

# Brian Booth State Park

Beaver Creek State Natural Area/Ona Beach/Seal Rock

03-23-13 Draft

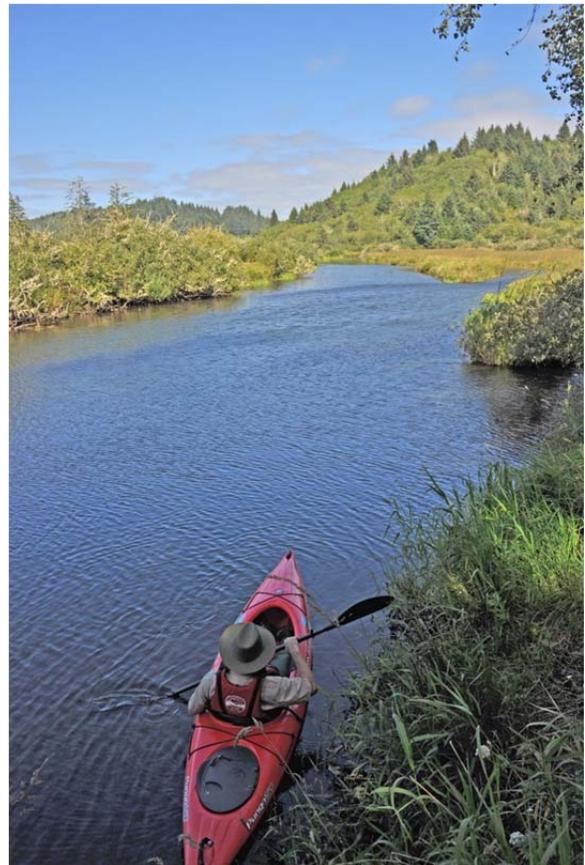
## Interpretive Assessment Chapter for Comprehensive Plan

FROM THE WILD COMES OUR  
WEALTH

Beaver Creek State Natural Area  
Dedication October 1, 2010

Through upland meadow  
and lowland marsh,  
sweet snowmelt and rain  
join in a creek running toward the  
sea's salt body.  
Here, where one world flows  
seamlessly into another, the line  
between give and take disappears.  
Spruce, alder, beaver,  
deer, wren and great blue heron,  
the creek meandering past  
swales of wind-wavered grass:  
protecting these,  
we receive our inheritance  
and create a gift to others-  
our legacy.

*Paulann Peterson*  
*Oregon Poet Laureate*



## Introduction

The purpose of this interpretive assessment is to inform the larger planning process from an interpretive and educational perspective. The recommendations presented will be balanced with other planning goals and the limitations of the site in formulating the final plan.

The Oregon Parks and Recreation Department supports high quality interpretation that enhances the visitor's experience through trained staff, volunteers, and Cooperating Associations. Interpretation helps the agency achieve its mission of preserving and protecting natural and cultural resources by promoting stewardship of the parks and by providing tools to help manage the parks.

The main purpose of interpretation is to make an emotional and intellectual connection from the park resources to each visitor so that visitors will be inspired to become lifelong stewards of the natural, cultural, and historic places found in Oregon State Parks. OPRD interpreters strive to enrich and deepen our visitors' experiences by developing programs and activities that are fun, interactive, and engaging.

Interpretation is communication that goes beyond information. It reveals what things mean and why they matter. Good interpretation connects people to a place. It can lead to a sense of ownership of both natural and historic resources. Beyond ownership, visitors can become stewards of our park resources. That can translate into lower maintenance costs, increased revenue due to longer and more frequent stays, and a stronger belief that Oregon State Parks are important to Oregonians.

Good interpretation has five important qualities – it is purposeful, organized, enjoyable, thematic, and relevant. Understanding these allows us to provide opportunities for our visitors that are rich and meaningful.

Interpretation has purpose, and the stories our sites tell help the visitor to understand why our parks are important personally, locally and possibly world-wide. This purpose is tied with our mission – to preserve and protect these sites for present and future generations – and provides the public with an understanding of what OPRD does.

The Interpretive Assessment provides a good first step to organizing a park's interpretive program. It gives background information about the park and visitors, identifies important stories and messages, provides direction with goals and objectives, and offers a plan of action, as well as other pertinent information for staff to make knowledgeable decisions.

Interpretation aims to educate visitors about the park's resources. To achieve this, interpretation needs to be enjoyable. People come to our parks to relax and recreate, and we consider them as non-captive audiences. They don't have to sit thru the whole evening campfire program, or read all of the interpretive panels. Their time is valuable. In order for us to reach them we should provide a learning atmosphere that is fun.

Interpretation uses themes to communicate key messages to its visitors. Themes allow visitors to walk away from our sites with the most important messages fresh in their memories.

When interpretation is relevant, it references visitors' past experiences and memories and uses that common language to help them understand and grasp larger concepts.

When all of these components are put into place, interpretation not only enriches visitors' experiences and provides them with an enjoyable and memorable stay; it can also lead to a better understanding of the environment and one's heritage.

This Interpretive Assessment was written using the 5-M process as developed by the National Association of Interpretation. The M's stand for:

Management issues - Includes the site's mission, goals, and objectives; policies and regulations; issues; resources (staffing, budgets, etc.)

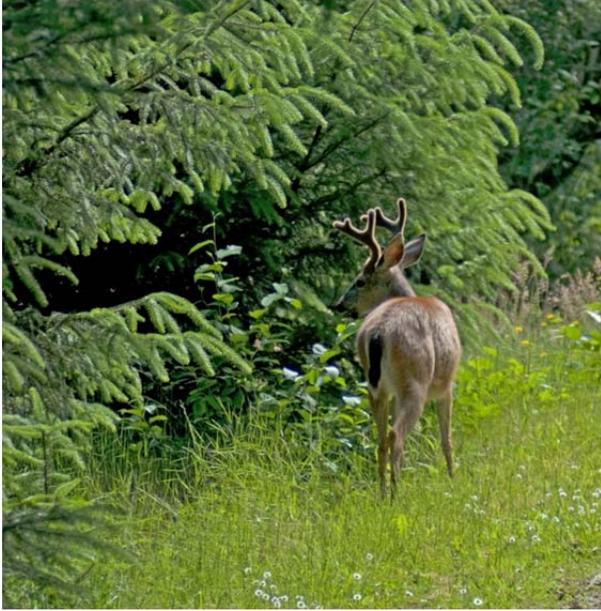
Markets - Includes the site's audience, both current and potential; products; price; locations of products; promotion or advertising; visitor trends

Mechanics of the Site - Includes the site's physical opportunities and constraints, such as sensitive areas, accessibility (ADA), existing facilities, and planned additions or removals

Messages - Interpretive themes are the key messages to be communicated to visitors. Includes the site's stories; natural, cultural and / or historical resources to interpret; scenic and recreational highlights

Media - The media are the delivery strategies for communicating the interpretive themes as well as orientation and wayfinding information. Media options can include programs presented by staff or volunteers, non-personal interpretation such as signs and brochures, and infrastructure needed, such as amphitheaters, kiosks, and other equipment.

This interpretive assessment will provide a recommendation on the type of interpretive prescription to follow for parks with an Interpretive Service Level of four or five. Parks with an Interpretive Service Level of one, two, or three will not normally require an interpretive prescription.



Black-tailed deer buck at Beaver Creek.

## **Park natural, historic, cultural or recreational features for interpretation**

### **Natural Resources-**

- Beaver Creek State Natural Area is located one mile from the confluence where Beaver Creek meets with the Pacific Ocean. It is home to diverse habitats and is a significant component of the area watershed.
- Beaver Creek SNA sits within a 34 square mile basin that is known as the Beaver Creek watershed and lies between the Yaquina River basin to the north and the Alsea River basin to the south.
- The watershed in its entirety has had little urban development with low recreational use (hiking, kayaking, canoeing, horseback riding, and hunting) and moderate amounts of logging.
- The estuary within the Beaver Creek watershed area is a preferred coho rearing habitat. Beaver Creek has not been heavily fished, and there is no record of hatchery fish being supplemented into the creek.
- The diverse natural resources provide a variety of environmental education opportunities for public out-reach, outdoor school, and restoration/conservation projects.
- The habitat includes uplands with second to third growth forests, multiple meadows used once for pasture grazing(now utilized by elk herds), wetlands that contain ponds, marshes (mainly freshwater), and estuarine areas where salt and fresh water mix.

- The studies of the water in Beaver Creek (hydrology) has been in process over the last two years by the USGS and Lincoln County Soil and Water Conservation District, and have provided reports and assessments of the area which can be used for interpretive programs and activities.
- Beaver Creek SNA is home to a diverse population of resident and migratory bird species. In 2011, Beaver Creek SNA had a yearlong bird survey and the data collected is in the process of being evaluated.
- River otters, beaver, muskrat, and mink are seen regularly within the park boundaries.
- Sightings of cougar, black bear, coyote, bobcat, elk, and deer have been recorded in the park.
- Beaver Creek is a wonderful place to observe seasonal/successional growth of various plant communities.
- Elk calve in the meadows, and can often be observed; good place to showcase their different needs (shelter in forest, forage areas, meadows, etc)
- Aquatic amphibians such as red-legged frogs breed in the marsh.
- Corvid attraction to camping and human areas is an issue; feed a jay kill a murrelet. While no murrelets are known to be in Beaver Creek currently, they are in the surrounding landscape. Corvids attracted to our park will seek out those murrelet nests and eat the nestlings. Educating campers on how to help murrelets by keeping campsites clean is important.
- Concept of treading lightly and disturbance to wildlife from dogs, trail use, etc.
- Habitats in the park include Beaver Creek, scrub-shrub wetland, upland forest, cedar spruce swamp, meadow, and freshwater marsh.
- The ancient sand dunes that make up some of the upland habitat give evidence of our changing coastline.
- Subduction of the Juan de Fuca Plate beneath the edge of North America over the past few million years has built and continues to modify the landscape of the Beaver Creek and Ona Beach region.
- Seal Rock includes high quality tidepools with a diversity of life forms that attract large numbers of visitors.
- The bluffs east of Beaver Creek reveal ancient sandstone and shale layers that formed from sand and mud deposits on the Pacific Ocean floor that were scraped off the top of the subducting Juan de Fuca plate and lifted out of the ocean.
- Ancient tsunami sand deposits drilled in the Beaver Creek floodplain reveal that, at less than 40 feet above sea level, the Beaver Creek wetlands are susceptible to saltwater inundation during tsunamis that accompany great Cascadia Subduction Zone earthquakes.

- The Columbia Plateau Basalt at Seal Rock. Basalt is a lava-flow rock that has undulations, cracks, cavities, and other features that help to enhance the tide pool habitat. (The basalt is like a multi-story apartment complex that serves as home and shelter for a variety of tidal and intertidal flora and fauna).
- The hard, resistant layers of basalt that form Seal Rock originate from lava that flowed over 300 miles from volcanic vents in the Columbia Plateau region of eastern Oregon and Washington.

## **Historical and Cultural Resources-**

### Summary Statement of Significance (1880s-1950s):

#### Cultural Resources:

Beaver Creek, Ona Beach, and Seal Rock have provided an abundance of resources that have drawn people to the area for thousands of years. The flora and fauna that thrive here have provided food, a way to make a living, and opportunities for recreation. In turn, cultural activities, including timber, agriculture, and recreation, have made imprints on the landscape that have changed over time.

#### Native American History:

- The Yaquina and Alsea 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.
  - 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.
  - 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.
  - 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.
- 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 Beaver Creek 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.
  - Residences, schools and churches were constructed of local materials by the homesteading families.
  - 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.
  - 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.
    - The Pacific Northwest supplied Western Sitka spruce and cedar and Douglas-fir to Great Britain, France, and Italy.
    - 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.
    - 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.
    - The pieces were hauled from the forests by trucks or teams on wooden plank roads to existing highways and railways for shipment to the sawmills.
    - The Spruce Division’s use of trucks and cars was the first large scale use of motor vehicles in the Pacific Northwest.
    - 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.
    - They developed temporary railroads. To minimize cost and construction time, sections were built entirely on logs, piles, or stringers supported by log cribbing.
    - Various camps, about two miles apart with about 200 men in each camp, were located along the railroad line for service men.
    - 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.
    - 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.
    - 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.

- 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.
  - 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.
  - 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.
  - 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.

### **Recreation Resource-**

- South Beach State Park has provided kayak tours during the summer on Beaver Creek.
- Beaver Creek has wonderful opportunities for wildlife observation, sightseeing, hiking, fishing, and birding.
- The area does have the potential for further development of recreational opportunities.

### **Citizen Science/Volunteer/Interpretive opportunities**

- Bird Point counts (1 loop in marsh, 1 loop in forest, each loop done 3 times from May 15-June 30)
- Potential for amphibian egg mass surveys
- Trail cam system in winter
- Owl surveys in late winter/early spring
- Bio Blitz that works to record all types of life
- Water quality monitoring
- Volunteer opportunities to help with forest restoration



**Osprey in Beaver Creek State Natural Area.**

### **3. Summary of current interpretive program and resources**

Beaver Creek State Natural Area first opened to the public in 2010. Programs for Beaver Creek SNA have been themed towards its natural and cultural history. Turn outs from Beaver Creek programs have been good. Services provided include roving interpretation on site, community out-reach programs and service projects that have been implemented on site. In 2011, a weekly bird survey was conducted utilizing volunteers, with the data to be used in both natural resource management and interpretation. The one special event held was International Migratory Bird Day in May. Hosts and Staff regularly provide information about park facilities and amenities. Staffing includes one full time interpretive ranger. The visitor count was 7,645 in the Welcome Center from October 2010 to April 2012. A total of 39,476 cars have been counted in the area from October 2010 to April 2012.

### **4. Overview of visitor marketing and audience identification**

A diverse demographic has been present at the natural area, with a variety of recreation types. Large contingents of birders and naturalists have been present on a daily aspect and large clubs and groups have repeatedly asked for presentations on the natural area and guided hikes. Fishermen, hikers, boaters, kayakers, canoeists, and families have been present. The Lincoln County Outdoor School Group has expressed interest in leading outdoor education programs at Beaver Creek.

Other providers of interpretation and environmental education in the Newport area include:

Hatfield Marine and Science Center

Yaquina Head Outstanding Natural Area

Oregon Aquarium

USFWS Education Staff

Drift Creek Wilderness Area, USFS

Lincoln County Outdoor School Group

Oregon Museum of Science and Industry plans to build an Outdoor School campus near South Beach State Park south of Newport. This is likely to increase the number of school groups visiting Beaver Creek, due to the difference in habitats and close proximity.

Attendance summary for Beaver Creek SNA 2011:

- Natural History related programs at Beaver Creek SNA-
  - 55 guided bird/nature hikes( majority of these were part of a citizen science survey regarding birds at Beaver Creek)
  - Estimated 275 participants
  - 2 indoor presentations in Welcome Center with 16 participants
    - Roving interpretation total 6,642 at the Welcome Center
  
- Environmental Education related programs at Beaver Creek SNA-
  - 10 special group on site programs/service projects
  - Total participants for programs 75
  
- Outdoor Skills related programs-
  - 54 kayak tour programs
  - 701 total participants

Tours and programs by outside entities other than State Parks:

- Yaquina Birders and Naturalists- 2 guided bird walk. 30 total participants

## **5. Physical interpretive limitations**

- **Sensitive interpretive areas**

The Oregon Parks and Recreation Department will work with the local Tribes as well as the State Archeologist in the interpretation of the Native American history of the park. Rare species of plants or animals documented in the park will be interpreted to help the public understand their significance while avoiding disturbance that would be detrimental to sensitive species. In keeping with the Beaver Creek Natural Area status and limited parking space, programs will generally limit the number of participants to match parking capacity. In addition, the focus for programming will be during weekdays rather than weekends, except for roving interpretation. This will avoid any conflict for parking space on weekends when hiker visitation is higher.

- **ADA issues**

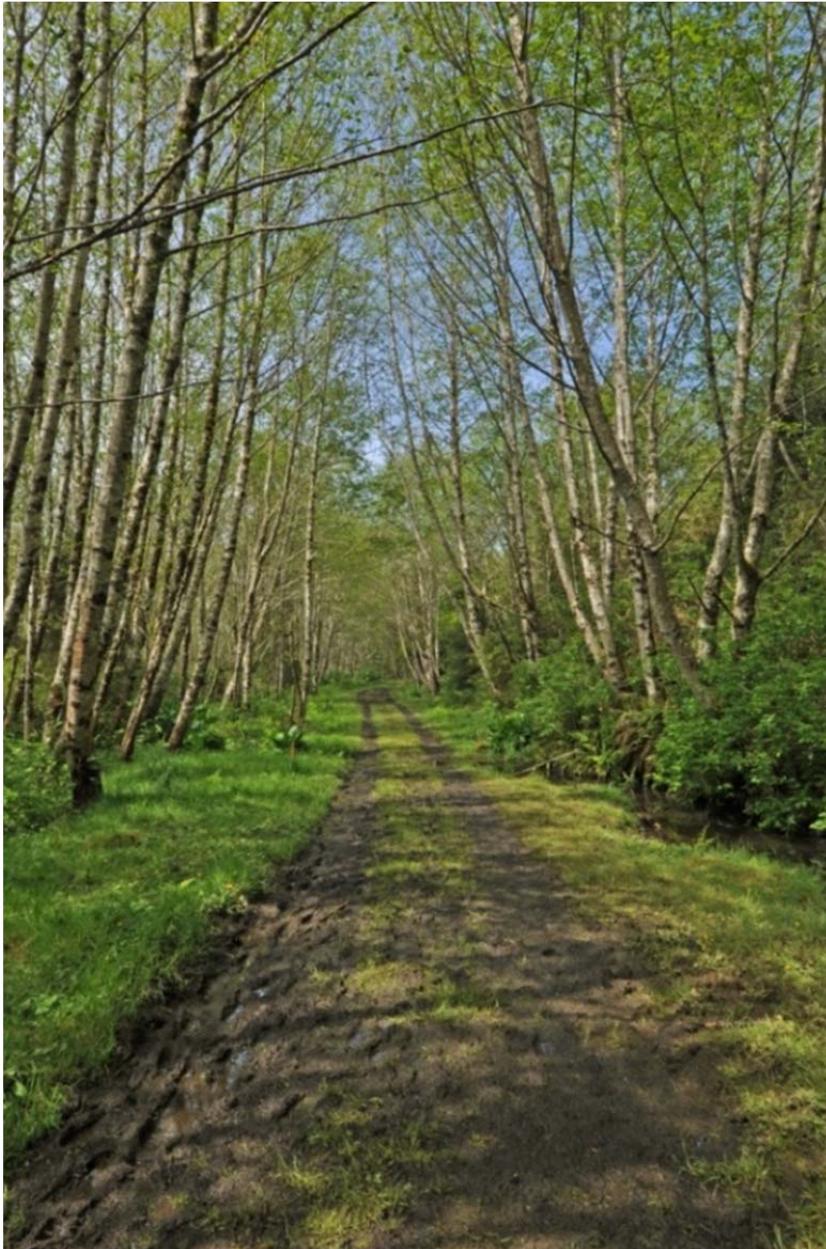
Interpretive opportunities are spread throughout the park but the topography of the park makes accessibility a concern for those with mobility impairments. The interpretive trail will be designed to be universally accessible when possible, although it will not be possible to maintain an acceptable grade in all areas. When interpretive features are not easily accessible alternate methods of communicating those interpretive messages should be provided.

Care should be taken to focus on providing interpretive messages to those with disabilities other than mobility impairments. Brian Booth State Park provides a rich environment for interpretation and there are many opportunities to use all the senses to tell the interpretive stories. A combination of techniques supplementing the traditional visually available materials with audio and tactile interpretation methods will provide access to a wider range of visitors who have widely varying abilities.

As interpretive materials are developed it would be desirable to have input from people with not only mobility impairments but visual and audio disabilities as well. Input on interpretive projects should also be solicited from the OPRD Universal Access Advisory Committee.

- **Site specific issues**

There is currently one access point to the upland trails on S. Beaver Creek Rd. Parking is limited at the access point. The Welcome Center with observation deck looking over the marsh and surrounding area has adequate parking but currently has no access route to trails across marsh. The Lower Parking lot east of the Welcome Center provides additional parking, with a seasonal marsh trail that is under water for 10 months out of the year. Trail is right through the marsh and is not an adequate access point for main trail system. Total acres for natural area are 374. Proposed solution is to build a boardwalk across the wetland that will allow public access to the majority of the trails and also allow the public to better experience and learn about the wetland and wildlife of the area.



One of the trails that will not have good access without the creation of a boardwalk.

## 6. Themes

### Primary interpretive themes for all parks

As part of a system-wide approach to interpretive themes for parks, we are developing primary themes for all park interpretive prescriptions and assessments. The primary theme is to communicate the significance of the park. This will be useful in communications that support the Centennial Horizon Plan and marketing efforts to attract new customers and to retain loyalty with current customers.

Here are definitions of terms that will be included in the interpretive plan or assessment:

#### **Universal Concept**

This is a concept or intangible meaning that has significance to almost everyone. Some examples include beauty, survival, life, death, time, power, and shelter.

#### **Primary Theme**

This is the key concept reflecting the significance of the park that every visitor should understand.

#### **Themes**

An interpretive theme is a succinct, central message about a topic of interest that a communicator wants to get across to an audience. (NAI) The themes are the ideas or concepts that together support the primary theme. At a minimum, all visitors should understand at least one of the themes based on their specific area of interest (cultural history, natural history, etc.)

#### **Sub-theme**

These are the concepts that support a theme.

#### **Supporting Stories**

These are the stories that communicate a sub-theme or theme.

The primary theme links the key tangible resources of the park with intangible concepts to convey the major reasons why a particular property is significant. The primary theme is intended to answer the question “what is significant about this park?” The intent of communicating the primary theme is to establish a sense of value among users of the park so they support the work of OPRD.

Each theme in the interpretive assessment will be supported with sub-themes, with the subthemes further expressed by supporting stories.

## **Brian Booth State Park Interpretive Themes**

The **Primary Theme** is the key concept reflecting the significance of the park that every visitor should understand.

*Water shapes the land and the inhabitants of Beaver Creek, telling a story of Oregon's heritage, where ocean, forest and wetlands converge to form a natural gathering place.*

There are five **themes** for Brian Booth State Park, with one listed for Seal Rock State Recreation Site.

An interpretive theme is a succinct, central message about a topic of interest that a communicator wants to get across to an audience. (NAI) The themes are the ideas or concepts that together support the primary theme. At a minimum, all visitors should understand at least one of the themes based on their specific area of interest.

### **Theme 1: The hydrology of Beaver Creek and its estuary impacts the land and soils.**

**Sub-themes** are the concepts that support a theme.

Subtheme 1:

A freshwater marsh and stream meet storm surges from the ocean, resulting in a mix of freshwater, brackish, and saltwater environments.

Subtheme 2:

Sand bar buildup can affect water levels in the estuary.

Subtheme 3:

Water runoff processes are important to water quality and water levels in Beaver Creek.

Subtheme 4:

Beaver construction of dams and channels has impacted the flow of water.

### **Theme 2: Beaver Creek's variety of habitats supports biological diversity, a measure of ecosystem health.**

Subtheme 1: The presence of Coho salmon in the watershed of Beaver Creek is a hopeful sign for this Federally listed threatened species.

**Supporting Stories** communicate a sub-theme or theme.

Story Examples:

The largely forested watershed maintains cool clear water quality necessary for salmon to thrive. Salmon are managed as “ESU’s” or “evolutionary significant units”. Because salmon migrate and return to the river where they were born, they usually do not interbreed with other salmon populations. Because of this, each ESU is treated as a separate species under the Endangered Species Act. While the coho salmon at Beaver Creek are listed as threatened, the coho salmon in some areas of California are listed as endangered.

Subtheme 2: The presence of salmon as a keystone species maintains higher species diversity than if the keystone species were absent.

Supporting Story examples:

Salmon runs function like pumps that push marine nutrients upstream to the headwaters of otherwise low productivity rivers. Salmon carcasses are a primary food for aquatic invertebrates and fish, as well as a variety of land animals, including humans. The salmon life cycle attracts bears, eagles, and other animals and supplies nutrients to the surrounding landscape, helping to fertilize the soils.

Subtheme 3: A variety of wetland types including freshwater marsh, shrub-scrub wetland, cedar spruce swamp, and Beaver Creek support an unusually diverse array of wildlife.

Supporting Story examples:

The bird survey of 2011 recorded a diverse array of birds in the area, including a variety of ducks in winter. Amphibians occur in the park including red-legged frog and Pacific chorus frog.

Subtheme 3: Upland habitat including coniferous forest, deciduous forest, and meadows support diverse wildlife species.

Supporting Story Examples: River otters, Beavers, Muskrats, Mink, Nutria, are seen daily within the park boundaries. Sightings of Cougar, Black Bear, Coyote, Bobcat, Elk, and Deer have been seen in the park as well.

Supporting Story Examples: Meadows once used for pasture grazing are now used by elk herds.

**Theme 3: The same geological processes that threaten our lives with devastating earthquakes, tsunamis, and landslides also nourish our spirits by forming the beautiful beaches, cliffs, and mountains along Oregon's Coast.**

Supporting Story Example: Park rangers and volunteers at Beaver Creek and Ona Beach can educate the public about natural hazards while at the same time helping them to see the connections between geological

processes and scenery, and empowering them to take steps necessary to

Subtheme 1: Subduction of the Juan de Fuca Plate beneath the edge of North America over the past few million years has built and continues to modify the spectacular landscape of the Beaver Creek and Ona Beach region.

Subtheme 2: Learning about how large earthquakes and accompanying tsunamis periodically strike the Oregon Coast can us better prepare us against potential risks.

Subtheme 3: Ancient stories reveal that Native Americans experienced devastating earthquakes and tsunamis and devised ways to protect their families and communities from these hazards.

**Theme 4: People have been drawn to this area because of its plentiful waters and rich diversity of flora and fauna.**

Subtheme 1: Before European contact, native people hunted and fished in this area.

Supporting Story Example: Beaver Creek is the only major salmon stream between Yaquina and Alsea bays and provides a significant rearing habitat for coho salmon, a staple food.

Subtheme 2: During the early 1800s, Europeans changed history by their hunting/trapping and through their interaction with and treatment of the native human and animal populations.

Supporting Story Example: The Hudson Bay Company fur trappers pushed out many of the indigenous people and nearly decimated the beaver population in the area.

Subtheme 3: During the early 1900s, demand for timber affected a large portion of the landscape through the cutting of trees as evidenced by the logging roads that connected to the nearby railroad and milling operations in Toledo.

Supporting Story Example: This area provided rare and much needed Sitka spruce for World War I industry and construction.

Subtheme 4: The meadows are evidence of the agricultural activities taking advantage of the natural supply of water in the Beaver Creek area.

Supporting Story Example: The meadows in the Beaver Creek area are evidence of the use of this area for cattle and dairy farming.

Subtheme 5: People in the area that use natural resources have changed attitudes and perspectives over time.

**Theme 5: You can help keep Beaver Creek beautiful and wild.**

Supporting story example: Visitors are asked to use Leave No Trace principles.

**Theme 6: Seal Rock tidepools contain marine life forms adapted to the extreme conditions of the tidepool areas.**



Great Blue Heron and Yellow Warbler in Beaver Creek State Natural Area.

**7. Interpretive Level of Service**

Park ratings for the Interpretive Level of Service were published in the Oregon Parks and Recreation Department's "Regional Interpretive Framework" in 2005. There are five levels, corresponding to the park's interpretive significance, size, visitation levels, and other factors. The definitions for the five levels are listed here.

Level Five: Can include a visitor facility of some kind. May be only a small visitor contact building or a full service interpretive center. Can also include outside interpretive structures. Serves as a base for outreach education programming. Offers staffing and interpretive access year round and seven days a week. Have multiple interpretive sites in the park and supporting guided and self-guided and self-guided

trails. Offers staff-run programs and tours. Has staff who are dedicated to interpretive duties on a year round basis and additionally dedicated interpretive staff for the summer season.

Level Four: A high season only version of Level Five.

May include a dedicated education center, large or small, but will only be seasonally open. May include outside interpretive structures that can be self-guiding for both high and off-season use. Can have dedicated interpretive staff on a seasonal basis.

Level Three: Generally would not include dedicated interpretive building with interior access. May include outside interpretive structures. Offers only seasonal programs and tours. Can be provided by dedicated staff, other staff, area support, volunteers or may be self-guiding.

Level Two: Generally providing self-guided opportunities such as sign structures, walks and tours. Provides occasional seasonal staffed programs. Staff would come from a “higher” level park, or the area office. Programming might be event or request based.

Level One: Provides an information kiosk and some freestanding interpretive signs. No programming or interpretive staff presence.

Beaver Creek State Natural Area is recommended to have an Interpretive Service Level of Five.

Note that this level of service will be adapted for the capacity of the park for visitor numbers and parking access. In keeping with the Natural Area status of a portion of the park and limited parking space, programs will generally limit the number of participants to match parking capacity. In addition, the focus for programming will be during weekdays rather than weekends, except for roving interpretation. This will avoid any conflict for parking space on weekends when hiker visitation is higher.



Pacific Chorus Frog and Red-legged Frog at Beaver Creek State Natural Area.

## 8. Way-finding strategy

### Wayfinding Strategy

Visitors will start their park visit either online at the OPRD web site or on site. On site orientation will include highway directional signage, entrance signs, orientation panels with maps of park trails, trail and facility directional signage, and a trail brochure.

### Website

The web site will offer an interactive Google map and written directions. Visitors can download a PDF of the trail brochure and general park brochure. A video could give visitors an introduction to the park attractions and suggestions for planning a trip. The website will be configured for mobile devices. A web site that allows the visitor to navigate to the park, find the key features or facilities in the park, and to learn about the resources of Beaver Creek in a fun and interactive way will help encourage park visitation and stewardship of the resource. A photo gallery of birds and other wildlife found in the area can be set up for visitors to enjoy.

### Objectives

After visiting the website, visitors will:

- Want to visit Beaver Creek
- Be aware of the park amenities
- Have access to a simple map of the area with directions to the park
- Have contact information for the park
- Be aware of the next special event at the park
- Be aware of links on the website to additional information
- Be aware of key safety messages

### Website Description

The home page should market the Beaver Creek experience with visuals of visitors participating in activities as well as scenic views of the area. A few examples of possible photos include visitors hiking, kayaking, birding, participating in an interpretive program, or camping. Scenic views of the forest, wetlands, and river corridor as well as flora and fauna will enhance the site as well. Brief captions can identify the activity and provide tips on where to get more information.

Links should provide access to additional information:

- Driving directions and map of the area
- Downloadable version of the park brochure
- Downloadable version of the trail map
- An overview of the park story/themes.
- Bird checklist

- Upcoming programs and special events

### Way finding issues for the park:

Visitors arriving on route 101 need to be able to locate both the Welcome Center and Campground/cabins area. Signs need to identify the two mile distance to the Welcome Center. Campers need to be able to locate the amphitheater near the campground, the Welcome Center, and the boat ramp. Visitors need to be able to navigate both trail systems; the trails near the campground, as well as the trails in the Natural Area. Current trail markers are not adequate and need to be upgraded. Trail junctions are confusing, trail heads need to be established.

**Welcome/orientation panels** 36" x 48" in size are planned for six locations:

- Current panel near the Welcome Center
- Current panel near lower parking lot in Beaver Creek
- In the tent campground area.
- In the cabins area.
- At the start of the boardwalk
- At the trailhead after exiting the boardwalk across the wetland.



Current welcome and orientation panel near the Welcome Center.

**Wayfinding Information: There is a lot to see and do here.**

1: Birding enthusiasts can see a variety of types of birds in the area.

Supporting Story Example: There are great birding opportunities at Beaver Creek. Due to its many habitats, the park is home to a substantial number of resident and migratory birds.

2: Hikers can explore several types of habitats and enjoy scenic views.

Supporting Story Example: Hikers can enjoy picturesque views looking over the creek and out toward the ocean. Trails throughout the park meander through the various habitats including meadows, upland forest, shrub-scrub wetland, cedar spruce swamp, freshwater marsh, and Beaver Creek.

3: An exciting way to explore the park is by kayaking up Beaver Creek.

Supporting Story Example: Kayaking offers a unique perspective of the park and allows visitors to experience the transitioning habitats firsthand. This experience offers observation from a fun and memorable perspective.

4: Visitors are welcomed to take more time exploring each of the aspects the area has to offer by staying in the designated camping area.

Supporting Story Example: With so much to see and explore at Beaver Creek, visitors are welcome to extend their stay. Camping allows more time to take advantage of the area's features at their own pace. Camping also gives visitors more of an opportunity to take part in programs or try something new (fishing, bird watching, kayaking)

**Safety/ Supporting Information**

No dogs are permitted in the Natural Area.

Warning signs for black bear and cougar should be posted.

Safe boating information/ invasive species information.

Fishing is permitted in designated areas for visitors to enjoy.

What to do in the event of an earthquake and/or tsunami alarm while visiting Oregon State Parks.

Keep your campsite clean to help protect murrelets from jays and crows.

## **Brochures to support wayfinding**

**General park brochure** to provide an overview of the attractions, facilities, and services provided.

**Trail brochure** to be used to navigate the park and introduce interpretive themes. Include information on connecting to area trails such as the 804 trail, the Oregon Coast Trail, and Amanda's Trail.

**Self-guided interpretive trail.** This guide will interpret a series of stops along the interpretive trail near the Welcome Center.

# **Strategies for Park Interpretation Chapter for Comprehensive Plan**

## **1. Overview**

### **Interpretation Strategies**

In keeping with the Natural Area status of a portion of the park and limited parking space, programs will generally limit the number of participants to match parking capacity. In addition, the focus for programming will be during weekdays rather than weekends, except for roving interpretation. This will avoid any conflict for parking space on weekends when hiker visitation is higher. Development of the interpretive program will include build out of infrastructure, interpretive media, and staff development. Coordination with Natural Resources staff and Heritage Division staff will be important for the ongoing interpretation of the park. Resource restoration projects will be interpreted to help visitors understand and support the work underway. Natural Resource survey work can occur in partnership efforts such as bird surveys that provide data that benefit both the natural resource management of the park as well as interpretation of the resource. Citizen science projects are one way that OPRD can gain in natural resource information for appropriate projects. Research undertaken by the Heritage Division can provide valuable information to help interpret the history and cultures of the area. Funding sources for interpretation may include the OPRD budget as well as grants and partnerships.

### **Interpretive Infrastructure**

Planning for the development of interpretive infrastructure such as a gathering area for talks or a wildlife blind will be in phases. All infrastructure will be designed to blend with the landscape, permit universal access, and use sustainable features when possible.

### **Interpretive Media**

The development of interpretive media will be in a phased approach as funding permits. Media can include personal presentations by rangers as well as brochures, wayside exhibits, audio or video presentations, interactive website, self-guided trails, and facility design. Additional media development can occur as funding and partnerships permit. Some projects may require partners to move forward. All media development will use the interpretive themes developed to communicate agency messages. The development of an interpretive prescription following the comprehensive plan will provide more detailed development of media concepts.

## **Interpretive Staffing Options**

In addition to the current full time interpretive staff, a six month seasonal interpretive ranger is recommended, with a season starting in April and ending in September each year. This seasonal ranger will be able to assist with leading programs at the campground amphitheater in the summer, kayak tours, assisting with school groups in spring and fall, and manning the Welcome Center.

Volunteer interpretive hosts should be recruited to assist in hosting the Welcome Center and leading Junior Ranger programs in the campground amphitheater.

Additionally, partnerships should be developed where possible with other agencies and organizations as appropriate to assist in interpretive and educational efforts at the park. OPRD will provide interpretive training to park staff and volunteers through:

Annual Interpretive Core Training in June, a four day training designed to prepare staff and volunteers to present interpretive programs.

Provide an Interpreters Manual, updated on an annual basis.

Annual Junior Ranger training, designed for staff and volunteers leading Junior Ranger programs for youth ages six to twelve years of age.

Provide a Junior Ranger Leader's Manual, updated on a yearly basis.

Rocky Shores Naturalist training in June is a three day skills workshop focused mainly on the natural resources of the coastal environment.

Provide a Rocky Shores Naturalist manual, updated on a yearly basis.

The OPRD State-wide Interpretive Team develops interpretive skills workshops to enhance the abilities of park staff and volunteers.

Certified Interpretive Guide workshops through the National Association for Interpretation are held periodically to further staff development.

## 1. Interpretive Goals

The interpretive goals and objectives support the park management goals listed in the comprehensive plan. The successful achievement of the interpretive goals and objectives will occur through implementation of the media that have been prescribed to communicate the interpretive themes.

Objectives in an interpretive assessment have two key functions. First, they provide focus and direction for selecting and designing interpretive media. Second, they provide a means to evaluate whether the interpretive strategy was successful. To function in this manner, all objectives are worded so they can be measured. The OPRD goal hierarchy begins with an interpretive goal followed by three types of objectives. (This hierarchy is from the National Association for Interpretation.) In a logic model, the desired **impact** and **outcomes** drive the themes and media selection. It's best to work backwards in logic models from impact to outcomes (desired human behavior). In this process you must monitor the data developed to see how you are doing and change outputs as necessary to keep working toward desired outcomes. The Logic Model is a roadmap to success in measurable terms. Evaluation of the success in achieving objectives can be direct in some objectives where linked to the creation of a physical structure or holding an event. Objectives linked to visitor behavior can be more challenging to measure and may require pre and post park visitor surveys. There are three types of interpretive objectives, defined as follows:

**Outputs:** Outputs measure projects led by OPRD. These are the actions OPRD will take through media prescriptions to help communicate the park themes. Outputs are identified in the action plan, which focus on implementing the interpretive media selected. Interpretive strategies include media selections supporting various goals. Media can include personal presentations by rangers as well as brochures, wayside exhibits, audio or video presentations, smart phone applications, self-guided trails, and even facility or landscape design. The media selected will utilize appropriate interpretive themes to communicate key messages. Examples include: lead four new interpretive programs each month on snowy plovers and install three new wayside exhibits on snowy plovers.

**Outcomes:** Outcomes review changes in park visitor behavior. These are the impacts on visitor behaviors that we hope to accomplish through the outputs. Ideally, objectives are worded to indicate the minimum level or amount of desired impact that would be considered successful. Examples include: ten visitors will become park volunteers, book sales on wildflowers will increase by 10%, and park rangers will have 10% fewer cases of visitors disturbing snowy plovers.

**Impacts:** Impacts consider improvements to the organization or resource. These are the results of the modifications to visitor behavior that directly support the resource management goals. Examples include: vandalism of the park site will reduce by 40%, Snowy plover nesting success will increase by 10%, and two acres of land will be cleared of invasive plants.

## **Evaluation**

Most evaluation focuses on outcomes; the changes in visitor behavior. Although a few behaviors, such as an increase in donations, can be measured readily, many of the behaviors that indicate positive change occur after a visitor has left the park. Evaluation then becomes difficult without expending a significant amount of resources. Consequently, the suggested evaluation strategies focus on *indicators* of impact, such as an increase in approval ratings. These can be measured by conducting a survey prior to implementing an interpretive strategy and afterwards to determine if the approval shows a significant increase. Approval can be measured using a scale, which asks a visitor to respond to a question by circling a number on a scale. For example, 1 could represent low approval, 3 moderate approval and 5, strong approval. The degree of approval can then be determined as an average and compared from before and after implementation.

## **VALUES AND GOALS – Brian Booth State Park**

**Natural Resource Value:** We value the parks as predominantly natural places.

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

**Interpretive Goal:** Promote visitor understanding and support of OPRD's management actions to protect and restore natural resources.

### **Outputs**

The media prescriptions identified in this assessment will contribute to achieving this interpretive goal.

### **Outcomes**

1. An increase in awareness and approval by visitors of OPRD as the agency responsible for the preservation, restoration and management of the park. This would be indicated by increases in approval ratings and awareness of the managing agency as indicated on a survey.
2. An increase in support for management actions associated with protecting, restoring and/or enhancing vegetation and wildlife habitat. This would manifest itself in an increase in approval ratings for specific actions as indicated on a Likert-type scale on a survey.

## **Impacts**

1. Additional volunteers to assist with natural resource protection and restoration.
2. Reduced visitor impacts on natural resources such as litter.

## **Natural Resource Value: We value the natural character of the park landscape and the enjoyment it brings to those who experience it in their recreation pursuits.**

This value describes the importance of providing recreational access in order to instill appreciation of the natural beauty, balanced with the importance of protecting the natural and scenic qualities that visitors come to enjoy.

## **Interpretive Goal: Promote visitor appreciation and respect of the natural resource values, and ways that visitors can contribute to resource stewardship.**

## **Outputs**

The media prescriptions identified in this assessment will contribute to delivering agency messages and achieving this interpretive goal.

## **Outcomes**

1. Attendance at interpretive programs will increase by 10% annually for five years.
2. Participation in citizen science projects will be adequate for project success.
3. Junior Ranger program attendance will increase by 10% annually for five years.
4. Volunteer participation will increase annually by 10% for five years.
5. Littering in the park will be reduced.
6. Visitors will stay on trails.
7. Visitors will keep dogs on the leash.
8. Visitors will not cut or damage plants.
9. Visitors will not harass wildlife.
10. Visitors will keep dogs on the leash.

## **Impacts**

1. Stronger connections to local communities through citizen participation at the park will strengthen partnership opportunities.
2. Park aesthetics will be improved.
3. Natural resources will be in better condition and require less maintenance.
4. Wildlife populations will be healthier.
5. Park staff can spend less time on enforcement.
6. Reduction in need for rehabilitating resources.

**Recreation Value: We value outdoor recreation at the parks and the contribution it makes to happy, healthy and stress-reducing lifestyles.**

Outdoor recreation and interaction with natural settings promote and revitalize physical and mental health.

**Interpretive Goal: Create opportunities for visitors to understand the values of outdoor recreation and interaction with natural settings.**

### **Outputs**

The media prescriptions identified in this assessment will contribute to delivering agency messages on outdoor recreation and achieving this interpretive goal.

### **Outcomes**

1. Guided kayak tours will continue to be popular on Beaver Creek.
2. Hiking on park trails will increase as access opportunities are developed.
3. Birding in the park will increase in popularity as access opportunities and programs are developed.
4. Visitors will learn outdoor recreation skills for appropriate ways to interact with the environment.

### **Impacts**

1. Increased opportunities for visitors to experience outdoor recreation in a variety of forms.
2. Increased compliance with rules and regulations that protect resources.
3. Increased physical and mental health of visitors.

**Interpretive (safety messages) Goal: Promote and facilitate visitor safety in recreation activities.**

### **Outputs**

The media prescriptions identified in this assessment will contribute to delivering safety messages and achieving this interpretive goal.

### **Outcomes**

1. A decrease in recreation based accidents in the park.

### **Impacts**

1. Less staff time spent on recreation accidents.
2. Higher quality visitor experiences.

**Cultural Resource Value: 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.

**Interpretive Goal: Create opportunities for visitors to learn about and appreciate the cultural history and prehistory of the park setting in the context of the central coast setting.**

### **Outputs**

The media prescriptions identified in this assessment will contribute to delivering these messages and achieving this interpretive goal.

### **Outcomes**

1. Visitors will gain an appreciation for the cultural history and prehistory of the park setting in the context of the central coast setting.

### **Impacts**

1. Damages to cultural resources will be minimal or none.

**Cultural Resource Value: We value the stories, traditions and experiences that have been part of the natural landscape for thousands of years.**

Understanding the relationships between the natural resources and cultural history is an essential part of instilling visitor understanding and appreciation of the park setting.

**Interpretive Goal: Create opportunities for visitors to understand 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.**

### **Outputs**

The media prescriptions identified in this assessment will contribute to achieving this interpretive goal.

### **Outcomes**

1. Visitors will gain an appreciation for the historic relationship between human lifeways and impacts on natural resources.
2. Visitors will gain an appreciation for the importance of land stewardship in sustaining natural and cultural resources.

### **Impacts**

1. An increase in the number of volunteers for stewardship projects.

### **Community Value: We value how the parks can strengthen local communities.**

The parks are a valuable resource to local communities, for their contribution to community identity, to happy and healthy lifestyles and to the local economy.

### **Goal (with potential interpretive elements): Provide opportunities for local communities to keep a close relationship to the parks.**

### **Outputs**

The media prescriptions identified in this assessment and associated messages will contribute to achieving this interpretive goal.

### **Outcomes**

1. Opportunities for local citizens to be involved in park projects will be provided.
2. Partnerships in environmental education for area schools will be a priority.
3. Partnerships in sustainable environmental tourism opportunities can be developed.

### **Impacts**

1. Strong connections to local community members will leverage the parks ability to effectively manage the site and offer recreation opportunities.
2. The Oregon Environmental Literacy Plan will be more effectively implemented though environmental education partnerships.
3. Sustainable environmental tourism can strengthen local economies.

## **3. Interpretive Media Recommendations**

### **Self-guided Interpretive Media**

#### **Brochures/publications**

**General park brochure** to provide an overview of the attractions, facilities, and services provided.

**Trail brochure** to be used to navigate the park and introduce interpretive themes. Include information on connecting to area trails such as the 804 trail, the Oregon Coast Trail, and Amanda's Trail.

**Bird checklist** once data from the 2011 survey are available.

**Native American uses of the land**, this might include uses of plants and fishing techniques, for example. This needs to be developed in cooperation with the Confederated Tribes of Siletz.

**Logging and Agricultural History of the land** This would include the use of spruce in airplanes and the meadows used as pasture.

**Self-guided interpretive trail.** This guide will interpret a series of stops along the interpretive trail near the Welcome Center, visiting different habitat types.

### **Earthcache**

This is a trend which is increasing in popularity. OPRD sanctioned scavenger hunts would attract families who are looking for adventure. Many people seek out unique Earthcaches or Geocaches when planning family (or personal) trips, and this would make Beaver Creek a destination for these people. This is also an interesting opportunity for interpretation through discovery, as visitors learn a piece of the story as they uncover more objects/locations. Setting up a trail with sites would also be pro-active in helping to guide where these are located in regards to sensitive natural areas.

## Interpretive Programs (Presentations by Rangers or Volunteers)



Guided kayak tours are popular on Beaver Creek.

Interpretive presentations will be led for visitors year round. Most summer programs for campers will be based out of the amphitheater near the campground. Interpretive and environmental education programs will be based out of the Welcome Center year round. Some programs will take place at other locations in the park. Possible presenters include a mix of OPRD staff, volunteers, and other agency staff. Program types will include Junior Ranger programs for youth ages six to twelve years, family programs, environmental education programs for school groups, and adult outdoor skills programming. The popular guided kayak tours on Beaver Creek will continue.

## Special Events/Program Concepts

In keeping with the Natural Area status of the site and limited parking space, programs will generally limit the number of participants to match parking capacity. In addition, the focus for programming will be during weekdays rather than weekends, except for roving interpretation. This will avoid any conflict for parking space on weekends when hiker visitation is higher.

### **International Migratory Bird Day**

This event can include a combination of guest speakers on various topics on birds and bird migration, as well as an annual bird survey the morning of the event for volunteers.

### **Bio Blitz**

This event pulls in volunteers in all area of natural resource expertise to help document all of the life forms found in the park.

### **Bird Banding Day**

Coordination with ornithologists could create an opportunity for both scientific study and bird appreciation for the public.

### **Environmental Education Day for Home Schoolers**

A series of educational stations with 20 minute presentations could be set up with speakers from several agencies on various natural history topics. Participants sign up in advance.

### **Salmon Recovery Day**

This educational day for all schools to attend could feature speakers from several agencies speaking on various aspects of salmon recovery, and how Beaver Creek is a success story for salmon.

### **Weekly programs**

A regular schedule of program can be offered to the public. For example, a guided bird walk could be offered at 8 am on weekdays, guided trail walks at 2 pm, and an occasional evening program at 7 pm.

### **Roving Interpreter**

This should be a key opportunity during weekends at the park. A Roving Interpreter operating in key locations, such as the Welcome Center deck and campground area, with objects or a touch table / display, will allow visitors to come to the interpreter at their leisure and in response to their level of interest. Roving interpretation should be planned in order to reach out to all visitors.

## **Environmental Education Programs**

Environmental education programs that support the Oregon Environmental Literacy Plan should be developed, with two types:

Self guided environmental education programs will help support teachers that would like to lead their own program at the park. The materials developed should connect to the school curriculum.

Ranger led programs likewise should connect to the school curriculum, and can be offered as staffing time permits.

## **Coordination with Lincoln County Outdoor School Group**

Interpretive staff should work with the Outdoor School Group to help support outdoor education at Beaver Creek. This could include leading programs, helping to recruit volunteers, and arranging for use of park facilities.

## **Coordination with OMSI Outdoor School**

As OMSI works to build an Outdoor School facility near South Beach State Park, park interpretive staff should work with the Outdoor School staff to help plan programming that will be mutually beneficial.

***"The findings are stunning: environment-based education produces student gains in social studies, science, language arts, and math; improves standardized test scores and grade point averages; and develops skills in problem-solving critical thinking, and decision making."***

***Richard Louv, "Last Child in the Woods"***

## Staffing for Interpretive and Educational Programs

Staff to lead interpretive and educational program could include:

- OPRD Rangers as available
- Seasonal OPRD Naturalists
- Volunteers from the Oregon Master Naturalist program (Oregon Master Naturalists are required to do 40 hours of volunteer work, including tracts in Natural Resources Interpretation, Citizen Science, Land Stewardship, and Program Support.
- OPRD host volunteers
- Staff from other agencies such as: Hatfield Marine and Science Center, OMSI, Yaquina Head Outstanding Natural Area, Oregon Aquarium, USFWS Education Staff, Drift Creek Wilderness Area, USFS, Lincoln County Outdoor School Group

## Interpretive Infrastructure

An amphitheater to seat 75 to 100 people is recommended to be located central to the campground. This will serve as the site for family interpretive programs as well as Junior Ranger programs for youth ages 6 to 12. (The campground will be located on the newly acquired property near Route 101, not in the current Beaver Creek State Natural Area.)

## Boardwalk

Construction of a boardwalk to cross the wetland is essential to allow public access to the majority of the trails in Beaver Creek State Natural Area. The boardwalk will increase public access and also allow for interpretive and educational opportunities.

### Proposed location for a boardwalk to cross the marsh:

The recommended location for a boardwalk at Beaver Creek SNA is to start at the bottom of the hill below the Welcome Center. From the parking lot, visitors would head to the trail head for the Beaver Creek Marsh Trail. After 150 yards, a second trail head could be established. From here, the board walk would travel through the small cedar swamp and head out through the marsh and finish at the adjacent uplands where most of the trails are located. This location provides scenic view points along the marsh and passes through cedar tree clusters at the base of the hill near the Welcome Center. Careful placement of the boardwalk as it travels through the marsh should allow visitors to look out over some open pools of water as well as the tule marsh. The boardwalk would end at a location on the upland side of the property where the visitor could have access to a variety of trails. The trail to the boardwalk and the boardwalk itself need to be universally accessible.

## Trail Needs for Interpretation/Education

- Visit a diverse array of habitats to enhance the visitor experience and learning opportunities.
- Short loop trail lengths for school groups that visit key sites such snaggy point, the barn, a variety of habitats, and the boardwalk.
- School groups may meet at either the Welcome Center or at the barn by appointment.
- Sites for school groups to eat lunch could include the barn or the Welcome Center.
- Most school groups are likely to be elementary grades and will not hike long distances.
- A small restroom facility along the trails.

## Bird Observation Blinds

Two bird observation blinds are recommended for the area in recognition of the diversity of bird life and convenient geographic location on the central coast.

One observation blind could be elevated 8 to 10 feet to allow visitors to view the largest open water area of the marsh. This area features concentrations of migratory waterfowl in fall and winter. This blind would be located at the base of the hill below the Welcome Center, near the lower parking lot. The blind would be placed on the mowed grass area near the shrubs, and be designed to allow views over the shrubs. This blind would also allow views of migratory songbirds in nearby shrubs and trees. This blind needs to accommodate 10 to 15 people at one time, to accommodate a school class and teacher using the area in small groups.

The bird observation blind on the boardwalk could be located midway across the wetland. Recommended views are to open water areas that feature waterfowl in winter, as well as closer views of the marsh vegetation that may allow views of songbirds such as the common yellowthroat, marsh wren, and other species. The boardwalk blind should hold 5 to 8 people. Walls should be solid wood except for openings of various heights to allow viewing by youth and adults. A roof is recommended to allow the structure to be used on rainy days, when there may be waterfowl visible, and to protect from the sun on other days. The structure should be three-sided, with an open back.

Other locations may be possible for bird blind development.



South Platte Park, Littleton, Colorado: This accessible blind overlooks a wetland with plentiful waterfowl and features six interpretive panels, plus recycled plastic lumber in the interior that has proved low-maintenance and effective for reducing sound. Photo: Skot Latona

Photos above from: “A GUIDE TO WILDLIFE VIEWING

AND PHOTOGRAPHY BLINDS” by the Colorado Division of Wildlife and Virginia Department of Game and Inland Fisheries.

## Interpretive Facilities



Current Beaver Creek Welcome Center

### Recommendation for enhancements to the Welcome Center

The recommendation for Beaver Creek State Natural Area is to transition the current Welcome Center in phases to a **Nature Center**. This will be accomplished through modifying the current spaces within the Welcome Center to make them more accessible for public use for exhibits and meeting spaces. Current rooms downstairs and the attached garage will provide the spaces needed to allow exhibits and classroom/meeting space. The footprint of the building will need little if any change, with re-use of current spaces allowing for enhanced functions in the building. In keeping with the Natural Area status of the site and limited parking space, programs will generally limit the number of participants to match parking capacity. In addition, the focus for programming will be during weekdays rather than weekends, except for roving interpretation. This will avoid any conflict for parking space on weekends when hiker visitation is higher.

The maintenance functions currently in the garage area will need to be moved to another location. One option would be the construction of a small maintenance building nearby.

The development of an Interpretive Prescription following the Comprehensive Plan will support more detailed development plans for the Nature Center and other aspects of interpretive program development.

One option would be to create a bird observation room off to one side of the classroom that could view an area set up with native plants and bird feeders. Currently this area is a glass greenhouse.



Example of a Nature Center with a bird observation room.

A Nature Center in the Oregon Parks and Recreation Department is defined as follows:

### **Interpretive Center/ Nature Center**

This facility tells the story of the park's cultural and natural resources. In an interpretive center, there is often a blend of both natural and cultural features in programs, exhibits, and other media. Live animals are not often on display. Exhibits are a significant component of the facility. In a nature center, the main focus is on interpreting the natural history of the park or natural resource. Programs, exhibits, and other media focus on the local flora and fauna. Nature Centers may have native live animals on display such as reptiles or amphibians. There may be some interpretive programs or exhibits on cultural or historical topics. A current example of a Nature Center is at Tryon Creek State Natural Area, while a current example of an Interpretive Center is at Champoeg State Heritage Area.

### **General Design Principles for Interpretive/Nature Centers**

Interpretive facilities should interpret the resource. The building should blend with the landscape, whether natural or historic. The building should be in harmony with the site, be designed for visitor flow, accommodate universal design principles, and consider sustainable design issues whenever possible.

## Interior Exhibits and Classroom/Meeting Space

New interpretive and educational exhibits can be set up in the Welcome Center as it transitions to functioning as a Nature Center. Location for the exhibits would be in the two lower rooms of the Welcome Center. The wall between the rooms can be removed to create one larger room for exhibit space.

One example of an interpretive exhibit that could be set up is the ebird tracker from the Cornell Lab of Ornithology. The ebird Trail Tracker is a computer display that can be used to both interpret the birds in the park as well as give visitors an opportunity to record their bird sightings and have that data be available for research.

eBird Trail Tracker is a unique and proprietary Internet accessed software application that enables entry and real-time review of bird observational data at specific locations. Customized with a pre-populated listing of birds that could potentially be seen at a particular refuge/nature center, eBird Trail Tracker allows visitors to quickly review sightings of others and enter their own bird sightings at that location. Visitors will also have the ability to identify on a pre-loaded map the specific locations at the refuge/nature center where particularly interesting bird species were seen which will allow other birders to potentially find the same bird species at these locations. In addition, visitors will be able to review photographs of the birds listed at the site and play the birds' song/call to help them confirm their identifications. Observational data entered at the site will be automatically downloaded into eBird which is the North American repository of bird observational data that is supported by the Cornell Lab of Ornithology (CLO) and Audubon. This valuable data is subsequently available for scientific research and reference.

The development of an exhibit concept plan would be included in the Interpretive Prescription to be created following the Comprehensive Plan. The plan would express the park interpretive themes through various exhibits, with interactive features as the budget permits.

### **Classroom/Meeting Space**

The current attached garage could be used as a classroom/meeting space. This will support interpretive and environmental education programming, as well as providing a needed meeting space for OPRD staff and interpretive trainings. One option is to transition the small greenhouse off to one side of the garage to a bird observation room, with native plantings and feeders set up outside.

Programs would be led by OPRD staff and volunteers, along with partners from other agencies.

Potential partners to help lead programs include:

US Fish and Wildlife Service, Hatfield Marine Science Center, Oregon State University, Confederated Tribes of Siletz, Oregon Coast Aquarium, Lincoln County Outdoor School Group, Yaquina Head Outstanding Natural Area, Oregon Museum of Science and Industry.

## Exterior Exhibits



Current three panels on the deck at the Welcome Center focused on beaver, habitats, and salmon.

New exterior panels recommended include:

- Native American/agricultural history on the deck at the Welcome Center.
- Development of the Oregon Coast and Coast Range due to subduction of the Juan de Fuca Plate beneath the edge of North America. (Both in Beaver Creek State Natural Area and Brian Booth State Park campground area.)
- Development of the Beaver Creek estuary and wetlands, including the periodic influence of tsunamis accompanying subduction zone earthquakes. (Both in Beaver Creek State Natural Area and Brian Booth State Park campground area.)
- Restoration/ wetland ecology along the new boardwalk going across the wetland.
- Birds along the new boardwalk across the wetland.
- Tidepool ecology at Seal Rock.

### **Interpretation in the barn**

Upgrade the barn slightly to accommodate picnics and group gatherings. Add picnic tables, general clean up and painting as needed. This site can function as a meeting location/lunch site for school groups after crossing the boardwalk. The addition of a small restroom would enhance the area. One option would be to create a space that could be enclosed to serve as a classroom space.

### **Future Planning**

An Interpretive Prescription is recommended to develop the specific concepts needed to plan for the Welcome Center transition to a Nature Center and associated exhibits and programming, both for interpretation and environmental education efforts. The interpretive prescription will further develop the media plan beyond the initial concepts proposed in the comprehensive plan. The interpretive themes and supporting stories will be connected to specific interpretive panels and other media. Interpretive programs and events will be reviewed for potential development. Designing support for environmental education efforts will be a part of the planning effort. The prescription will include a phased approach to development of interpretive media and programming, with cost estimates for implementation of the plan.

## **15. Action Plan**

### **Ongoing**

- Support staff and volunteer skills development in interpretation and environmental education through a variety of training opportunities.
- Support citizen science efforts to document flora and fauna in the area.

### **2013-15**

Support creation of an Interpretive Prescription to enhance concept development for programs and exhibits.

### **2015-2017**

Support implementation of the Interpretive Prescription.

## **Cost Estimates**

The cost estimates for identified interpretive media are rough estimates and will depend upon various factors, such as amount of panels, images (photos vs. artwork), and contractor. These estimates are broken down into each media type.

### **Panels**

The cost for a standard sized (24" x 36") panel, including design development and pre-press production, would run anywhere from \$2500 to \$5000. This is per panel, and the cost would be on the lower end if more panels are ordered.

### **Frames**

Frames can be ordered thru Oregon Corrections Enterprises as one option. They come in three different selections:

Basic Standard Frame

Cantilevered – with two options of mounting

56" In-ground

32" Base plate for decking or concrete

Upright

A sign frame manual is available for review to help with ordering.

The cost will run approximately \$600 each when ordering 3 or more frames, sized 24" x 36" with 2 - 56" in-ground mount legs.

Prices will be higher per frame when only one or two are ordered - contact Tammy Abbot, Sign Coordinator for OCE for specifics.

### **Interpretive Brochures**

Interpretive brochures also vary in costs depending upon number of pages, color, number of copies, design, etc.

A rough estimate would for one page both sides, folded, 4 colors and 2000 copies would run \$2200 - \$3500.

Design costs could be as low as \$700; including a GIS map would increase this amount significantly. Public Services pays for the design and development of brochures. (Check with Public Services prior to beginning project. Due to budget cuts, they may not be able to pay for design and development.)

Print costs are high for 2000 copies; it is recommended that at least 5000 copies be printed.

Parks are responsible for paying for printing.



Habitats in Beaver Creek State Natural Area include shrub-scrub wetland, Beaver Creek, meadows, cedar spruce swamp, and freshwater marsh.