

Chapter 2 Alternatives

2.1 Alternatives Considered

Three alternative management strategies have been identified for detailed analysis in this Final Environmental Impact Statement (FEIS), including the Proposed Habitat Conservation Plan (HCP) (Alternative 2). These alternatives are described in detail in Section 2.3, “Alternatives Analyzed in Detail,” and are compared and summarized in Table 2-1 at the end of that section.

Alternative 1 – Current Management (No Action) involves continuing management strategies currently in place on the lands covered under the proposed HCP (see Section 2.2.1 below). This alternative is the baseline against which the effects of the other alternatives are compared, as described in Chapter 3, “Affected Environment, Environmental Consequences, and Cumulative Effects.” Alternative 2 represents the Oregon Parks and Recreation Department (OPRD) preferred alternative and is supported by the *Western Snowy Plover Habitat Conservation Plan* (Oregon Parks and Recreation Department 2008). The HCP was developed by OPRD, in collaboration with the U.S. Fish and Wildlife Service (USFWS) and the Oregon Department of Fish and Wildlife (ODFW).

The HCP addresses potential effects on the Pacific Coast population of the western snowy plover (snowy plover) resulting from OPRD management activities on the covered lands, and is designed to meet the regulatory requirements of the Federal and State Endangered Species Acts (ESA). The HCP was also developed as a result of input provided by the public during a series of public meetings held in the spring and winter of 2002 and the fall of 2004; input received between 2002 and 2004 from the Steering Committee convened to assist in formulation of the draft HCP; and

comments on the Draft Environmental Impact Statement (DEIS) and draft HCP received during the public comment period between November 2007 and March 2008, and April and June 2009 (Section 1.3.3, “Public Review and Comment Period”).

Alternative 3, Management of Additional OPRD Sites, is evaluated in this FEIS as an alternative to the proposed HCP. Specifically, Alternative 3 is included in this FEIS to provide the public with additional information for comparison of Alternative 2 with the environmental risks of an alternate course of action. The conservation measures associated with Alternative 3 were considered during the development of the draft HCP, but were subsequently eliminated by OPRD due to recreational use and other management conflicts. Nonetheless, USFWS had determined that this alternative is a reasonable alternative, as defined under the National Environmental Policy Act (NEPA), and that it should be evaluated in this FEIS.

Management strategies and issues raised during the scoping process that were not further analyzed as alternatives are described in Section 2.4, “Alternatives Considered but Not Analyzed in Detail.”

2.2 Area Covered, Species Covered, and Duration of Plan

All alternatives evaluated in this FEIS would be implemented on the covered lands, which include the Ocean Shore (except for federally owned lands) and specific portions of key State Parks, State Natural Areas (SNA), and State Recreation Areas, as described in Section 1.2.3, “Covered Lands,” and shown on Figures 1-3 through 1-11. The OPRD is requesting incidental take coverage for one species, the Pacific Coast population of the western snowy plover (*Charadrius alexandrinus nivosus* [coastal population]), which is listed as threatened under the Federal ESA and Oregon ESA. Management of the covered lands, for purposes of the analysis in this FEIS, would occur during a 25-year period (2009 to 2034).

2.3 Alternatives Analyzed in Detail

This section describes the covered activities that would be implemented under each of the three alternatives analyzed in detail in this FEIS. Covered activities are described according to three categories: public use and recreation management; natural resources management, including snowy plover management and other habitat restoration activities; and beach management. OPRD is not seeking take coverage for wintering populations of snowy plovers.

2.3.1 Alternative 1 – Current Management (No-Action)

Under Alternative 1, OPRD would continue to manage the covered lands as it does currently. Management activities on covered lands would be implemented to avoid potential effects on snowy plovers, to the extent possible. In areas where nesting populations of snowy plovers are known to be present, OPRD would implement specific prescriptions to ensure that management activities minimize the potential for take (see *Snowy Plover Management*). Similarly, OPRD would consider applications from other landowners to temporarily limit recreational use on any portion of the Ocean Shore when nesting snowy plovers are present, as requested by the landowner, and on a case by case basis.

Alternative 1 is the baseline in the FEIS against which other alternatives are compared and described. The differences demonstrated in that comparison represent the potential environmental consequences (i.e., the effects and impacts) of implementing the proposed alternatives.

Public Use/Recreation Management

OPRD is responsible for regulating activities on beaches and lands under its jurisdiction. Permissible recreational uses commonly observed on the covered lands include dog exercising, kite flying, non-motorized vehicle use, driving, and other activities, such as camping, walking, jogging, and picnicking.

Under Alternative 1, OPRD would manage the public's use of the covered lands in accordance with existing management practices to avoid potential effects on snowy plovers. Recreational use restrictions currently in place, such as limitations on beach camping in State Parks, would remain in place in the future. Additional recreational use restrictions associated with management of snowy plover nesting areas would also continue to be implemented, as summarized under *Snowy Plover Management*.

The following provides a description of permissible recreational uses on the covered lands, and recreational use restrictions that would be implemented under Alternative 1.

Dog Exercising

Under Alternative 1, dogs would continue to be required to be on leash in all Oregon State Parks, and on a leash, or under voice or signal command, in the communities of Seaside, Rockaway Beach, and Cannon Beach. Additional restrictions on dog exercising would be implemented at occupied snowy plover nesting areas, as described under *Snowy Plover Management*.

Kite Flying

There would be no restrictions on kite flying on the covered lands under Alternative 1.

Non-Motorized Vehicle Use

Non-motorized vehicle use, which typically occurs on the wet sand portions of the beach, includes bicycling, land sailing (riding a cart with a sail attached to it), kite-buggy (riding a sit-down buggy that is steered with the feet and powered by a kite), and kite-mountain boarding (riding an all-terrain skateboard which is powered by a kite). Under Alternative 1, restrictions on non-motorized vehicle use would be implemented at occupied snowy plover nesting areas, as described under *Snowy Plover Management*.

Driving

Driving includes use of all-terrain vehicles/off-highway vehicles (ATV/OHV) and “street legal” motor vehicles, such as cars, trucks, and campers. Under Alternative 1, ATV/OHV riding would continue to be allowed on the beach at three locations on the coast: the Sand Lake Recreation Area and on two sections of the Dunes National Recreation Area. All other beach segments would continue to be off limits to ATV/OHV use without a drive-on-the-beach permit issued by OPRD, except in the event of an emergency.

The Ocean Shore would continue to remain open to motor vehicle access, unless otherwise posted, under Alternative 1. Driving would continue to be prohibited year round at several locations along the Oregon coast as required under State Rule, including, but not limited to Necanicum Spit, Nehalem Spit, Netarts Spit, Bayocean Spit, North Sand Lake Spit, Sutton/Baker Beach, Siltcoos Spit, Tenmile Estuary, portions of the Bandon SNA, New River, Sixes River Mouth, Euchre Creek, and Pistol River. Additional seasonal driving restrictions would continue to be implemented at South Sand Lake Spit and Coos Bay North Spit. Beaches closed to driving would only be accessible with a motor vehicle permit issued by OPRD, or for administrative uses, such as access for emergency and enforcement vehicles, snowy plover monitoring, and land management activities.

Other Dry Sand Activities

The public uses the dry sand portion of the Ocean Shore for a variety of recreational activities, including camping, walking, jogging, hiking, picnicking, horseback riding, beach fires, beachcombing, and driftwood collection and removal. These activities primarily occur on the dry sand area of the beach, but some activities, such as horseback riding and pedestrian activities, do occur on the wet sand. Camping,

horseback riding, and beach fires are subject to specific restrictions under existing conditions. Other activities are generally not restricted unless otherwise subject to permit requirements or as specified by restrictions for snowy plover management discussed under *Snowy Plover Management* below.

The following restrictions on these activities would continue to be implemented under Alternative 1.

- **Camping.** Camping would continue to be allowed on the beach and dune areas next to beaches along the Oregon coast, unless otherwise specified by a State Rule that disallows that use (e.g., certain beaches in Tillamook County). Beach camping would continue to be prohibited on beaches adjacent to State Parks and within the city limits of Seaside, Cannon Beach, Manzanita, Rockaway Beach, Lincoln City, Newport, Bandon, and Gold Beach; North Manzanita city limits to the base of Neahkanie Mountain; and from the Necanicum River to the Columbia River. The only place that camping would be allowed in State Parks would be in specifically designated campgrounds inland from the beach.
- **Horseback riding.** Horseback riding would continue to be allowed on all Oregon beaches, with the exception of those beaches located within the city limits of Rockaway, where equestrian use on the beach is prohibited by State Rule. Horse concessions would continue to be allowed at Nehalem Bay State Park, Pistol River State Park, and Baker/Sutton Beach.
- **Beach Fires.** Small recreational fires would continue to be allowed on the Ocean Shore, as long as they are located in open, dry, sandy areas, downwind of and below beachgrass and driftwood lines; and beyond 25 feet of a seawall constructed of wood or other combustible material. Fires could continue to be restricted or prohibited by OPRD during high fire hazard conditions.

Additional restrictions on dry sand activities would be implemented at occupied snowy plover nesting areas under Alternative 1, as described under *Snowy Plover Management*.

Recreation Management Areas

Along Oregon's coast, there are several areas that are owned and managed by landowners for snowy plovers. Although OPRD is not responsible for managing these lands, OPRD does have the authority to manage recreational use within the covered lands. For purposes of this FEIS, the portion of these areas within the covered lands are referred to as Recreation Management Areas (RMAs). The locations of the RMAs proposed under one or more of the alternatives are illustrated on Figures 2-1 through 2-3 and in Appendix A.

For RMAs adjacent to federally owned lands, historically, OPRD and Federal landowners have entered into agreements dictating how snowy plover-related recreational use restrictions are enforced. Under Alternative 1, it is assumed that OPRD will continue to pursue agreements with Federal landowners to jointly issue restrictions on adjacent ownerships within the Ocean Shore boundary. Without such an agreement, each agency would be responsible for enforcing recreational use restrictions on their respective ownerships. Under Alternative 1, OPRD would also continue to consider applications for “Recreational Use Restriction Permits” on a case-by-case basis for temporarily limiting recreational use at privately owned RMAs, as requested by the landowner. If approved by OPRD, these permits would specify restrictions on use by recreational activity, location, and /or time period (e.g., seasonally).

The actual recreational use restrictions in these areas would be the same as those currently required at occupied snowy plover nesting areas managed by OPRD, as described under *Snowy Plover Management* below, with the exception that restrictions on dog use and driving could be more comprehensive at certain RMAs if required by State Rule (e.g., dogs completely prohibited [versus required to be on-leash]) at the Siltcoos portion of the Siltcoos/Dunes Overlook/ Tahkenitch RMA; see *Public Use/Recreation Management* above).

Since 1994, OPRD has worked with Federal landowners and Curry County to restrict recreational use on the dry sand portion of the Ocean Shore at five RMAs located at Sutton/Baker Beach, Siltcoos Estuary/Dunes Overlook/Tahkenitch Estuary, Tenmile Estuary, Coos Bay North Spit, and New River. Under Alternative 1, it is assumed that for the next 25 years, all of these landowners would continue to work with OPRD to implement recreational use restrictions each year, as long as these areas were considered to be occupied by snowy plovers. Under Alternative 1, OPRD would also implement recreational use restrictions at the request of additional landowners at other locations on the Ocean Shore, if nesting populations of snowy plovers are found.

Natural Resources Management

Snowy Plover Management

Under Alternative 1, OPRD would continue to manage the Habitat Restoration Area (HRA) at Bandon SNA (Figure 1-9) for nesting populations of snowy plovers. OPRD would also continue to protect snowy plover nesting areas within Bandon SNA outside of the HRA, as well as other nesting areas within the covered lands outside of Bandon SNA, as required by USFWS.

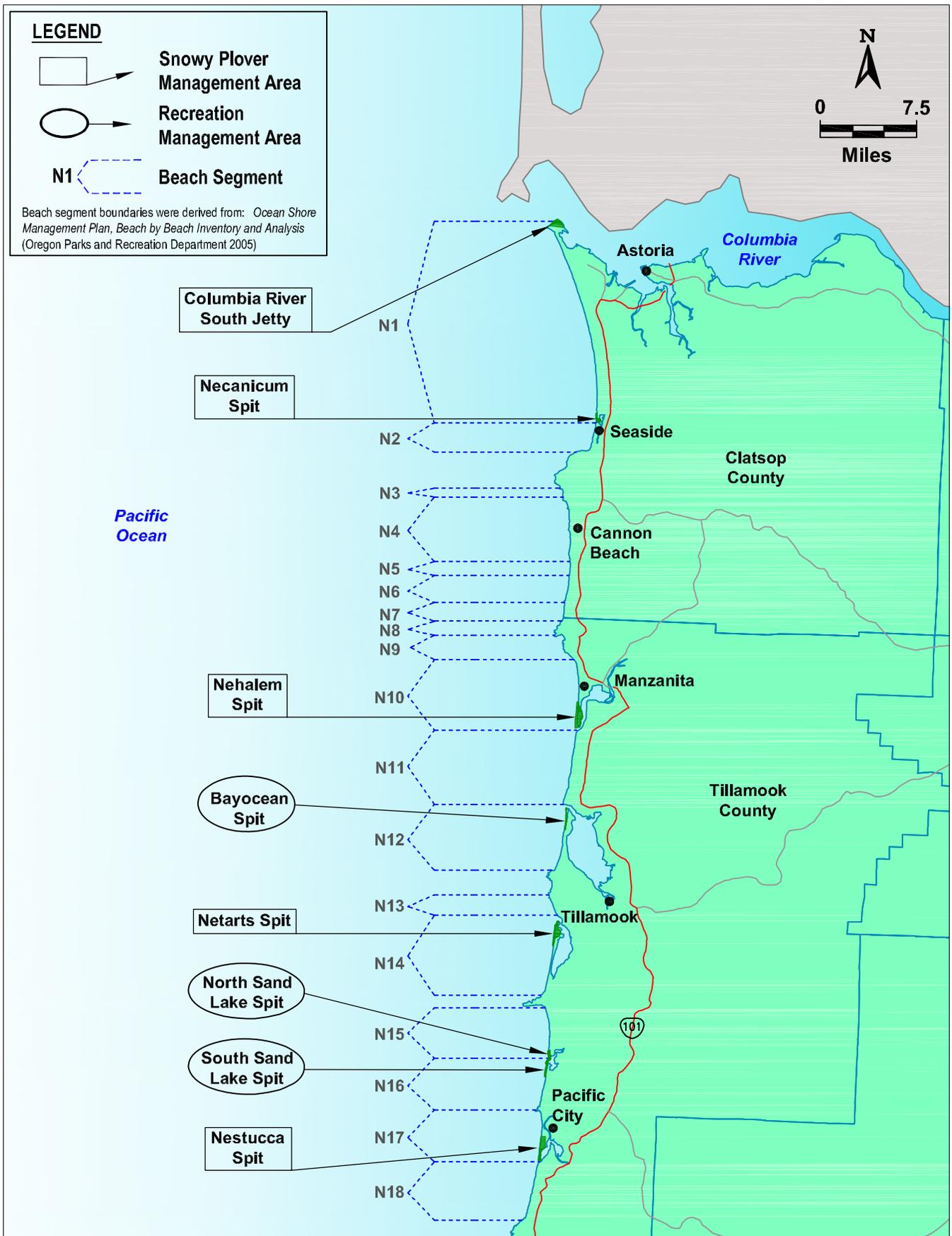


Figure 2-1
Snowy Plover Management Areas and
Recreation Management Areas on the North Coast

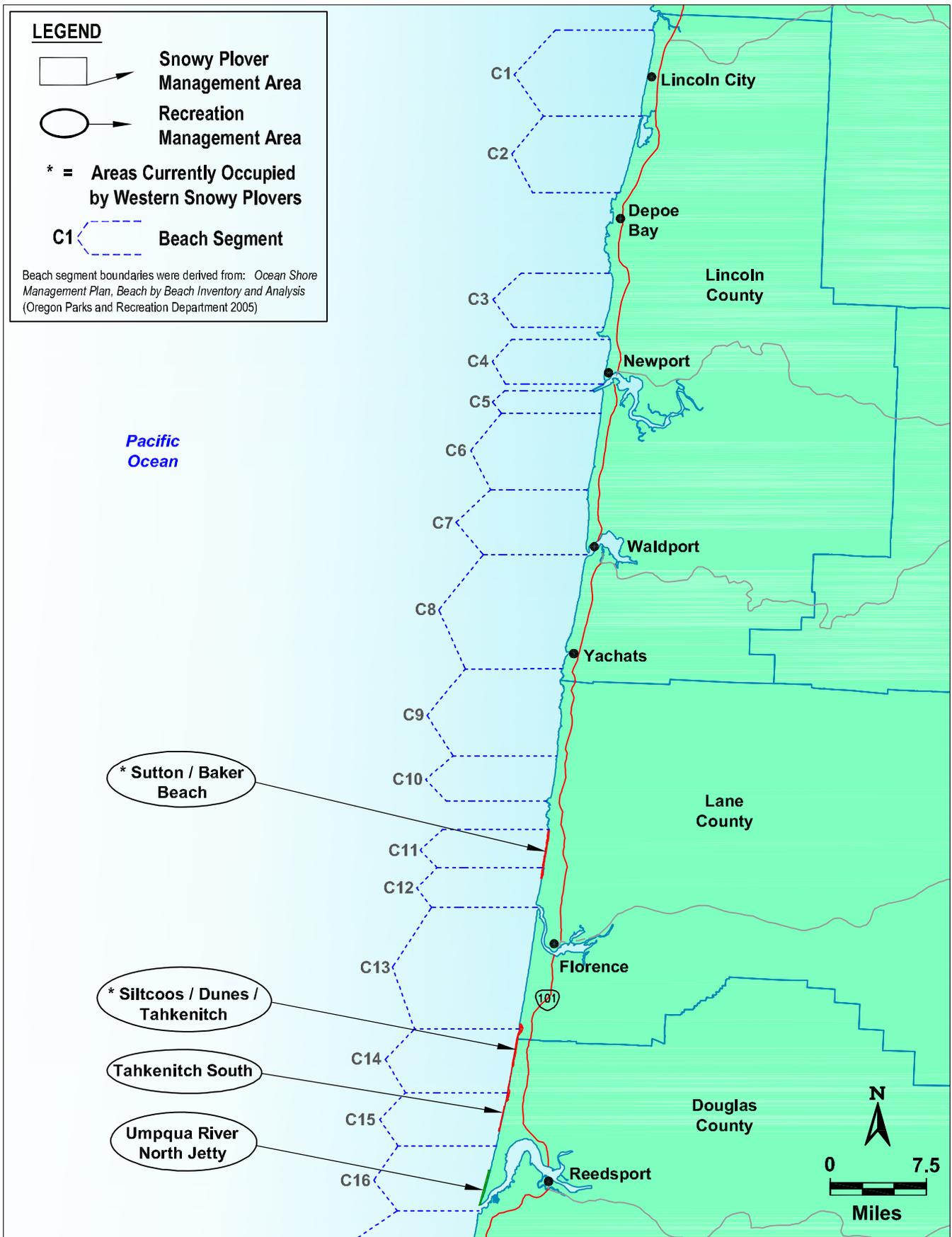


Figure 2-2
Snowy Plover Management Areas and
Recreation Management Areas on the Central Coast

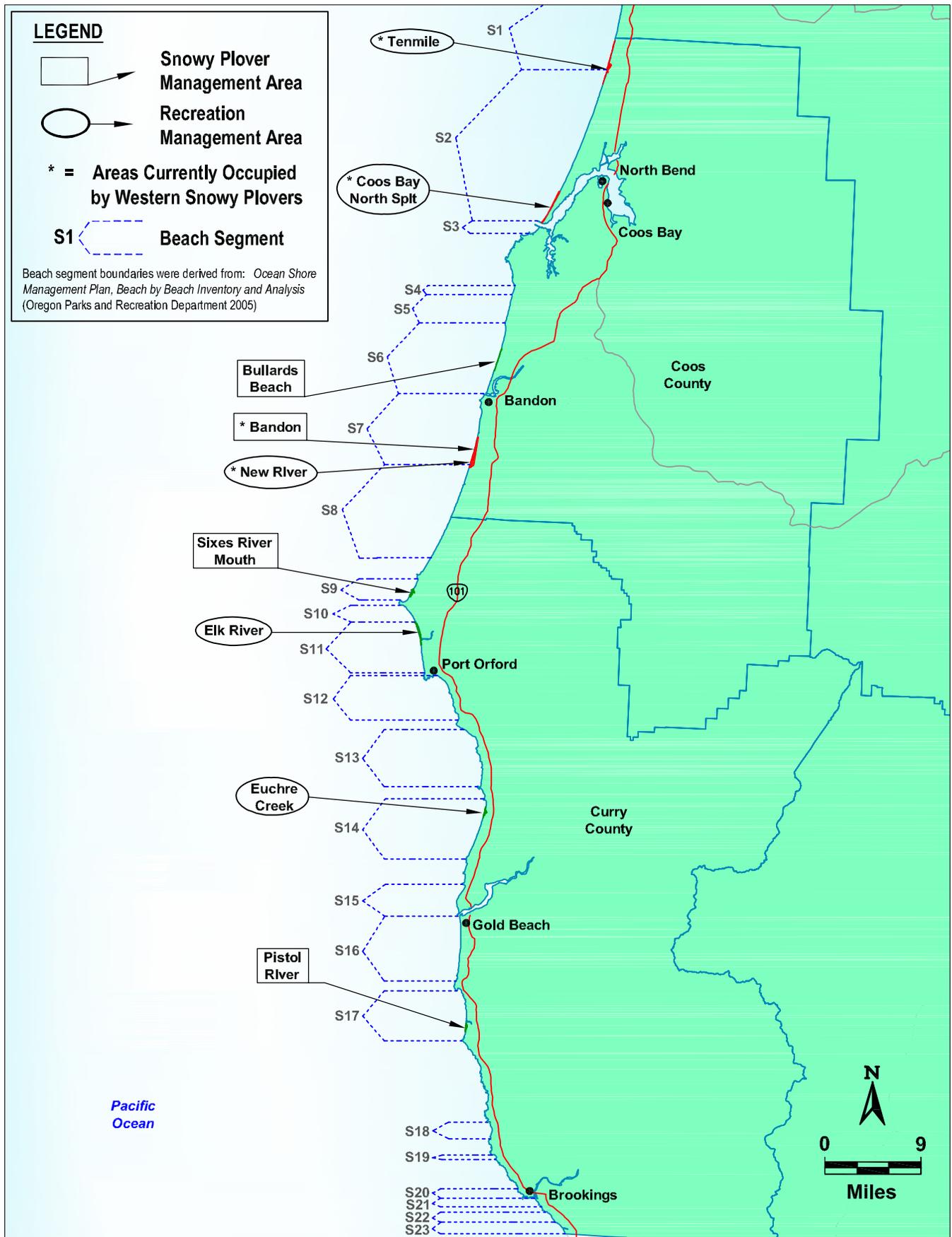


Figure 2-3
 Snowy Plover Management Areas and
 Recreation Management Areas on the South Coast

Management of Occupied Snowy Plover Nesting Areas

The HRA, and area adjacent to it at Bandon SNA, is currently the only occupied snowy plover nesting area on the covered lands actively managed by OPRD (Figure 2-3). Under Alternative 1, OPRD would continue to manage this area for existing populations of snowy plovers at or near the HRA during the nesting season (March 15 to September 15).

Management activities at the HRA would include the following:

- **Recreational use restrictions.** Under Alternative 1, dogs would continue to be required to be on leash and would be restricted to the wet sand area during the nesting season at the Bandon SNA. Driving would continue to be prohibited year-round, and the use of non-motorized vehicles would be prohibited during the nesting season. The use of certain areas of the dry sand would also be prohibited during the nesting season, as indicated by fences, ropes, and signs defining the breeding areas. Public use would continue to be allowed on the wet sand portion of the beach.

Outside of the HRA, but within the Bandon SNA, exclosures and fencing would be installed around identified snowy plover nests to limit recreational use in those areas. The use of exclosures would be determined on a case-by-case basis, after consultation with USFWS.

- **Habitat maintenance.** OPRD would continue to maintain optimal habitat for nesting snowy plovers at the HRA by maintaining the approximately 50 acres of habitat that has been restored at the site to date. Annual maintenance work would be completed between October and December.
- **Predator management.** The predator base at the Bandon SNA would be managed similarly on all covered lands, as described under *Predator Management*.
- **Snowy plover monitoring.** Snowy plover monitoring at the Bandon SNA would continue to be completed as part of the larger monitoring efforts along the Oregon coast, as described under *Monitoring*.
- **Public outreach and education.** OPRD would continue to recruit and train volunteers to serve as docents for public outreach and education at the China Creek access at Bandon SNA. Additional public outreach and education efforts are described under *Public Outreach and Education* below.

Management of Targeted Nesting Plover Areas

No additional snowy plover nesting areas would be targeted for management by OPRD under Alternative 1.

Protections for Nests Outside of Targeted Areas

Under Alternative 1, OPRD would provide protections for individual nests found outside of the Bandon HRA within the covered lands. The nature of these protections would be variable, and could include restricting certain recreational uses, installing nest enclosures, if necessary, and/or installing limited fencing. These restrictions would be contingent on consultation with USFWS.

Predator Management

Under Alternative 1, OPRD would continue to provide funding (in collaboration with other agencies) to manage the snowy plover predator base along the Oregon coast. Predator management would be implemented by the U.S. Department of Agriculture (USDA), or some other contractor, between February and August, and would include both lethal and non-lethal methods.

Snowy Plover Monitoring, Reporting, and Enforcement

Under Alternative 1, OPRD would continue to provide funding to the Oregon Natural Heritage Information Center (ORNHIC) (in collaboration with other Federal and State agencies) to monitor snowy plover numbers (via detect/non-detect and breeding population surveys), evaluate habitat, and conduct compliance monitoring related to snowy plover nesting areas along the Oregon coast. OPRD would also continue to contribute staff to assist with the annual wintering and breeding window surveys, and would continue to provide three beach rangers to enforce compliance with all Ocean Shore and State Park Rules, including beach use restrictions designed to protect snowy plovers. OPRD would continue to provide reports both monthly and annually to USFWS.

Public Outreach and Education

In addition to maintaining docents at the China Creek access at Bandon SNA, under Alternative 1, OPRD would recruit and train volunteers to serve areas where new nesting sites have been identified (on beaches managed by OPRD). Individuals would be stationed for 20 hours per week, if possible, and would be available to advise beach users about any beach restrictions and answer questions about snowy plovers.

Adaptive Management

There would be no specific adaptive management measures prescribed under Alternative 1.

Other Habitat Restoration - Dune Management and Invasive Species Removal

Under Alternative 1, OPRD would continue to manage dunes and remove targeted invasive species to provide habitat for native species, such as pink sand verbena. These habitat restoration activities would be implemented on the portions of the covered lands owned or leased under agreement by OPRD over the term of the next 25 years, and outside of the nesting season in areas occupied by snowy plovers. Habitat restoration activities targeted toward snowy plovers at the Bandon SNA are described under *Snowy Plover Management*.

Beach Management

OPRD is responsible for managing beaches within the covered lands, including coordinating efforts to resolve marine mammal strandings; ensuring beaches are safe for public use; assisting law enforcement personnel with pending investigations; and assisting with boat strandings and other salvage operations. These activities are described in greater detail below.

Response to Boat and Marine Mammal Strandings

Under Alternative 1, OPRD personnel would continue to respond to boat strandings and monitor salvage operations in accordance with existing management practices. Similarly, OPRD personnel would investigate, report, and bury or remove marine mammals from the Ocean Shore, as necessary. Depending on the remoteness of the beach and the time of year, some dead marine mammals would be left to decompose on the beach.

Responding to boat and/or mammal strandings may involve beach disturbance, driving and operating machinery, and increased pedestrian traffic. These activities would be conducted to minimize potential effects on snowy plovers, to the extent possible. In areas where nesting populations of snowy plovers are known to be present, OPRD would continue to work collaboratively with ODFW and USFWS to ensure that encroachment into occupied snowy plover nesting areas would be minimized.

Public Safety

Public safety activities involve maintaining emergency access points on lands owned by OPRD or leased by OPRD under agreement with the landowner; and on all Oregon beaches, investigating reports of killer logs, and where necessary, removing those logs; monitoring, photographing, and documenting erosion and storm damage; investigating reports of hazardous materials on the beach; and implementing closures and coordinating the clean-up of spilled hazardous materials when necessary.

Under Alternative 1, OPRD would continue to implement public safety activities in accordance with existing management practices and to minimize potential effects on snowy plovers, to the extent possible.

Law Enforcement

Law enforcement activities include assisting law enforcement personnel with injury/death investigations, as requested; monitoring and checking for valid permits; issuing citations; and patrolling beaches. Under Alternative 1, law enforcement activities would continue to be completed by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plovers, to the extent practical. Enforcement activities related to ensuring that recreational use restrictions associated with snowy plover nesting areas are adhered to are described under *Snowy Plover Management*.

Changed Circumstances

Changed circumstances, as the term is used under the Federal ESA, refer to additional conservation and mitigation measures deemed necessary to respond to changes in circumstances that may occur during the period of an HCP (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1998). Specifically, the phrase “changes in circumstances” is defined to mean changes during the course of an HCP that can reasonably be anticipated and planned for. There would be no specific measures prescribed under Alternative 1 for dealing with changed circumstances.

2.3.2 Alternative 2 – Proposed HCP

Under Alternative 2 - Proposed HCP, OPRD would manage the covered lands in accordance with the *Habitat Conservation Plan for the Western Snowy Plover* (Oregon Parks and Recreation Department 2008). Conservation measures in the HCP would focus on minimizing the effects of OPRD’s management responsibilities, including management of public use and recreation, natural resources, and other beach resources on the covered lands. Conservation measures for snowy plovers

would be focused at up to five snowy plover management areas (SPMAs), and would be designed to implement recommendations from the *Recovery Plan for the Pacific Coast Population of the Western Snowy Plover* (U.S. Fish and Wildlife Service 2007a). Under Alternative 2, OPRD would also potentially implement recreational use restrictions at up to 11 RMAs and would install nest protections at occupied nests outside of SPMAs and RMAs within the covered lands. OPRD would also continue to implement beach management activities in a manner to minimize and avoid potential effects on snowy plovers. These restrictions would be implemented to complement snowy plover conservation efforts being employed by other landowners along the Oregon coast.

Public Use/Recreation Management

Under Alternative 2, OPRD would manage the public's use of the covered lands to minimize potential effects on snowy plovers. General recreational use restrictions not superseded by the recreational use restrictions summarized under *Snowy Plover Management* would continue as described under Alternative 1.

Dog Exercising

Similar to Alternative 1, dogs would be required to be on leash within all Oregon State Parks, and on a leash, or under voice or signal command, in the communities of Seaside, Rockaway Beach, and Cannon Beach. Additional restrictions on dog exercising would be implemented at occupied and targeted SPMAs and RMAs, as described under *Snowy Plover Management*.

Kite Flying

Under Alternative 2, restrictions on kite flying would be implemented at occupied SPMAs and RMAs, as described under *Snowy Plover Management*.

Non-Motorized Vehicle Use

Under Alternative 2, non-motorized vehicle use would be prohibited at both occupied and targeted SPMAs and RMAs, as described under *Snowy Plover Management*.

Driving

Similar to Alternative 1, under Alternative 2, ATV/OHV use would continue to only be allowed at Sand Lake Recreation Area and two sections of the Dunes National Recreation Area. Driving would continue to be prohibited at the locations noted under Alternative 1 (Section 2.2.1, "Alternative 1 – Current Management (No-Action), Public Use/Recreation Management"). If not already prohibited,

additional driving restrictions at both occupied and targeted SPMAs and RMAs would be implemented under Alternative 2, as described under *Snowy Plover Management*. Driving restrictions would not apply to administrative uses, such as providing access for emergency and enforcement vehicles, snowy plover monitoring, and land management activities.

Other Dry Sand Activities

General recreational use restrictions on camping, horseback riding and beach fires would be the same under Alternative 2 as described for Alternative 1. Additional restrictions on these and other activities occurring on the dry sand would be implemented at occupied SPMAs and RMAs, as described under *Snowy Plover Management*.

Recreation Management Areas

Based on OPRD's authority to manage recreational use of the Ocean Shore, OPRD is required to provide authorization to restrict recreational activities in RMAs. As described in Section 1.2.3, "Covered Lands," this area extends from the mean low tide line to the mean high tide line adjacent to federally owned lands and from the mean low tide line to the statutory or actual vegetation line on all other lands (Figure 1-2). Under Alternative 2, OPRD could potentially implement recreational use restrictions at up to 11 RMAs as the areas become occupied. Restrictions on recreational use in these areas would be similar to those described for occupied and/or targeted SPMAs under *Snowy Plover Management* below, depending on if nesting populations of snowy plovers are present. These 11 areas would include the five RMAs that currently support nesting populations of snowy plovers (Sutton/Baker Beach; Siltcoos Estuary/Dunes Overlook/Tahkenitch Estuary; Tenmile Estuary; Coos Bay North Spit; and New River), and six RMAs that may be managed in the future by their respective landowners (Bayocean Spit; South Sand Lake Spit; Tahkenitch South; Umpqua River North Jetty; Elk River; and Euchre Creek). Figures 2-1 through 2-3 illustrate the location of these RMAs on the Oregon coast. The RMAs are shown in greater detail in Appendix A.

If an RMA becomes occupied, but a site management plan does not exist, OPRD would implement recreational use restrictions within the covered lands. OPRD would issue and enforce recreational use restrictions within the full extent of the RMA until an agreement is reached between USFWS and the landowner, and/or a site management plan is developed, and OPRD is notified of any changes that may modify recreational use restrictions to a more focused area.

In the event that a USFWS-approved site management plan has been developed, OPRD would implement recreational use restrictions as directed by the site management plan. If an RMA is unoccupied, OPRD would only implement

recreation use restrictions at the request of the landowner and after consultation and collaboration with USFWS and ODFW. OPRD would seek to modify the State Rule to provide a mechanism for recreational use restrictions.

OPRD would also work with County and private landowners to provide supervision, enforcement, and signage at their RMAs because such restrictions (ropes, signs, enforcement) cannot be implemented by these landowners without OPRD approval.

Natural Resources Management

Snowy Plover Management

Management of Occupied Snowy Plover Nesting Areas

Under Alternative 2, the Bandon SNA, including the HRA, would be identified and managed as the Bandon SPMA (Figure 2-3). In addition, the land between the northern boundary of the Bandon SNA and the China Creek access would be incorporated into the Bandon SPMA to allow for continued long-term management of snowy plover nests that have been found in recent years outside the HRA.

Within 1 year of issuance of an ITP, OPRD would develop a draft site management plan for the Bandon SPMA. USFWS would have 6 months after the completion of the draft site management plan to make a decision about whether to approve it. The site management plan would be implemented the nesting season after USFWS approval and would specify management prescriptions similar to those identified for the HRA under Alternative 1, including information on recreational use restrictions and enforcement, habitat maintenance, predator management, monitoring, and public outreach and education. An example of the structure and content of a site management plan is provided in Appendix A of the HCP.

Recreational use restrictions at the Bandon SPMA during the nesting season would be the same under Alternative 2 as Alternative 1, with the exception that dogs, kite flying, and non-motorized vehicle use would be prohibited on the beach (kite flying, non-motorized vehicle use and leashed dogs are currently allowed at Bandon SNA during the nesting season). As other SPMAs became occupied by nesting snowy plovers (see *Management of Targeted Snowy Plover Nesting Areas*), beach driving would be prohibited if restrictions were not already in place. Similarly, kite flying, non-motorized vehicle use, dogs, and use of portions of the dry sand would also be prohibited once that SPMA became occupied.

As indicated in HCP Section 5.2.3, “Management Approach,” an *occupied* SPMA/RMA is an area where there has been at least one nest or nesting attempt in the previous 2 years. At RMAs adjacent to federally owned lands, the RMA will be

considered occupied if at least one nest or nesting attempt has been made in the previous 2 years in the adjacent lands up to the actual or statutory vegetation line. The status of an occupied SPMA/RMA will change to *unoccupied* when nesting or nesting activity has not occurred in the area for two consecutive nesting seasons.

The extent of these restrictions at occupied SPMA's would be developed in consultation with USFWS as part of the site management plan. The restricted areas would be indicated by signage placed around nesting sites and may not necessarily apply to the entire SPMA.

Barriers and signs would be erected on the dry sand portions of the beach adjacent to SPMA's to limit access and provide information on the natural resource protected within the restricted area. Both the frequency and size of the signs (as compared to what has been used historically) would be increased so that the public can more easily identify the restricted area. Specifically, during the breeding season, a sign would be erected at each end of the restricted area, and midway between extreme high-tide and average high-tide. These signs would be approximately 6 feet (2 meters) tall and would be readable at 200 feet (61 meters) by a person with 20/20 vision. Signs would be readable from both directions along the wet sand, and from the water, to alert beach users from all directions of the importance of the area. The signs should be equipped with anti-perch tines to deter raptors or other potential predators from using them as hunting perches.

Management of Targeted Nesting Snowy Plover Areas

Under Alternative 2, up to four currently unoccupied areas would be identified as SPMA's and targeted for management of potential nesting populations of snowy plovers over the term of the 25-year ITP. Three SPMA's would initially be managed by OPRD for nesting populations of snowy plovers (Figure 2-1).

- Columbia River South Jetty;
- Necanicum Spit; and
- Nehalem Spit.

These three areas were identified by OPRD and USFWS as the areas under OPRD ownership with the greatest potential to provide snowy plover nesting habitat in the future. In addition, USFWS, ODFW, and OPRD determined that these three sites could help ensure the survivability of the species by distributing the population along the Oregon coast, while minimizing potential conflicts with continued recreational use in common areas.

Within two years of obtaining an ITP, OPRD would prepare draft site management plans for these three SPMA's. USFWS would have 6 months after the completion of

these plans to make a decision about whether to approve them. Active management would begin the nesting season after site plans had been approved by USFWS. Similar to the site management plan for the Bandon SPMA, these plans would outline measures for attracting nesting populations of snowy plovers, and would identify a series of management prescriptions, including seasonal recreational use restrictions; habitat restoration activities¹; predator management activities/ monitoring, reporting, and enforcement activities/ and public outreach and education activities. The recreational use restrictions would include requiring dogs to be on leash and prohibiting driving during the nesting season. These restrictions would be lifted if no nesting snowy plovers were observed by July 15.

One additional SPMA at Netarts Spit (Figure 2-1) could also be managed under Alternative 2 if (1) Columbia River South Jetty, Necanicum Spit, or Nehalem Spit become occupied and (2) one of the following RMAs or adjacent federally owned lands are not already under active, USFWS-approved management for snowy plovers (Figures 2-1 through 2-3).

- Bayocean Spit (adjacent to land owned/managed by the U.S. Army Corps of Engineers [Corps]);
- South Sand Lake Spit (under private ownership/management);
- Tahkenitch South (adjacent to land owned/managed by the U.S. Forest Service [USFS]);
- Umpqua River North Jetty (adjacent to land owned/managed by the USFS/Oregon Department of State Lands [ODSL])
- Elk River (under private ownership/management); or
- Euchre Creek (under private ownership/management).

Under these circumstances, OPRD would commit to managing an SPMA at Netarts Spit for nesting populations of snowy plovers to ensure that a minimum of three unoccupied SPMAs are being actively managed at any given time over the term of the 25-year permit.

¹Habitat restoration activities at targeted SPMAs could include dune management, beach grass removal, and installation and maintenance of symbolic fencing within the boundaries of the SPMA. Future restoration of up to 40 acres of habitat would be conducted as necessary at Columbia River South Jetty, Necanicum Spit, and Nehalem Spit; although restoration at Necanicum Spit would not likely be needed. In addition, OPRD may implement restoration activities on a larger scale at Columbia River South Jetty, in coordination with the landowner, the U.S. Army Corps of Engineers (Corps). Any restoration that occurs beyond that described in the HCP would be addressed in separate consultation between the Corps and USFWS as described under Section 7 of the Federal ESA and its implementing regulations (50 CFR 402).

See *Adaptive Management – Failure of Managed, Unoccupied SPMAs* for a more detailed description of the timeline for management of the Netarts Spit SPMA.

Protections for Nests Outside of Targeted Areas

Under Alternative 2, if a snowy plover nesting site is found outside of an occupied or targeted SPMA or RMA within the covered lands, OPRD would install fencing and signage around the individual nest to limit human disturbance, and would consider installing a nest enclosure after consultation with USFWS. Specifically, OPRD would install a 50-meter radius roped buffer around each nest, and would determine if use of an enclosure to protect the nest from predation would be in the best interest of the nest. .

Predator Management

Similar to Alternative 1, under Alternative 2, OPRD would provide funding to manage the snowy plover predator base along the Oregon coast. The level of funding would be similar to Alternative 1, but would increase as additional SPMAs are targeted for management over the term of the 25-year permit (Section 7 of the HCP for funding commitments).

Predator management funded by OPRD would be implemented by the USDA between February and August and would include both lethal and non-lethal methods, although lethal methods would only be employed at occupied sites. If for some reason, the USDA discontinued predator management activities over the term of the ITP, OPRD would assume responsibility for implementing these activities at all actively managed SPMAs.

Snowy Plover Monitoring, Reporting, and Enforcement

Similar to Alternative 1, under Alternative 2, OPRD would continue to provide funding to ORNHIC to monitor snowy plover numbers and evaluate habitat, as part of detect/non-detect and breeding population monitoring efforts. The level of funding would be similar to Alternative 1, but would increase as additional SPMAs were targeted for management over the term of the 25-year permit (see Section 7 of the HCP for funding commitments). OPRD would also continue to contribute staff to assist with the annual wintering and breeding window surveys, and would continue to provide three beach rangers to enforce compliance with all Ocean Shore and State Park Rules, including beach use restrictions designed to protect snowy plovers. OPRD would also continue to provide additional staff as needed and would work with the Oregon State Police and/or local law enforcement officers to provide additional enforcement support, where necessary and possible.

Monitoring results and enforcement efforts would be documented and reported to USFWS monthly and annually. Monthly reports would be submitted from April through September and would focus on ongoing concerns, such as continued recreational use violations or increased predation at a particular SPMA. The annual compliance report would be used to document management actions to date and to indicate anticipated efforts for the following year. Under Alternative 2, OPRD would also commit to meeting with USFWS and ODFW every 5 years to evaluate the effectiveness of the conservation measures proposed under Alternative 2.

Public Outreach and Education

Similar to Alternative 1, under Alternative 2, OPRD would continue to recruit and train volunteers to serve as docents for public outreach and education at the China Creek access to the Bandon SPMA. As new SPMAs became occupied, OPRD would recruit and train volunteers to serve as docents for public outreach and education as specified in that site's management plan. OPRD would provide signage at beach access points to inform the public of the presence of nesting snowy plovers and the importance of snowy plover protection measures. OPRD would also install signage at SPMAs to indicate the presence of nesting sites and the boundaries of the restricted areas. The signage content and posting locations would be determined by USFWS and OPRD during development of site management plans.

Adaptive Management

As described in Section 5 of the HCP (Oregon Parks and Recreation Department 2008), several adaptive management actions have been incorporated into Alternative 2 to allow monitoring data or other relevant scientific research to inform the conservation strategies described above, and to allow OPRD and USFWS to minimize the uncertainty associated with gaps in scientific information or biological requirements. These actions are summarized below.

- **Redefining Management Actions.** Under Alternative 2, biological monitoring reports would be compared to population numbers provided in previous biological monitoring reports for Oregon. If comparison of the data indicates consistent population declines in snowy plovers along the Oregon coast, OPRD and USFWS would work together to determine possible causes. If inadequate management actions on the part of OPRD were determined to be responsible (in whole or in part) for such population declines, or if new techniques are available for more effectively implementing management actions, then OPRD would revise the management actions associated with Alternative 2, as agreed upon by OPRD and USFWS, as soon as practicable..
- **Snowy Plover Nesting Outside SPMA.** If snowy plovers begin to nest on OPRD lands outside of an SPMA consistently and predictably (3 years in a row),

and there is nesting success at least 2 of those 3 years, OPRD would add the site to the list of SPMAs under the following conditions: (1) the SPMA is considered to have potential to contribute to long-term recovery of the species through its size, location and suitability; (2) an SPMA not currently being used by snowy plovers may be dropped in exchange for the new site that is occupied; (3) the maximum number of occupied SPMAs managed by OPRD would be limited to five; (4) SPMA additions or “trades” would require agreement between OPRD, USFWS, and ODFW; and (5) adding the site to the list of SPMAs would not affect OPRD’s ability to manage recreation along the Ocean Shore (i.e., management activities would be conducted as described at occupied SPMAs).

- **Success of Nest Enclosures.** Under Alternative 2, through monitoring efforts, OPRD would evaluate the relative success of nest enclosures in preventing predators from destroying nests and eggs. OPRD would meet annually with USFWS to review the relative benefits of nest enclosures on a site-by-site basis, and to determine if changes in the management application (e.g., elimination of the enclosure, timing changes for application of the enclosure, design changes) should be considered. If design adjustments are needed to exclude predators, OPRD would work with USFWS and would make the design adjustments, provided such adjustments would not result in significant impacts to existing legal recreational activities. In all cases, OPRD would only use nest enclosures on an individual nest after consultation with USFWS.
- **Failure of Managed, Unoccupied SPMAs.** If the SPMAs at Columbia River South Jetty, Necanicum Spit, and Nehalem Spit are not occupied within 5 years of active site management, and none of the RMAs owned by other landowners are being managed for occupancy through an agreement approved by USFWS, OPRD would complete a site management plan for the Netarts Spit SPMA and begin active management. OPRD would continue to manage the original three SPMAs for snowy plover occupancy.
- **Exchange of an SPMA for a RMA.** OPRD may purchase an RMA owned by another landowner during the term of the 25-year permit. Under these circumstances, OPRD would manage the “new SPMA” for snowy plovers at in place of Netarts Spit SPMA. This exchange would only be allowed after consultation with USFWS and ODFW to determine whether or not the new SPMA had greater potential for occupancy than the SPMA being exchanged. Under this scenario, OPRD would develop a site management plan within one year of purchase (or revise an existing site management plan if the RMA was previously managed) and would begin managing the new SPMA for snowy plover occupancy after the site management plan had been approved.

Other Habitat Restoration - Dune Management and Invasive Species Removal

Similar to Alternative 1, OPRD would manage dunes and remove targeted invasive species to provide habitat for native species, in addition to the habitat restoration activities targeted toward snowy plovers (see *Snowy Plover Management* above). These habitat restoration activities would be implemented on the portions of the covered lands owned or leased under agreement by OPRD over the term of the ITP, and outside of the nesting season in areas occupied by snowy plovers.

Beach Management

Under Alternative 2, OPRD personnel would continue to respond to boat and marine mammal strandings; would continue to implement public safety activities, and would continue to participate in law enforcement activities in accordance with existing management practices and to minimize potential effects on snowy plovers. These beach management activities would be completed as described under Alternative 1.

Changed Circumstances

As described under Alternative 1, the Federal ESA defines changed circumstances as changes during the course of an HCP that can reasonably be anticipated and planned for. OPRD and USFWS have identified the following circumstances that could occur during the term of the ITP that could affect the ability of OPRD to properly implement the conservation strategies associated with Alternative 2.

Listing of a New Species

If a currently unlisted species is federally listed as endangered or threatened pursuant to the ESA after the ITP has been issued, OPRD would request that USFWS determine if there is potential for incidental take of that species to occur as a result of the covered activities. If take is possible, OPRD would work with USFWS to either modify their management actions to avoid take of the species, or would request that the ITP coverage be extended to the newly listed species.

Global Climate Change and Rising Sea Levels

A growing body of research has documented changes in the biotic and abiotic environment that are a result of an increase in global temperature and the continued concentration of greenhouse gases in the Earth's atmosphere. In coastal areas, one of the primary concerns associated with global climate change is the potential for sea levels to rise and for the frequency and intensity of coastal storm events to increase. In the event that rising sea levels result in a net loss of snowy plover nesting habitat

over the term of the ITP, OPRD would consult with USFWS on appropriate measures. Future responses to this changed circumstance would be determined by consensus between OPRD and USFWS, and would be based on the nature and extent of effects associated with rising sea levels. Such measures will be implemented if they do not significantly disrupt otherwise legal recreation activities on the Ocean Shore.

Effects on Wintering Snowy Plovers Rising to the Level of Take

The potential effects on wintering snowy plovers are not anticipated to rise to the level of take. Therefore, OPRD is not seeking take coverage under the ITP for effects on wintering snowy plovers. This is because only a small percentage of birds winter in Oregon where recreational use is low during the winter months. In addition, the normal behavior of wintering snowy plovers is to flock and avoid disturbance. Although snowy plovers may be less susceptible to recreation impacts during the non-breeding season, they could be negatively affected by activities that disrupt or destroy foraging areas or unnecessarily disturb birds that are roosting or foraging. If it is determined that adverse effects on snowy plovers would occur in the future, OPRD will either avoid take of snowy plovers or will amend its permit.

2.3.3 Alternative 3 – Management of Additional OPRD Sites

Similar to Alternative 2, conservation measures under Alternative 3 would focus on minimizing the effects of OPRD management responsibilities on the covered lands. Snowy plover conservation measures would be focused at SPMA's along the Oregon coast. Up to nine SPMA's (four more than identified under Alternative 2) could be managed by OPRD for nesting populations of snowy plovers over the term of the 25-year ITP under Alternative 3. In addition, OPRD would implement recreational use restrictions at up to 12 RMA's (one more RMA than Alternative 2).

Public Use/Recreation Management

Under Alternative 3, OPRD would manage the public's use of the covered lands to minimize potential effects on snowy plovers. General recreational use restrictions not superseded by the recreational use restrictions summarized under *Snowy Plover Management* below would continue as described under Alternative 1. Additional restrictions on dog exercising, kite flying, driving, non-motorized vehicle use, and dry sand access would be implemented at occupied and targeted SPMA's and RMA's, as described under Alternative 2 (Section 2.2.2, "Alternative 2 – Proposed HCP, Public Use/Recreation Management"). Driving restrictions would not apply to administrative uses, such as providing access for emergency and enforcement vehicles, snowy plover monitoring, and land management activities.

Recreation Management Areas

Under Alternative 3, OPRD would implement recreational use restrictions at up to 12 RMAs (one more than Alternative 2) as the areas become occupied. These 12 areas would include the same RMAs described for Alternative 2, with the exception that North Sand Lake Spit RMA, an additional area next to land owned by USFS could be targeted for management in the future, would also be considered an RMA (Figures 2-1 through 2-3).

Restrictions on recreational use in these areas would be similar to those described for occupied and/or targeted SPMAs, depending on if nesting populations of snowy plovers are present at the time the permit application is approved. If an RMA becomes occupied but a site management plan does not exist, OPRD would implement recreational use restrictions within the covered lands. OPRD would issue and enforce recreational use restrictions within the full extent of the RMA until an agreement is reached between USFWS and the landowner and/or a site management plan is developed, and OPRD is notified of any changes that may modify recreational use restrictions to a more focused area.

In the event that a USFWS-approved site management plan has been developed, OPRD would implement recreational use restrictions as directed by the site management plan. If an RMA is unoccupied, OPRD would only implement recreation use restrictions at the request of the landowner and after consultation and collaboration with USFWS and ODFW.

Similar to Alternative 2, OPRD would also seek to modify the State Rule to provide a mechanism for landowners, who meet the terms and conditions described under Alternative 2, to implement and enforce seasonal recreational use restrictions on an annual basis. OPRD would also work with other landowners to provide supervision and enforcement at RMAs, and to provide avenues for their enforcement authority.

Natural Resources Management

Snowy Plover Management

Management of Occupied Snowy Plover Nesting Areas

Management of occupied SPMAs would be the same under Alternative 3 as described for Alternative 2. OPRD would manage the Bandon SPMA (Figure 2-3) for nesting populations of snowy plovers, and would develop a draft site management plan for USFWS review within 1 year of ITP issuance. USFWS would have 6 months after the completion of the site management plan to make a decision about whether to approve it. Recreational use restrictions at the Bandon SPMA during the snowy plover nesting season (and at any other targeted SPMA after it becomes occupied; [*Management of Targeted Snowy Plover Nesting Areas* below]) would be

the same as those noted for Alternative 2, and would include prohibitions on dogs, non-motorized vehicles, kite flying, and use of the dry sand. Beach driving would also be prohibited if driving restrictions were not already in place.

Management of Targeted Nesting Plover Areas

Under Alternative 3, up to eight currently unoccupied areas (four more than Alternative 2) would be identified as SPMAs and targeted for management of potential nesting populations of snowy plovers over the term of the 25-year ITP. Three SPMAs would initially be managed by OPRD for nesting populations of snowy plovers (Figure 2-1).

- Necanicum Spit,
- Columbia River South Jetty, and
- Nestucca Spit.

Within two years of obtaining an ITP, OPRD would prepare draft site management plans for these three SPMAs. USFWS would have 6 months after the completion of the draft site management plans to make a decision on whether to approve them. Similar to the site management plan for the Bandon SPMA, the site plans would outline measures for attracting nesting populations of snowy plovers, and would identify a series of management prescriptions, including seasonal recreational use restrictions; habitat restoration activities²; predator management activities; monitoring, reporting, and enforcement activities; and public outreach and education activities. Recreational use restrictions would include requiring dogs to be on leash and prohibiting driving. These restrictions would be lifted if no nesting snowy plovers were observed by July 15. Active management would begin the nesting season after site plans had been approved by USFWS.

Five additional SPMAs, located at Pistol River, Nehalem Spit, Netarts Spit, Bullards Beach, and Sixes River Mouth, could also be managed under Alternative 3 if (1) Necanicum Spit, Columbia River South Jetty, or Nestucca Spit become occupied and (2) one of the following RMAs or adjacent federally owned lands are not already under active, USFWS-approved management for snowy plovers (Figures 2-1 through 2-3):

- Bayocean Spit (adjacent to land owned/managed by the Corps),
- South Sand Lake Spit (under private ownership/management),

²Under Alternative 3, OPRD would restore up to 40 acres of habitat, as necessary, at each of the following SPMAs: Necanicum Spit, Columbia River South Jetty, Nestucca Spit, Nehalem Spit, Bullards Beach, and Sixes River. Any restoration beyond that described in the HCP would be addressed in separate consultation between the Corps and USFWS as described under Section 7 of the Federal ESA and its implementing regulations (50 CFR §402).

- Tahkenitch South (adjacent to land owned/managed by the USFS),
- Umpqua River North Jetty (adjacent to land owned/managed by the USFS/ODSL),
- Elk River (under private ownership/management),
- Euchre Creek (under private ownership/management), and
- North Sand Lake Spit (adjacent to land owned/managed by USFS).

Under these circumstances, OPRD would commit to managing Pistol River, Nehalem Spit, Netarts Spit, Bullards Beach, and Sixes River Mouth (in that order) for nesting populations of snowy plovers to ensure that a minimum of three unoccupied SPMAs were actively managed at any given time over the term of the 25-year permit.

Protections for Nests Outside of Targeted Areas

Under Alternative 3, if a nesting site were found outside of an occupied or targeted SPMA or RMA within the covered lands, OPRD would install limited fencing and signage around the individual nest, and would consider installing a nest enclosure around each nest after consultation with USFWS. Specifically, OPRD would install a 50-meter radius roped buffer around each nest, and would determine if use of an enclosure to protect the nest from predation would be in the best interest of the nest.

Predator Management

Similar to Alternative 1, under Alternative 3, OPRD would continue to provide funding to manage the snowy plover predator base along the Oregon coast. The level of funding would be similar to Alternative 1, but would increase as additional SPMAs are targeted for management over the term of the 25-year permit.

Snowy Plover Monitoring, Reporting, and Enforcement

Similar to Alternative 1, under Alternative 3 OPRD would continue to provide funding to ORNHIC to monitor snowy plover numbers and evaluate habitat as part of detect/non-detect and breeding population monitoring efforts. The level of funding would be similar to Alternative 1, but would increase as additional SPMAs are targeted for management over the term of the 25-year permit. OPRD would also continue to contribute staff to assist with the annual wintering and breeding window surveys, and would continue to provide three beach rangers to enforce compliance with all Ocean Shore and State Park Rules, including beach use restrictions designed to protect snowy plovers. OPRD would also continue to provide additional staff as needed and would work with the Oregon State Police and/or local law enforcement offices to provide additional enforcement support, where necessary and possible.

Similar to Alternative 2, under Alternative 3 monitoring results and enforcement efforts would be documented and reported to USFWS monthly and annually. Monthly reports would be submitted from April through September and would focus on ongoing concerns, such as continued recreational use violations or increased predation at a particular SPMA. The annual compliance report would be used to document management actions to date and to indicate anticipated efforts for the following year. Under Alternative 3, OPRD would also commit to meeting with USFWS and ODFW every 5 years to evaluate the effectiveness of the conservation measures.

Public Outreach and Education

Similar to Alternative 1, under Alternative 3, OPRD would continue to recruit and train volunteers to serve as docents for public outreach and education at the China Creek access to the Bandon SPMA. In addition, as new SPMAs became occupied, OPRD would recruit and train volunteers to serve as docents for public outreach and education as specified in that area's site management plan. OPRD would provide signage at beach access points to inform the public of the presence of nesting snowy plovers and the importance of snowy plover protection measures. OPRD would install signage at SPMAs to indicate the presence of nesting sites and the boundaries of the restricted areas. The signage content and installation locations would be determined by USFWS and OPRD during development of site management plans.

Adaptive Management

Adaptive management under Alternative 3 would be similar to Alternative 2 and would include redefining management actions if biological monitoring reports indicate a decline in the snowy plover population along the Oregon coast; consulting with USFWS if a snowy plover nest is found outside of an identified SPMA 3 years in a row; evaluating the success of nest exclosures over the term of the ITP; and allowing for exchange of a SPMA with a newly purchased RMA (Section 2.2.2, "Alternative 2 – Proposed HCP, Adaptive Management").

In addition, under Alternative 3, if the SPMAs at Necanicum Spit, Columbia River South Jetty, and Nestucca Spit are not occupied within 5 years of active site management, and none of the RMAs owned by other landowners were being managed for occupancy, OPRD would complete a site management plan for the Pistol River SPMA and begin active management. OPRD would continue to manage the original three SPMAs for snowy plover occupancy. If nesting populations of snowy plovers have not been found at the initial three SPMAs or the Pistol River SPMA after five years of managing the Pistol River SPMA for occupancy, and no other RMAs were being actively managed for nesting populations of snowy plovers by other landowners, OPRD would complete a site management plan for the Nehalem Spit SPMA and begin active management.

Other Habitat Restoration - Dune Management and Invasive Species Removal

Similar to Alternative 1, OPRD would manage dunes and remove targeted invasive species to provide habitat for native species, in addition to the habitat restoration activities implemented in SPMAs. These habitat restoration activities would be implemented on the portions of the covered lands owned or leased under agreement by OPRD over the term of the ITP, and outside of the nesting season in areas occupied by snowy plovers.

Beach Management

Under Alternative 3, OPRD personnel would continue to respond to boat and marine mammal strandings; would continue to implement public safety activities; and would continue to participate in law enforcement activities in accordance with existing management practices, and to minimize potential effects on snowy plovers. These beach management activities would be completed as described under Alternative 1.

Changed Circumstances

Similar to Alternative 2, the following circumstances could occur during the term of the ITP that could affect the ability of OPRD to properly implement the conservation strategies associated with Alternative 3. These include the listing of a new species, the potential effects of rising sea levels due to global climate change, and effects on wintering snowy plovers rising to the level of take. Please refer to Section 2.2.2, “Alternative 2 – Proposed HCP, Changed Circumstances” for a complete description of changed circumstances associated with Alternative 3.

2.3.4 Comparison of Alternatives

Table 2-1 summarizes the differences between the No-Action and proposed action alternatives.

Table 2-1. Comparison of the No-Action and Proposed Action Alternatives

Covered Activities & Conservation Measures	Alternative 1 – Current Management (No-Action)	Alternative 2 - Proposed HCP	Alternative 3 – Management of Additional OPRD Sites
PUBLIC USE / RECREATION MANAGEMENT			
<p>Managing Public Recreational Use in Authorized Areas</p> <ul style="list-style-type: none"> ▪ Dog exercising ▪ Driving ▪ Kite flying ▪ Non-motorized vehicle use ▪ Other dry sand activities 	<ul style="list-style-type: none"> ▪ OPRD would continue to manage the public's use of the beach in accordance with existing management practices and to avoid potential effects on snowy plovers. ▪ Recreational use restrictions currently in place (i.e., no beach camping in State Parks, dogs on leash in all State Parks, ATV/OHV use only at three locations on the coast without permit, etc.) would remain in place. Driving restrictions would not apply to administrative uses, such as providing access for emergency and enforcement vehicles, snowy plover monitoring, and land management activities. ▪ Additional recreational use restrictions associated with snowy plover nesting areas are described under the "Natural Resource Management" discussion below. These restrictions would apply to occupied snowy plover nesting areas (i.e., Bandon SNA) and isolated nesting areas if snowy plovers are found in the future. ▪ OPRD would continue to work with Federal agencies to jointly enforce restrictions at RMAs adjacent to federally owned lands. OPRD would also continue to consider applications for "Recreational Use Restriction Permits" on a case-by-case basis for temporarily limiting recreational use at occupied privately owned RMAs, as requested by the landowner. The actual recreational use restrictions in these areas would be the same as those for occupied snowy plover nesting areas managed by OPRD (see "Natural Resource Management" below) 	<ul style="list-style-type: none"> ▪ OPRD would commit to managing the public's use of the beach to minimize potential effects on snowy plovers. OPRD's commitment to these prescriptions would be covered under an ITP authorized by USFWS. ▪ General recreational use restrictions not superseded by the restrictions described under "Natural Resource Management" below would continue as described under Alternative 1 (e.g., dog restrictions in the community of Seaside). <ul style="list-style-type: none"> - Additional recreational use restrictions associated within SPMA's are described under the "Natural Resource Management" discussion below. These restrictions would be implemented at up to five SPMA's. The site management plans would define the area of restricted recreation within the SPMA. Limited restrictions would also be implemented at isolated nests outside of occupied or actively managed SPMA's. - OPRD would also potentially implement recreational use restrictions at up to 11 RMAs as the areas become occupied. The actual recreational use restrictions in these areas would be the same as those for OPRD occupied and/or targeted unoccupied SPMA's. The restrictions would be automatically implemented within the covered lands at occupied sites as described above under Alternative 2. At unoccupied sites, the restrictions would only be implemented at the request of the landowner and after completion of a USFWS-approved site management plan. - OPRD would seek to change the State Rule to provide a mechanism for ongoing recreational restrictions. - OPRD would also work with other private landowners to provide supervision and enforcement at RMAs, and to provide avenues for their enforcement authority. 	<p>Same as Alternative 2, with the following exceptions:</p> <ul style="list-style-type: none"> ▪ Recreational use restrictions would be implemented at up to 9 SPMA's (see <i>Natural Resource Management</i> below). ▪ OPRD would automatically implement recreational use restrictions at up to 12 RMAs owned by other landowners.
NATURAL RESOURCE MANAGEMENT			
Snowy Plover Management			
<p>Management of Occupied Snowy Plover Nesting Areas</p>	<ul style="list-style-type: none"> ▪ OPRD would manage existing snowy plover nesting areas located within the HRA at the Bandon SNA during the nesting season (March 15 to September 15). Specific management measures at these areas would include: <ol style="list-style-type: none"> 1. <u>Recreational use restrictions</u>. Dogs would continue to be required to be on leash and confined to the wet sand, and driving and non-motorized vehicle use would continue to be prohibited during the breeding season in the HRA. Driving restrictions would not apply to administrative uses such as providing access for emergency and enforcement vehicles, snowy plover monitoring, and land management activities. Fences, ropes, and signs would continue to be installed in occupied nesting areas to define breeding areas and limit public access. Outside of the HRA, but within the Bandon SNA, enclosures and limited fencing would continue to be installed around nests. <ul style="list-style-type: none"> - <u>Habitat maintenance</u>. Maintain habitat at the HRA at Bandon. - Predator management. (<i>see below</i>) - Monitoring and Enforcement. (<i>see below</i>) - Public outreach and education. (<i>see below</i>) 	<ul style="list-style-type: none"> ▪ OPRD would manage the Bandon SPMA for nesting populations of snowy plovers. Land north of the HRA up to and including China Creek would be incorporated into the Bandon SPMA. A draft site management plan would be developed for the Bandon SPMA within one year of ITP issuance. USFWS would have 6 months after the completion of the draft site management plan to make a decision about whether to approve it. Specific management measures identified in the site management plan would be similar to those described for Alternative 1 with the following exceptions: <ol style="list-style-type: none"> 2. <u>Recreational use restrictions</u>. Additional restrictions on dog exercising (prohibited), kite flying, driving, non-motorized vehicle use, and use of the dry sand would be implemented. Driving restrictions would not apply to administrative uses such as providing access for emergency and enforcement vehicles, snowy plover monitoring, and land management activities. 3. <u>Habitat maintenance</u> per the site management plans. Same as Alternative 1. 4. Predator management. (<i>see below</i>) 5. Monitoring and Enforcement. (<i>see below</i>) 6. Public Outreach and Education. (<i>see below</i>) ▪ Up to four additional SPMA's targeted for management could be managed as occupied if snowy plovers nest in these areas over the term of the ITP, as described in <i>Management of Targeted Snowy Plover Nesting Areas</i> below. 	<p>Same as Alternative 2, with the following exception:</p> <ul style="list-style-type: none"> ▪ Up to eight additional SPMA's targeted for management could be managed as occupied if snowy plovers nest in these areas over the term of the ITP (see <i>Management of Targeted Snowy Plover Nesting Areas</i> below).

Covered Activities & Conservation Measures	Alternative 1 – Current Management (No-Action)	Alternative 2 - Proposed HCP	Alternative 3 – Management of Additional OPRD Sites
Management of Targeted Snowy Plover Nesting Areas	<ul style="list-style-type: none"> ▪ No additional snowy plover nesting areas would be targeted for management by OPRD under Alternative 1. 	<ul style="list-style-type: none"> ▪ Up to four currently unoccupied SPMA's could be targeted for active management by OPRD over the term of the 25-year ITP ▪ Three SPMA's at Columbia River South Jetty, Necanicum Spit, and Nehalem Spit would initially be targeted for management of potential nesting populations of snowy plovers. Draft site management plans for these areas would be developed within 2 years of ITP issuance. USFWS would have 6 months after the completion of these draft plans to make a decision about whether to approve them. Active management would begin after site plan approval. ▪ Netarts Spit could also be targeted for active management under Alternative 2 if (1) Columbia River South Jetty, Nehalem Spit, or Necanicum Spit becomes occupied and (2) if one of the following RMAs is not already under active, USFWS-approved management for snowy plovers. <ul style="list-style-type: none"> - Bayocean Spit (adjacent to land owned by the Corps); - South Sand Lake Spit (private); - Tahkenitch South (adjacent to land owned by USFS); - Umpqua River North Jetty (adjacent to land owned by USFS / ODSL); - Elk River (private); - Euchre Creek (private). ▪ Under these circumstances, OPRD would commit to managing Netarts Spit for nesting populations of snowy plovers to ensure that a minimum of three unoccupied SPMA's are actively managed at any given time over the term of the 25-year ITP. ▪ Recreational use restrictions at actively managed, unoccupied SPMA's during the nesting season would include requiring that dogs be on leash, and prohibiting driving if restrictions are not already in place. Driving restrictions would not apply to administrative uses such as providing access for emergency and enforcement vehicles, snowy plover monitoring, and land management activities. These restrictions would be lifted if no nesting snowy plovers were observed by July 15. The geographical extent of recreational use restrictions at SPMA's would be determined in consultation with USFWS and documented in an approved site management plan. ▪ Future restoration of up to 40 acres of habitat would be conducted at both Columbia River South Jetty and Nehalem Spit. Restoration would be conducted at Necanicum Spit, if necessary. 	<ul style="list-style-type: none"> ▪ Up to eight currently unoccupied SPMA's could be targeted for active management by OPRD over the term of the 25-year ITP. ▪ Three SPMA's at Necanicum Spit, Columbia River South Jetty, and Nestucca Spit would initially be targeted for management of potential nesting populations of snowy plovers. Draft site management plans for these areas would be developed within 2 years of ITP issuance. USFWS would have 6 months after the completion of these draft plans to make a decision about whether to approve them. Active management would begin after site plan approval. ▪ Pistol River, Nehalem Spit, Netarts Spit, Bullards Beach, and/or Sixes River could also be targeted for active management if (1) Necanicum Spit, Columbia River South Jetty, and Nestucca Spit become occupied and (2) if one of the following RMAs is not already under active, USFWS-approved management for snowy plovers. <ul style="list-style-type: none"> - Bayocean Spit (adjacent to land owned by the Corps); - South Sand Lake Spit (private); - Tahkenitch South (adjacent to land owned by USFS); - Umpqua River North Jetty (adjacent to land owned by USFS / ODSL); - Elk River (private); - Euchre Creek (private); - North Sand Lake Spit (adjacent to land owned by USFS); ▪ Under these circumstances, OPRD would commit to managing Pistol River, Nehalem Spit, Netarts Spit, Bullards Beach, and Sixes River (in that order) for nesting populations of snowy plovers to ensure that a minimum of three unoccupied SPMA's are actively managed at any given time over the term of the 25-year ITP. ▪ Recreational use restrictions at actively managed, unoccupied SPMA's would be the same as Alternative 2. The geographical extent of recreational use restrictions at SPMA's would be determined in consultation with USFWS and documented in an approved site management plan. ▪ Future restoration of up to 40 acres of habitat would be conducted at the following six SPMA's, if necessary: Necanicum Spit, Columbia River South Jetty, Nestucca Spit, Nehalem Spit, Bullards Beach, and Sixes River.
Protections for Nests Outside of Targeted or Occupied Snowy Plover Nesting Areas	<ul style="list-style-type: none"> ▪ OPRD would provide protections for individual nests found on the covered lands outside of the Bandon HRA. ▪ The nature of these protections would be variable (e.g., 50-meter radius exclosures and limited fencing to restrictions to a larger area), and would be contingent on negotiations with USFWS. 	<ul style="list-style-type: none"> ▪ OPRD would install limited fencing and signage around individual nests found outside of an occupied or targeted SPMA's or RMAs within the covered lands, and would consider installing nest exclosures to deter predators if warranted and after consultation with USFWS. 	Same as Alternative 2
Predator Management	<ul style="list-style-type: none"> ▪ OPRD would continue to provide funding (in collaboration with other agencies) to manage the snowy plover predator base along the Oregon coast. ▪ Predator management funded by OPRD would be implemented by the USDA between February and August and would include both lethal and non-lethal methods (lethal predator control would only occur at occupied nesting areas). 	<ul style="list-style-type: none"> ▪ OPRD would continue to provide funding to manage the snowy plover predator base along the Oregon coast. The level of funding would be similar to Alternative 1, but would increase as additional SPMA's are targeted for management over the term of the ITP. ▪ Predator management funded by OPRD would be implemented by the USDA between February and August and would include both lethal and non-lethal methods. If for some reason the USDA discontinued predator management activities over the term of the ITP, OPRD would assume responsibility for implementing predator management activities at SPMA's. 	Same as Alternative 2

Covered Activities & Conservation Measures	Alternative 1 – Current Management (No-Action)	Alternative 2 - Proposed HCP	Alternative 3 – Management of Additional OPRD Sites
Snowy Plover Monitoring and Enforcement	<ul style="list-style-type: none"> OPRD would continue to provide funding to ORNHIC to monitor snowy plover numbers (via detect/non-detect and breeding population monitoring), evaluate habitat, and conduct compliance monitoring related to snowy plover nesting areas along the Oregon coast. OPRD would continue to contribute staff to assist with the annual wintering and breeding window surveys. OPRD would continue to fund three full time beach ranger positions to enforce all Ocean Shore and State Park rules, including beach restrictions designed to protect snowy plovers. Additional senior trooper support would be provided, where needed. 	<ul style="list-style-type: none"> Same as Alternative 1, with the exception that the level of funding for monitoring would increase as additional SPMA's were targeted for management over the term of the HCP. In addition, monthly and annual compliance reports documenting monitoring and enforcement efforts to date, and describing those anticipated for the following year, would be submitted to USFWS. The conservation measures associated with Alternative 2 would also be reviewed by USFWS, ODFW, and OPRD every 5 years. 	Same as Alternative 2
Public Outreach and Education	<ul style="list-style-type: none"> OPRD would continue to recruit and train volunteers to serve as docents for public outreach and education at the China Creek access at Bandon SNA. OPRD would recruit and train volunteers to serve at areas on beaches owned or leased by OPRD if new nesting sites were identified. 	<ul style="list-style-type: none"> Similar to Alternative 1, OPRD would continue to recruit and train volunteers to serve as docents for public outreach and education at the China Creek access at the Bandon SPMA. OPRD would also provide information to be posted on kiosks at beach entrances regarding the presence of nesting snowy plovers and the required recreational use restrictions. As new SPMA's become occupied, OPRD would recruit and train volunteers to serve as docents for public outreach and education as specified in site management plan, and would install signage at access points and nesting locations as necessary. 	Same as Alternative 2
Adaptive Management	There would be no specific adaptive management measures prescribed under Alternative 1.	<p>OPRD would commit to the following adaptive management measures:</p> <ul style="list-style-type: none"> Redefine and implement management actions if biological monitoring data indicate a consistent population decline in snowy plovers along the Oregon coast. Exchange management of an SPMA for a new site if snowy plovers begin to consistently and predictably (3 years in a row) nest on OPRD lands outside of an identified SPMA. Evaluate the relative success of nest enclosures, and adjusting design/application based on the results of monitoring efforts. Begin management at Netarts Spit if Columbia River South Jetty, Necanicum Spit, and Nehalem Spit are not occupied within 5 years of active site management, and none of the RMAs are being actively managed. 	Same as Alternative 2, with the following exception. OPRD would commit to the following additional adaptive management measure: <ul style="list-style-type: none"> Begin management at Pistol River if Necanicum Spit, Columbia River South Jetty, and Nestucca Spit are not occupied within 5 years of active site management, and none of the RMAs are being actively managed. If Pistol River, Necanicum Spit, Columbia River South Jetty, and Nestucca Spit are not occupied after 5 years of active management at Pistol River, and none of the RMAs are being actively managed, OPRD would begin active management at Nehalem Spit.
Other Habitat Restoration			
Dune Management and Invasive Species Removal	<ul style="list-style-type: none"> OPRD would continue to manage dunes and remove invasive species in accordance with existing management practices and to avoid potential effects on snowy plovers. Habitat restoration activities would be conducted outside the nesting season in areas occupied by snowy plovers. In unoccupied areas, these activities could occur during the snowy plover nesting season, but only after a survey for nesting snowy plovers has been completed. 	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.
BEACH MANAGEMENT			
Response to Boat and Marine Mammal Strandings	<ul style="list-style-type: none"> Response to boat and marine mammal stranding would continue to be conducted by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plovers, to the extent practical. In areas where nesting populations of snowy plovers are known to be present, OPRD would work collaboratively with ODFW and USFWS to ensure that encroachment into occupied snowy plover nesting areas would be minimized. 	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.

Covered Activities & Conservation Measures	Alternative 1 – Current Management (No-Action)	Alternative 2 - Proposed HCP	Alternative 3 – Management of Additional OPRD Sites
Public Safety	<ul style="list-style-type: none"> ▪ Public safety activities, such as maintaining emergency access points, investigating reports of killer logs, and responding to hazardous material spills, would continue to be conducted by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plovers, to the extent practical. ▪ In areas where nesting populations of snowy plovers are known to be present, OPRD would work collaboratively with ODFW and USFWS to ensure that encroachment into occupied snowy plover nesting areas would be minimized. 	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.
Law Enforcement	<ul style="list-style-type: none"> ▪ Law enforcement activities, such as enforcing OPRD rules (recreational restrictions) and patrolling beaches, would continue to be conducted by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plovers, to the extent practical. ▪ In areas where nesting populations of snowy plovers are known to be present, OPRD would work collaboratively with ODFW and USFWS to ensure that encroachment into occupied snowy plover nesting areas would be minimized. ▪ OPRD would also contract with State Police and/or additional law enforcement personnel as needed. 	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by USFWS.
CHANGED CIRCUMSTANCES			
	There would be no specific measures prescribed under Alternative 1 for dealing with changed circumstances.	<p>Two types of events would be considered changed circumstances under Alternative 2:</p> <ul style="list-style-type: none"> ▪ <u>Listing of a New Species</u>. If an additional species were listed during the term of the ITP, OPRD could choose to modify their management actions in coordination with USFWS to ensure incidental take of that species would be avoided, or could request that USFWS add the newly listed species to the ITP under the existing HCP provisions. ▪ <u>Global Climate Change and Rising Sea Levels</u>. In the event that rising sea levels result in a net loss of snowy plover nesting habitat over the term of the ITP, OPRD would discuss with USFWS appropriate measures to implement. Future actions responding to this changed circumstance would be determined by consensus agreement between OPRD and USFWS, and would be based on the nature and extent of effects associated with rising sea levels. ▪ <u>Effects on Wintering Snowy Plovers Rising to the Level of Take</u>. In the event that snowy plover populations begin to decline as a result of adverse effects on wintering birds and those adverse effects are attributed to one or more of the covered activities (e.g., recreational use), OPRD would 1) take the necessary steps to avoid take, or 2) coordinate with ODFW and USFWS to determine if additional minimization measures, such as additional recreational use restrictions, are necessary to protect wintering snowy plovers. Such measures would be implemented if they would not significantly disrupt pedestrian access to the wet sand, and OPRD determines that sufficient recreational access is being provided for in a manner similar to the conservation measures proposed under the HCP. 	Same as Alternative 2

Notes:

ATV = All-terrain vehicle; USFWS = U.S. Fish and Wildlife Service; HRA = habitat restoration area; ITP = incidental take permit; ODFW = Oregon Department of Fish and Wildlife; OHV = off-highway vehicle; OPRD = Oregon Parks and Recreation Department; ORNHIC = Oregon Natural Heritage Information Center; RMA = Recreation Management Area; SNA = State Natural Area; SPMA = snowy plover management area; USDA = U.S. Department of Agriculture

2.4 Alternatives Considered But Not Analyzed in Detail

2.4.1 Management of Recreation Management Areas

Under this alternative, OPRD would actively manage the five SPMAAs identified under Alternative 2, as well as the 11 RMAAs owned by other landowners, for nesting populations of snowy plovers. Each landowner would be responsible for developing and implementing site management plans describing the snowy plover management activities that would take place at each RMA. The five RMAAs currently occupied by snowy plovers (New River, Sutton/Baker Beach, Siltcoos Estuary/Dunes Overlook/Tahkenitch Estuary, Tenmile Estuary, and Coos Bay North Spit) would be the first sites to be actively managed. Management of these sites would be in addition to management activities at Bandon, Columbia River South Jetty, Necanicum Spit, and Nehalem Spit. If nesting populations of snowy plovers were identified at Columbia River South Jetty, Necanicum Spit, or Nehalem Spit, one of the seven other unoccupied sites would be actively managed. At any given time, at least three unoccupied sites would be actively managed under this alternative.

This alternative was eliminated from detailed consideration in this FEIS because OPRD does not have the authority to implement or enforce site management plans for nesting populations of snowy plovers on lands that they do not own or manage. Under an ITP from USFWS, OPRD would be responsible for all management strategies outlined in the HCP on covered lands, including those that would take place on lands owned or managed by a landowner other than OPRD. Since they would not have the ability to ensure that site plans were effectively implemented or adequately enforced, this alternative was not considered a reasonable alternative for consideration in this FEIS.

2.4.2 Implementation of the Snowy Plover Recovery Plan

This alternative would include management of the covered lands in accordance with the *Recovery Plan for the Pacific Coast Population of the Western Snowy Plover* (Recovery Plan) (U.S. Fish and Wildlife Service 2007a). The Recovery Plan identified 19 individual sites along the Oregon coast, covering approximately 129 miles.

The cost of managing all 19 of sites identified in the Recovery Plan would be prohibitive given the extensive area that would have to be managed to limit public use and access. In addition, OPRD does not own or manage all of the recovery areas

identified in the Recovery Plan, and would not have the authority to enforce all of the management activities at non-OPRD owned or leased sites. This alternative would also not allow OPRD to meet their stated objectives of managing for snowy plover habitat while balancing impacts to recreational use and public access on the Oregon coast (Section 1.2.3, “Context”). For these reasons, this alternative was eliminated from detailed consideration in the FEIS.

2.4.3 Captive Breeding Program

This alternative would consist of implementing a captive breeding program to assist in the recovery of snowy plovers. Under this alternative, snowy plovers would be captured and maintained in captivity. Adults would be raised, and young birds bred in captivity would be released into the wild.

Maintenance costs of a successful captive breeding program would be prohibitive. In addition, little is currently known about how snowy plovers survive in captivity or how they can be effectively bred. According to USFWS policy, captive breeding “is used as a recovery strategy only when other measures employed to maintain or improve a listed species’ status in the wild have failed, are determined to be likely to fail, are shown to be ineffective in overcoming extant factors limiting recovery, or would be insufficient to ensure/achieve full recovery. Every effort should be made to accomplish conservation measures that enable a listed species to recover in the wild, with or without intervention (e.g., translocation), prior to implementing controlled propagation for reintroduction or supplementation.” (61 FR 4715) For these reasons, this alternative was eliminated from detailed consideration in the FEIS.

2.4.4 Voluntary Compliance and Education

This alternative would consist of asking recreationalists and other members of the public to voluntarily avoid snowy plover nest sites, chicks, and adults nesting and foraging along the Oregon coast. This would require that individuals using the Ocean Shore be aware of the location of existing nesting sites and familiar enough with snowy plovers to be able to identify and avoid the species when they are present. In addition to ‘self-education’, under this alternative, OPRD would provide educational opportunities to beach visitors in areas where nesting populations of snowy plovers have been identified covering the biology and habitat needs of snowy plovers. Individuals would be available to advise beach users about any beach restrictions and answer questions about snowy plovers.

Under this alternative, inadvertent incidental take could occur, even if visitors were aware of and avoided known nest sites. In addition, it is possible that management activities conducted by OPRD (e.g., habitat restoration activities) could result in

incidental take. Without take authorization from USFWS, individual members of the public and OPRD would be responsible for any take that may occur incidental to an otherwise lawful activity, which would not allow OPRD to meet the objectives stated in the HCP and would not meet the purpose and need of the proposed action (Section 1.3.2). For these reasons, this alternative was eliminated from detailed consideration in the FEIS.

2.4.5 Multi-Species HCP

Under this alternative, OPRD would develop and seek incidental take coverage for a multi-species HCP that would address other species that may occur on covered lands. In addition to the conservation plan that addresses snowy plovers, this alternative would entail developing conservation measures to minimize and mitigate for impacts to other species, such as anadromous fish and bald eagles.

This alternative was eliminated from detailed consideration because it was determined by the resource agencies, including ODFW, USFWS, and the National Marine Fisheries Service, that OPRD's management activities would not likely result in impacts to listed species that would rise to the level of take. The listed species that could be in the vicinity of the covered lands do not occupy the sand beaches along the Oregon coast (i.e., they occur offshore, on rocky outcrops, or landward of the vegetation line). A description of the species that were considered for inclusion in a multi-species HCP, and the rationale for their exclusion from the proposed action, is provided in Appendix B of the HCP (Oregon Parks and Recreation Department 2008).

