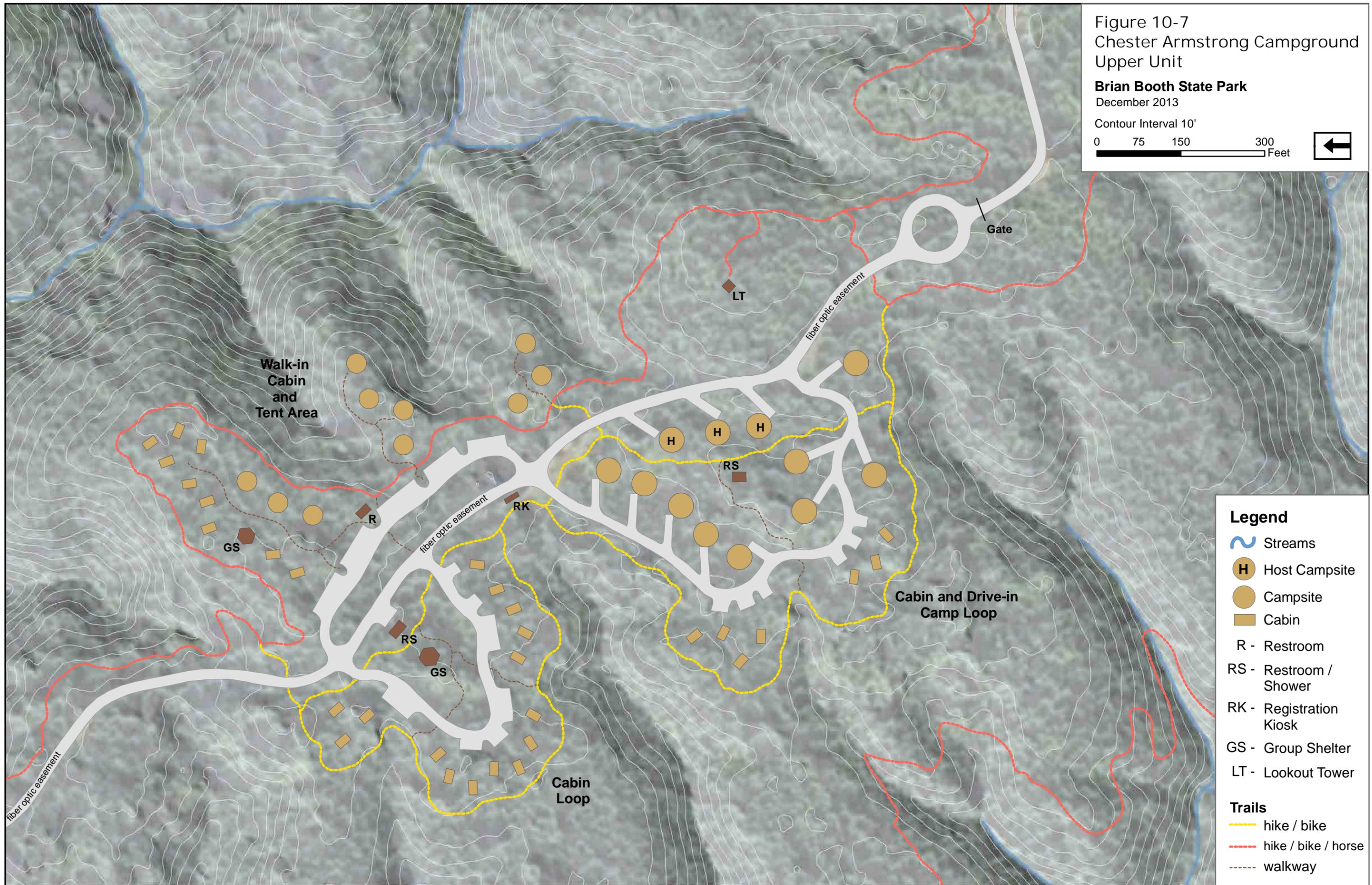
	Site Furniture						
10-7	Tables.	Enhancement	Phase 2 Priority 2	1 table for each cabin & tent site.		\$9.5 K	Routine
10-7	Fire rings.	Enhancement	Phase 2 Priority 2	1 fire ring for each cabin & tent site.		\$9.5 K	Routine
10-7	Site markers						
	Grounds/ Landscape/ Vegetation						
10-7	Clearing & minor grading for up to 9 cabins & 10 campsites.		Phase 2 Priority 2	Avoid removal of healthy older native trees & shrubs.		\$25 K	
10-7	Manage vegetation for optimal privacy & visitor experience setting.		Phase 2 Priority 2				Vegetation maintenance. Weed management.
Upper Campground – Trails							
Figure	Projects	Status	Phase / Priority	Parameters/ Standards	Reviews/ Approvals	Cost	O&M
10-7	Walkways	Enhancement	Phase 2 Priority 2	6' wide. Natural surface unless crushed rock needed for ADA.		\$37.5 K natural. \$62.5 K crushed. Contractor	Routine trail maintenance.
10-7	Biking & hiking trails	Enhancement	Phase 2 Priority 2	8' wide. Crushed rock.		\$125 K Contractor	Routine trail maintenance. Monitor & control weeds along trail corridor.
10-7	Multi-use trails	Enhancement	Phase 2 Priority 2	8-10' wide. Crushed rock.		(See under Ona Hills "Forest")	Routine trail maintenance. Monitor & control weeds along trail corridor.

Figure 10-7
 Chester Armstrong Campground
 Upper Unit

Brian Booth State Park

December 2013

Contour Interval 10'



Legend

- Streams
- Host Campsite
- Campsite
- Cabin
- R - Restroom
- RS - Restroom / Shower
- RK - Registration Kiosk
- GS - Group Shelter
- LT - Lookout Tower

- Trails**
- hike / bike
 - hike / bike / horse
 - walkway

Forest							
Figure	Projects	Status	Phase/ Priority	Parameters/Standards	Reviews/ Approvals	Cost	O&M
	Trails & Trail Structures						
	(Beach access / highway crossing trail is described under Ona Beach Forest zone. Trail begins in Ona Hills Forest Zone.)					(See under Ona Beach "Forest")	
9-5 10-4	Guided nature trail to mature forest from beach access trailhead. Use will limited to hikes guided by rangers or qualified volunteers. The "trail" will be undeveloped, opened only by minimal pruning and debris removal, otherwise undefined on the ground.	Enhancement	Phase 1 Priority 2	Trail location, design & programmed use will be determined per guidance from Stewardship staff. Follow protocol for potential marbled murrelet habitat. No visible development. No trail signage.			Routine inspection.
9-5 10-6	Floodplain forest hiking loop trail. Connects program area interpretive trail and central campground to marsh floodplain. Consider spur trail with short boardwalk to Beaver Creek channel. Consider wildlife viewing structure.	Enhancement	Phase 2 Priority 2	Peds only. 4' wide, natural surface. Boardwalk where needed.	Lincoln County DSL/ACOE for boardwalk	\$50 K without boardwalk or viewing blind. Contractor	Routine inspection, trail maintenance as needed.
9-5	Floodplain forest hiking trail. Connects central campground cabin area to marsh floodplain & multi-use trail loop. Crosses small stream. Consider spur trail with short boardwalk to Beaver Creek channel. Consider wildlife viewing structure.	Enhancement	Phase 2 Priority 3	Peds only. 4' wide, natural surface. Boardwalk & bridge where needed.	Lincoln County DSL/ACOE for boardwalk	\$30 K without boardwalk, bridge or viewing blind. Contractor	Routine trail maintenance. Boardwalk / bridge maintenance as needed.
9-5	Multi-use trail, generally following main road corridor from beach access trailhead to program area parking.	Enhancement	Phase 1 Priority 1	Build only with operational highway crossing trail. Hike, bike, horse trail. 8' wide, crushed rock.	Lincoln County	\$175 K Contractor	Routine trail maintenance.
9-5	Multi-use trail, generally following main road corridor from program area parking to upper campground turnaround.	Enhancement	Phase 2 Priority 2	Hike, bike, horse trail. 8' wide, crushed rock.	Lincoln County	\$150 K Contractor	Routine trail maintenance.

9-5	All other multi-use trails east & south of beach access trailhead.	Enhancement	Phase 2 Priority 2	Hike, bike, horse trails. 4-8' wide depending on site constraints, use levels & desired recreation experience. Natural surface except where gravel needed for stability.	Lincoln County	\$528 K without bridges. Contractor	Routine trail maintenance.
9-5	Mountain biking trail. South & west of Deer Creek near park boundary by Seal Rock neighborhood. Access via multi-use trail from mountain biker trailhead.	Enhancement	Phase 2 Priority 2	Intended only for mountain bikers. Single track, 2-3' wide, natural surface.	Lincoln County	\$84 K Contractor	Routine trail maintenance. Monitor & control weeds along trail corridor.
9-5	Disc golf course, alternative to mountain biking trail.						Routine trail maintenance. Monitor & control weeds along trail corridor.
9-5	Trail viewpoint lookout tower. Hilltop location next to Upper Campground.	Enhancement	Phase 2 Priority 2	Design for optimal view and safety. Access by multi-use trail.	Lincoln County	\$120 K	Building inspection & maintenance as needed.
9-5	Adirondack shelters. Remote location east of central campground. Up to 5 shelters for overnight hikers. Parking in designated spaces in program area parking loop. Evaluate alternatives for water supply & sanitation. Consider rainwater collection.	Enhancement	Phase 2 Priority 2	Rustic, 3-sided shelters. Use by pre-registration. Pack in, pack out. Test user behavior with 2 shelters, phase in others. 1 parking space per site.	Lincoln County	\$4 K each	Shelter maintenance as needed. Site inspections to assess user behavior.
	Canopy walk. Locate & design on site.	Possible future use.	Future				
9-5	Potential off-site trail connection to Seal Rock neighborhood. Coordinated by Seal Rock Trails Group.	Enhancement		Requires agreement with neighboring property owners. Agreement determines use.			Routine trail maintenance inside park boundary.

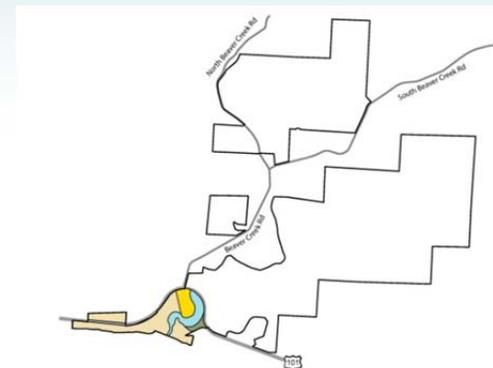


Chapter 10 – Part 2:

Natural Resource Management Actions

- o Ona Beach Zones
- o Beaver Creek Natural Area Zones
- o Ona Hills Zones

Natural Resource Management Actions – Ona Beach Zones (See Figure 9.3)



<i>Ona Beach Zones</i>	<i>Management Emphasis</i>
Day Use Access	Recreation
Beach/Dune	Natural Resources
Estuary/Floodplain	Natural Resources
Forest	Natural Resources

<i>Ona Beach Entrance & Picnic Area</i>						
<i>Management Action</i>	<i>Description/Comments</i>	<i># Acres</i>	<i>Cost/acre</i>	<i>Priority</i>	<i>Reviews/Approvals</i>	<i>O&M</i>
Control yellow flag iris.	In wetland along picnic area edge.	0.5	\$510	High		Monitor & maintain weed control.
Plant salt tolerant species.	In area subject to salt water intrusion.	0.4	\$1150	Medium		Monitor & replant as needed.
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		
<i>Beach/Dune</i>						
<i>Management Action</i>	<i>Description/Comments</i>	<i># Acres</i>	<i>Cost/acre</i>	<i>Priority</i>	<i>Reviews/Approvals</i>	<i>O&M</i>
Control scotch broom.		0.2		Medium		Monitor & maintain weed control.
Preserve/enhance yellow sandverbena.		0.4		High		Monitor & maintain habitat.
Preserve/enhance big headed sedge.	Confirm species identification.	0.7		High		Monitor & maintain habitat.
Restore open shore pine woodland & yellow sandverbena habitat		0.3		High		Monitor & maintain
<i>Estuary / Floodplain</i>						
<i>Management Action</i>	<i>Description/Comments</i>	<i># Acres</i>	<i>Cost/acre</i>	<i>Priority</i>	<i>Reviews/Approvals</i>	<i>O&M</i>
Control yellow flag iris.		5.0	\$510	High		Monitor & maintain weed control.
Convert alder forest to conifer/deciduous.	Plant conifers suited for conditions.	2.0	\$750	Low		Monitor & replant as needed.
<i>Forest</i>						
<i>Management Action</i>	<i>Description/Comments</i>	<i># Acres</i>	<i>Cost/acre</i>	<i>Priority</i>	<i>Reviews/Approvals</i>	<i>O&M</i>
Control blackberry.		0.4		Medium		Monitor & maintain weed control.
Trail corridor management. See management actions for “Visitor Experience Support Facilities” above.				High		Monitor & control introduction of invasive weeds.

Natural Resource Management Actions – Beaver Creek Natural Area Zones (See Figure 9.3)



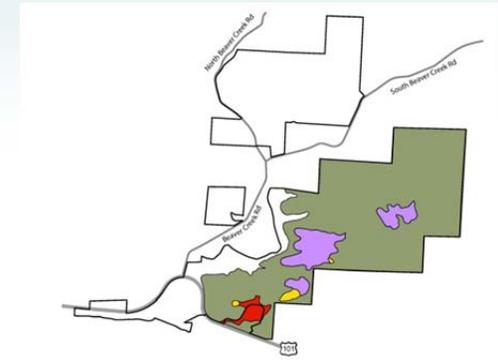
<i>Beaver Creek NA Zones</i>	<i>Management Emphasis</i>
<i>Day Use Access</i>	<i>Recreation</i>
<i>Estuary/Floodplain</i>	<i>Natural Resources</i>
<i>Forest</i>	<i>Natural Resources</i>
<i>Grassland</i>	<i>Natural Resources</i>

<i>Natural Area & Water Trail Entrance</i>						
<i>Management Action</i>	<i>Description/Comments</i>	<i># Acres</i>	<i>Cost/acre</i>	<i>Priority</i>	<i>Reviews/Approvals</i>	<i>O&M</i>
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		Monitor for invasive species.
<i>Nature Center</i>						
<i>Management Action</i>	<i>Description/Comments</i>	<i># Acres</i>	<i>Cost/acre</i>	<i>Priority</i>	<i>Reviews/Approvals</i>	<i>O&M</i>
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		Monitor for invasive species.
<i>Estuary / Floodplain</i>						
<i>Management Action</i>	<i>Description/Comments</i>	<i># Acres</i>	<i>Cost/acre</i>	<i>Priority</i>	<i>Reviews/Approvals</i>	<i>O&M</i>
Control yellow flag iris.		8.2	\$510	High		Monitor & maintain weed control.
Control colonial bentgrass.		5.0		High		Monitor & maintain weed control.
Control reed cararygrass.		19.0		High		Monitor & maintain weed control.
Monitor for reed canarygrass & colonial bentgrass.		105.0		High		
Convert alder forest to conifer/deciduous.	Plant conifers suited for conditions.	15.4	\$250	Low		Monitor & control invasive weeds. Replant as needed.
Assess culverts for fish passage & hydrologic obstructions.	Most are outside of park under county road.	Assume 4 culverts.	per culvert	High		Work with County to monitor for obstructions.
Study merits of removing/breaching dikes & restoring natural stream channels.	Work with Watershed Council. Assess ecological benefits versus impacts of disturbance.	Depends on prescribed actions.	Unknown	Medium		Monitor & control weed introduction.
Add habitat structure to marsh.	Such as adding root wads for structure.	Assume 7 sites.	per site	Low		Monitor habitat change. Monitor & control weeds.

Forest						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Manage former pasture for transition to shrubland.		5.1		Medium		Monitor & control invasive weeds.
Control shrub competition to promote forest succession.		5.8	\$200	Medium		Monitor & control invasive weeds. Manage shrubs.
Convert to conifer/deciduous forest (includes alder forest & pasture land).	Plant conifers suited for conditions.	95.5	\$250	Alder low. Pasture medium		Monitor & control invasive weeds. Replant as needed.
Retain as alder forest.		31.8				
Trail corridor management. See management actions for "Visitor Experience Support Facilities" above.				High		Monitor & control introduction of invasive weeds.
Grassland						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Retain former pasture as open meadow for scenic value & meadow habitat.		11.7		High		Monitor & control invasive weeds. Mow seasonally for fire protection.
Manage former pasture as early successional/meadow habitat.		4.5		High		Monitor & control invasive weeds.

Natural Resource Management Actions – Ona Hills Zones (See Figure 9.3)

Ona Hills Zones	Management Emphasis
Park Administration	Recreation
Day Use Access	Recreation
Campground	Recreation
Forest	Natural Resources



Ona Hills Entrance & Park Administration						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		Monitor & control introduction of invasive weeds.
Beach Access Trailhead						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		Monitor & control introduction of invasive weeds.
Central Trailhead						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Remove diseased Douglas fir & plant mixed conifers.		2.0	\$150	High		Monitor & control introduction of invasive weeds.
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		
Equine Trailhead						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Remove diseased Douglas fir & plant mixed conifers.		2.4	\$150	High		Monitor & control introduction of invasive weeds.
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		
Mountain Biker Trailhead						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Remove diseased Douglas fir & plant mixed conifers.		.60	\$150	High		Monitor & control introduction of invasive weeds.
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		
Equine Campground						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Remove diseased Douglas fir & plant mixed conifers.		8.0	\$150	High		Monitor & control introduction of invasive weeds.

See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.					
Central Campground						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Remove diseased Douglas fir & plant mixed conifers.		24.0	\$150	High		Monitor & control introduction of invasive weeds.
Thin plantation forest, plant mixed conifers.		10.5	\$300	High		Monitor & control introduction of invasive weeds.
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.					
Upper Campground						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Thin plantation forest, plant mixed conifers.		17.6	\$300	High		Monitor & control introduction of invasive weeds.
See management actions for “Visitor Experience Support Facilities” above.	Manage for recreation setting.			High		
Forest						
Management Action	Description/Comments	# Acres	Cost/acre	Priority	Reviews/Approvals	O&M
Plant conifer & understory shrub buffer in barren areas along park boundary north of Deer Creek abutting Seal Rock neighborhood (area not illustrated).	As needed near central campground entrance & mountain bike trailhead. Soils may be poor.	Assume 1.5	\$300	High		Monitor & control introduction of invasive weeds. Replant as needed.
Control blackberry.		1.0	\$400	Medium		Monitor & maintain control.
Remove diseased Douglas fir & plant mixed conifers.		42.0	\$150	High		Monitor & control introduction of invasive weeds.
Thin plantation forest, plant mixed conifers.		312.0	\$300	High		Monitor & control introduction of invasive weeds.
Remove dense shore pine & plant mixed conifers.	Manage in conjunction with planned mountain biking trail or alternative disc golf.	46.0	\$1000	Medium		Monitor & control introduction of invasive weeds.
Enhance sphagnum wetland.		1.5		Medium		
Convert alder forest to conifer deciduous.	Plant mixed conifers suited for conditions.	31.5	\$250	Low		Monitor & control introduction of invasive weeds.
Restore dirt roads to conifer forest.		4.0	\$250	Low		Monitor & control introduction of invasive weeds.
Assess streams for use by fish & lamprey.				Low		
Trail corridor management. See management actions for “Visitor Experience Support Facilities” above.				High		Monitor & control introduction of invasive weeds.



Chapter 11: Reviews and Approvals

Land-Use Authority

Development of the park uses and facilities described in this plan for Brian Booth State Park is regulated by Lincoln County under the provisions of the Lincoln 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 Brian Booth State Park 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 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 Brian Booth State Park will be reviewed for local land-use compatibility by Lincoln County planning officials.

Lincoln County Zoning

Under Lincoln County’s Comprehensive Plan, three primary zones apply to different areas of the park: Public Facilities (PF), Agricultural Conservation (AC), and Timber Conservation (TC). There are also two overlay zones that apply to certain resource areas: the Coastal Shorelands (CS) and Flood Hazard Overlays. T

PF Zone: This zone covers most of the original Ona Beach State Park and existing development in the original park. It also applies to the existing ODOT facilities.

AC Zone: Most of Beaver Creek Natural Area is in this zone, including the marshlands and the south Beaver Creek uplands. The Beaver Creek Welcome Center, nearby paddler parking and the pole barn site are in this zone.

TC Zone: This zone applies to most of the park's forested uplands. Proposed camping areas, trailhead parking and upland trails are covered by this zone.

CS Overlay Zone: The Coastal Shoreland Overlay covers the Beaver Creek marsh, and includes 50' of upland area adjacent to the marsh wetlands. This overlay applies to all proposed park development downslope from the 50' setback line.

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.

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 precludes such variation. Any planned projects that cannot be changed by applying the provisions of 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.

In implementing this Plan for Brian Booth State Park, a variation from the Plan that would potentially result in an increase in peak traffic at a park entrance along Highway 101, in comparison to traffic estimates based on planned park buildout prepared by Kittelson and Associates, must be approved by ODOT as well as by the OPRD Director and Lincoln County. Such variations include increased numbers of total visitor parking spaces or campsites that potentially increase previously estimated peak traffic at a park entrance along the highway. A variation that would increase the number of large vehicles using a park entrance along the highway at peak times must also be approved by ODOT as well as the OPRD Director and Lincoln County.

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.

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 Brian Booth State Park 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.