

Chapter 2 Alternatives

2.1 Alternatives Considered

Three alternative management strategies have been identified for detailed analysis in this draft Environmental Impact Statement (DEIS), 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 project alternatives are compared, as described in chapter 3, “Affected Environment, Environmental Consequences, and Cumulative Effects.” 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.”

Alternative 2 represents the Oregon Parks and Recreation Department (OPRD) preferred alternative and is supported by the *Draft Western Snowy Plover Habitat Conservation Plan*, which is presented as (Oregon Parks and Recreation Department 2007). The draft HCP was developed by OPRD, in collaboration with the Fish and Wildlife Service (FWS) and the Oregon Department of Fish and Wildlife (ODFW).

The HCP addresses potential effects on the Pacific Coast population of 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 draft 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; and the input received between 2002 and 2004 from the Steering Committee convened to assist in formulation of the draft HCP (chapter 1, section 1.3.2, “Scoping,” provides a description of the process used to gather the information used in developing this DEIS).

Alternative 3, Management of Additional OPRD Sites, is evaluated in this DEIS as an alternative to the proposed HCP. Specifically, Alternative 3 is included in this DEIS to provide the FWS with an additional basis (outside of the No-Action Alternative) for comparison of Alternative 2 with the environmental risks of an alternate course of action. Although Alternative 3 was considered during the development of the draft of the HCP, and subsequently eliminated by OPRD due to recreational use and other management conflicts, the FWS 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 DEIS.

2.2 Area Covered, Species Covered, and Duration of Plan

All alternatives evaluated in this DEIS would be implemented on the covered lands, which include the Ocean Shore and specific portions of key State parks, State natural areas (SNA), and State recreation areas, as described in chapter 1, 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 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 DEIS, would occur during a 25-year period (2008 to 2033).

2.3 Alternatives Analyzed in Detail

This section describes the covered activities that would be implemented under each of the three project alternatives analyzed in detail in this DEIS. 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.

2.3.1 Alternative 1 – Current Management (No-Action)

Under Alternative 1, OPRD would continue to manage the covered lands as it does under existing conditions. Management activities on covered lands would be implemented to avoid potential effects on snowy plover, to the extent possible. In areas where nesting populations of snowy plover 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 plover are present, as requested by the landowner, and on a case by case basis.

Alternative 1 is the baseline in the DEIS 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 project alternatives.

Public Use/Recreation Management

The 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 dry sand 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 plover. 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 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 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 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-buggying (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 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 also 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 are 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 in the event of an emergency.

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. Camping, horseback riding, and beach fires are subject to specific restrictions. Other dry sand activities are generally not restricted unless otherwise subject to permit requirements or as specified by restrictions for snowy plover management.

The following restrictions on dry sand activities would 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 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

Within the covered lands, there are several areas that are managed by other landowners for snowy plover. Although OPRD does not manage these lands, they are responsible for considering applications from land owners requesting that limits on recreational use be authorized when nesting populations of snowy plover are present. For purposes of this DEIS, these areas are referred to as Recreation Management Areas (RMAs). The location of RMAs proposed under one or more of the project alternatives are illustrated on figures 2-1 through 2-3.

Under Alternative 1, OPRD would continue to consider applications for “Recreational Use Restriction Permits” on a case-by-case basis for temporarily limiting recreational use at 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 for 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, as currently dictated under 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 considered and approved permit applications submitted by 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 pursue Recreation Use Restriction Permits from OPRD each year, as long as these areas were considered to be occupied by snowy plover. In addition, under Alternative 1, OPRD would also consider Recreational Use Restriction Permit applications at other locations on the Ocean Shore, as requested by any landowner.

Natural Resources Management

Snowy Plover Management

Under Alternative 1, OPRD would manage the Habitat Restoration Area (HRA) at Bandon SNA (figure 1-7) for nesting populations of snowy plover. OPRD would also 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 the FWS.

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 plover at or near the HRA during the nesting season (March 15 to September 15).

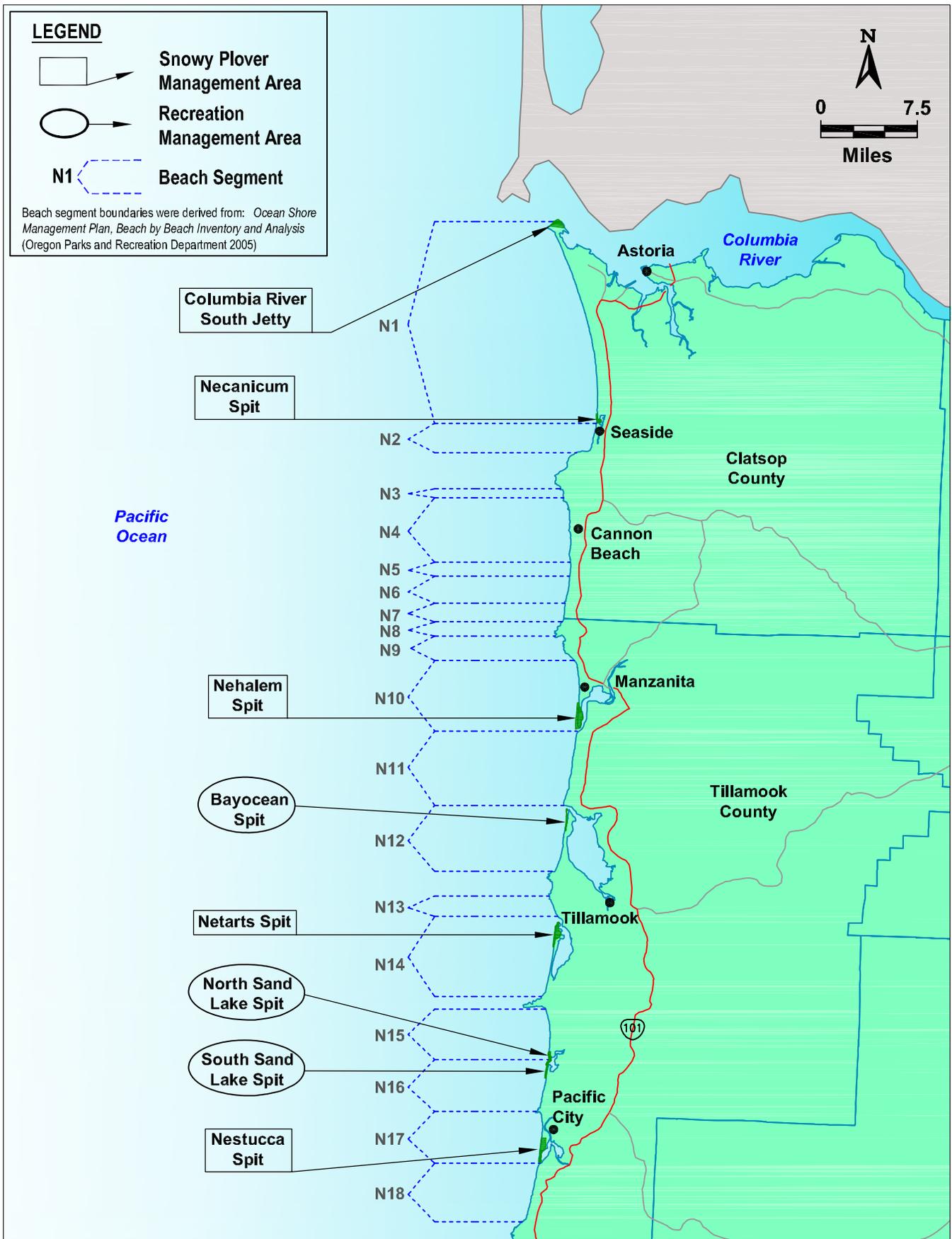


Figure 2-1
Snowy Plover Management Areas and
Recreation Management Areas on the North Coast

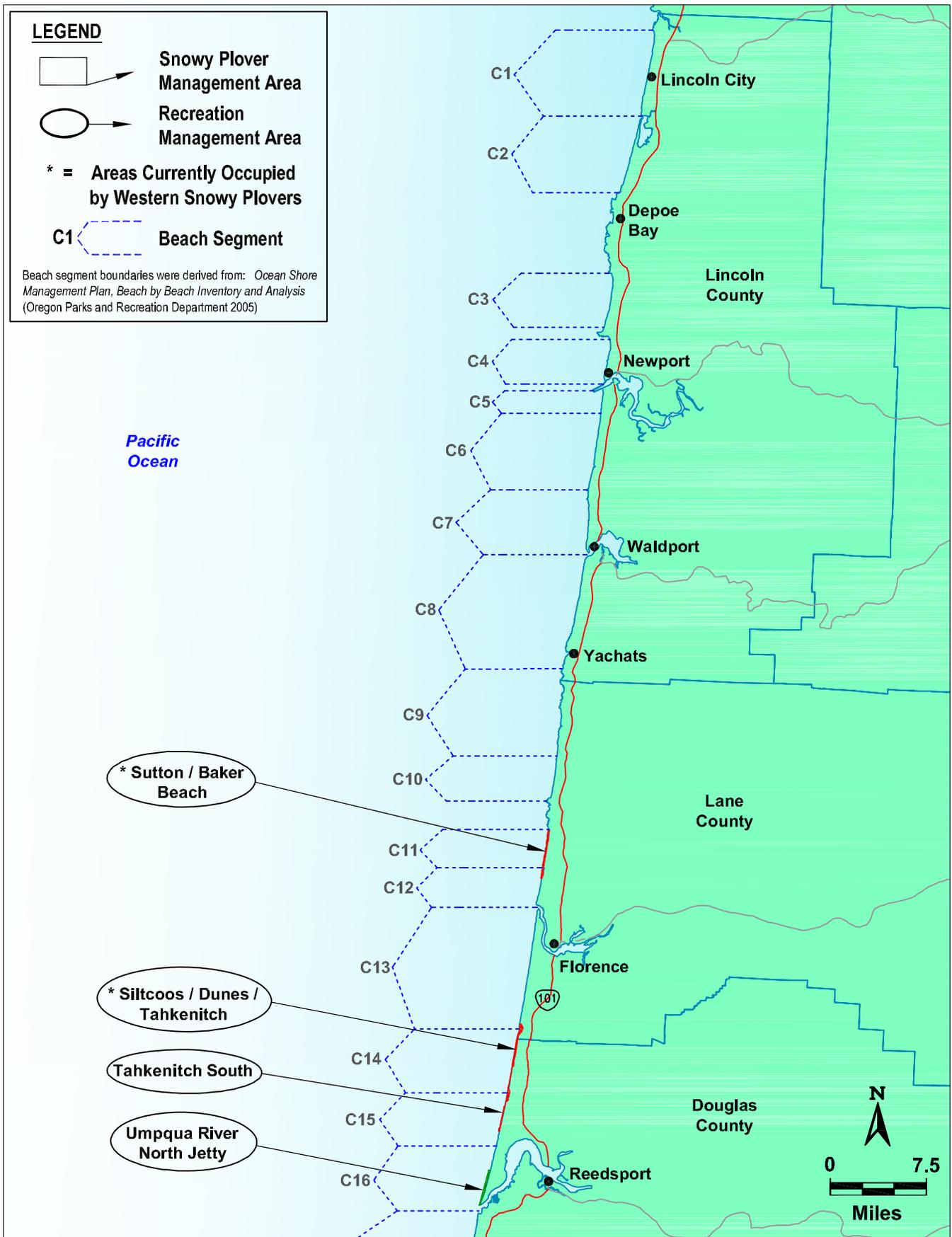


Figure 2-2
Snowy Plover Management Areas and
Recreation Management Areas on the Central Coast

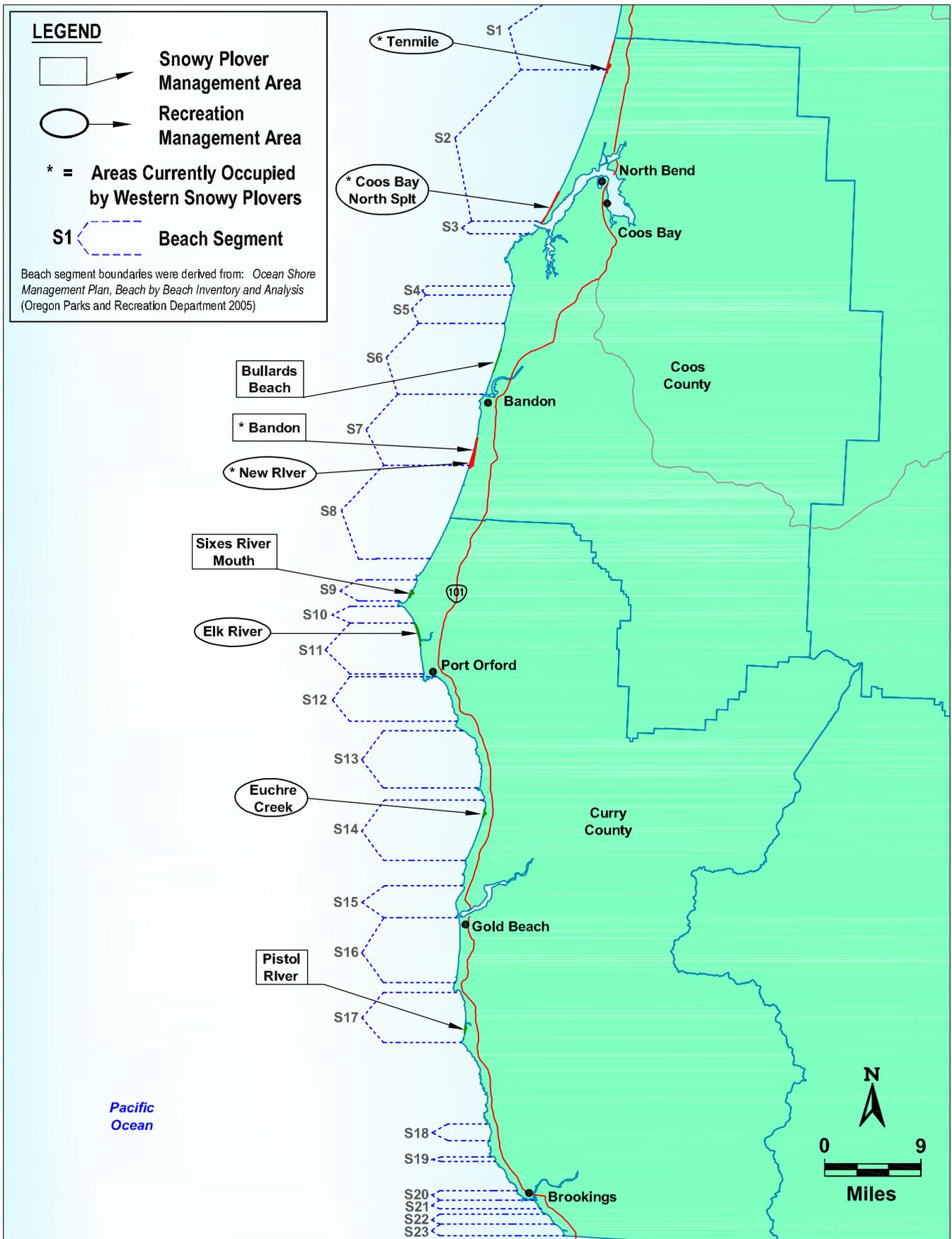


Figure 2-3
 Snowy Plover Management Areas and
 Recreation Management Areas on the South Coast

Management activities at the HRA would include the following:

- **Recreational use restrictions.** Under Alternative 1, dogs would 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 still be allowed on the wet sand portion of the beach.

Outside of the HRA, but within the Bandon SNA, exclosures and limited fencing would be installed around identified snowy plover nests to limit recreational use in those areas.

- **Habitat maintenance.** OPRD would continue to maintain optimal habitat for nesting snowy plover at the HRA by maintaining the approximately 50 acres of habitat that has been restored at the site to date. 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 be completed as part of the larger monitoring efforts along the Oregon coast, as described under Monitoring below.
- **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 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 on lands owned by OPRD outside of the Bandon HRA. The nature of these protections could include restricting certain recreational uses and installation of nest exclosures and/or limited fencing. These restrictions would be contingent on consultation with

the FWS. On lands not owned or leased by OPRD, recreational use restrictions would only be implemented at occupied sites at the request of the landowner.

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 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 breeding surveys), evaluate habitat, and conduct compliance monitoring related to snowy plover nesting areas along the Oregon coast. OPRD would also contribute staff to assist with the annual window and winter surveys.

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 owned or leased 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 plover.

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 plover. Habitat restoration activities targeted toward snowy plover 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 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 with efforts to minimize potential effects on snowy plover, to the extent possible. In areas where nesting populations of snowy plover are known to be present, OPRD would work collaboratively with ODFW and FWS 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 implement public safety activities in accordance with existing management practices and to minimize potential effects on snowy plover, 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 be completed by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plover, 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 (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 draft *Habitat Conservation Plan for the Western Snowy Plover* (Oregon Parks and Recreation Department 2007). Conservation measures in the HCP would focus on minimizing the effects of OPRD’s management responsibilities, including their management of public use and recreation, natural resources, and other beach resources on the covered lands. Conservation strategies for snowy plover would be focused at up to six snowy plover management areas (SPMAs), and would be designed to implement recommendations from the *Western Snowy Plover Pacific Coast Population Draft Recovery Plan* (Fish and Wildlife Service 2001b). Under Alternative 2, OPRD would also implement recreational use restrictions at up to 11 RMAs, as requested by those landowners. 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 plover. 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, as described under *Snowy Plover Management*.

Kite Flying

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

Driving

Similar to Alternative 1, under Alternative 2, ATV/OHV use would be allowed at Sand Lake Recreation Area and Dunes National Recreation Area. Driving would also 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 would be implemented under Alternative 2, as described under *Snowy Plover Management*.

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 dry sand activities would be implemented at occupied and targeted SPMAs, as described under *Snowy Plover Management*.

Recreation Management Areas

Under Alternative 2, OPRD would automatically implement recreational use restrictions at up to 11 RMAs as the areas become occupied. If the RMAs are unoccupied, OPRD would implement recreational use restrictions at these areas at the request of the land owner and after consultation and collaboration with the FWS and ODFW.

These 11 areas would include the five RMAs that currently support nesting populations of snowy plover (Sutton/Baker Beach; Siltcoos Estuary/Dunes

Overlook/Tahkenitch Estuary; Tenmile Estuary; Coos Bay North Spit; and New River), and six RMAs that may be targeted by other landowners for management in the future (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.

Restrictions on recreational use in these areas would be similar to those described for occupied and/or targeted SPMA, depending on if nesting populations of snowy plover are present at the time the permit application is approved.

OPRD would also seek to modify the State Rule to allow the RMA landowners noted above (who meet certain terms and conditions) to implement and enforce seasonal recreational on an annual basis. Petition to change the State Rule would occur after an incidental take permit (ITP) had been issued by the FWS, and would require that eligible landowners provide OPRD with documentation to describe the following:

- management activities that would be implemented (e.g., installing fences and signs, enforcing access restrictions, and conducting public outreach and education);
- locations where those activities would take place; and
- documentation from FWS stating that the proposed management actions have been reviewed and approved (e.g., an ESA section 7 biological opinion or an approved ESA section 10 HCP).¹

OPRD would also work with the 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

Under Alternative 2, the Bandon SNA, including the HRA, would be identified and managed as the Bandon SPMA (figure 2-3). Within 1 year of issuance of an ITP, a site management plan would be developed for FWS review and approval. The site management plan would specify management prescriptions similar to those identified for the HRA under Alternative 1, including information on recreational use

¹ Individual landowners requesting a Recreational Use Restriction Permit on a case-by-case basis or under the modified State Rule would not be covered for incidental take of snowy plover under OPRD's ITP, but would have to obtain their own take authorization through a separate process.

restrictions and enforcement, habitat maintenance, predator management, monitoring, and public outreach and education. Recreational use restrictions at the Bandon SPMA during the nesting season (and at any other targeted SPMA after it becomes occupied; see *Management of Targeted Snowy Plover Nesting Areas*) would be the same under Alternative 2 as Alternative 1, with the exception that dogs and kite flying would be prohibited on the beach (kite flying and leashed dogs are currently allowed at Bandon SNA during the nesting season). Beach driving would be prohibited if driving restrictions were not already in place.

Management of Targeted Nesting Plover Areas

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

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

These three areas were identified by OPRD and FWS as the areas under OPRD ownership with the greatest potential to provide snowy plover nesting habitat in the future. In addition, the resource agencies 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 site management plans for these three SPMA's. Similar to the site management plan for the Bandon SPMA, these plans would outline measures for attracting nesting populations of snowy plover, and would identify a series of management prescriptions, including seasonal recreational use restrictions (dogs on leash and driving prohibited), habitat restoration activities², predator management activities, monitoring and enforcement activities, and public outreach and education activities. Active management would begin after site plans had been approved by the FWS.

²Habitat restoration activities at targeted SPMA's 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 Corps. Any restoration that occurs beyond that described in the HCP would be addressed in separate consultation between the Corps and the FWS as described under Section 7 of the Federal ESA and its implementing regulations (50 CFR 402).

Two additional SPMA, Netarts Spit (figure 2-1) and Pistol River (figure 2-3), 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 are not already under active, FWS approved management for snowy plover (figures 2-1 through 2-3).

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

Under these circumstances, OPRD would commit to managing Netarts Spit and Pistol River (in that order) for nesting populations of snowy plover to ensure that a minimum of three unoccupied SPMA are being actively managed at any given time over the term of the 25-year permit.

See *Adaptive Management – Failure of Managed, Unoccupied SPMA* for a more detailed description of the timelines for management of the Netarts Spit SPMA and the Pistol River 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 on OPRD owned or leased land, OPRD would install nest enclosures and limited fencing around the individual nest. Specifically, OPRD would place an enclosure and 50-meter radius buffer around each 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 SPMA are targeted for management over the term of the 25-year permit (the HCP covers funding commitments [Oregon Parks and Recreation Department 2007]).

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 these activities at all actively managed SPMA.

Snowy Plover Monitoring and Enforcement

Similar to Alternative 1, under Alternative 2, OPRD would provide funding to ORNHIC to monitor snowy plover numbers, evaluate habitat, and conduct compliance monitoring. The level of funding would be similar to Alternative 1, but would increase as additional SPMA were targeted for management over the term of the 25-year permit ((the HCP covers funding commitments [Oregon Parks and Recreation Department 2007])).

Monitoring results would be documented in an annual report provided to the FWS for review. In addition, under Alternative 2, OPRD would informally correspond (e.g., via email) with FWS once a month to report beach ranger and beach monitor monitoring results. Monthly reports would focus on ongoing concerns, such as continued recreational use violations or increased predation at a particular SPMA.

Three full time beach ranger positions would also be funded to encourage compliance with beach restrictions under Alternative 2. OPRD would also work with the Oregon State Police and/or local law enforcement offices to provide additional enforcement support, where necessary and possible.

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. In addition, as new SPMA 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.

Adaptive Management

As described in chapter 5 of the HCP (Oregon Parks and Recreation Department 2007), 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 the FWS 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 plover along the Oregon coast, OPRD

and FWS 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, the management actions will be further evaluated. If new techniques are available for more effectively implementing management actions, then revisions to the management prescriptions associated with Alternative 2 could be proposed.

- **Snowy Plover Nesting Outside SPMA.** If snowy plover begin to nest on OPRD lands outside of a designated SPMA for 3 years in a row, and there is nesting success at least 2 of those 3 years, OPRD would consult with FWS to consider managing that area as a SPMA. Such consultation would be conditioned on FWS and OPRD agreeing that the new area could replace a targeted, unoccupied SPMA identified for management by OPRD; that no more than six occupied SPMAs would have to be managed by OPRD at a given time; and that management of the new area would not affect OPRD's ability to manage recreation along the Ocean Shore.
- **Success of Nest Exclosures.** Under Alternative 2, through monitoring efforts, OPRD would evaluate the relative success of nest exclosures in preventing predators from destroying nests and eggs. OPRD would meet annually with FWS to review the relative benefits of nest exclosures on a site-by-site basis, and to determine if changes in the management application (e.g., elimination of the exclosure, timing changes for application of the exclosure, design changes) should be considered.
- **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 the FWS, 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. If nesting populations of snowy plover have not been found at the initial three SPMAs or the Netarts Spits SPMA after 5 years of managing the Netarts Spit SPMA for occupancy, and no other Recreation Management areas are being actively managed for nesting populations of snowy plover by other landowners, OPRD would complete a site management plan for the Pistol River SPMA and begin active management.
- **Exchange of an SPMA for a RMA.** OPRD may purchase a RMA owned by another landowner during the term of the 25-year permit. Under these circumstances, OPRD may commit to managing the "new SPMA" for snowy plover and may consider exchanging management obligations at the new SPMA for those at the Pistol River SPMA or the Netarts Spits SPMA. This exchange would only be allowed after consultation with FWS and ODFW to determine

whether or not the new SPMA has 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 has 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 plover (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 incidental take permit, and outside of the nesting season in areas occupied by snowy plover.

Beach Management

Under Alternative 2, OPRD personnel would respond to boat and marine mammal strandings; would implement public safety activities, and would participate in law enforcement activities in accordance with existing management practices and to minimize potential effects on snowy plover. These beach management activities would be completed as described above 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 UFWS have identified five circumstances that could occur during the term of the ITP, and that could affect the ability of OPRD to properly the conservation strategies associated with Alternative 2.

Expansion of the Extent of Invasive Plant Species

It is possible that, over the term of the 25-year ITP, invasive plant species may extend into a SPMA to a point that they begin to degrade potential or existing suitable snowy plover nesting habitat. If invasive plant species are discovered to be establishing in areas of occupied SPMA's where nesting occurs, and those areas are outside of areas already being actively managed for restoration, OPRD and FWS would work together to consider if additional control or eradication measures should be implemented.

Increase in Predator Species Population

Over the term of the 25-year ITP, it could be discovered that a site management plan for a SPMA does not contain adequate predator control measures, resulting in an increase in a predator population at that area. If it is determined that local populations of predator species have increased near or in a SPMA, OPRD and FWS would work together to consider if additional control measures are warranted.

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 FWS determine if there is potential for incidental take of that species to occur as a result of the covered activities associated with Alternative 2. If take is possible, OPRD would work with the FWS 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.

Issuance of Emergency Permits

OPRD may issue an emergency permit for a new improvement or alteration whenever eligible property abutting the Ocean Shore is in imminent peril of destruction by the Pacific Ocean, waters of a bay or river, a landslide, or natural forces. Imminent peril is defined in the Oregon Administrative Rules (OAR) as:

“...a situation in which property is likely to be severely damaged or destroyed by action of the Pacific Ocean or waters of a bay or river, or by landslide or other natural forces, and where such damage would be likely to occur prior to the time required for approval of an Ocean Shore Permit”
(OAR 736-010-002).

The actions that could occur under an Emergency Permit or Declaration include, but are not limited to, Ocean Shore alterations, sand removal, shore access construction, natural product removal, the installation or maintenance or repair of pipelines, cables or conduits, driving on the beach, beach salvage or logging, and scientific research or collection. The purpose of granting an emergency permit or declaration is to provide immediate and temporary protection. For an Ocean Shore alteration, anyone receiving an emergency permit, either verbally or in writing, is required to submit an “after-the-fact” application for the improvement. By definition, the need for an emergency permit is not a foreseeable event.

OPRD would review applications for emergency permits and would consider potential effects to snowy plover, in collaboration with FWS and ODFW, prior to making a permit issuance decision. To the extent practical, authorizations of

emergency permits would be conditioned on minimizing effects to snowy plover and to occupied SPMA. If necessary, after-the-fact notification and proposed mitigation for impacts to snowy plover would be determined with input from the FWS and ODFW.

Emergency Events

Over the term of the 25-year permit, severe weather, erosion, or an oil spill or ship grounding could affect an SPMA. In those circumstances, OPRD response personnel would be allowed full access to the SPMA, as necessary, to protect human life, property and/or plants, fish and wildlife. Emergency personnel would, as time permits, attempt to contact the FWS and ODFW for input on how best to respond to the emergency to minimize potential effects on snowy plover. In either case, after beginning the emergency relief process, OPRD would meet with FWS to determine the need for rehabilitation of any SPMA affected during the emergency event.

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 along the Oregon coast. Up to nine SPMA (three more than identified under Alternative 2) could be managed by OPRD for nesting populations of snowy plover over the term of the 25-year ITP under Alternative 3. In addition, OPRD would implement recreational use restrictions at up to 12 RMA (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 plover. 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, and dry sand access would be implemented at occupied and targeted SPMA, as described under Alternative 2 (section 2.2.2, "Alternative 2 – Proposed HCP, Public Use/Recreation Management").

Recreation Management Areas

Under Alternative 3, OPRD would automatically implement recreational use restrictions at up to 12 RMA (one more than Alternative 2) as the areas become occupied. If the RMA were unoccupied and actively managed by the landowner, OPRD would implement recreational use restrictions at these areas at the request of

the land owner after consultation and coordination with the FWS and ODFW. These 12 areas would include the same RMAs described for Alternative 2, with the exception that North Sand Lake Spit, an additional area owned by the USFS that could be targeted for management in the future, would also be considered a 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 plover are present at the time the permit application is approved.

Similar to Alternative 2, OPRD would also seek to modify the State Rule to allow RMA landowners, who meet certain terms and conditions, to implement and enforce seasonal recreational use restrictions on an annual basis. OPRD would also work with the 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 plover, and would develop a site management plan for approval within 1 year of ITP issuance. 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, and kite flying. 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 (three more than Alternative 2) would be identified as SPMAs and targeted for management of potential nesting populations of snowy plover over the term of the 25-year ITP. Three SPMAs would initially be managed by OPRD for nesting populations of snowy plover (figure 2-1).

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

Within two years of obtaining an ITP, OPRD would prepare site management plans for these three SPMA. Similar to the site management plan for the Bandon SPMA, the site plans would outline measures for attracting nesting populations of snowy plover, and would identify a series of management prescriptions, including seasonal recreational use restrictions (dogs on leash and driving prohibited), habitat restoration activities³, predator management activities, monitoring and enforcement activities, and public outreach and education activities. Active management would begin after site plans are approved by the FWS.

Five additional SPMA, 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 are not already under active FWS approved management for snowy plover (figures 2-1 through 2-3).

- Bayocean Spit (owned/managed by the Corps);
- South Sand Lake Spit (under private ownership/management);
- Tahkenitch South (owned/managed by the USFS);
- Umpqua River North Jetty (owned/managed by the USFS/DSL);
- Elk River (under private ownership/management);
- Euchre Creek (under private ownership/management);
- North Sand Lake Spit (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 plover to ensure that a minimum of three unoccupied SPMA are actively managed at any given time over the term of the 25-year permit. See *Adaptive Management – Failure of Managed, Unoccupied SPMA* for a more detailed description of the timelines for management of the Netarts Spit SPMA and the Pistol River SPMA.

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 on OPRD owned or leased land, OPRD would install nest exclosures and 50-meter radius buffer around each individual nest.

³Under Alternative 3, OPRD would restore up to 40 acres of habitat, as necessary, at each of the following SPMA: 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 the FWS as described under Section 7 of the Federal ESA and its implementing regulations (50 CFR §402).

Predator Management

Similar to Alternative 1, under Alternative 3, 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 SPMA's are targeted for management over the term of the 25-year permit.

Snowy Plover Monitoring and Enforcement

Similar to Alternative 1, under Alternative 3, OPRD would provide funding to ORNHIC to monitor snowy plover numbers, evaluate habitat, and conduct compliance monitoring. 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 25-year permit (the HCP covers funding commitments [Oregon Parks and Recreation Department 2007]). In addition, three full time beach ranger positions would be funded to encourage compliance with beach restrictions. OPRD will also work with the Oregon State Police and/or local law enforcement offices to provide additional enforcement support, where necessary and possible.

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 SPMA's became occupied, OPRD would recruit and train volunteers to serve as docents for public outreach and education as specified in that site's site management plan.

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 FWS 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, after consultation with FWS and ODFW (see section 2.2.2, "Alternative 2 – Proposed HCP, Adaptive Management").

In addition, under Alternative 3, if the SPMA's at Necanicum Spit, Columbia River South Jetty, and Nestucca Spit are not occupied within 5 years of active site management, and none of the RMA's owned by other landowners are 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 SPMA's for snowy plover occupancy. If nesting populations of snowy plover have not been found at the initial three SPMA's or the Pistol River SPMA after

five years of managing the Pistol River SPMA for occupancy, and no other RMAs are being actively managed for nesting populations of snowy plover 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 incidental take permit, and outside of the nesting season in areas occupied by snowy plover.

Beach Management

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

Changed Circumstances

OPRD and FWS identified five 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 3. These circumstances are the same as described for Alternative 2, and include expansion of the extent of invasive plant species; an increase in predator species population; the listing of a new species; the issuance of an emergency permit; or an emergency event. 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 alternative.

This page intentionally left blank.

Table 2-1. Comparison of the No-Action and Proposed Project 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 manage the public's use of the beach in accordance with existing management practices and to avoid potential effects on snowy plover. ▪ 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. ▪ 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 plover are found in the future. ▪ OPRD would consider applications for "Recreational Use Restriction Permits" on a case-by-case basis for temporarily limiting recreational use at occupied 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 plover. OPRD's commitment to these prescriptions would be covered under an ITP authorized by the FWS. ▪ 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 with SPMA's are described under the "Natural Resource Management" discussion below. These restrictions would be implemented at up to six SPMA's. Limited restrictions would also be implemented at isolated nests outside of occupied or actively managed SPMA's. OPRD would commit to automatically implementing recreational use restrictions at up to 11 RMAs owned by other landowners once the areas become occupied. If unoccupied and actively managed, OPRD would implement recreational use restrictions at the request of the landowners after consultation and collaboration with FWS. The actual recreational use restrictions in these areas would be the same as those for OPRD occupied and/or targeted unoccupied SPMA's. - OPRD would seek to change the State Rule to allow the landowner to post signs and fences and enforce restrictions without coordinating annually with OPRD. - OPRD would also work with other 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 "Natural Resource Management" below). ▪ OPRD would automatically implement recreational use restrictions at up to 12 RMAs owned by other landowners.

Covered Activities & Conservation Measures	Alternative 1 – Current Management (No-Action)	Alternative 2 - Proposed HCP	Alternative 3 – Management of Additional OPRD Sites
Natural Resource Management			
<i>Snowy Plover Management</i>			
Management of Occupied Snowy Plover Nesting Areas	<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 required to be on leash and confined to the wet sand, and driving and non-motorized vehicle use prohibited during the breeding season in the HRA. Fences, ropes, and signs would be installed on the dry sand portions of occupied nesting areas to define breeding areas and limit public access. Outside of the HRA, but within the Bandon SNA, exclosures and limited fencing would be installed around nests. 2. <u>Habitat maintenance</u>. Maintain habitat at the HRA at Bandon 3. <u>Predator management</u>. (see below) 4. <u>Monitoring and Enforcement</u>. (see below) 5. <u>Public outreach and education</u>. (see below) 	<ul style="list-style-type: none"> ▪ OPRD would manage the Bandon SPMA for nesting populations of snowy plover. A site management plan would be developed for the Bandon SPMA within one year of ITP issuance. 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"> 1. <u>Recreational use restrictions</u>. Additional restrictions on dog use (prohibited), kite flying, driving, and non-motorized vehicle use would be implemented. 2. <u>Habitat maintenance</u>. Same as Alternative 1. 3. <u>Predator management</u>. (see below) 4. <u>Monitoring and Enforcement</u>. (see below) 5. <u>Public Outreach and Education</u>. (see below) <p>Up to five additional SPMA's targeted for management could be managed as occupied if snowy plover nest in these areas over the term of the ITP, as described in <i>Management of Targeted Snowy Plover Nesting Areas</i> below.</p> 	<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 plover nest in these areas over the term of the ITP (see <i>Management of Targeted Snowy Plover Nesting Areas</i> below).
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 five 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 plover. Site management plans for these areas would be developed within 2 years of ITP issuance. Active management would begin after site plan approval. ▪ Netarts Spit and Pistol River 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 RMA's is not already under active, FWS approved management for snowy plover. <ul style="list-style-type: none"> - Bayocean Spit (Corps); - South Sand Lake Spit (private); - Tahkenitch South (USFS); - Umpqua River North Jetty (USFS / DSL); - Elk River (private); - Euchre Creek (private). <p>Under these circumstances, OPRD would commit to managing Netarts Spit and Pistol River (in that order) for nesting populations of snowy plover 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.</p> ▪ 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. The geographical extent of recreational use restrictions at SPMA's would be determined in consultation with FSW and documented in the 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 plover. Site management plans for these areas would be developed within 2 years of ITP issuance. ▪ 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 RMA's is not already under active, FWS approved management for snowy plover. <ul style="list-style-type: none"> - Bayocean Spit (Corps); - South Sand Lake Spit (private); - Tahkenitch South (USFS); - Umpqua River North Jetty (USFS / DSL); - Elk River (private); - Euchre Creek (private), - North Sand Lake Spit (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 plover 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 FSW and documented in the approved site management plan

Covered Activities & Conservation Measures	Alternative 1 – Current Management (No-Action)	Alternative 2 - Proposed HCP	Alternative 3 – Management of Additional OPRD Sites
			<ul style="list-style-type: none"> 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 lands owned by OPRD outside of the Bandon HRA. The nature of these protections would be variable (i.e., 50 meter radius exclosures and limited fencing to restrictions to a larger area), and would be contingent on negotiations with FWS 	<ul style="list-style-type: none"> OPRD would install nest exclosures (50-meter radius) and limited fencing around individual nests found outside of an occupied or targeted SPMA's or RMAs. 	Same as Alternative 2.
Predator Management	<ul style="list-style-type: none"> OPRD would 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. 	<ul style="list-style-type: none"> OPRD would contribute 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.
Snowy Plover Monitoring and Enforcement	<ul style="list-style-type: none"> OPRD would provide funding to ORNHIC to monitor snowy plover numbers (via breeding survey), evaluate habitat, and conduct compliance monitoring related to snowy plover nesting areas along the Oregon coast. OPRD would contribute staff to assist with the annual window and winter surveys. 	<ul style="list-style-type: none"> OPRD would contribute funding to ORNHIC to monitor snowy plover numbers, evaluate habitat, and conduct compliance monitoring related to snowy plover nesting areas along the Oregon coast. The level of funding would be similar to Alternative 1, but would increase as additional SPMA's were targeted for management over the term of the ITP. Three full time beach rangers' positions would be funded to encourage compliance with beach restrictions. Additional senior trooper support would be provided, where needed. 	Same as Alternative 2.
Public Outreach and Education	<ul style="list-style-type: none"> OPRD would 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 where new nesting sites have been identified. 	<ul style="list-style-type: none"> OPRD would recruit and train volunteers to serve as docents for public outreach and education at the China Creek access at the Bandon SPMA. 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. 	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"> Redefining management actions if biological monitoring data indicate a consistent population decline in snowy plover along the Oregon coast. Consulting with the FWS if snowy plover begin to consistently and predictably (3 years in a row) nest on OPRD lands outside of an identified SPMA. Evaluating the relative success of nest exclosures, and adjusting design / application based on the results of monitoring efforts 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 owned and managed by other land owners are being actively managed, OPRD would begin management at Netarts Spit. If Netarts Spits, Columbia River South Jetty, Necanicum Spit, and Nehalem Spit are not occupied after 5 years of active management at Netarts Spit, and none of the RMAs owned and managed by other land owners are being actively managed, OPRD would begin active management at Pistol River. 	<p>Same as Alternative 2, with the following exception:</p> <ul style="list-style-type: none"> 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 owned and managed by other land owners are being actively managed, OPRD would begin management at Pistol River. 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 owned and managed by other land owners are being actively managed, OPRD would begin active management at Nehalem Spit.

Covered Activities & Conservation Measures	Alternative 1 – Current Management (No-Action)	Alternative 2 - Proposed HCP	Alternative 3 – Management of Additional OPRD Sites
Other Habitat Restoration			
Dune Management and Invasive Species Removal	<ul style="list-style-type: none"> ▪ OPRD would manage dunes and remove invasive species in accordance with existing management practices and to avoid potential effects on snowy plover. ▪ Habitat restoration activities would be conducted outside the nesting season in areas occupied by snowy plover. In unoccupied areas, these activities could occur during the snowy plover nesting season, but only after a survey for nesting snowy plover has been completed. 	Same as Alternative 1, with the exception that OPRD's commitment would be covered under an ITP authorized by the FWS.	Same as Alternative 2.
Beach Management			
Response to Boat and Marine Mammal Strandings	<ul style="list-style-type: none"> ▪ Response to boat and marine mammal stranding would be conducted by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plover, to the extent practical. ▪ In areas where nesting populations of plover are known to be present, OPRD would work collaboratively with ODFW and the FWS 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 the FWS.	Same as Alternative 2.
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 be conducted by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plover, to the extent practical. ▪ In areas where nesting populations of snowy plover are known to be present, OPRD would work collaboratively with ODFW and the FWS 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 the FWS.	Same as Alternative 2.
Law Enforcement	<ul style="list-style-type: none"> ▪ Law enforcement activities, such as enforcing OPRD rules (recreational restrictions) and patrolling beaches, would be conducted by OPRD staff in accordance with existing management practices and to minimize potential effects on snowy plover, to the extent practical. ▪ In areas where nesting populations of snowy plover are known to be present, OPRD would work collaboratively with ODFW and the FWS 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 the FWS.	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
Changed Circumstances	<p>There would be no specific measures prescribed under Alternative 1 for dealing with changed circumstances.</p>	<p>Five types of events would be considered changed circumstances under Alternative 2:</p> <ul style="list-style-type: none"> ▪ <u>Expansion of Extent of Invasive Plant Species.</u> If invasive plant species are discovered to be expanding into open sand areas associated with occupied SPMA's, outside of areas already being actively managed for restoration, OPRD would discuss with FWS if additional measures should be implemented to control or eradicate the species. ▪ <u>Increase in Predator Species Populations.</u> If a site management plan for an SPMA does not contain adequate predator control measures, OPRD would discuss with FWS if additional or different predator management measures should be implemented. ▪ <u>Listing of a New Species.</u> If an additional species is listed during the term of the ITP, OPRD may choose to modify their management actions in coordination with FWS to ensure incidental take of that species would be avoided, or may request that the FWS add the newly listed species to the ITP under the existing HCP provisions. ▪ <u>Issuance of an Emergency Permit:</u> OPRD may issue an emergency permit for a new improvement or alteration whenever property abutting the Ocean Shore is in imminent peril of destruction by the Pacific Ocean, waters of a bay or river, a landslide, or other natural force. These permits would be issued to provide immediate and temporary protection, and would require an "after-the-fact" permit application. To the extent practical, authorizations for emergency permits would be issued to avoid or minimize potential effects on snowy plover. ▪ <u>Emergency Events.</u> In the event that a SPMA is threatened by an emergency event (e.g., severe winter erosion, oil spill), emergency response personnel would be permitted full access to the SPMA as necessary to protect human life, property and/or plants, fish and wildlife. In the event that disturbance of an SPMA is necessary, and where time permits, emergency personnel would attempt to contact FWS for input on how best to respond to the emergency to minimize potential effects on plover. If time does not permit such consultation, OPRD shall authorize emergency personnel to disturb the habitat area, and would follow-up with FWS after the emergency event is over. 	<p>Same as Alternative 2.</p>

Notes:

ATV = All-terrain vehicle

FWS = 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

This page intentionally left blank.

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 six SPMAAs identified under Alternative 2, as well as the 11 RMAAs owned by other landowners, for nesting populations of snowy plover. 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 plover (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 plover were identified at Columbia River South Jetty, Necanicum Spit, or Nehalem Spit, one of the eight other unoccupied sites would be actively managed. At any given time, at least three unoccupied sites would be actively managed under this alternative.

Upon further consideration, this alternative was eliminated from detailed consideration in this DEIS because OPRD does not have the authority to implement or enforce site management plans for nesting populations of snowy plover on lands that they do not own or manage. Under an ITP from the FWS, 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 DEIS.

2.4.2 Implementation of the Snowy Plover Recovery Plan

This alternative would include management of the covered lands in accordance with the *Western Snowy Plover (Charadrius alexandrinus nivosus) Pacific Coast Population Draft Recovery Plan* [Recovery Plan] (Fish and Wildlife Service 2001b). The Recovery Plan identified 19 recovery areas, covering approximately 126.5 miles of the Oregon coast.

The cost of managing all 19 of recovery areas 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 (chapter 1, section 1.2.3, “Context”). For these reasons, this alternative was eliminated from detailed consideration in the DEIS.

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 FWS 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 DEIS.

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 plover have been identified covering the biology and habitat needs of the snowy plover. Individuals would be available to advise beach users about any beach restrictions and answer questions about snowy plover.

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 the FWS, 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 draft HCP and would not meet the purpose and need of the proposed action (see section 1.3.2). For these reasons, this alternative was eliminated from detailed consideration in the DEIS.

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 plover, this alternative would entail developing conservation measures to minimize and mitigate for impacts to other species, such as anadromous fish and bald eagle.

This alternative was rejected from further consideration because it was determined by the resource agencies, including ODFW, FWS, 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 or their exclusion from the proposed action, is provided in Appendix B of the draft HCP (Oregon Parks and Recreation Department 2007).

This page intentionally left blank.