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FINDINGS AND RECOMMENDATIONS  
REGARDING  
THE FISH AND WILDLIFE SERVICE'S  
PROPOSED ISSUANCE OF AN ENDANGERED SPECIES  
ACT SECTION 10(A)(1)(B)  
INCIDENTAL TAKE PERMIT  
TO THE  
OREGON PARKS AND RECREATION DEPARTMENT  
IN CONJUNCTION WITH  
THE WESTERN SNOWY PLOVER  
HABITAT CONSERVATION PLAN

US FISH AND WILDLIFE SERVICE  
NEWPORT FIELD OFFICE  
NEWPORT, OR  
NOVEMBER 19, 2010

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## DESCRIPTION OF THE PROPOSED ACTION

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The U.S. Fish and Wildlife Service (Service) proposes to issue an Incidental Take Permit (Permit) to the Oregon Parks and Recreation Department (OPRD) under the authority of section 10(a)(1)(B) and section 10(a)(2) of the Endangered Species Act of 1973, as amended (ESA) for a period of 25 years. The following documents were used in the preparation of this statement of Findings and Recommendations, and are herein incorporated by reference:

- Draft Habitat Conservation Plan for the Western Snowy Plover (OPRD 2007)
- Final Habitat Conservation Plan for the Western Snowy Plover (HCP) (OPRD 2010)
- Draft Environmental Impact Statement for the Western Snowy Plover Habitat Conservation Plan (DEIS) (Service 2007)
- Final Environmental Impact Statement for the Western Snowy Plover Habitat Conservation Plan (FEIS) (Service 2010a)
- Implementing Agreement (IA) (Appendix H, OPRD 2010)
- Service's Biological Opinion on the proposed Permit action (Service 2010b)
- Recovery Plan for the Western Snowy Plover (Pacific Coast Population) (Service 2007)

Under the Permit, the OPRD would receive incidental take authorization for certain activities administered under its jurisdiction as identified in the HCP.

The OPRD is requesting coverage under the Permit for incidental take of the threatened western snowy plover (*Charadrius alexandrinus nivosus*) (plover). The proposed Permit would be subject to the assurances provided under the "No Surprises" rule at 50 C.F.R. 17.3, 17.22(b)(5) and 17.32(b)(5).

The plover is protected under both the ESA and the Migratory Bird Treaty Act (MBTA). The MBTA prohibits the taking, killing, or possessing of migratory birds, including the plover. The MBTA identifies a variety of prohibited actions including the taking of individual birds, young, feathers, eggs, and nests. At this time there are no MBTA Permit procedures to exempt such take. OPRD actions conducted under the HCP and IA will comply with the provisions of the MBTA, and on that basis the proposed Permit would also constitute a MBTA Special Purpose Permit for the plover for a three-year term as specified under 50 C.F.R. 21.27 and be subject to renewal by the OPRD.

The proposed Permit would authorize the incidental take of the plover caused by public use/recreation management activities, natural resources management activities, and beach management activities on the ocean shore of Oregon (hereafter referred to as the Ocean Shore) for a period of 25 years.

## TYPES OF ACTIVITIES COVERED

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Covered Activities are defined as activities that may occur on the Covered Lands as identified in the HCP, for which the OPRD has management responsibility and such activities have the potential to cause incidental take of the plover. Covered OPRD management activities are identified below and described in detail in Section 3 of the HCP (OPRD 2008):

- Public Use/Recreation Management includes:
  - Camping;
  - Dog Exercising;
  - Pedestrian Traffic;
  - Picnicking;Near Shore Activities/Surf Sports;
  - Vehicular Driving;
  - Horseback Riding;
  - Beach Fires;
  - Beachcombing;
  - Driftwood Collection and Removal;
  - Kite Flying; and
  - Other Dry Sand Activities
  
- Beach Management includes:
  - Marine Mammal Strandings and Removal,
  - Public Safety,
  - External and Internal Law Enforcement, and
  - Boat Strandings and Other Salvage Operations
  
- Natural Resource Management includes
  - OPRD Plover Management Actions, and
  - Other Habitat Restoration

## RELATIONSHIP OF THE TAKE EXEMPTION PROVIDED UNDER THE PERMIT FOR COVERED ACTIVITIES THAT ARE ALSO SUBJECT TO ESA SECTION 7 COMPLIANCE

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Private or public actions that are Covered Activities under the HCP may also be subject to separate ESA section 7 compliance if those actions are authorized, carried out, or funded by a Federal agency(ies). Incidental take of the plover for Covered Activities carried out by the Permittee will be authorized under the Permit and will be subject to the take mitigation, minimization, and avoidance measures provided for under the HCP. Incidental take coverage for Covered Activities involving a Federal action will be granted to the Federal action agency through an incidental take statement issued with the Service's biological opinion.

## TERM OF THE PERMIT

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The proposed Permit would be in effect for a period of 25 years. Section 14 of the IA describes the provisions for termination of the Permit. Under these provisions, should the OPRD request early termination of the Permit, the OPRD would be required to execute a termination agreement

to ensure that mitigation obligations defined under the HCP are fulfilled for all authorized management activities approved, authorized, or carried out by the OPRD prior to termination. Mitigation obligations will be implemented by the OPRD in accordance with the provisions of the HCP and the IA for all Covered Activities approved, authorized, or carried out by the OPRD. The Service may suspend or revoke the Permit if the OPRD violates the terms and conditions of the Permit and/or violates any applicable Federal laws or regulations. If the Permit is revoked or suspended, the OPRD remains obligated to fulfill all of its responsibilities under the Permit for any covered activity it approved, authorized, or carried out between the effective date of the Permit and the date of the Permit suspension or revocation.

## BACKGROUND

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### CONSERVATION PLAN

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The HCP includes conservations measures, related goals and actions, and adaptive management measures described below.

### CONSERVATION MEASURES

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The conservation measures to be implemented on the Covered Lands will be focused on 16 management areas that were identified to have the greatest potential to provide plover habitat when considered in the context of recreational use of the Ocean Shore.

The OPRD either owns or leases five of these management areas, which are identified as plover management areas (SPMAs): (1) Columbia River South Jetty; (2) Necanicum Spit; (3) Nehalem Spit; (4) Bandon; and (5) Netarts Spit. The remaining 11 potential management areas are identified as Recreation Management Areas (RMAs) and are adjacent to upland areas owned by other landowners but are located within the area defined as Ocean Shore. The RMAs are described in detail in Appendix F of the HCP. Together, the 16 management areas span approximately 48 miles of the 230 miles of sandy Ocean Shore in Oregon.

The conservation measures include: (1) implementation of plover management activities on OPRD owned or leased SPMAs; (2) implementation of recreational use restrictions at SPMAs and RMAs owned by other landowners; and (3) implementation of beach management activities on the Ocean Shore. The conservation commitments described in the HCP are summarized below and in Table 1 for SPMAs and Table 2 for RMAs.

### PLOVER MANAGEMENT

Under the HCP, the Bandon State Natural Area (SNA), including a habitat restoration area and the area extending north to the south end of the China Creek access point parking lot, will be identified and managed as the Bandon SPMA. Within one year of issuance of the proposed Permit, OPRD will complete a draft site management plan, which would be submitted to the Service for approval within six months of OPRD's completion of the draft plan. Active management of the Bandon SPMA will begin the season following the completion and approval of the site management plan.

In addition, as many as four areas currently unoccupied by the plover will be identified as SPMA's and targeted for management of potential nesting populations of the plover over the term of the 25-year Permit. Three SPMA's will initially be managed by OPRD for nesting populations of plover: (1) Columbia River South Jetty; (2) Necanicum Spit; and (3) Nehalem Spit.

Within two years of obtaining a Permit, OPRD will prepare draft site management plans for these three SPMA's as described below. Active management will begin the nesting season after site plans have been approved by the Service. A decision by the Service will occur within six months of OPRD's completion of the draft plan.

One additional SPMA, Netarts Spit, could also be managed if (1) the Columbia River South Jetty, Necanicum Spit, or the Nehalem Spit SPMA becomes occupied, and (2) one of the RMA's is not already under active, Service-approved management for the plover. Under these circumstances, OPRD will commit to managing Netarts Spit for nesting populations of the plover to ensure that a minimum of three unoccupied SPMA's are being actively managed at any given time over the term of the 25-year Permit.

#### Plover Conservation Measures at SPMA's

Site management plans will include management prescriptions specific to an individual SPMA, and could include commitments for habitat restoration, predator management, monitoring, enforcement, and public outreach and education, as necessary, as described below. Site management plans will also outline the extent of seasonal recreational use restrictions for each SPMA and will not be implemented until approved by the Service. Site management plan approval requests will be responded to by the Service within 6 months of OPRD's completion of the draft plan.

Implementation of the plan will occur in the following plover nesting season after Service approval. A sample outline of the contents of a site management plan is presented in Appendix A of the HCP.

TABLE 1. SUMMARY OF PROPOSED HCP MANAGEMENT ACTIONS ON OPRD OWNED/LEASED SNOWY PLOVER MANAGEMENT AREAS (OPRD 2008).

**SPMAS CURRENTLY OCCUPIED  
BY THE PLOVER**

Bandon SNA

**PROPOSED OPRD MANAGEMENT ACTIONS**

The site management plan will define the area of restricted recreation within the SPMA. Following Service approval of an OPRD site management plan:

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

- Vehicles (motorized and non-motorized) prohibited on beach or as otherwise restricted by existing Oregon Administrative Rule [OAR].
- Dogs and kite-flying are prohibited.
- All other recreational activities directed to the wet sand (fences, ropes, and signs will define the dry sand breeding areas to be avoided).
- Restrictions may be lifted early if no nesting by July 15.

**Other Site Management Plan Commitments**

- Habitat restoration and maintenance, per the site management plan.
- Predator management.
- Public interpretation and education.
- Conduct detect/non-detect, breeding population monitoring, and wintering and breeding window surveys during the nesting season. Report findings to the Service annually and work with plover management partners to evaluate the effectiveness of the HCP.
- Review the program every five years.
- Continue to provide three full-time beach rangers, State Park staff, local law enforcement, and additional senior State troopers, as needed, to facilitate enforcement activities.
- Prepare site management plan within 1 year of Permit issuance.

**SPMAS NOT CURRENTLY  
OCCUPIED BY THE PLOVER**

Columbia River South Jetty (U.S.  
Army Corps of Engineers  
[Corps]/OPRD)  
Necanicum Spit  
Nehalem Spit  
Netarts Spit

**PROPOSED OPRD MANAGEMENT ACTIONS**

The site management plan will define the area of restricted recreation within the SPMA. Following Service approval of an OPRD site management plan:

- Seasonal Recreation Restrictions (March 15 – September 15)
- Dogs required to be leashed.
- Vehicles (motorized and non-motorized) prohibited or as otherwise directed by existing OAR.
- Restrictions may be lifted early if no plover nesting by July 15.
- Habitat restoration, per site management plan.

**Other Site Management Plan Commitments**

- Non-lethal predator management.
- Public outreach and education.
- Detect/no detect monitoring for plover presence and nesting activity conducted twice monthly.
- Prepare site management plans for the following OPRD sites within 2 years of obtaining a Permit: Columbia River South Jetty, Necanicum Spit, and Nehalem Spit.
- When one of these sites becomes occupied, a new site will be managed for plover occupancy. A minimum of three unoccupied areas will always be managed for plover occupancy until all OPRD sites are occupied.
- As other land managers implement site management plans for non-OPRD unoccupied sites, those sites will be considered part of the minimum of three managed unoccupied areas. The Netarts Spit SPMA will be added if and when there are fewer than three unoccupied areas being managed collectively between OPRD and other landowners for plover occupancy.

TABLE 2. SUMMARY OF PROPOSED HCP RECREATION RESTRICTIONS AND ENFORCEMENT ACTIVITIES ON RECREATION MANAGEMENT AREAS NOT OWNED BY OPRD (OPRD 2008).

<b>RMAS CURRENTLY OCCUPIED BY THE PLOVER</b>	<b>PROPOSED HCP ACTIONS</b>
<p>Sutton/Baker Beach (U. S. Forest Service [USFS])  Siltcoos Estuary/Dunes  Overlook/Tahkenitch Estuary (USFS)  Tenmile Estuary (USFS)  Coos Bay North Spit (U.S. Bureau of Land Management [BLM], Corps)  New River (BLM, Coos and Curry Counties, Private)</p>	<p>The site management plan will define the area of restricted recreation within the RMA unless otherwise specified in the IA presented in Appendix H. In the event that a site management plan does not exist, the OPRD would automatically issue restrictions on lands within its jurisdiction. <b>Seasonal Recreational Use Restrictions (March 15 – September 15) will be required by the OPRD once a RMA site becomes occupied by the plover, including the following:</b></p> <ul style="list-style-type: none"> <li>• Vehicles (motorized and non-motorized), kite-flying, and dogs prohibited.</li> <li>• Other public recreational use directed to the wet sand outside of roped and signed breeding areas.</li> <li>• Restrictions may be lifted early if no plover nesting by July 15.</li> </ul> <p><b>Other OPRD RMA Commitments</b></p> <ul style="list-style-type: none"> <li>• Erect fences, ropes, and signs to define breeding areas (dry sand only) on non-Federal lands.</li> <li>• Conduct enforcement actions on managed RMA sites with support from Federal agencies on their lands. The OPRD and Federal agencies will share restriction enforcement responsibility on parallel jurisdictions.</li> </ul>
<b>RMAS CURRENTLY UNOCCUPIED BY THE PLOVER</b>	<b>PROPOSED HCP ACTIONS</b>
<p>Bayocean Spit (Corps)  South Sand Lake Spit (Private)  Tahkenitch South (USFS)  Umpqua River North Jetty (USFS, Dept. of State Lands [DSL])  Elk River Spit (Private)  Euchre Creek (Private, Oregon Department of Transportation)</p>	<p>The OPRD will implement the following restrictions at the request of the landowner as indicated in a Service-approved site management plan for that RMA. <b>Seasonal Recreational Use Restrictions (March 15 – September 15) will be authorized for voluntary management of RMAs after coordination with the Service, to include the following:</b></p> <ul style="list-style-type: none"> <li>• Vehicles (motorized and non-motorized) prohibited or as otherwise directed by the OAR.</li> <li>• Dogs required to be leashed.</li> <li>• Restrictions may be lifted if no plover nesting by July 15.</li> </ul> <p><b>Other OPRD RMA Commitments</b></p> <ul style="list-style-type: none"> <li>• Conduct enforcement actions on managed RMA sites with support from Federal landowning agencies. The OPRD and Federal agencies will share restriction enforcement responsibility on parallel jurisdictions.</li> </ul>

## Habitat Restoration

This management action could involve restoring coastal dune habitat through the removal of invasive species, e.g., European beachgrass and gorse, and potentially grading the upper beach to allow storm wave overwash to occur. This work will be done in areas that will not affect existing structures or cultural resources. Habitat restoration activities would be conducted within portions of a SPMA consistent with applicable local comprehensive plans and zoning ordinances as specified in each site's management plan.

Future restoration of as much as 40 acres will be conducted by the OPRD at the Columbia River South Jetty SPMA and the Nehalem Spit SPMA, and, if needed, at the Necanicum Spit SPMA. The restoration efforts at the Nehalem Spit SPMA, and potentially the Necanicum Spit SPMA, will be conducted within two years of completing and Service approval of site management plans for these areas, if called for in the respective site management plans. Habitat restoration will be conducted within five years of completing and Service approval of the site management plan for the Columbia River South Jetty SPMA to accommodate the schedule of ongoing restoration efforts being conducted by the U.S. Army Corps of Engineers (Corps) (the lessor), in coordination with OPRD. At the Bandon SPMA, where habitat restoration activities have already been implemented, OPRD will continue to maintain as much as 50 acres of optimal habitat for nesting plovers.

## Predator Management

The OPRD will provide funding to manage plover predators along the Oregon Shore. The level of funding for this effort will increase as additional SPMA's are targeted for management over the term of the 25-year Permit. Predator management funded by the OPRD will be implemented by the U.S. Department of Agriculture (USDA) between February and August and will include both lethal (at nesting sites) and non-lethal methods (at unoccupied actively managed sites). If for some reason, the USDA discontinued predator management activities over the term of the Permit, the OPRD will assume responsibility for implementing these activities at all actively managed SPMA's. For more detailed information about predator management, see Section 5, "Conservation Plan," of the HCP. Detailed information about the funding of the HCP is presented in Section 7 (Implementation, Organization, and Structure) of the HCP.

## Plover Monitoring, Reporting, and Enforcement

### Plover Monitoring Surveys

OPRD staff will continue to participate in plover monitoring activities along the Ocean Shore to determine whether nesting populations of plovers are present. Plover monitoring will occur at the beginning of the nesting season (March) and will continue until July 15 as described in the monitoring protocol. Plover monitoring will be conducted at least twice monthly. The results of the plover monitoring surveys will be summarized in the annual compliance report submitted to the Service, as described below.

## Breeding Plover Population Monitoring

The OPRD will continue to provide funding to the Oregon National Heritage Council (ORNHIC) to monitor breeding populations at occupied sites. The level of funding will increase as additional SPMAs are targeted for management over the term of the 25-year Permit. The results of breeding population monitoring will be communicated (e.g., via email) to the Service once a month. Monthly reports will focus on ongoing concerns, such as recreational use violations or predation at a particular SPMA. This information will also be documented in an annual report provided to the Service for review and will be used to determine the effectiveness of plover conservation management activities and to make adaptive management decisions.

## Wintering and Breeding Window Surveys for Plovers

The OPRD will continue to provide staff to assist with conducting wintering and breeding window surveys at sites currently occupied by the plover and will provide staff to conduct such surveys at new SPMAs as they become occupied by the plover. These surveys will be conducted as indicated in the *Monitoring Guidelines for the Western Snowy Plover, Pacific Coast Populations* (Appendix J in the Final Recovery Plan [Service 2007]) and the results will be compiled annually and submitted to the Service.

## Annual Compliance Reporting and Evaluation of the HCP

The OPRD will compile and provide an annual report to the Service documenting its management actions to date; plover population data, including take occurrences; recreational use enforcement issues; and anticipated management efforts for the following year. The OPRD will work with the Service to develop and implement protocols for assessing the effectiveness of the HCP conservation strategies based, in part, on the information provided in the annual report. These protocols will be developed in collaboration with other plover management partners (Federal, State, and local agencies and private landowners) and will provide a mechanism for the Service to evaluate the effectiveness of the HCP on an annual basis. Based on the results of this assessment, the OPRD will work with other managers, the Service, and the ODFW to implement appropriate adaptive management measures, if necessary, to address documented declines in plover populations or significant degradation of habitat within SPMAs; for more information about the adaptive management measures, see Section 5.3.3 of the HCP.

In addition to developing and submitting the annual report, the OPRD, the Service, and the ODFW will meet every five years following issuance of the Permit to evaluate the performance and effectiveness of the conservation measures to minimize and mitigate the adverse effects of Covered Activities on the plover. This effort will be used to inform the development of reasonable and appropriate adaptive management measures, should it be determined that the Covered Activities are causing a decline in plover populations or degradation of habitat within HCP covered areas.

## Enforcement

The OPRD will continue to fund three, full-time beach ranger positions to encourage compliance with beach restrictions. The OPRD will also work with the Oregon State Police and/or local law enforcement offices to provide additional enforcement support, where necessary and possible. Other OPRD staff will be available for OPRD-owned site enforcement and to assist with monitoring, as needed.

For more detailed information about plover monitoring, reporting, and enforcement, see Section 5, “Conservation Plan,” of the HCP. Detailed information about funding of the HCP is presented in Section 7 (Implementation, Organization, and Structure) of the HCP.

## Public Outreach and Education

The OPRD will 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 are actively managed, the OPRD will recruit and train volunteers to serve as docents for public outreach and education as specified in that site’s management plan. The OPRD will also provide signage at access points to inform the public of the presence of nesting plovers and the importance of plover protection measures. Signage indicating the presence of nesting plovers and the boundaries of dry sand restrictions will also be installed at the boundaries of restricted areas within SPMAs. More detailed information about public outreach and education is discussed in Section 5, “Conservation Plan,” of the HCP. Detailed information about funding of the HCP is presented in Section 7 (Implementation, Organization, and Structure) of the HCP and discussed further below under Issuance Criterion 3.

## Plover Management Measures at RMAs

In addition to the commitments described above at OPRD-owned or leased SPMAs, the OPRD will also provide input into the development of site management plans in plover habitat areas adjacent to RMAs. In the event that land adjacent to an RMA becomes owned by OPRD and is actively managed for nesting populations of the plover, the plover management measures described above will be implemented at that site.

## PUBLIC USE/RECREATION MANAGEMENT

The OPRD will also manage the public’s use of the Covered Lands to minimize potential adverse effects on the plover. In addition to its management responsibilities on the Ocean Shore, the OPRD will enforce recreational use restrictions at up to five SPMAs and potentially up to 11 RMAs. Implementation of recreational use restrictions depends on whether a site is occupied by nesting plovers or is being actively managed to attract nesting plovers. At occupied sites, these restrictions include prohibition of the following recreational activities, which were determined to have the greatest potential to result in take of the plover:

- Dog exercising,
- Driving,
- Non-motorized vehicle use,
- Kite-flying, and
- All other recreational activities within the dry sand zone. Public use of the dry sand area will be prohibited, key areas of the beach around plover nesting sites will be roped off, signs to indicate the presence of nesting plovers will be installed, and the importance of complying with the recreational use restrictions will be posted.

Unless otherwise prohibited above, recreational use will be directed to the wet sand zone. At plover- unoccupied, actively managed sites, the recreational use restrictions would include prohibitions on driving and non-motorized vehicle use, and a requirement that dogs be leashed during the plover nesting season. If the site is not occupied by plovers by July 15, the restrictions will be lifted. These restrictions are summarized in Table 1 above. The extent of the area within an SPMA that is subject to restrictions will be determined during development of site management plans for each area. Special considerations specific to implementation of these restrictions at RMAs are discussed in greater detail below and summarized in Table 2 above.

#### Special Considerations for Recreational Use Restrictions at RMAs

As discussed above and in Section 2 of the HCP, RMAs extend from the mean low tide line to the mean high tide line on Federal lands and from the mean low tide line to the statutory or actual vegetation line, whichever is most landward, on all other lands. Under the HCP, the OPRD will implement recreational use restrictions potentially at up to 11 RMAs, which include:

- Bayocean Spit (adjacent to Corps lands);
- South Sand Lake Spit (adjacent to USFS lands);
- Sutton/Baker Beach (occupied area adjacent to USFS lands)
- Siltcoos Estuary/Dunes Overlook/Tahkenitch Estuary (occupied area adjacent to USFS lands)
- Tahkenitch South (adjacent to USFS lands);
- Umpqua River North Jetty (adjacent to USFS lands);
- Tenmile Estuary (occupied area adjacent to USFS lands)
- Coos Bay North Spit (occupied area adjacent to Corps and BLM lands)
- New River (occupied area adjacent to Coos County, Curry County, BLM, and private lands)
- Elk River (adjacent to private lands); and
- Euchre Creek (adjacent to private lands).

If a RMA or the area immediately inland of a RMA becomes occupied by the plover, but a site management plan does not exist, the OPRD will implement the recreational use restrictions described above on lands within its jurisdiction. At RMAs adjacent to Federally-owned lands, the recreational use restrictions would be implemented up to the high tide line.

At RMAs that are not adjacent to Federally-owned lands, the OPRD will issue and continue to enforce recreational use restrictions within the entire area of the RMA until an agreement is reached between the Service and the landowner and/or a site management plan is developed and the OPRD is notified of any changes that may modify the application of recreational use restrictions to a more focused area.

In the event that a Service-approved site management plan has been developed, the OPRD will implement recreational use restrictions in cooperation with the landowner as directed by the site management plan. If an RMA and the areas immediately inland of the RMA are unoccupied by the plover, the OPRD will only implement recreational use restrictions at the request of the landowner and after consultation with the Service and collaboration with the ODFW.

The OPRD will also seek to modify the State Rule to provide a mechanism for Federal landowners, who are adjacent to RMAs and who meet the following terms and conditions, to implement and enforce seasonal recreational use restrictions. A petition to change the State Rule will occur after a Permit had been issued by the Service, and will require that eligible landowners provide the OPRD with the following documentation:

- A description of the management activities that will be implemented (e.g., installing fences and signs, enforcing access restrictions, and conducting public outreach and education);
- A description of locations where those activities will take place; and
- Documentation from the Service stating that the proposed management actions have been reviewed and approved (e.g., covered by an ESA Section 7 biological opinion or an approved ESA Section 10 Permit).

The OPRD will also work with County and private landowners adjacent to RMAs to provide supervision, enforcement, and signage on their lands because such restrictions (ropes, signs, enforcement) cannot be implemented by a private landowner on the Ocean Shore without OPRD approval.

#### Protection for Plover Nests outside of Targeted Areas

If a plover should nest on the Covered Lands but outside an occupied or unoccupied SPMA or RMA, the OPRD will install fencing around the individual nest in coordination with the landowner, and will consider installing a nest enclosure after consultation with the service. Specifically, the OPRD will install a 50-meter-radius (164-foot) roped buffer around the nest that allows access along the wet sand, and will determine if use of an enclosure to protect the nest from predation is appropriate. The OPRD will also work with the Service and the landowner to install signage, as appropriate, to indicate the presence of nesting plovers.

#### BEACH MANAGEMENT

All beach management activities, including marine mammal stranding and removal, public safety, external and internal law enforcement, and responses to boat strandings, will continue

to be conducted in a manner that attempts to avoid take of the plover. The OPRD will consult with the Service regarding any of these activities that will occur in an occupied or unoccupied SPMA or RMA prior to conducting the activity, unless there is an emergency situation. Emergency situations are considered to be an unforeseen circumstance, which are addressed in Section 7(Implementation, Organization, and Structure) of the HCP.

## GOALS AND ACTIONS FOR IMPLEMENTING THE CONSERVATION MEASURES

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The HCP also includes goals and actions that describe more specifically what the purpose of specific conservation measures (goals) are and how they will be implemented (actions) over the term of the Permit. The goals and actions are described in greater detail in Section 5.3.2 (Goals and Actions for Implementing the Conservation Measures) of the HCP.

## ADAPTIVE MANAGEMENT

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Adaptive management is a process that allows resource managers to adjust their actions to reflect new information or changing conditions in order to reach a goal, in this case, minimization of take and conservation of the plover, while limiting impacts on recreational use along the Ocean Shore. The OPRD will use the adaptive management process as part of the conservation measures to minimize take of the plover caused by management of Oregon's beaches and to ensure the long-term survival of the plover along the Oregon coast. Specific circumstances where adaptive management will be implemented include situations where:

- Biological monitoring reports indicate a decline in the plover population along the Oregon coast;
- A plover nest is found outside of an identified SPMA 3 years in a row;
- Nest exclosures have been determined to be ineffective through monitoring efforts;
- Nesting at currently unoccupied, actively managed SPMAs is unsuccessful;
- The OPRD purchases a RMA that provides better habitat potential than the proposed SPMAs; and
- The effects of the Covered Activities on wintering populations of the plover are determined to cause take.

The specific measures that would be implemented in response to these conditions are discussed in Section 5.3.3 (Adaptive Management) of the HCP. Any adjustments in management practices will occur only with OPRD and Service consensus unless otherwise noted under the adaptive management measures or changed circumstances discussed in Sections 5 and 7 of the HCP, respectively.

## CHANGED AND UNFORESEEN CIRCUMSTANCES

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Changed and unforeseen circumstances are described in Section 7.6 of the HCP and Sections 9.0 and 10.0 of the IA. The OPRD is required to provide planned responses to the changed circumstances identified in the HCP in accordance with the Service's "No Surprises" rule at 50 C.F.R. 17.22(b)(5) and 17.32(b)(5).

Pursuant to the “No Surprises” rule, the Service will not require any additional land, water, or other natural resources without the consent of the OPRD in the event an unforeseen circumstance occurs. If the Service determines that an unforeseen circumstance has occurred and that additional land, land restrictions, or financial compensation beyond that required under the HCP are needed to conserve the Covered Species, the OPRD will not be obligated to provide the additional measures without their consent. Pursuant to 50 C.F.R. 17.22(b)(8) and 17.32(b)(8), the Service retains the authority to revoke the Permit, in response to an unforeseen circumstance or otherwise, if we find that continuation of the take Permitted under the Permit would appreciably reduce the likelihood of the survival and recovery of a listed species.

#### CHANGES MADE BETWEEN DRAFT AND FINAL HCP

The Notice of Availability for the draft HCP was published in the Federal Register on November 5, 2007 (72 FR 62485). Public comment was solicited and the comment period ended on February 4, 2008, including one extension to the public comment period. The public comment period on the draft HCP (OPRD 2004) and its associated environmental documents enabled the Service to gather comments from interested parties. The process of reviewing and considering these comments led to the development of changes by the OPRD to the original proposed HCP. These changes were clarifications, updates, and additional minimization, mitigation, and monitoring measures. The final HCP was modified accordingly and is incorporated herein by reference (OPRD 2008). The final EIS and final HCP were made available to the public for review on September 24, 2010 (75 FR 57058, EIS No. 20100375). The substantive changes from the draft to the final HCP are summarized as follows:

- Section 1, “Executive Summary” – The Executive Summary has been updated to include a more substantive summary of the HCP proposal.
- Section 2, “Introduction/Overview”
  - Section 2.5, “Covered Lands” – This section has been updated to indicate the following changes:
    - Management of the Pistol River SPMA is no longer part of the HCP proposal. Other references in the document to this SPMA as part of the HCP proposal, including all figures, have been deleted.
    - The northern boundary of the Bandon SPMA has been extended to the south end of the China Creek access parking lot. Trail access to the beach will be rerouted to the new north access. Figure 2-7 has been updated to depict the new boundary.
    - The discussion of covered lands has been updated to acknowledge the presence of Federal lands within the Ocean Shore. These lands have been removed as part of the covered lands because Federal landowners need to address actions on their lands. Therefore, any actions, regardless of who conducts them, on these lands would be the responsibility of the Federal landowner and would require separate consultation under section 7 of the ESA with the Service, as appropriate.

- Section 4, “Natural History of and Factors Affecting the Snowy Plover” – The population data have been corrected based on public comments and updated to include the data through the 2007 breeding season.
- Section 5, “Conservation Plan” - This section has been updated to clarify that the conservation plan includes 1) the conservation measures: plover management activities at SPMAs, recreational use restrictions at SPMAs and RMAs, and beach management activities on the Ocean Shore; 2) goals and actions to implement those measures; and 3) adaptive management measures related to these activities. In addition, the following specific issues have been addressed.
  - The HCP has been updated to clarify that habitat restoration activities proposed at SPMAs would be designed to be consistent with county comprehensive plans and zoning ordinances as indicated in the site management plan. For example, vegetation removal and grading would be limited to those areas set aside for natural resource management as indicated by applicable comprehensive plans and zoning.
  - The HCP has been updated to clarify the commitments with respect to monitoring and reporting. The OPRD will continue to participate in and fund detect/non-detect monitoring, breeding season monitoring, and wintering and breeding window surveys. In addition, the OPRD will complete an annual report to be used to evaluate the effectiveness of the HCP conservation measures. The OPRD will review the HCP in coordination with the Service and the ODFW every five years after issuance of the Permit.
  - The HCP has been updated to clarify how the recreational use restrictions would be implemented at RMAs. The extent of the restrictions will be developed in coordination with the Service through the completion and approval of site management plans for SPMAs or coordination with the Service for RMAs, and will likely be focused around nesting sites. In the event that an RMA becomes occupied by the plover, but no site management plan is in place, the OPRD will implement the restrictions. The OPRD will continue to enforce recreational use restrictions within an entire RMA until an agreement is reached between the Service 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.
  - The description of the recreational use restrictions has been streamlined to clarify that all activities, including those that were previously individually listed (e.g., camping, picnicking, pedestrian traffic, horseback-riding, beach fires, etc.), will be restricted from the dry sand area at plover-occupied sites. In addition to these dry sand restrictions, key areas of the dry sand will be roped off and signs will be provided to indicate the presence of nesting plovers and to explain the applicable recreational use restrictions. Certain activities that are unlikely to occur on the wet sand (e.g., camping, beach fires, and picnicking) would effectively be prohibited from occurring in plover-occupied SPMAs/RMAs during the nesting season. This conservation measure is identified as a restriction on dry sand area activities and may be applied to

areas focused around plover nesting sites as refined in an approved site management plan.

- The conservation measure related to treatment of nesting sites outside of SPMAs/RMAs has been updated to indicate that nest exclosures may not always be used at an individual nest site. Rather, the OPRD will work with the Service to determine if installation of nest exclosures is appropriate.
- Commitments to law enforcement have been clarified to note that the three existing full-time beach ranger positions will continue to be funded under the HCP, and that their responsibilities will be to enforce compliance with all Ocean Shore and State Park rules, including beach use restrictions designed to protect the plover. Other State Park staff and contracted enforcement personnel will be used, as needed.
- The HCP conservation measures have been updated to clarify OPRD's commitment to providing signage at beach access points, at the boundaries of restricted areas within SPMAs and RMAs, and at nesting locations outside of SPMAs/RMAs, to alert the public to the presence of plovers and the measures that have been put in place to protect them.
- In Section 5.2.3, "Management Approach," the definition of an occupied site has been updated to clarify that 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.
- Section 6, "Direct, Indirect, and Cumulative Effects on Snowy Plovers and Snowy Plover Habitat" – This section has been updated to clarify that the potential effects of Covered Activities on wintering plovers are within a normal range of disturbance and are not anticipated to rise to the level of take.
- Section 7, "Implementation, Organization, and Structure"
  - Section 7.5, "Funding" – The funding commitments in the HCP have been revised and clarified.
  - Section 7.6.3, "Changed Circumstances"
    - The discussion of changed circumstances has been updated to include circumstances associated with global climate change and rising sea levels. Specifically, in the event that global climate change adversely affects OPRD's ability to implement the HCP, OPRD will work with the Service to determine and implement appropriate measures with special allowances for emergency situations.
    - The discussion of changed circumstances has also been updated to include circumstances related to Covered Activities causing adverse effects on wintering populations of the plover that conform to take. The potential effects on wintering plovers caused by Covered Activities are not anticipated to cause take. However,

due to the possibility that the effects of Covered Activities on wintering populations of the plover could change over the life of the Permit and result in adverse impacts to the plover, including take, these circumstances were added to Section 7.6.3 of the HCP.

- Changed circumstances related to the invasion of exotic plant species, increases in predator populations, emergency Permit issuance, and emergency events were removed because these circumstances are either covered by other provisions of the HCP or are more appropriately addressed in unforeseen circumstances.
- Section 8, “Alternative Actions Considered but Rejected” – This section has been updated to include a discussion of why certain beach areas owned by OPRD (including Nestucca Spit, Bullards Beach, Pistol River, and Sixes River) were not included in the sites to be managed as SPMA as part of the HCP proposal.
- Appendix G, “Technical Memorandum: Take Estimate of the Western Snowy Plover.” The Take Assessment Memorandum presented in Appendix G of the HCP has been updated to include two tables, one with the actual plover population monitoring data (Table 4a, which includes data through the 2007 breeding season) and one with the modified data used in the take assessment analysis (Table 4b). Table 4a has been corrected to show the actual population monitoring data, which includes Necanicum Spit and Floras Lake. Table 4b presents the modified data used in the model, which excludes Necanicum Spit and Floras Lake and includes the proxy data for Sutton Beach. This information does not change the results of the model, but has been presented for clarification. For more information regarding the rationale behind modifying the population data for use in the take assessment model, see Appendix G of the HCP.

## ANALYSIS OF EFFECTS

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As set forth in more detail below under the Findings section, the Service has determined that the impacts likely to result to the plover that may occur as a result of issuance of the proposed Permit and approval of the HCP would be minimized and mitigated to the maximum extent practicable by measures described in the HCP and the Permit. The HCP is designed to provide a regional conservation strategy for the protection and conservation of the plover and its habitat on the Oregon Coast. The HCP emphasizes conservation of plover adults, chicks, and eggs and restoring and maintaining a network of well-distributed nesting habitat in Oregon, based on the principles of the Western Snowy Plover Recovery Plan (Service 2007).

Based on our files and a model developed and provided by ICF International (2010a) regarding the anticipated take of plovers as a result of the proposed project and draft HCP (ICF International 2010b), we estimate that management activities will result in the net annual gain of 138 eggs and three adults, but the net annual loss of 30 hatchlings and two fledglings at all sites combined (ICF International 2010a, p. 5-2), or a total loss of 800 chicks and eggs and a net gain of 3,450 chicks and eggs and 75 adults over the proposed 25-year term of the Permit. Due to the net annual gain of eggs and adults, despite the loss of chicks, the affected plover population is predicted to increase in the future and contribute to the recovery of the species.

In determining whether to issue the proposed Permit, we considered the direct and indirect effects of the Covered Activities, and the effects of any interrelated and interdependent activities on the plover. The effects of these actions are related primarily to the presence of humans and the variety of associated human activities on SPMAs and RMAs. Human activity near plover areas may disturb plovers depending upon their proximity to nesting and resting areas, frequency of occurrence, and type of use. Recreation can potentially cause both direct mortality and harassment of plovers by crushing eggs or chicks, flushing adults from nests (leaving eggs exposed to predators or extreme temperatures), or by disturbing feeding or resting plovers. Effects of such disturbance to both adults and young include less time spent feeding and increased energy expenditures that may result in reduced fitness and delayed ability to fledge. Overall effects of such disturbance may result in greater predation risk, nest abandonment, and separation of broods from adults.

The OPRD does not anticipate that the effects of Covered Activities on wintering populations of the plover are likely to cause take. Therefore, OPRD is not seeking take coverage of wintering plovers. The OPRD reached this conclusion because it is anticipated that Covered Activities would occur at very low levels during the winter and would likely occur in areas that would not be as attractive to plover populations. In addition, the normal behavior of wintering plovers is to flock and avoid disturbance. If adverse effects on wintering plovers are determined to be occurring as a result of Covered Activities in the future, the OPRD will either avoid such take of plovers or will amend its Permit (ICF International 2010b, p. 7-12).

The proposed Service action of issuing the Permit is intended to provide protection of the physical and biological features and primary constituent elements (PCEs) of plover critical habitat in the affected area. The PCEs of critical habitat for the plover are those habitat components essential for the primary biological needs of foraging, nesting, rearing of young, resting and dispersal, or the capacity to develop those habitat components. The suitability of areas containing critical habitat is contingent upon isolation from human disturbance and predation. The effects of the proposed action on plover critical habitat are similar to the effects to the species and are described below.

The effectiveness of plover management is dependent on the level of visitor compliance with the recreational restrictions in areas adjacent to plover nesting. Even with beach restrictions in place, disturbance to nesting and brooding plovers by compliant beach-goers may affect fledgling success (Persons 1998, p. 6). The types and effects of human use expected to occur on SPMAs and RMAs are described in detail below.

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## PUBLIC USE/RECREATION MANAGEMENT

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### CAMPING & BEACH FIRES

The effects of camping on the beach on the plover are similar to those described below for pedestrian traffic and picnicking; however, these effects may be increased if people remain in or near breeding areas for extended periods. Beach fires and camping may disrupt plover incubation and brooding for long periods, potentially causing temporary nest abandonment and increasing the exposure of nearby chicks and eggs to hypothermia (ICF International 2010b, p. 6-2).

Nighttime collection of wood or other human movement increases the risk of direct mortality or injury from stepping on nests, eggs, and chicks, which are difficult to see even during daylight hours. Beach fires and camping may be harmful to nesting plovers when driftwood, which is an important component of their nesting habitat, is removed or burned. Occasionally fires escape into nearby driftwood, and the resulting fire suppression activities may disturb and threaten plover nests and chicks.

Garbage left behind by campers and abandoned beach fires may attract scavengers, such as gulls, and predators, such as coyotes, American crows, and common ravens. Also, human presence near nests may increase predator detection of nests or chicks.

Prolonged camping and beach fire activities near these areas can potentially impact nests, especially those nests that are close to the edge of protected areas (compared to those further from camping and beach fire activities). Since plover broods rarely stay in their nesting area until fledging and may travel along the beach as far as 6.4 km (4 miles) from their natal area (Casler et al. 1993, p. 12), camping and beach fires could also cause the harassment of feeding or resting plovers, or potentially crush adults and/or their broods if they have moved outside of protected RMAs and SPMA's. However, since camping is prohibited in the dry sand portion of occupied RMAs (and highly improbable in the wet sand) and is prohibited in both wet and dry sand areas of occupied SPMA's during the breeding season, the potential impacts to plovers in breeding areas from these activities have been greatly reduced.

### DOG EXERCISING

Dogs are a significant threat to both breeding and wintering plovers (Fahy and Woodhouse 1995, pp. 1 and 33; Lafferty 2001a, pp. 315-325, Lafferty 2001b; pp. 1949-1962). Unleashed dogs may traverse a much larger area and thus disrupt a greater percentage of plover nesting or foraging habitats than restrained dogs. Unleashed dogs can trample nests, chase adult plovers and chicks, and can cause chicks to become separated from adults. Repeated disturbances by leashed and unleashed dogs can interrupt brooding, incubating, and foraging behavior of plovers.

Page et al. (1977, p. I-7) found that plovers flushed more frequently and remained off their nests longer when a person was accompanied by a dog than when alone. Based on observational data collected at 15 nests over 156 hours at Point Reyes, California, people

walking dogs within 50 m (164 feet) of nests caused flushing 100 percent of the time. People walking dogs at distances over 100 m (328 feet) only caused flushing 52 percent of the time (Page et al. 1977, p. I-7). Fahy and Woodhouse (1995, p. 33) found that joggers or walkers with unleashed dogs caused a significantly greater number of avoidance responses from plovers than other types of disturbances at Ocean Beach, Vandenberg Air Force Base, California. The flushing of adult plovers leaves the nest exposed for longer periods, making it vulnerable to predation, extreme temperatures, and risk of being buried by sand that is blown by wind. Brooding and incubating plovers respond to dog presence with avoidance or active distraction displays, thus exposing chicks or eggs to inadvertent trampling or predation; these disturbances may lead to the eventual separation of chicks from adults. Lafferty's (2001a, pp. 321-322) management model predicted that intense disturbances could be dramatically reduced by removing dogs.

Dogs are not likely to affect wintering plovers directly, but repeated disturbance may indirectly harm plover populations by reducing time spent feeding and roosting and increasing time spent in predator avoidance behaviors. By decreasing the time plovers can spend feeding and roosting, dogs may negatively alter the birds' ability to successfully survive the winter and breed the following summer, although this level of disturbance on wintering populations by the Covered Activities is not anticipated to rise to the level of take for the reasons discussed below.

Dogs are required to be leashed within State parks, including the beaches that front them. Pet owners frequently allow their dogs to run off-leash even on beaches where it is clearly signed that dogs are not Permitted or are only Permitted if on a leash. Enforcement of pet regulations on beaches by the managing agencies has often been lax or nonexistent. Although this is difficult to enforce and poorly understood by the public, the provisions of the HCP focusing on increased enforcement and outreach efforts will help to address this concern. Also, because dogs must be leashed at managed, plover-unoccupied SPMAs and RMAs and are prohibited from the wet and dry sand portions of plover-occupied SPMAs and RMAs, potential impacts to plovers in breeding areas are likely to be greatly reduced.

#### PEDESTRIAN TRAFFIC

Pedestrians can cause both direct and indirect mortality and harassment of plovers. People can disturb birds when they approach too closely or quickly (Lafferty 2001b, p. 1950), potentially chasing plovers from their nests or favored feeding areas. Page et al. (1977, p. I-7) found that adult plovers flushed off the nest 78 percent of the time when humans approached on foot within 1 to 50 m (3 to 164 feet). The response was only slightly lower, with a 65 percent flush rate, when people approached to within 50 to 100 m (164 to 328 feet). Pedestrians who passed within 100 to 250 m (328 to 820 feet) flushed adult birds off the nest 34 percent of the time. Lafferty (2001a, p. 318) found that plovers are most frequently disturbed when approached closely (within 30 m (98 feet)) by people and animals. The most intense disturbance (causing the plover to fly away) was in response to crows, followed by horses, dogs, humans, and other birds.

Repeated flushing of the adults from their nests in turn can cause mortality through exposure of eggs or chicks to heat, cold, blowing sand, and/or predators. Nests that are not continuously incubated may fail or take longer to hatch, making the nest and incubating adults vulnerable to predation for a longer period. Suspended feeding and the expenditure of energy during a flushing event (i.e., disturbance) may affect both reproduction and survival (Brown et al. 2000, p. 30; Lafferty 2001b, p. 1949).

Prolonged pedestrian disturbances may also prevent chicks from resting and foraging. Chicks separated from adults are more vulnerable to predators and trampling and have little chance of survival. In a study of piping plovers in Nova Scotia, chicks foraged less and were brooded less often when humans were within 160 m (525 feet), and significantly fewer chicks survived in areas with heightened levels of disturbance (Flemming et al. 1988, pp. 326-329).

Plover responses to pedestrians may vary between nesting locations and individuals. Plovers nesting on beaches that experience low levels of pedestrian traffic may be highly sensitive to human intrusion. Plovers may also flush off nests and stay off nests for much longer periods than snowy plovers nesting on beaches with higher levels of pedestrian traffic. Predators of plovers may benefit from a decline in wariness in nesting populations that are subject to ongoing high levels of human disturbance (Persons and Applegate 1997, p. 14, Baudains and Lloyd 2007, p. 400).

Pedestrians also may inadvertently step on eggs and chicks because nest scrapes, eggs, and chicks are cryptic and nearly undetectable by most people. In one California study, three times as many chicks were lost on weekends and holidays as on weekdays, suggesting that increased recreational activity is linked to increased chick loss (Ruhlen et al. 2003, p. 303). At South Beach in Newport, the number of plovers declined from more than 25 in 1969 to 0 in 1981 (ODFW 1994, pp. 21 and 57). During this time, South Beach State Park was opened and that habitat became more accessible to people and vehicles (Hoffman 1972 in ODFW 1994, p. 21). No plovers have used the area since the early 1980s. Pedestrians have also been known to deliberately take eggs from nests and remove chicks from beaches, erroneously thinking they have been abandoned (Service 2007, p. 58). Trash left on the beach by pedestrians also attracts predators.

Moderate to high levels of pedestrian use or activities that are concentrated in one location (e.g., sunbathing, picnicking, sandcastle building, birding, and photography) can negatively affect incubating adult plovers if activities occur too close to their nests. Recreational activities that occur in the wet sand area (e.g., sand sailing) can adversely affect plovers when they disturb plover adults or broods, which feed at the edge of the surf along the wrack line. Currently, walking is restricted to the wet sand in occupied nesting areas, greatly reducing the likelihood of negative impacts to breeding plovers. Pedestrian traffic will be allowed on the dry sand in managed, plover-unoccupied SPMA and RMA but will be restricted from the dry sand when the site becomes occupied by plovers (both SPMA and RMA).

## DRIVING

Motorized and non-motorized vehicles (including all-terrain (ATV) and off-highway (OHV) vehicles) on beaches may adversely affect plovers and their habitat. Use of motor vehicles on coastal dunes may be destructive to dune vegetation, especially sensitive native dune plants. Vehicles may affect remote stretches of beach where human disturbance would otherwise be slight if access were limited to pedestrians. The magnitude of this threat varies, depending on level of use and type of terrain covered.

Vehicles can displace and sometimes kill foraging, roosting, brooding, or incubating adult plovers. Driving vehicles in breeding habitat may cause destruction of eggs, chicks, and adults, abandonment of nests, and considerable stress and harassment to plover family groups (Warriner et al. 1986, p. 25; Stern et al. 1990, p. 13; Service 2007, p. 65). Since plovers roost and spend time in sand depressions, including tire tracks (Service 2007, p. 66), chicks that are unable to climb out of them are more vulnerable to the repeated use of tracks by vehicles. Furthermore, extensive vehicle use may destroy or prevent plovers from using the wrack line, where they forage (ICF International 2010b, p. 6-5). At wintering sites, disturbance from motorized vehicles may harass plovers and disrupt their foraging and roosting activities, thereby decreasing energy reserves needed for migration and reproduction (Service 2007, p. 66).

Hoopes (1993, p. v) found off-road vehicles caused piping plovers to flush or move at an average distance of 40 m (131 feet). Off-road vehicles within 50 m (164 feet) of the birds caused piping plovers to stop feeding 77 percent of the time (Hoopes 1993, p. v). Piping plovers also respond to some disturbances either by freezing in place or moving very short distances and then freezing until the disturbance passes (p. 73). Because their behavior patterns and habitat use are similar, we anticipate that snowy plovers would exhibit similar responses to vehicles. Newly emerging, non-motorized recreation vehicles, such as kite buggies, land sailing, and others, are expected to have similar impacts on snowy plovers as motorized vehicles.

During the plover breeding season, Permits are required for public vehicle use at five of the 16 SPMA's and RMA's. Beaches at occupied nesting areas are seasonally closed to driving, unless otherwise already prohibited. All driving, except in cases of administrative or emergency uses, is prohibited during the breeding season in both wet and dry sand areas of occupied SPMA's and RMA's, and in the wet and dry sand areas of unoccupied SPMA's and RMA's that are being actively managed for plover occupancy, greatly reducing the likelihood that take will occur from vehicles. At some of areas where vehicle use is prohibited, illegal vehicle use occurs on a regular basis. However, the provisions of the HCP focusing on increased enforcement and outreach efforts will help to address this matter.

Vehicle use (either motorized or non-motorized) on beaches has the potential to adversely affect plover critical habitat by increasing the level of disturbance in sparsely vegetated areas above daily high tides (PCE 1). Unrestricted vehicle use can disturb large areas of both remote and readily accessible beach. However, with implementation of the proposed HCP the potential for disturbance from vehicles in critical habitat is likely to be greatly reduced

because vehicles (except for administrative use) are prohibited during the plover breeding season in plover-occupied and managed, and plover-unoccupied SPMA and RMA.

#### HORSEBACK RIDING

Most equestrian use on beaches is directed to wet sand areas. However, during high tide periods, horseback riders on the beach sometimes enter coastal dunes or upper beach areas where they may crush clutches or disturb plovers (Page 1988, p. 2; Craig et al. 1992, p. 9; Service 2007, p. 67). Horses can affect nesting and wintering plovers in ways similar to pedestrians, but winter horseback riding use is extremely low within the Covered Areas. For that reason, the effects of horses on the plover during the winter are anticipated to be insignificant and discountable, and disturbance to wintering plovers is not anticipated to cause take of plovers.

Additionally, horses may trample nests, generally laid in the dry sand. At New River on the Oregon Coast, horses have come close to crushing a plover nest before it was protected with an enclosure (Craig et al. 1992, p. 9). Monitors have documented at least four clutches on Morro Spit, California that were destroyed by horses trampling the nests, during the 2000 and 2001 breeding season (Persons and Ellison 2001 in ICF International 2010b, p. 6-5; Ellison 2001, pp. 9 and 17).

Lafferty (2001a) observed plovers' response to people, pet dogs, equestrians, crows and other birds. Observations were made at Devereux Slough in Santa Barbara County, Santa Rosa Island, San Nicolas Island, and Naval Base Ventura County (Point Mugu). This study found that plover are most frequently disturbed when approached closely (within 30 m (98 feet)) by people and animals. The most intense disturbance (causing the plover to fly away) was in response to crows, followed by horses, dogs, humans, and other birds.

Currently, horses are directed to the wet sand during the plover nesting season at beaches occupied by nesting plovers. Plover-unoccupied SPMA and RMA will have no restrictions on equestrian use. Once these sites become occupied by the plover, however, horses will only be allowed on the wet sand during the nesting season. These conservation measures greatly reduce the likelihood that horses will trample plover nests and cause the repeated flushing of birds.

#### BEACHCOMBING AND DRIFTWOOD COLLECTION/REMOVAL

Driftwood can be an important component of plover breeding and wintering habitat. Driftwood contributes to dune-building and adds organic matter to the sand as it decays (Washington Department of Fish and Wildlife 1995, Service 2007, p. 36). Additionally, driftwood provides plovers with year-round protection from wind and blowing sand. Often, plovers build nests beside driftwood, so its removal may reduce the number of suitable nesting sites. Driftwood is also used to escape detection by predators. However, too much driftwood can change the open nature of the habitat and large driftwood provides perches for avian predators.

Driftwood removed for firewood or decorative items can result in destruction of nests and newly-hatched chicks that frequently crouch by driftwood to hide from predators and people. Chainsaw noise may disrupt plover nesting, and vehicles used to haul wood may crush plover nests and chicks. Removal of driftwood has been documented as a source of plover nest destruction at Vandenberg Air Force Base where two nests were crushed beneath driftwood dragged to beach fire sites (Persons 1994 in Service 2007, p. 37). Also, driftwood beach structures built by visitors are used by avian predators of plover chicks such as the loggerhead shrike and American kestrel, and predators of adult plovers such as the merlin and the peregrine falcon.

The effects of beachcombing are similar to those of pedestrian traffic and the collection or removal of driftwood. Driftwood may be removed in small amounts and collection generally entails people walking along the drift/wrack line, although some drive, in search of collectable pieces. Anyone using mechanized loading equipment or removing large amounts of driftwood from a State Park- owned beach is required to obtain a Permit from the OPRD (ICF International 2010b, Appendix E). Like pedestrian traffic, collection and beachcombing is restricted to the wet sand in plover-occupied nesting areas, greatly reducing the likelihood of negative impacts to plovers.

PCE 3 of plover critical habitat (i.e., surf or tide-cast organic debris such as seaweed or driftwood located on open substrates) could be affected by excessive driftwood collection and removal. Excessive driftwood removal and beach logging may adversely impact plover critical habitat if they result in an unsuitable amount of tide-cast organic debris, such as seaweed or driftwood, in plover habitat. Some level of driftwood being left on the beach is needed for PCE 3 to be present and functioning to beneficially support plovers because it provides plover adults and chicks shelter from the wind and cover from predators. However, excessive removal of driftwood is not covered under the HCP, because anyone using mechanized loading equipment or removing large amounts of driftwood from a State Park- owned beach is required to obtain a Permit from the OPRD. Alternatively, in some areas there is so much driftwood that the beach is no longer an open habitat. In these cases, removal of a portion of the driftwood would benefit PCE 3. Management of public access ways may or may not adversely affect plover critical habitat, based largely on whether the access is within a SPMA. Public access to dry sand areas will be limited in SPMA's and RMA's under the HCP, and should not adversely impact the PCEs of plover critical habitat.

#### KITE FLYING

Kites may disturb plovers when flown near nesting, feeding, or resting areas. Kites can cause adults to flush from nests, leaving eggs exposed to extreme temperatures. Furthermore, the movement of flushed adults may draw the attention of predators to adults or their nest. Kites also may cause adults and broods to spend less time foraging and result in increased energy expenditure, which could result in reduced fitness and delayed ability to fledge.

Plovers may perceive kites as potential avian predators (Hoopes 1993, p. 72; Hatch 1997, p. 27). The reaction of plovers to kites at Ocean Beach in San Francisco, California, "ranged from increased vigilance while continuing roosting in close proximity to the kite flying, to

walking or running approximately 10 to 25 m (33 to 82 feet) away and resting again while remaining alert” (Hatch 1997, pp. 27-28). It is expected that stunt-kites would cause a greater response from plovers than traditional, more stationary kites. Stunt kites include soaring-type, two-string kites with noisy, fluttering tails, which often exhibit rapid, erratic movements, similar to the behavior of falcons or other avian predators.

Hoopes (1993, p. 68) found that piping plovers are intolerant of kites. Compared to other human disturbances (i.e., pedestrian, off-road vehicle, and dog/pet), kites caused piping plovers to flush or move at a greater distance from the disturbance, to move the longest distance away from the disturbance, and to move for the longest duration. Piping plovers responded to kites at an average distance of 85 m (279 feet); moved an average distance of over 100 m (328 feet); and the average duration of the response was 70 seconds. As with kites, it is expected that model airplanes may also have a detrimental impact to plovers because plovers may perceive them as potential predators (Hatch 1997, pp. 27-28).

Under the HCP, kite flying would be prohibited during the plover nesting season at plover-occupied SPMA and RMA, greatly reducing the likelihood for take of plovers caused by this recreational activity.

#### OTHER RECREATIONAL ACTIVITIES (PICNICKING, NEAR SHORE ACTIVITIES/SURF SPORTS)

Beach-related recreational activities that are concentrated in one location (e.g., sunbathing, picnicking, sandcastle building, birding, and photography) can negatively affect incubating adult plovers when these activities occur too close to their nests. Recreational activities that occur in the wet sand area can adversely affect plovers when they disturb plover adults or broods, which feed at the edge of the surf along the wrack line.

Recreational activities that occur in or over deep water (such as the beach- and water-oriented activities of surfing, kayaking, wind surfing, jet skiing, and boating, and the coastal-related recreational activity of hang gliding) may not directly affect plovers; however, they can potentially be detrimental to plovers when recreationists use the beach to take a break from these activities, or as access, exit, or landing points.

For the most part, effective plover use of and nest success on beaches coincide with decreasing human use on the Oregon Coast. Plovers tend to be more successful and occur in greater numbers where human use is lower and is further from towns or urban centers. For example, locations with the highest human use, such as the north Oregon Coast, have little or no plover use, while more remote locations on the south Oregon Coast successfully support plover use and successful reproduction. Under the HCP, the recreation activities described in this section would be restricted to the wet sand during the nesting season at plover-occupied SPMA and RMA, greatly reducing the likelihood for take.

## EFFECTS OF PUBLIC USE/RECREATION MANAGEMENT ON PLOVER CRITICAL HABITAT

Sparsely vegetated areas above daily high tides that are relatively undisturbed by the presence of humans, pets, vehicles or human-attracted predators is one of the PCEs of plover critical habitat. Heavy recreational use within critical habitat areas has the potential to reduce the value of the critical habitat due to increased disturbance and an increased potential for predation on plovers and their eggs and young (PCE 1). For example, plovers regularly nested at what is now South Beach State Park in Oregon until shortly after the park was developed and began to receive heavy public use (Hoffman 1972 in ODFW 1994, p. 21). In some cases, the critical habitat will still be functional, but at a reduced level due to increased disturbance (PCE 1). Although several of the public use and recreation management activities covered in the HCP may occur in critical habitat, the impacts from such activities are likely to be relatively small because of the timing and spatial restrictions placed on those activities.

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## BEACH MANAGEMENT

### MARINE MAMMAL STRANDINGS AND REMOVAL

Marine mammals can wash ashore at any location within the HCP covered area. Removal or burial of dead mammals found on the Ocean Shore usually requires heavy equipment to be brought onto the beach and involves groups of people gathered on the beach. This process can disturb wintering or nesting plovers and separate broods from adults. Burial of mammals can disturb a large area of sandy beach and may disrupt foraging areas. However, removal or burial of mammals is often preferable to leaving carcasses on the Ocean Shore, where they would attract predators, exposing plovers to increased levels of predation. It is possible for this process to result in the crushing of eggs or chicks. However, the likelihood of plover take occurring is greatly reduced because marine mammal removals will be carried out in a manner that includes measures to avoid such take, and the OPRD will seek advice from the Service before conducting removals in all SPMA and RMA, except in emergencies.

### PUBLIC SAFETY

Activities related to maintaining emergency access points and removing public hazards such as logs on the beach or toxic material spills can involve multiple vehicles having unrestricted access to the beach. By their nature, these activities are difficult to predict. Impacts to plovers are similar to those described for pedestrian use and driving. Removal of hazardous materials from the beach can benefit plovers by reducing their potential exposure to these hazardous materials. Toxins that may not themselves directly affect plovers may accumulate in their prey and affect plovers' ability to survive and reproduce. Under the HCP, the OPRD will seek advice from the Service before conducting these activities in SPMA or RMA (except in emergencies). This coordination is likely to result in public safety activities being implemented in a manner that avoids and minimizes adverse effects to the plover. For that reason, the likelihood that these actions will cause take of plovers is greatly reduced.

### EXTERNAL LAW ENFORCEMENT

Vehicle use by OPRD personnel may cause unpredictable disturbances, often involving multiple vehicles and unrestricted access to the shoreline. Patrol activities also involve emergency medical and law enforcement responses, important for maintaining human safety, but high-speed travel necessary for response or the introduction of vehicles into areas not frequently accessed (e.g., SPMAs/RMAs) may result in significant adverse effects to adult birds, nests, or chicks during the nesting season, similar to those described for pedestrian use and driving. However, under the HCP, the OPRD will seek advice from the Service before conducting these activities in SPMAs or RMAs (except in emergencies). This coordination is likely to result in public safety activities being implemented in a manner that avoids and minimizes adverse effects to the plover. For that reason, the likelihood that these actions will cause take of plovers is greatly reduced.

### INTERNAL LAW ENFORCEMENT

Despite extensive signs, roping, and the regular presence of on-site interpreters, visitor compliance with recreation and beach restrictions remains a management challenge. Violations not only cause disturbance to foraging, resting or nesting plovers, but may also crush nests, chicks, or adult birds. Consequently, enforcement of recreation restrictions is necessary. Park staff members spend considerable time investigating large gatherings on the beach. The potential adverse effects these patrols may have on plovers are offset by the benefits of enforcement of beach restrictions and removal of groups gathering in restricted areas. Also, under the HCP, the OPRD will seek advice from the Service before conducting these activities in SPMAs or RMAs (except in emergencies). This coordination is likely to result in enforcement activities being implemented in a manner that avoids and minimizes adverse effects to the plover. For that reason, the likelihood that these actions will cause take of plovers is greatly reduced.

### BOAT STRANDINGS AND OTHER SALVAGE OPERATIONS

The OPRD's involvement in salvage operations is to issue the necessary Permits and to monitor the activities as they are occurring. Monitoring activities will involve vehicle use and may result in potential effects on adult birds, nests, or chicks during the nesting season, similar to those described for pedestrian use and vehicles. Since OPRD will seek advice from the Service before conducting these activities in SPMAs or RMAs (except in emergencies), the likelihood of take occurring is greatly reduced.

### EFFECTS OF BEACH MANAGEMENT ON PLOVER CRITICAL HABITAT

Although activities associated with beach management may disturb plovers, they should not adversely impact plover critical habitat. In fact, beach cleanup activities can positively affect critical habitat by removing unnatural debris from the beach. Law enforcement activities, while they may have similar impacts as pedestrian and vehicle use, will reduce the number of trespass violations in protected areas, thereby reducing the likelihood of impacts to PCE 1. Also, the removal or burial of stranded marine mammals can temporarily affect critical

habitat by digging up the beach and wrack line; however, leaving carcasses can attract additional predators, and this change in habitat conditions may be more harmful to plovers than the disturbance involved in burial or removal. Furthermore, under the HCP, the OPRD will consult with the Service regarding any of these activities when they will occur in a plover-occupied or unoccupied SPMA or RMA prior to conducting the activity, unless there is an emergency situation. This coordination is likely to result in beach management activities being implemented in a manner that avoids and minimizes adverse effects to plover habitat. For that reason, the likelihood of adverse effects to PCE 1 from increased disturbance and increased predation from beach management activities will be reduced.

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## NATURAL RESOURCE MANAGEMENT

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### PLOVER MANAGEMENT

Although the OPRD's proposed management of plovers under the HCP has the potential to adversely impact the plover, these actions are typically of short duration and offset by the benefits provided to plovers via reduced human disturbance, reduced exposure to predation, and improved habitat. Installing and maintaining fencing and signs around plover nesting areas can temporarily disturb a nesting pair and cause eggs to be unattended, exposing them to extreme temperatures, wind, and predation. However, these fences and signs are erected early in the season so disturbance to normal plover breeding activities or nest abandonment are unlikely. Plovers will also attempt to reestablish a nest following a failure, particularly early in the nesting season.

Prolonged human presence at a nest site may also increase predator detection of plover nests or chicks, particularly by avian predators such as ravens and crows. Habitat restoration work is conducted outside of the breeding season but may disturb wintering plovers in the area, potentially causing birds to move to an alternate area. Because restoration tends to result in improvement of native habitats, restoration of dune vegetation can be a considerable benefit to plovers, if done carefully and if the habitat is restored to the appropriate habitat type. Volunteers at beach accesses benefit plovers because they inform the public and encourage compliance with beach restrictions. The adverse effects of habitat restoration activities on wintering populations of the plover are expected to be minimal and discountable because only minimal timing and spatial overlap is expected to occur between plovers and these actions.

### SCIENTIFIC RESEARCH AND COLLECTION

Monitoring, scientific research, and collection activities can be disruptive to nesting and wintering plovers with impacts similar to those described for pedestrian and vehicle use. Some research can adversely impact habitat by collecting or damaging native plants or encouraging non-native species. Plover monitoring activities may involve extended or repeated visits to nesting sites, potentially intensifying negative impacts. Erecting nest enclosures and banding adults and chicks results in significant, if temporary, disturbance of birds. Nest abandonment has occurred subsequent to enclosure construction, and occasionally through vandalism of the enclosure fence (Page et al. 1994 in ICF International

2010b, pp. 6-8 to 6-9). Exclosed nests may also encounter higher levels of disturbance by curious people and may attract perching avian predators. However, plover monitoring, when carried out in a careful manner that minimizes these effects, provides information that is critical to the development of conservation, protection, and management strategies. All monitoring, research, and collection of plover will require a separate Permit under section 10(a)(1)(A) of the ESA, and the impacts of these actions will be considered prior to issuance of the requested Permit.

#### HABITAT RESTORATION

Under the HCP, the OPRD will restore coastal dune habitat by removing invasive species (e.g., introduced European beachgrass and gorse) and by potentially grading the upper beach to allow storm wave overwash to occur.

Under the HCP, future habitat restoration of as much as 16 ha (40 acres) will be conducted by the OPRD at the Columbia River South Jetty SPMA and the Nehalem Spit SPMA, and, if needed, at the Necanicum Spit SPMA. The restoration efforts at Nehalem Spit SPMA, and potentially Necanicum Spit SPMA, will be conducted within two years of completing site management plans for these areas, if called for in the respective site management plans. Under the HCP, habitat restoration will be conducted within five years of completing the site management plan for the Columbia River South Jetty SPMA to accommodate the schedule of ongoing restoration efforts being conducted by the Corps (the lessor), in coordination with the OPRD.

At the Bandon SPMA, where habitat restoration activities have already been implemented, the OPRD will continue to maintain as much as 20 ha (50 acres) of optimal habitat for nesting plovers under the HCP.

Habitat restoration work for species other than plover will be restricted to native planting and seeding and has the potential to affect plover during both the nesting and non-nesting season, although most restoration activities will occur outside the nesting season. These restoration activities will be of short duration, no more than a few hours, and will occur outside the main nesting areas. Given the short duration of any native plant reintroductions that could occur during the nesting season, this activity is not likely to adversely affect plovers. In the long-term, restoration efforts would have a positive effect on plover since the restoration efforts tend to result in improvement of native habitats.

#### EFFECTS OF NATURAL RESOURCE MANAGEMENT ON PLOVER CRITICAL HABITAT

Under the HCP, the OPRD may also conduct dune habitat restoration activities within and outside of SPMAs. These activities would occur during the non-nesting season in areas occupied by plovers. In unoccupied areas, these activities may occur during the plover nesting season, but only following a survey for nesting plovers to ensure they are absent. Thus, the potential for human disturbance to impact PCE 1 is greatly minimized. Restoration activities include the removal of exotic vegetation and planting of native vegetation. Such restoration activities will help restore the ocean shore to its native condition. The OPRD has

committed to maintain the 20 ha (50 acres) of plover habitat at the Bandon SPMA, and up to 16 ha (40 acres) at Columbia River South Jetty, Necanicum, and Nehalem SPMA. Overall, natural resource management actions under the HCP are expected to improve conditions within plover critical habitat as a result of habitat restoration activities

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*SYNTHESIS/SUMMARY OF EFFECTS OF THE PROPOSED PERMIT ACTION ON THE PLOVER AND ITS CRITICAL HABITAT*

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Overall, the proposed Permit action may directly and indirectly harass or harm (i.e., cause take of) plovers that occur within the affected area. Some components of the proposed Permit action, such as restoration and plover management measures, have beneficial effects and will help to alleviate many of the adverse impacts caused by Covered Activities. However, plovers will still be affected by recreation that occurs during the nesting season to an extent that may result in the take of plover adults, juveniles, or eggs. This effect is expected to be localized and, for RMAs and SPMA that are currently occupied by plovers, similar to that documented in previous years. For plover-unoccupied RMAs and SPMA, the effects of the proposed Permit are expected to be similar to those in nearby plover-occupied RMAs and SPMA once they become occupied. Reproduction, numbers, and distribution of the plover in Oregon generally continues to increase, and the effects of the proposed Permit is expected to maintain or improve that trend.

Taking into account the term of the action (25 years), we would expect the condition of critical habitat in the HCP covered area to stay the same or improve, relative to current conditions. Habitat maintenance will continue, recreation use will be restricted from plover nesting areas, and OPRD personnel will continue to implement plover management and law enforcement activities at the Bandon SPMA. Therefore, the effects of the proposed Permit action are likely to maintain or improve the PCEs of plover critical habitat, mainly by reducing the level of human disturbance as an effect to PCE 1.

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## PUBLIC COMMENT

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On March 20, 2003, the Service published a Notice of Intent in the Federal Register (68 FR 13720) and accepted written scoping comments over a 40-day comment period. In March 2003, four public meetings were held in Coos Bay (March 11), Newport (March 12), Tillamook (March 13) and Portland (March 19) for which one purpose was to initiate the NEPA scoping process. A letter, jointly signed by the Service and the OPRD, was also prepared in March 2003, and posted on OPRD's website and distributed to agencies and the public by an electronic mailing list. The letter notified interested parties of the opportunity to provide scoping comments and provided the dates and locations of the public meetings. Comments regarding the initial draft HCP and scoping were compiled by the OPRD and used to revise the subsequent draft HCP (OPRD 2004) and to develop a Scoping Report (Service 2006).

A Notice of Availability of the DEIS, with a public review period of 60 days, was published in the Federal Register on November 5, 2007 (72 FR 62485-62486). Comments were requested by January 4, 2007.

The Service reopened the public comment period on February 26, 2008, due to extreme weather conditions that interrupted communications during the original comment period. The final comment period closed March 12, 2008. The Service received 102 comment letters (Attachment 1 of the FEIS). A response to each comment is presented in Attachment 2 of the FEIS.

A Notice of Availability of a revised FEIS was published in the Federal Register on September 24, 2010 (75 FR 57058, EIS No. 20100375). Six comment letters were received. Responses to those comments are included in the Record of Decision.

## INCIDENTAL TAKE PERMIT CRITERIA - ANALYSIS AND FINDINGS

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### CRITERION 1

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#### **The taking will be incidental.**

Based on the analyses presented in the HCP (OPRD 2010) and the Service's Biological Opinion (Service 2010b), which are herein incorporated by reference, the Service finds that take of the plover caused by Covered Activities carried out under the HCP will be incidental to, and not the purpose of, otherwise lawful activities.

### CRITERION 2

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#### **The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.**

The Service finds that the OPRD will minimize and mitigate the impacts of take of the plover to the maximum extent practicable. The OPRD has developed a HCP, pursuant to the incidental take Permit requirements codified at 50 CFR 17.22(b)(1) and 50 CFR 17.32(b)(1), which require measures to minimize and mitigate the effects of issuing the Permit. Under the provisions of the HCP, the impacts of take will be minimized, mitigated, and monitored through the following measures:

1. Identification and implementation of incidental take avoidance and minimization measures to reduce impacts to the plover as described above and in Chapter 5 of the HCP.
2. Establishment of 5 plover management areas and 11 recreation management areas within plover habitat that will be subject to recreational use restrictions and management and activities that address the primary threats to the plover that were the basis for its listing under the ESA.
3. Establishment of a monitoring and reporting program to confirm the anticipated biological success and effectiveness of the HCP conservation measures and to provide information for adaptive management of the plover, as needed, as new information becomes available or conditions change.
4. Implementation of a funding mechanism that contains assurances that the HCP will be implemented (Chapter 7 of the HCP).

The minimization and mitigation measures proposed by the OPRD were developed based on a comprehensive evaluation of impacts to the plover that would result from recreation and management activities covered under the HCP. The conservation measures set forth in the HCP are directly related to the form of take (harm and harass) likely to be caused by the recreation and beach management activities covered under the HCP; a summary of the take assessment is presented below. As discussed in the HCP, the Service's Biological Opinion, and the discussion above under "Conservation Measures" and "Analysis of Effects," these conservation measures, many of which have been the subject of ongoing implementation while the HCP has been under development, have been and are likely to continue to be effective in providing for the

conservation needs of the plover. Over the last 10 years, the status of the plover population and its reproductive success have been improving within the area covered by the HCP. Overall, the plover population on the Oregon Coast is stable to increasing, in part, due to the effectiveness of implementing recreational use restrictions, rope-fencing, signs, education and outreach, enforcement, and predator control activities that are contained within the conservation measures in the HCP.

The determination that the OPRD will minimize and mitigate the impacts of take of the plover to the maximum extent practicable under the proposed HCP is based on the alternatives analysis presented in the FEIS and summarized below. Besides the proposed action, eight other alternatives were analyzed, considered, but rejected on the basis that they were either too costly, impractical to implement, incompatible with OPRD's legal mandates, would not effectively contribute to the conservation of the plover, and/or would not adequately provide for incidental take authorization.

The Technical Memorandum (ICF International 2010a) estimated the amount of take of plovers likely to be caused by activities covered under the HCP (ICF International 2010b). More specifically, ICF International (2010a) modeled the effects of recreation and habitat management between 2000 and 2007 at the five occupied RMAs and Bandon SPMA. They considered the Siltcoos RMA as three separate sites: Siltcoos North and South, Dunes Overlook, and Tahkenitch. They concluded that management activities resulted in the net annual gain of 138 eggs and three adults at all sites combined (ICF International 2010a, p. 5-2), and a net annual loss of 30 chicks and 2 fledglings. Due to the net annual gain of eggs and adults, despite the net loss of chicks, the population is predicted to increase in the future.

ICF International (2010a) anticipated that this level of take would be similar in the future because site management will remain similar to management between 2000 and 2007. If their predicted take is spread equally among the eight modeled sites, this would result in the net annual loss of four juveniles (32 chicks divided by eight sites) per site, or 12 juveniles at the Siltcoos RMA, and four for the other RMAs and the Bandon SPMA annually. Their take estimate is attributed to recreational activities harassing 1) adults by interrupting their foraging or nest attendance (which can reduce the likelihood of their young's success), and 2) young by interrupting their foraging on dry or wet sand areas. This assessment does not differentiate between direct take (e.g., crushing an egg, chick, or adult) or indirect take (e.g., increased predation pressure on nests, permanent or short-term nest abandonment; ICF International 2010a, p. 2-8).

Based on ICF International's (2010a) take assessment, the following levels of plover take are anticipated:

1. At the Bandon SPMA, where the OPRD is fully responsible for all wet and dry sand management:
  - a. No more than 4 juveniles per year over 25 years (100 total, mostly due to indirect mortality or injury), AND
  - b. Where no more than 1 of these 4 juveniles are crushed by foot or a horse while foraging every 5 years over 25 years (5 total over the term of the Permit);

2. After the Columbia Slough South Jetty, Necanicum, and Nehalem SPMA's become occupied by plovers (one of these sites could be substituted for by the Netarts SPMA):
  - a. Per site, no more than 4 juveniles per year over 25 years (100 total per site, mostly due to indirect mortality or injury), AND
  - b. Where, per site, no more than 1 of these 4 juveniles are crushed by foot or a horse while foraging every 5 years over 25 years (5 total over the term of the Permit);
3. At New River Spit, where the OPRD shares management of plover nesting areas with the BLM (almost half of the plover nests in 2008 in the New River RMA were located on State, County, or adjacent to private lands):
  - a. No more than 2 juveniles per year over 25 years (50 total, mostly due to indirect mortality or injury), AND
  - b. Where no more than one of these 2 juveniles are crushed by foot or a horse while foraging every 5 years over 25 years (5 total over the term of the Permit);
4. Tenmile and Coos Bay North Spit RMAs (where the OPRD does not have management authority over plover nesting areas, and lethal take is assumed to be equally likely to occur while foraging on OPRD-managed lands as would occur in the nesting area):
  - a. Per site, no more than 2 juveniles per year over 25 years (50 total, mostly due to indirect mortality or injury), AND
  - b. Where, per site, no more than one of these two juveniles are crushed by foot or a horse while foraging every five years over 25 years (5 total over the term of the Permit);
5. Siltcoos RMA (where OPRD does not manage nesting areas, assuming lethal take is equally likely to occur while foraging on OPRD-managed lands as would occur in the nesting area):
  - a. No more than 6 juveniles per year over 25 years (150 total, mostly due to indirect mortality or injury), AND
  - b. Where, no more than two of these six juveniles are crushed by foot or a horse while foraging every five years over 25 years (10 total over the term of the Permit);
6. At Sutton/Baker (where OPRD only manages the wet area, and where the USFS already has incidental take for horse use):
  - a. Because the number of plovers at this site is low relative to other nesting areas in Oregon, we anticipate the lethal take to be extremely low.
  - b. We anticipate the lethal take of no more than one juvenile (indirectly killed or directly via the crushing by foot) every 5 years (5 over the term of the Permit).

### CRITERION 3

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**The applicant will ensure that adequate funding for the plan and procedures to deal with unforeseen circumstances will be provided.**

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#### FUNDING OVERVIEW

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The Oregon Western Snowy Plover Working Team, of which the OPRD is a member, has committed to working together on management issues associated with conserving the plover. Because of this shared interest, the agency members are able jointly to fund a number of activities to ensure efficiency in, and avoid duplication of, efforts related to plover monitoring, predator management, habitat restoration, and public education and outreach efforts. The OPRD will continue to participate in these jointly funded programs. The OPRD will commit to funding implementation of the HCP from various sources as described below, and will fund certain work separately from Working Team agreements, as appropriate.

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#### FUNDING SOURCES

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Administrative costs to implement the management actions described in the HCP will be borne through the following funding mechanisms:

- State lottery dollars or other State funding if the lottery funding is discontinued;
- Land Rental Sinking Funds (limited to habitat restoration and monitoring work); and
- Other funds (e.g., day-use fees, Salmon Plate revenues, Recreational Vehicle tax revenues).

The OPRD commits to protecting this funding as a core function, if OPRD budgets are reduced.

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#### BIENNIUM BUDGET

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The OPRD will include in its biennium budget funding for:

- Site management plan completion and approval;
- Monitoring (breeding/population and detect/non-detect);
- Habitat restoration and maintenance efforts, either as match for Federal and/or State grants, or for the full amount;
- Predator management activities;
- Law enforcement/beach patrol activities;
- Public outreach and education programs;
- Project administration; and
- Agency coordination.

The OPRD cannot guarantee State funds for future activities to administer the requirements set forth in the ITP, IA, and the HCP, which are not yet appropriated by the State legislature. The State of Oregon operates on a biennium basis, with fiscal years beginning on July 1.

Additionally, the OPRD cannot guarantee acceptance of grant monies unless it has received authorization from the Oregon legislature to apply for and accept these monies. However, the OPRD can guarantee that it will request sufficient funding from the legislature on a biennial basis to properly implement the HCP and fulfill the terms and commitments of the Permit. Failure of OPRD or ODFW to obtain adequate funding to implement the HCP may be grounds for the Service to suspend or revoke the Permit, or exercise any other available remedy.

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## GRANTS

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The grant opportunities listed below have been identified and will be explored as a possible offset for other OPRD funding.

- Federal:
  - The Service’s “Coastal Program,”
  - The Service’s Conservation and Reinvestment Act Funds, and
  - Land and Water Conservation Fund Coastal Planning Assistance.
  
- State of Oregon:
  - OPRD’s All Terrain Vehicle Grant Program,
  - Recreational Trails Program, and
  - Oregon Watershed Enhancement Board.

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## COST ANALYSIS

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The OPRD staffing commitments for program administration and management action administration are summarized in Table 3. Given that it is difficult to ascertain how much staff time would be required on an annual basis to complete these “Implementation, Organization, and Structure” responsibilities, in-kind costs associated with staff time are not presented as specific costs below.

Table 3. Roles and Responsibilities of OPRD Staff in the HCP.

<b>MANAGEMENT ACTIONS</b>	<b>LEAD</b>	<b>ASSIST</b>
Overall Program Coordination (including contracting)	Ocean Shore Program Manager	Ocean Shore and Natural Resource Section Staff
Site Management Plans	Development Ocean Shore Manager	Region Manager/Natural Resource Section Staff
Implementation	Planning Manage Planning Staff	
Habitat Restoration and Maintenance (Project Management)	Region Manager/Park Manager	Natural Resource Section Staff
Installation/Maintenance/Removal of Symbolic Fencing	Region Manager/Park Manager	Natural Resource Section Staff
Beach Access Management	Region Manager/Park Manager	Park staff
Breeding Population Monitoring	Natural Resource Staff	NA
Wintering and Breeding Window Surveys	Natural Resource Staff	NA
Detect/Non-Detect Surveys	Natural Resource Staff	NA
<b>RECREATION COMPLIANCE MONITORING</b>		
Volunteer Coordination	Region Manager/Park Manager	Natural Resource Staff/Recreation Management Section
Report to HCP Coordinator	Ocean Shore Manager	NA
Report to FWS	Ocean Shore Manager	NA
<b>PUBLIC OUTREACH</b>		
Program Design	Ocean Shore Manager/Recreation Management Staff/Public Services Staff/Park Manager	Interpretation Team/Natural Resource Section Staff
Program Implementation	Area Manager/Park Manager	Natural Resource Section Staff
Law Enforcement	Area Manager/Park Manage	NA
Predator Management (project management)	Area Manager/Park Manager	Natural Resource Section Staff
Research	Natural Resource Staff	
<b>RECREATION MANAGEMENT</b>		
Rule Change	Natural Resource Staff/ Coastal Program Manager	Park Manager
Rule Implementation	Area Manager/Park Manager	

Table 4 lists the current expenses in 2007, dollars incurred by the OPRD in providing for plover management at the Bandon SNA. These costs are based on the most recent data available for an entire nesting season, and are presented as biennial costs for a 2-year budget period. These costs are presented to estimate the cost of management actions at the SPMAs in the future and over the term of the Permit. The plover habitat area that was restored at the Bandon SPMA is 50 acres and is located on a dune. Extensive grading was required to create the restored site, and ongoing grading has been required to maintain it. The costs associated with habitat restoration at the Bandon SPMA are likely higher than what will be needed at the other SPMAs, which are more accessible and characterized by lower elevations. These differences are considered and reflected in Table 5 and Table 6. Table 5 lists the anticipated expense associated with management of one unoccupied SPMA. These costs are presented as biennial costs for a 2-year budget period.

Table 4. Expenses for Plover Management at Bandon State Natural Area: 2007 to 2009.

<b>ACTIVITY</b>	<b>BIENNIAL COST</b>	<b>COMMENTS</b>
Habitat Maintenance <sup>1</sup>	\$60,000	The Bandon SPMA requires maintenance of 50 acres of habitat. Habitat maintenance occurred on 15 of those 50 acres each year between 2007 and 2008. Biennial cost reflects the cost to maintain approximately 30 acres of habitat over a 2-year period. This equates to an average cost of \$2,000 to maintain 1 acre of habitat per year.
Breeding Population Monitoring	\$50,000	Contract with Oregon Natural Heritage Information Center for monitoring at Bandon SNA.
Public Education and Outreach	\$5,000	Interpretive programs offered at two State Parks, with docents on site during nesting season. Costs are associated with reimbursing docents for travel.
Predator Management	\$16,000	Covers the portion of the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) contract used for snowy plover related work at the Bandon SNA.
Beach Patrol/Law Enforcement	\$20,000	Covers the cost of hiring senior State Troopers or county sheriff personnel to augment other enforcement activities by OPRD staff members and beach rangers, as necessary.
Beach Access Modifications	\$10,000	Cost associated with equipment and materials and to relocate trail in the vicinity of China Creek.
Symbolic fencing	\$600	Cost for rope, signs, and fence posts.
<b>TOTAL</b>	<b>\$161,600</b>	

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<sup>1</sup> Habitat restoration at the Bandon SNA was completed between 2001 and 2003. It was contracted out at an approximate cost of \$60,000.

Table 5. Anticipated costs to manage one unoccupied SPMA for two years.

<b>ACTIVITY</b>	<b>BIENNIAL COST</b>	<b>COMMENTS</b>
Site Management Plan Development	\$10,000 maximum	Costs associated with hiring a contracted biologist. This cost would only be incurred once, prior to the first year of management.
Habitat Restoration/Maintenance <sup>2</sup>	\$50,000 maximum <sup>3</sup>	Cost associated with restoration of as much as 40 acres of habitat by a contractor. This cost would only be incurred once, after approval of the site management plan. After restoration activities are complete, habitat would be maintained at an approximate cost of \$2,000 per acre per year, not to exceed \$50,000 in any biennium.
Public Outreach and Education	\$2,000	Costs associated with materials for interpretive program start up and docent travel.
<b>TOTAL</b>	<b>\$62,000 MAXIMUM</b>	

Table 6 lists the anticipated expenses associated with management of one occupied SPMA. These costs are also presented as biennial costs for a 2-year budget period. Between 2007 and 2009, OPRD spent approximately \$161,600 on snowy plover management activities at the Bandon SNA, excluding in-kind staff or program administration costs. Once the ITP is issued, these costs are anticipated to increase as additional activities are required of OPRD at actively managed unoccupied SPMA's (Table 5) and the occupied SPMA's (Table 6). Nothing in the HCP, the ITP, or the IA requires OPRD to incur costs associated with unoccupied SPMA's that are not being actively managed by OPRD or any other entity. Nor do the HCP, the ITP, or the IA require OPRD to incur costs associated with snowy plover management on lands adjacent to any occupied RMA. Over the term of the HCP costs will be incremental and will depend on

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<sup>2</sup> Both habitat restoration and maintenance are reflected as a common line item in this table because neither would occur in the same biennium (i.e., it would likely take as long as 2 years to initially restore habitat at an SPMA, at which point it would be maintained in perpetuity).

<sup>3</sup> It is likely that costs associated with habitat restoration at each SPMA would be less than \$50,000 in a biennium. Habitat restoration at the Columbia River SPMA is expected to be done as part of the Corps jetty reconstruction project, using Federal funding. Restoration at the Nehalem Bay SPMA may be smaller than 40 acres (as outlined in the approved site management plan), and would likely be constructed to avoid woody debris and dune lowering. It's unlikely that habitat restoration would be needed at the Necanicum SPMA at all. The Netarts SPMA may be too inaccessible to complete any costly dune grading.

whether sites are occupied or unoccupied but actively managed, and the number of sites in each category.

Table 6. Anticipated costs to manage one occupied SPMA for two years.

ACTIVITY	BIENNIAL COST	COMMENTS
Habitat Maintenance	\$60,000 maximum <sup>4</sup>	Cost associated with maintaining as much as 50 acres of restored habitat at Bandon SPMA and 40 acres of habitat at other occupied SPMAs. Based on assumed cost of \$2,000 per acre per year, not to exceed \$60,000 in any biennium at the Bandon SPMA and \$50,000 per biennium at other occupied SPMAs.
Breeding Population Monitoring	\$16,700	Contract with Oregon Natural Heritage Center for 2 years. Costs are approximate and based on an estimate provided by Oregon Natural Heritage Information Center to complete breeding population monitoring of the three northern SPMA in a given year (i.e., \$25,000 per year to monitor three northern SPMAs divided by three to obtain the cost per SPMA multiplied by two to obtain a biennium cost).
Public Outreach and Education	\$5,000	Costs are associated with reimbursing docents for travel.
Predator Management	\$16,000	Covers the portion of the USDA APHIS contract for snowy plover related work at one SPMA for 2 years.
Beach Patrol/Law Enforcement	\$20,000	Covers the cost of hiring senior State Troopers or county sheriff personnel to augment other enforcement activities by OPRD staff and beach rangers, as necessary.
Beach Access Modifications		This cost is unknown. The cost approximations provided for the Bandon SPMA in table 7.2 are site-specific and cannot be used to estimate possible beach access modification costs at other SPMAs.
Symbolic fencing	\$1,000	Cost for rope, signs, and fence posts.
<b>TOTAL*</b>	<b>\$118,700</b> <b>MAXIMUM</b>	

The Service finds that the OPRD will ensure funding adequate to carry out the HCP. Funding for the acquisition, restoration, management, and monitoring of habitat reserves in perpetuity

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<sup>4</sup> It is likely that costs associated with habitat maintenance would be less than \$50,000 due to site-specific conditions.

will be financed through State lottery dollars or other State funding if the lottery funding is discontinued, such as Land Rental Sinking Funds (limited to habitat restoration and monitoring work), and other funds (e.g., day-use fees, Salmon Plate revenues, Recreational Vehicle tax revenues), as described in Chapter 7 of the HCP.

#### CRITERION 4

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**The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.**

The Service finds that the taking to be authorized under the proposed Permit will not appreciably reduce the likelihood of the survival and recovery of the plover in the wild. The ESA's legislative history establishes the intent of Congress that this issuance criterion be identical to a finding of "no jeopardy" pursuant to section 7(a)(2) of the ESA and the implementing regulations pertaining thereto (50 C.F.R. 402.02). As a result, the Service has reviewed the proposed Permit action under section 7 of the ESA. In the Biological Opinion (Service 2010b), the Service reviewed the current status of the plover; the environmental baseline for the plover in the Covered Area; the direct, indirect, and cumulative effects of the proposed Permit action, and cumulative effects. The Service concluded in the Biological Opinion (Service 2010b) that the proposed Permit action will not appreciably reduce the likelihood of survival and recovery of the plover in the wild. In addition, the Service concluded that critical habitat for the plover will not be destroyed or adversely modified by the proposed Permit action (Service 2010b).

#### CRITERION 5

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**The applicant will ensure that other measures that the Services may require as being necessary or appropriate will be provided.**

The Service finds that all additional measures required by the Service as necessary or appropriate for the HCP are included in the HCP, IA and/or the Permit. In particular, the IA, an agreement amongst the Service, ODFW, and the OPRD that governs implementation of the HCP, binds the OPRD to fully implement and fund the HCP.

#### CRITERION 6

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**The Service has received such other assurances as may be required that the HCP will be implemented.**

The Service finds that the HCP and the IA provide the necessary assurances that the HCP will be carried out by the OPRD. By accepting the Permit, the OPRD is bound to fully implement the provisions of the HCP in accordance with the IA.

## ALTERNATIVES

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The FEIS describes the preferred alternative for the HCP Permit action, which is to issue the Permit as requested by the OPRD as described above, and eight other alternatives described below.

### NO HABITAT CONSERVATION PLAN ALTERNATIVE

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An alternative considered, but rejected was for the OPRD not to develop a HCP and not to apply for a Permit (i.e., take no affirmative action). Under this alternative, a Permit application would not be submitted to the Service and the OPRD would continue to manage for plover recovery at the Bandon SNA and manage its activities to avoid the risk of take of plovers. As funding and resources allowed, the OPRD might expand its efforts to other areas. In addition, if plovers were to begin using that portion of the Ocean Shore owned by the OPRD, the OPRD would manage their activities to protect plovers at these sites.

This action was rejected because it would not enable the OPRD to fulfill its purpose and need to:

1. Contribute to the conservation and recovery of the plover and its habitat, and
2. Provide the OPRD with the legal protection afforded by a Permit to continue its legislatively mandated management activities (that cause take of the plover) on the Ocean Shore as defined in this document.

### MANAGE ALL RECOVERY PLAN AREAS

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This alternative considered using the recovery areas identified in Plover Recovery Plan as the areas to focus plover management activities. Such activities would necessarily include recreational use restrictions. This alternative was rejected for a number of reasons, including:

1. The difficulty in trying to manage for recreational use along the sandy Ocean Shore, including such areas as South Beach in close proximity to Newport, Oregon, with an estimated 500,000 visitors per year;
2. The conflict with the OPRD's mandate to provide access by the public to Oregon beaches; and
3. The prohibitive costs associated with managing hundreds of thousands of tourists and local beach users to ensure the risk of take of plovers would be avoided.

### PROTECTION OF NESTS WHEN AND WHERE THEY OCCUR

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This alternative considered implementing plover protection measures everywhere a plover nest or brood is discovered, regardless of where the nest or brood occurs or whether they are viable. This alternative was rejected because it would not provide the public with any certainty as to what sections of beach will or will not be managed for the plover; management could change annually and seasonally depending on where nests were discovered in a particular year and where the brood was located and/or re-located. In theory, the entire sandy portion of the Ocean Shore could be managed for plovers. This is impractical, has the potential to be too costly to

implement, and would not meet the legislative mandate of providing access by the public to Oregon beaches.

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#### PROTECTION OF OCCUPIED SITES

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This alternative considered implementing plover protection measures only in those areas currently occupied by plovers. This alternative was rejected because it would not provide the OPRD with authorization for incidental take of plovers in other areas that may become occupied in the future, and would not provide future habitat areas for plovers in the event of a demographic disturbance (catastrophic event) on the south coast that would negatively affect existing plover habitat. Thus, it would fulfill neither of the purposes of OPRD's action (i.e., neither contribute to the recovery of the snowy plover and its habitat, nor provide the OPRD with the legal protection afforded by a Permit to continue management activities on the Ocean Shore according to its legislated mandate).

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#### ACTIVE MANAGEMENT OF ALL SPMAS/RMAS FOR PLOVER OCCUPANCY

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Under this alternative, the OPRD would actively manage all 16 identified SPMAs/RMAs for nesting populations of plovers. Specific SPMAs/RMAs would be identified for management for occupancy on a priority basis. As SPMAs/RMAs become occupied, other unoccupied SPMAs/RMAs would begin to be actively managed to facilitate occupancy, with at least three areas being actively managed at any one time. This alternative was rejected because the OPRD does not have the authority to implement or enforce site management plans for nesting populations of plover on lands that it does not own or manage. Under this alternative, the OPRD would be responsible for all management strategies occurring on the SPMAs/RMAs, including those that would take place on lands owned or managed by a landowner other than the OPRD. Since they would not have the ability, or authority, to ensure that site plans would be effectively implemented or adequately enforced, this alternative was considered impractical to implement.

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#### IMPLEMENT A CAPTIVE BREEDING PROGRAM

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This alternative considered implementing a captive breeding program to assist in the recovery of the plover. Under this alternative, plovers would be captured and maintained in captivity. Adults would be bred, 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 plovers survive in captivity or how they can be effectively bred. According to Service 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. In addition to the prohibitive cost and the belief that this type of action is one of last resort, this alternative does not address other conservation needs of the species or alleviate the potential for OPRD management activities (including recreation) to adversely affect plovers. Thus, it would not fulfill the purpose and need and was rejected as a viable alternative.

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## VOLUNTARY COMPLIANCE AND EDUCATION

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This alternative considered reliance on the public, especially recreational users of the Oregon coast, voluntarily to avoid 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 plovers to be able to identify and avoid the species when they are present. In addition to “self-education” under this alternative, the OPRD would educate beach visitors about the biology and habitat needs of the plover by recruiting and training volunteers to serve areas where nesting populations of the plover have been identified. Individuals would be available to advise beach users about any beach restrictions and answer questions about the 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 the OPRD (e.g., habitat restoration activities) could result in incidental take. Without take authorization from the Service, individual members of the public and the OPRD would be responsible for any take that may occur incidental to an otherwise lawful activity. These circumstances would not allow the OPRD to meet the purpose and need stated in the HCP; thus, this alternative was rejected.

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## MULTI-SPECIES HCP

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This alternative considered the development of a multi-species HCP that would address other species that may occur on or near the sandy Ocean Shore along Oregon’s coast. In addition to the conservation plan that addresses the plover, this alternative would entail developing conservation measures to minimize and mitigate for impacts to other species. This alternative was rejected because OPRD’s management activities are not likely to result in impacts to any other listed species that would rise to the level of take. Other listed species that could be in the vicinity of the potentially Covered Lands do not occupy the sandy beaches along the Oregon coast: they occur offshore, on rocky outcrops, or landward of the vegetation line. A description of the species and the rationale for their exclusion from the HCP is provided in appendix B.

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## INCLUSION OF ADDITIONAL OPRD-OWNED SITES

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In addition to the alternative actions described above, the OPRD also considered the selection of four additional sites for inclusion as potential SPMA in the HCP: Nestucca Spit, Bullards Beach/ Sixes River, Pistol River, and Camp Winema. These beaches were not included in the HCP as potential SPMA for the following reasons.

### NESTUCCA SPIT

Nestucca Spit was not included as a potential SPMA under the HCP because of its limited value as potential habitat for nesting plovers. During the winter months, this area is very windy and rough. The water level rises up to the foredune and the resulting wave action results in a high level of erosion. There is no suitable habitat for plovers as a result. In addition, there are extremely high levels of recreational use on this beach.

#### BULLARDS BEACH/SIXES RIVER

Bullards Beach and Sixes River were not included as potential SPMA's under the HCP because the Service, the ODFW, and the OPRD determined that both sites would be too small to support nesting populations of the plover.

#### PISTOL RIVER

An SPMA at Pistol River was included for deferred management (i.e., management only if other SPMA's were not occupied by plovers after a certain period) in the draft HCP released for public review in November 2006. Management of the area was deferred due to biological constraints specific to the site, including high winds/blowing sand and high corvid activity. The beach in the area is also highly susceptible to the meandering Pistol River, which could alter habitat restored over time.

Comments received during the public comment period on the draft HCP included comment voicing strong local opposition for management and implementation of recreational use restrictions at the Pistol River SPMA, as well as comments voicing strong support for increased management at other areas more likely to support populations of the plover in the future. After considering these comments in the context of the biological constraints at the site, the OPRD removed the option for management of an SPMA at Pistol River. The northern boundary of the Bandon SPMA was extended to include the China Creek area.

#### CAMP WINEMA

Camp Winema was not considered for plover management in the Recovery Plan or the HCP for a number of biological reasons, including a narrow beach area, volatile erosional conditions, and high surf. In addition, it is a popular recreational area with a high level of public use. For these reasons, it was determined not to be a suitable site for targeted plover management under the HCP.

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### MIGRATORY BIRD SPECIAL PURPOSE PERMIT

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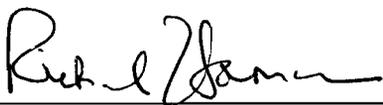
Pursuant to the Migratory Bird Treaty Act, 16 U.S.C. 703 - 712, and 50 C.F.R. 21.27, the Service finds that the OPRD has made a sufficient showing that the plover is currently listed under the Migratory Bird Treaty Act and will benefit from the conservation measures included in the HCP to minimize disturbance and enhance the habitat of this species. The ESA Permit application submitted by the OPRD, which includes the HCP, provides detailed information regarding MBTA-related activities, the purpose of such activities, the areas to be covered by the ESA Permit, the effects of those activities on the plover, and other information relevant to the issuance of a Special Purpose Permits required under 50 C.F.R. 21.27. Therefore, the ESA Permit, if issued, shall also constitute a Special Purpose Permits under the MBTA during the term of the ESA Permit.

GENERAL CRITERIA AND DISQUALIFYING FACTORS -- FINDINGS

The Service has no evidence that the Permit applications should be denied on the basis of the criteria and conditions set forth in 50 CFR 13.21(b) - (c).

RECOMMENDATION ON PERMIT ISSUANCE

Based on the foregoing findings with respect to the proposed action, I recommend approval of the issuance of Permit Number TE30687A-0 in accordance with the HCP and its supporting IA.



Richard Hannan  
Deputy Regional Director, Region 1

12/17/10  
Date

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## LITERATURE CITED

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