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# 2012 ANNUAL COMPLIANCE REPORT OF THE HABITAT CONSERVATION PLAN FOR THE WESTERN SNOWY PLOVER



January 2013



*Nature*  
**HISTORY**  
*Discovery*



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## ACKNOWLEDGMENTS

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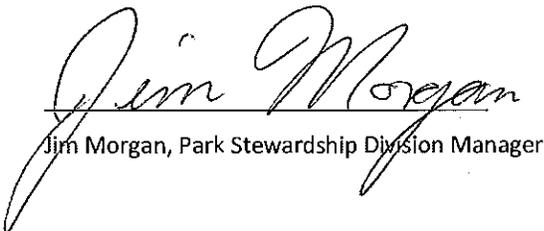
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I certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this report, the information submitted is true, accurate, and complete.

  
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# CONTENTS

<b>ACKNOWLEDGMENTS</b> .....	<b>I</b>
<b>CONTENTS</b> .....	<b>I</b>
LIST OF TABLES .....	II
LIST OF FIGURES.....	II
<b>ABBREVIATIONS AND ACRONYMS</b> .....	<b>III</b>
<b>INTRODUCTION</b> .....	<b>1</b>
COVERED ACTIVITIES.....	1
<i>Public Use/Recreation Management</i> .....	1
<i>Beach Management</i> .....	1
<i>Natural Resource Management</i> .....	1
COVERED LANDS .....	1
CONSERVATION MEASURE AREAS.....	2
CURRENT RECREATION RESTRICTIONS .....	2
<i>Occupied SPMA’s and RMA’s</i> .....	2
<i>Unoccupied SPMA’s and RMA’s</i> .....	2
<i>Remainder of Ocean Shore</i> .....	2
<b>WESTERN SNOWY PLOVER POPULATION SUMMARY</b> .....	<b>4</b>
WINTERING AND BREEDING WINDOW SURVEYS.....	4
DETECT/NONDETECT SURVEYS .....	5
SPMA OCCUPANCY .....	7
POPULATION MONITORING.....	9
NEST SUCCESS .....	9
FLEDGLING SUCCESS .....	9
TAKE OCCURRENCES .....	9
<b>HCP COMPLIANCE ACTIONS</b> .....	<b>12</b>
POPULATION MONITORING.....	12
MANAGEMENT ACTIVITIES .....	13
<i>Site Management Plans</i> .....	13
<i>Habitat Management</i> .....	13
Bandon SPMA.....	13
Clatsop Spit SPMA .....	15
Necanicum Spit SPMA .....	15
Nehalem Spit SPMA.....	15
<i>Predator Management</i> .....	15
<i>Enforcement</i> .....	15
Violation Summary .....	16
<i>Public Outreach</i> .....	17
ADAPTIVE MANAGEMENT .....	19
FUNDING .....	20
<b>REFERENCES</b> .....	<b>23</b>
<b>APPENDIX A: DOCENT MONITORING DATA SHEETS</b> .....	<b>24</b>

## LIST OF TABLES

TABLE 1. DETECT/NON-DETECT SURVEY RESULTS .....	5
TABLE 2. SPMA PLOVER RECORD SUMMARY .....	7
TABLE 3. REPRODUCTIVE SUCCESS OF SNOWY PLOVERS AT BANDON SPMA (1995-2012) .....	10
TABLE 4. DETECT/NONDETECT MISSED SURVEY WINDOWS .....	12
TABLE 5. NEST DISTRIBUTION AT BANDON SPMA .....	14
TABLE 6. SUMMARY OF VIOLATIONS AT BANDON SPMA.....	17
TABLE 7. VOLUNTEER DOCENT SCHEDULE .....	18
TABLE 8. 2012 BUDGET ESTIMATE .....	20
TABLE 9. IMPLEMENTATION SCHEDULE SUMMARY .....	21

## LIST OF FIGURES

FIGURE 1. BOUNDARY OF THE OCEAN SHORE BOTH WHEN THE VEGETATION LINE (TOP) AND STATUTORY (BOTTOM) VEGETATION LINE (SVL) IS FURTHER LANDWARD .....	3
FIGURE 2. WESTERN SNOWY PLOVER WINDOW SURVEY RESULTS.....	4
FIGURE 3. OREGON COAST WESTERN SNOWY PLOVER BREEDING POPULATION ESTIMATES (1993-2012).....	5
FIGURE 4. OPRD-MANAGED SPMAS .....	8
FIGURE 5. BANDON SPMA HABITAT AREAS .....	11
FIGURE 6. BANDON SPMA CUTOUTS.....	14
FIGURE 7. INTERPRETIVE PANEL AT BANDON SNA.....	19

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## ABBREVIATIONS AND ACRONYMS

ACOE	Army Corps of Engineers
APHIS	Animal and Plant Health Inspection Service, U.S. Department of Agriculture
BLM	Bureau of Land Management, U.S. Department of Interior
ESA	Endangered Species Act
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
Ocean Shore	Ocean Shore State Recreation Area
ODFW	Oregon Department of Fish and Game
OPRD	Oregon Parks and Recreation Department
ORBIC	Oregon Biodiversity Information Center
ORS	Oregon Revised Statute
OSP	Oregon State Police
RMA	Recreation Management Area
SMP	Site Management Plan
SNA	State Natural Area
SPMA	Snowy Plover Management Area
USFS	United States Forest Service, U.S. Department of Agriculture
USFWS	United States Fish and Wildlife Service

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## INTRODUCTION

Oregon Parks and Recreation Department (OPRD) is responsible for management of the Ocean Shore State Recreation Area (Ocean Shore) which encompasses all the sandy portions of the Ocean Shore along the Oregon coast that extend between the mouth of the Columbia River South Jetty and the California/Oregon border on the south. The Ocean Shore includes the land lying between extreme low tide to either the statutory vegetation line or established line of upland vegetation, whichever is furthest inland (Figure 1; ORS 390.605). Management of recreation, natural resources, and general operations may negatively affect snowy plover and their habitat and result in take of the species as defined under the Endangered Species Act (ESA, 16 U.S.C. 5131-1344, 87 Stat. 884). In December, 2010, the U.S. Fish and Wildlife Service (USFWS) issued an Incidental Take Permit (ITP) TE30687A-pursuant to Section 10(a)(1)(B) of the ESA to OPRD for western snowy plover (*Charadrius nivosus nivosus*). Activities covered by the ITP include recreation, beach, and natural resource management for the Ocean Shore. The ITP is conditional upon implementation of the Habitat Conservation Plan for the Western Snowy Plover (HCP, ICF International 2010). The HCP provides measures to minimize incidental take of western snowy plover (ICF International 2010).

OPRD is required to submit an annual report to USFWS documenting management actions over the previous year, snowy plover population data, snowy plover take occurrences, recreational use enforcement issues, and anticipated management efforts for the following year.

## COVERED ACTIVITIES

Covered activities are those that may occur on the covered lands for which OPRD has management responsibility that have the potential to result in incidental take of snowy plovers, and are listed below. Additional information is in Section 3.3 of the HCP (ICF International 2010).

### PUBLIC USE/RECREATION MANAGEMENT

- Camping
- Dog Exercising
- Pedestrian Traffic
- Picnicking
- Near Shore Activities/Surf Sports
- Driving
- Horseback Riding
- Beach Fires
- Beachcombing
- Driftwood Collection and Removal
- Kite Flying
- Other Dry Sand Activities

### BEACH MANAGEMENT

- Marine Mammal Strandings and Removal
- Public Safety
- External Law Enforcement
- Internal Law Enforcement
- Boat Strandings and Other Salvage Operations

### NATURAL RESOURCE MANAGEMENT

- OPRD Snowy Plover Management Actions
- Habitat Restoration

## COVERED LANDS

Covered Lands means the lands upon which the ITP authorizes incidental take of western snowy plover and the lands to which the HCP's conservation and mitigation measures apply. These lands are described in Section 2.5 of the HCP (ICF International 2010) and include the sandy portions of the Ocean Shore along the Oregon coast that extend between the mouth of the Columbia River South Jetty and the California/Oregon border on the south. The Ocean Shore includes the land lying between extreme low tide to either the statutory vegetation line or

established line of upland vegetation, whichever is furthest inland (Figure 1, ORS 390.605). The Ocean Shore is managed by OPRD for public recreational use, along with scenic, historic, natural and cultural purposes. Lands under federal ownership are excluded.

## **CONSERVATION MEASURE AREAS**

Conservation measures will be implemented on designated Snowy Plover Management Areas (SPMAs) and Recreation Management Areas (RMAs). The five SPMAs are within lands that are owned or leased by OPRD as part of a State Park Unit and are either occupied by plovers or targeted for future plover management. These areas include Clatsop Spit, also called Columbia River South Jetty (Fort Stevens State Park); Necanicum Spit (Gearhart Ocean State Recreation Area); Nehalem Spit (Nehalem Bay State Park); Netarts Spit (Cape Lookout State Park); and Bandon (Bandon State Natural Area). The 11 RMAs are portions of the Ocean Shore adjacent to plover sites that are owned by entities other than OPRD. Additional information can be found in Section 5.2.2 of the HCP (ICF International 2010)

## **CURRENT RECREATION RESTRICTIONS**

Full enforcement of the HCP is slated to begin March 15, 2013. Until then, recreation restrictions are as follows:

### **OCCUPIED SPMA'S AND RMA'S**

- All recreational activities are prohibited on the dry sand (within roped off key areas of the beach around nesting sites);
- Vehicles prohibited on the dry and wet sand (except in limited circumstances and under permit from ORPD, and for administrative use);
- Non-motorized vehicle use prohibited on the dry and wet sand;
- Dogs prohibited;
- Kites are prohibited, including model airplanes.

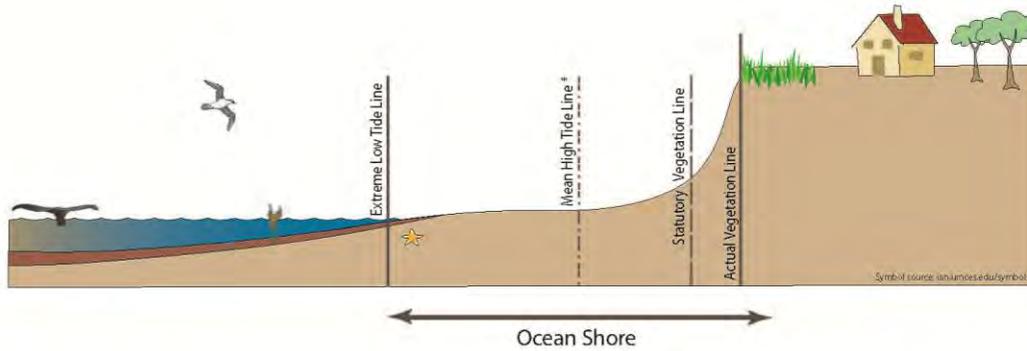
### **UNOCCUPIED SPMA'S AND RMA'S**

- Dogs must be on-leash;
- Vehicles prohibited on the dry and wet sand (except in limited circumstances and under permit from ORPD, and for administrative use);

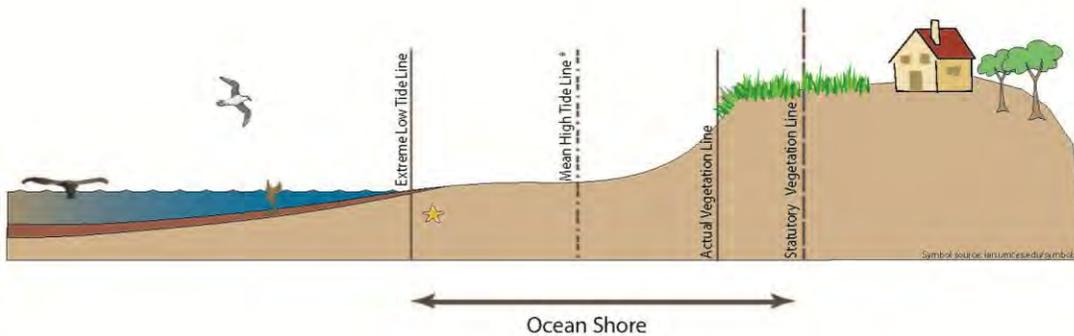
### **REMAINDER OF OCEAN SHORE**

- If a snowy plover nest is discovered outside of an SPMA or RMA, the nest will be roped off in a 50-meter radius and recreational use will be prohibited within the roped area. Roping may be removed once the nest hatches
- Dogs are required to be on-leash at all beaches adjacent to State Parks

**Figure 1. Boundary of the Ocean Shore both when the vegetation line (top) and statutory (bottom) vegetation line (SVL) is further landward**



Defined boundary of the Ocean Shore when the actual vegetation line is further landward than the statutory vegetation line.



Defined boundary of the Ocean Shore when the statutory vegetation line is further landward than the actual vegetation line.

\*OPRD's permit jurisdiction on the Ocean Shore extends landward from the low tide line to the mean high tide line on Federal lands and from the low tide line to the statutory or actual vegetation line, whichever is most landward, on all other lands.

## WESTERN SNOWY PLOVER POPULATION SUMMARY

Overall, snowy plover numbers and breeding locations have declined on the U.S. Pacific coast over the past century (ICF International 2010). The recovery goal has been set at an average of 3,000 breeding adults per year for 10 years. Oregon and Washington combined need to support 250 breeding plovers (USFWS 2007). In 2011, the number of breeding adult plovers in Oregon was estimated at 214 birds (Lauten et. al. 2011).

### WINTERING AND BREEDING WINDOW SURVEYS

The USFWS coordinates the winter and breeding window surveys and manages the protocol based on guidelines in the Recovery Plan (USFWS 2007), with assistance from qualified volunteers from other agencies, including ORPD. Winter and breeding window surveys are intended only to provide a range-wide index of the plover population over time; these surveys provide a minimum estimate of plovers at current, historic, and potential breeding sites, not a complete count (Elliot-smith and Haig 2007).

Since 1991, both winter and breeding window survey results show an increase in detections of snowy plovers (Figure 2). The 2012 breeding window survey results estimated 206 breeding adults, the highest observed since breeding window surveys began in 1978.

**Figure 2. Western snowy plover window survey results**

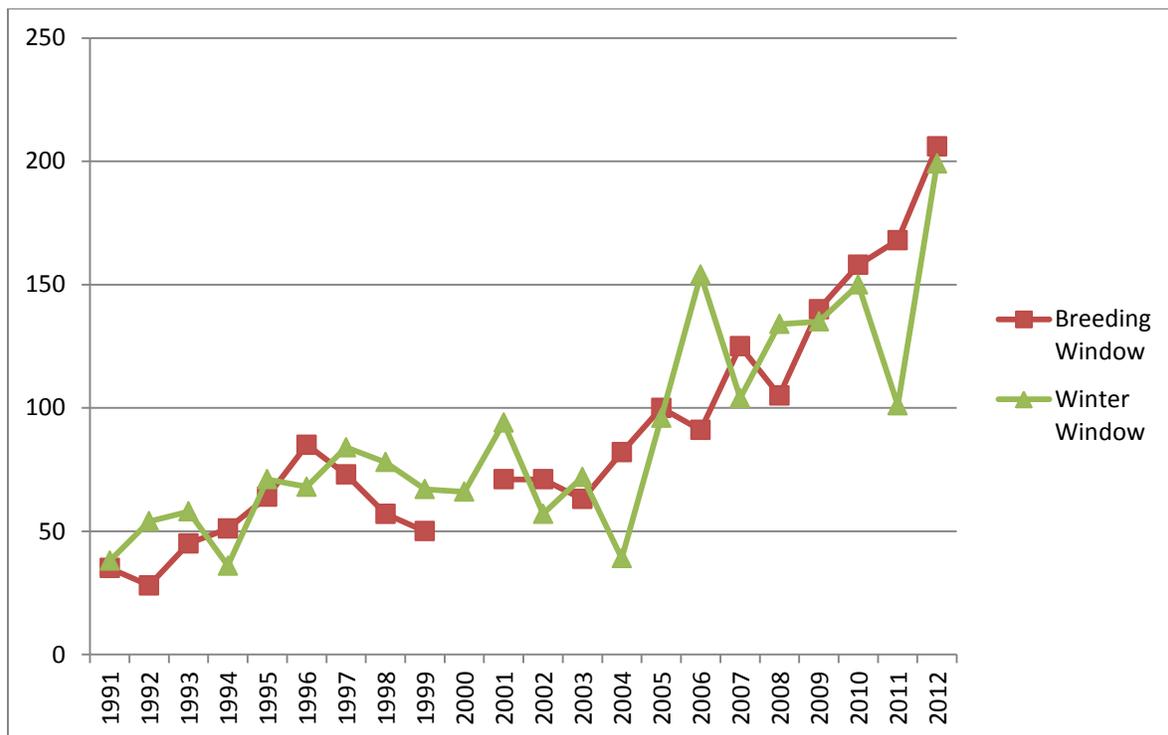
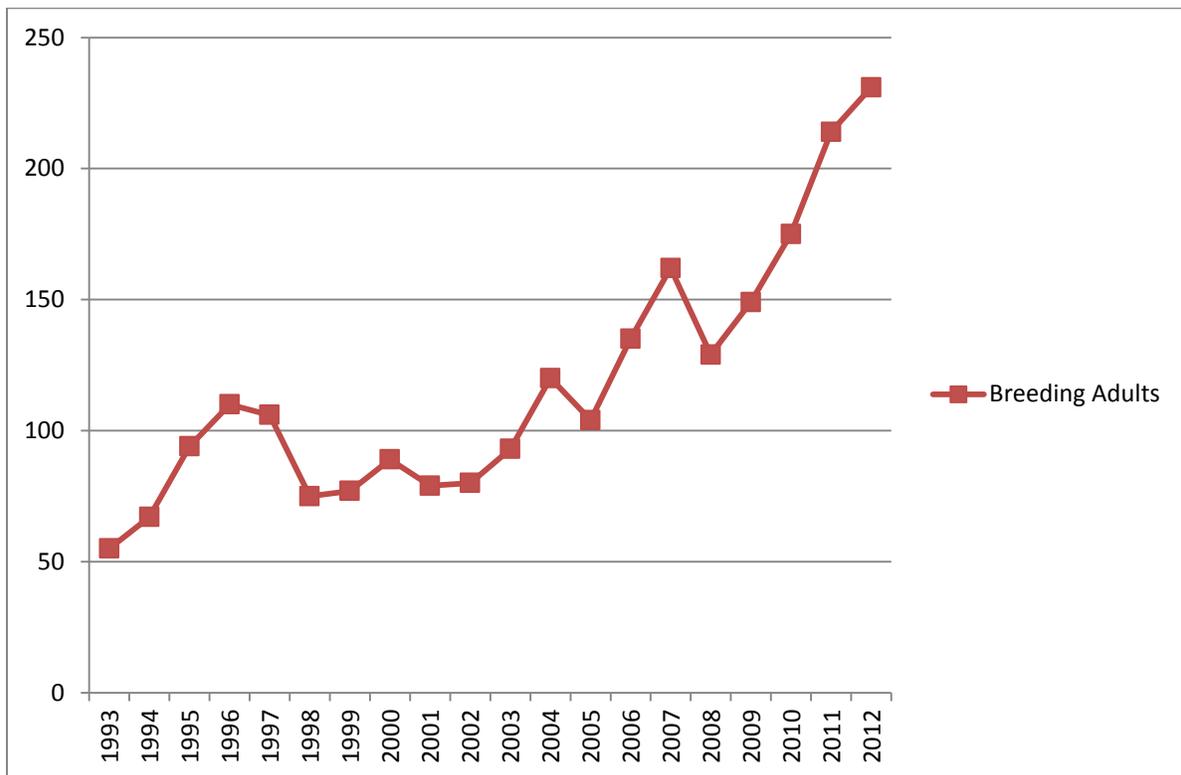


Figure 3. Oregon coast western snowy plover breeding population estimates (1993-2012)



## DETECT/NONDETECT SURVEYS

OPRD utilized OPRD staff and a volunteer team to conduct detect/nondetect surveys at the four unoccupied SPMA locations (76.7 observer hours, Table 1). In addition, USFWS conducted pre-breeding and late May surveys across the Oregon coast. Snowy plovers were observed at three SPMAS: Clatsop Spit, Necanicum Spit, and Bandon. No breeding behaviors or nests were observed at Clatsop or Necanicum Spit.

Table 1. Detect/Non-detect Survey Results

Date	Surveyors	Total Survey Time (hours)	Plovers Observed
<b>Clatsop Spit</b>			
4/6/12	Vanessa Blackstone (OPRD) Dane Osis (OPRD)	1.15	0
4/23/12	Hannah Fritz Pamela Johnson	2.45	0
4/24/12	Hannah Fritz Pamela Johnson	2.25	0
5/6/12	Shawn Schmelzer Mike Kaufman	1.75	0
5/25/12	USFWS	3	1
6/11/12	Hannah Fritz Pamela Johnson	2	0

Date	Surveyors	Total Survey Time (hours)	Plovers Observed
6/11/12	Vanessa Blackstone (OPRD)	4	0
6/14/12	Charlie Bruce	1.25	0
6/15/12	Charlie Bruce	1.25	0
6/27/12	Hannah Fritz Pamela Johnson	2.25	0
7/3/12	Shawn Schmelzer Mike Kaufman	1.75	0
<b>Necanicum Spit</b>			
3/24/12	Vanessa Blackstone (OPRD) Shawn Schmelzer Kim Brown Sue Westin Tim Halloran Jordan Epstein Dennis Higgins Vicky Ridgecooney Tom Ridgecooney	1.5	0
Early April	USFWS	Not reported	0
4/20/12	Jordan Epstein Tim Halloran	1.5	0
5/11/12	Jordan Epstein Meg Ruby Tim Halloran	1.25	0
5/25/12	USFWS	Not reported	1
6/15/12	Vanessa Blackstone (OPRD)	1.25	0
6/28/12	Kim Brown Sue Westin Sue Boac	1.5	0
7/13/12	Jordan Epstein Susan Westin	2.25	0
<b>Nehalem Spit</b>			
Early April	USFWS	Not reported	0
4/25/12	Jeff Allen Ted Chu	Not reported	0
5/10/12	Candy Hammond Weast Dennis Higgins	2	0
5/25/12	USFWS	1.25	0
6/14/2012	Jeff Allen Ted Chu	Not reported	0
Late June	Missed due to weather		
7/3/12	Candy Hammond Weast Dennis Higgins	2	0
<b>Netarts Spit</b>			
Early April	USFWS	Not reported	0
4/21/12	Ryan Parker (OPRD)	3.75	0
5/25/12	USFWS	Not reported	0
7/22/12	Ryan Parker (OPRD)	0.75	0

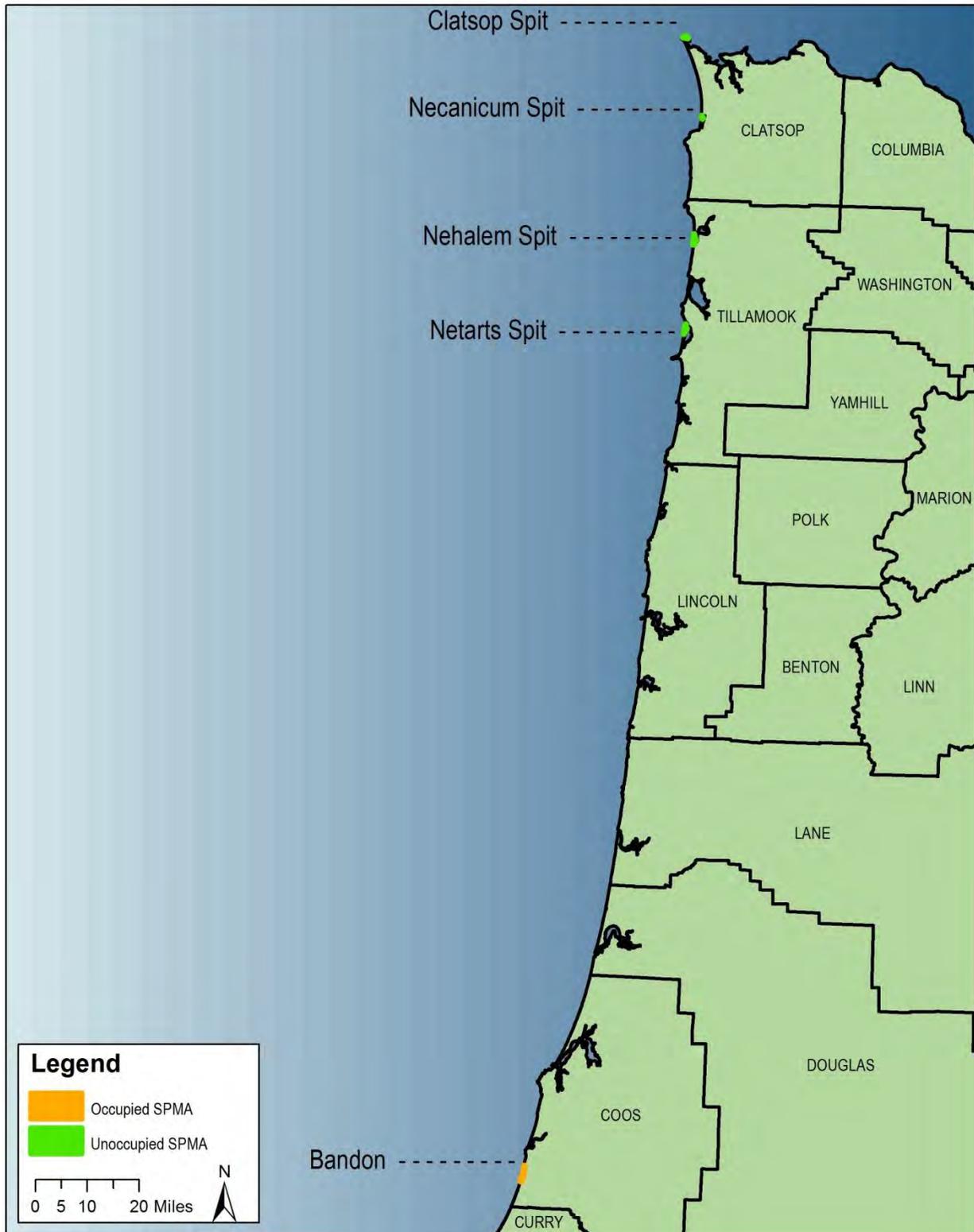
## SPMA OCCUPANCY

OPRD manages five SPMA's on the Oregon coast (Figure 4). Four of the SPMA's are historical nesting locations, but are not regularly utilized by snowy plover. With the development of site management plans for these sites, it is hoped that snowy plover will recolonize the SPMA's. The single occupied site, Bandon SPMA, supported successful breeding efforts in 2012. A summary of the earliest record, most recent record, and current status of each SPMA is provided in Table 2.

**Table 2. SPMA plover record summary**

SPMA	Earliest Record	Most Recent Breeding Attempt	Most Recent Breeding Season Record	Most Recent Wintering Record	Occupied
<b>Bandon</b>	1972	2011	2012	2012	Yes
<b>Clatsop Spit</b>	1965	1984	2012	2008	No
<b>Necanicum Spit</b>	1972	2002	2012	1983	No
<b>Nehalem Spit</b>	1920	1984	1984	2012	No
<b>Netarts Spit</b>	1912	1982	1982	1978	No

Figure 4. OPRD-managed SPMA



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



## POPULATION MONITORING

Snowy plover monitoring was conducted through the Oregon Biodiversity Information Center (ORBIC) as a joint task between Bureau of Land Management (BLM), U. S. Forest Service (USFS), USFWS, and OPRD. Distribution and abundance monitoring efforts included breeding season and winter window surveys as well as productivity monitoring. Productivity monitoring included locating nests and tracking the outcomes, banding young, and tracking fledgling survival. Survey methods are described in Castelein et al. 2000a, 2000b, 2001, 2002, and Lauten et al. 2003. This monitoring helps determine estimates of nest abundance, nest fate, fledging success, use of habitat restoration areas, adult populations through marked individuals, and efficacy of predator management methods. The joint monitoring report (Lauten et. al 2012) is provided in Appendix A. In 2012 the coastal western snowy plover breeding population in Oregon was estimated at a minimum of 231 birds (Lauten et. al 2012), while the minimum total adult population was 290.

## NEST SUCCESS

Nest success in this site management plan is defined as the number of successful nests divided by total number of nests (apparent nest success; *from* Lauten et. al 2003). Historically, population data at the SPMA has been reported separately; Bandon Beach encompasses China Creek overwash to the mouth of New River and New River, which pools OPRD and BLM-managed lands south of New River (Figure 5). Overall nest success for Bandon SPMA in 2012 was 19% with 0.86 fledglings per male, lower than previous years (Table 3, Lauten et. al 2012). Western snowy plover productivity experiences seasonal fluctuations, and the overall trend at Bandon SPMA is increasing, and the Oregon population is within recovery goals. However, efforts to increase individual site productivity should continue since the cause of lower nest success and productivity is not known.

## FLEDGLING SUCCESS

In addition to nest success, the number of young that survive is another important component of snowy plover productivity and imperative to the recovery of the species. Reproductive success, the number of young fledged per adult male, is based on males because they provide post-hatching parental care, and females lay clutches for multiple males (Warriner et. al. 1986). Reproductive success provides an index for comparing productivity between sites and years. At Bandon Beach, hatch rates pre- and post- predator management activities have remained similar, but fledgling success rate and reproductive success have increased (Table 3).

## TAKE OCCURRENCES

No known direct take occurrences due to OPRD-related activities were observed during 2012. However, two adult western snowy plovers were found deceased in the vicinity of their hatching nest; cause of death was determined by on-site monitors as canine predation. One bird was sent to a taxidermist, and the bird may have been shot. The second bird was autopsied and cause of death was determined to be a canine bite that punctured the lung (Laura Todd, pers.comm). The young were taken to a wildlife rehabilitation facility, but only one survived to fledging and release. This incident is being addressed by USFWS and the Western Snowy Plover Working Team.

**Table 3. Reproductive success of snowy plovers at Bandon SPMA (1995-2012)**

<b>Year</b>	<b>Hatch Rate<sup>1</sup></b>	<b>Fledgling Success Rate<sup>2</sup></b>	<b>Reproductive Success<sup>3</sup></b>
2012	19%	40%	0.86
2011	47%	49%	1.4
2010	41%	17%	0.5
2009	21%	35%	0.58
2008	9%	38%	0.2
2007	35%	60%	1.44
2006	39%	38%	0.88
2005	41%	24%	1.65
2004	68%	54%	1.67
2003	42%	21%	0.43
2002	25%	0%	0
2001	50%	13%	0.33
2000	0%	0%	0
1999	62%	19%	0.33
1998	50%	0%	0
1997	26%	0%	0
1996	67%	13%	0.33
1995	30%	55%	1.0

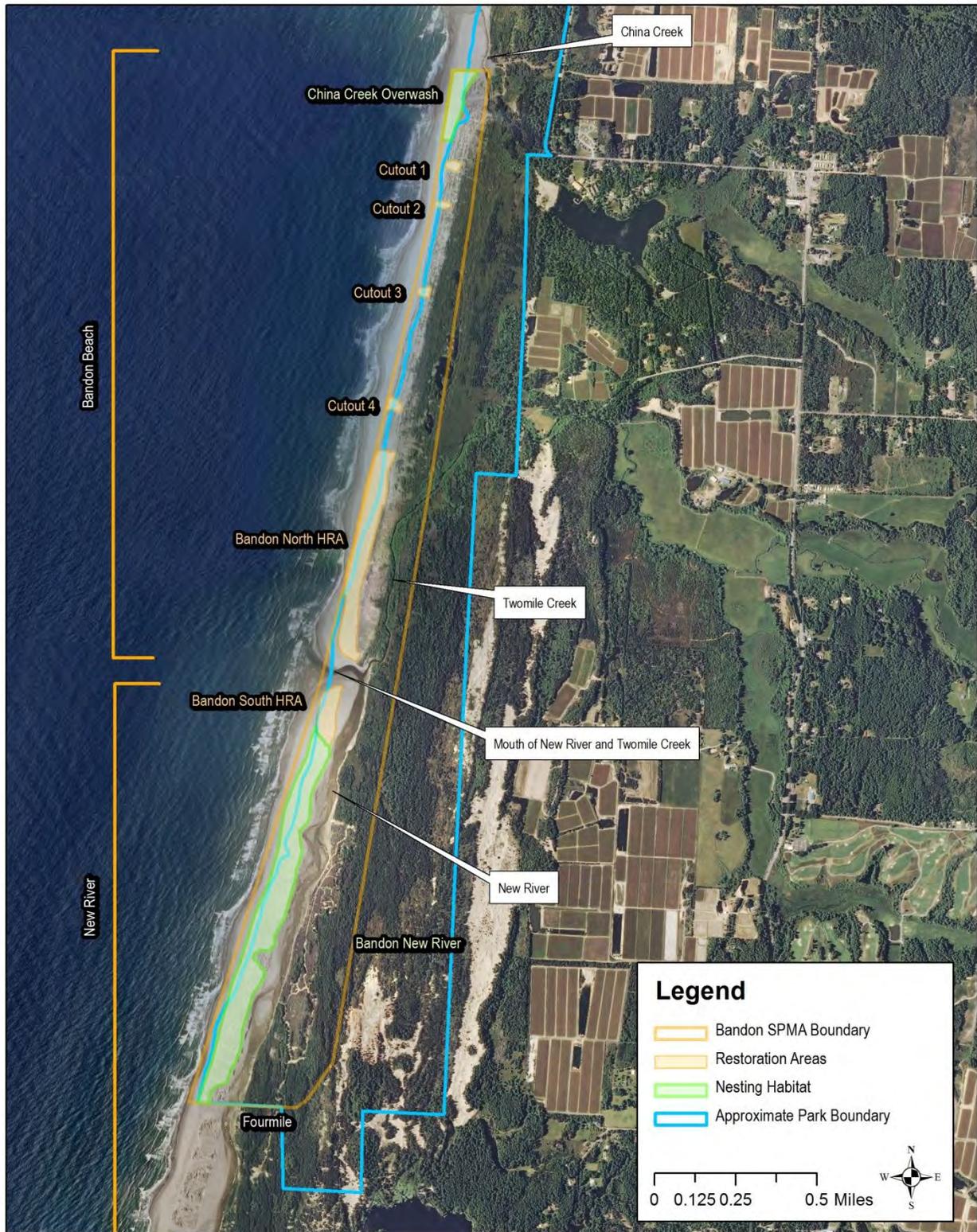
<sup>1</sup> Hatch rate: number of hatched eggs/total number of eggs

<sup>2</sup> Fledgling success: number of fledged young/total number of hatched eggs

<sup>3</sup> Reproductive success: number of fledged young per male

Source: Lauten et. al., 2012.

Figure 5. Bandon SPMA habitat areas



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## HCP COMPLIANCE ACTIONS

### POPULATION MONITORING

**1. Obligation:** OPRD will perform detection/non-detection monitoring activities at unoccupied SPMAs for nesting snowy plover at the beginning of nesting season (March) through July 15. These will occur twice monthly.

**2012 Actions:** USFWS coordinated a prospecting survey in April 2012. The breeding window surveys took place from May 23-June 1. A single adult snowy plover was observed at Clatsop Spit SPMA on May 25 and a separate adult snowy plover was observed at Necanicum Spit SPMA on May 23. OPRD performed detect/nondetect surveys at least once monthly from March through July (Table 1); these surveys were in addition to the USFWS prospecting survey and breeding window survey. Due to weather and scheduling conflicts, some survey windows were missed (Table 4). Approximately 76.7 hours of observer time was spent on detect/non-detect surveys. No plovers were detected during these surveys.

**Future Actions:** OPRD will obtain a USFWS Recovery Permit (Level 2), held by the wildlife biologist. OPRD will train sub-permittees (beach rangers, volunteers, and other park staff) to conduct detect/non-detect surveys to ensure all four unoccupied sites are surveyed according to HCP and Recovery Permit guidelines.

**Table 4. Detect/nondetect missed survey windows**

SPMA	Survey Period	Reason
Clatsop Spit	March 15-31	Weather
Necanicum Spit	USFWS (April 1-15)	Weather
Nehalem Spit	March 15-31 June 15-30	Weather
Netarts Spit	March 15-31 USFWS (April 1-15) May 1-15 June 1-15 June 15-30	Weather and access; part of the beach access washed out and walking the spit to reach the SPMA was not possible

**2. Obligation:** OPRD will provide funding in cooperation with several State and Federal agencies for the Oregon Biodiversity Information Center (ORBIC) to conduct breeding population monitoring at occupied sites. If the interagency cooperation fail, OPRD will ensure continued monitoring at OPRD-owned or leased SPMA's.

**2012 Actions:** OPRD maintained the interagency agreement with ORBIC, resulting in a contract of \$47,994.18 for population monitoring at Bandon SPMA.

**3. Obligation:** OPRD will provide staff to assist with conducting wintering survey windows at occupied sites and at new SPMAs as they become occupied

**2012 Actions:** OPRD conducted the Clatsop Spit and Fort Stevens State Park ocean beach winter window survey on January 26, 2012. USFWS had sufficient coverage for the prospecting and breeding window surveys.

## MANAGEMENT ACTIVITIES

### SITE MANAGEMENT PLANS

**4. Obligation:** Produce site management plans within one year of the ITP issuance for Bandon State Natural Area (SNA), and within two years of the ITP issuance for Columbia River South Jetty, Necanicum Spit, and Nehalem Spit.

**2012 Actions:** OPRD submitted a draft Site Management Plan for Clatsop Spit. OPRD requested a 3-month submission delay for the Necanicum Spit and Nehalem Spit plans in order to address ownership issues.

**Future Actions:** The site management plans for Necanicum Spit and Nehalem Spit will be submitted to USFWS by March 17, 2013.

### HABITAT MANAGEMENT

#### *BANDON SPMA*

**5. Obligation:** Provide and maintain a minimum of 50 acres of quality habitat available for nesting and wintering western snowy plovers at Bandon SNA.

Prior to issuance of the HCP, OPRD had restored approximately 50 acres of habitat near the mouth of Twomile Creek (Figure 5). The mouth of New River has moved north and joined Twomile Creek, dividing the original HRA into north and south sections. New River allows overwash to maintain the habitat restored in 2002 and generate additional suitable habitat south of the river. This habitat does not require additional maintenance; however, as the river continues to move north, beach grass encroachment may again become an issue.

**2012 Actions:** No new acreage was established; OPRD conducted maintenance actions on approximately 62 acres of habitat in six separate areas: the cutouts (Figure 6), Bandon North HRA, and Bandon New River (Figure 5). Approximately 11 acres within these areas were maintenance.

Bandon New River extends south from the mouth of New River to the southern boundary of the SPMA and comprises approximately 58 acres (Table 5), including Bandon South HRA. Approximately 9 acres were experiencing beach grass encroachment, and were treated on October 5 with a glyphosate/amazapyr solution. In addition, an additional 2 acres were treated along the foredune of the cutouts and Bandon North HRA with glyphosate alone to avoid impacts to pink sand verbena caused by amazapyr.

In November and December, approximately 10 acres in the cutouts and Bandon North HRA were bulldozed to set back the density of beachgrass.

Figure 6. Bandon SPMA Cutouts



Table 5. Nest distribution at Bandon SPMA

Habitat Area	Approximate Acreage	2012 Nests	Habitat Notes	2012 Treatments
China Creek Overwash	6.6	5	Receives overwash	
Cutout 1	0.74	1		Glyphosate, bulldozer
Cutout 2	0.62	1		Glyphosate, bulldozer
Cutout 3	0.71	0		Glyphosate, bulldozer
Cutout 4	1	3	Shell hash deposited	Glyphosate, bulldozer
North HRA	23.21	25		Bulldozer 5 acres
Bandon New River <sup>1,2</sup>	58.21	12	Receives some overwash	Glyphosate and amazapyr
Other locations	n/a	9		
<b>Total Nests</b>		<b>60</b>		

<sup>1</sup> Includes Bandon South HRA

<sup>2</sup> Generated from aerial imagery

### ***CLATSOP SPIT SPMA***

**6. Obligation:** Restore up to 40 acres at Columbia River South Jetty SPMA. Habitat restoration at Columbia River South Jetty will be initiated within 5 years of completing the site management plan.

**2012 Actions:** No management actions have occurred at this site during 2012. A site management plan is under review by USFWS.

### ***NECANICUM SPIT SPMA***

**7. Obligation:** Restore up to 40 acres at Necanicum Spit SPMA, if needed (limiting factors are predator management and enforcement of recreation restrictions). Habitat restoration at Necanicum Spit will be initiated within 2 years of completing the site management plan, if needed.

**2012 Actions:** No management actions have occurred at this site during 2012. A site management plan will be drafted in 2013, focusing on appropriate habitat restoration, public outreach, trail routes, and predator management.

### ***NEHALEM SPIT SPMA***

**8. Obligation:** Restore up to 40 acres at Nehalem Spit. Habitat restoration at Nehalem Spit will be initiated within 2 years of completing the site management plan.

**2012 Actions:** No management actions have occurred at this site during 2012. A site management plan will be drafted in 2013, focusing on appropriate habitat restoration, trail routes, and predator management.

## **PREDATOR MANAGEMENT**

**9. Obligation:** Provide financial assistance for predator management activities on OPRD SPMA's, including full funding for garbage removal at OPRD unoccupied SMPAs.

**2012 Actions:** OPRD continued lethal predator removal at Bandon SPMA via a joint contract with Animal Plant and Health Inspection Service (APHIS) and agency members of the Snowy Plover Working Team (Army Corps of Engineers, BLM, Oregon Department of Fish and Wildlife, OPRD, USFS, and USFWS). OPRD also maintained three beach rangers that patrol the Ocean Shores and remove garbage, as well as assisted garbage collection efforts by partners such as SOLVE.

**10. Obligation:** Facilitate lethal control methods of predator management through cooperative agreement with Animal and Plant Health Inspection Service (APHIS) or similar organization.

**2012 Actions:** OPRD contributed funding to the contract with Wildlife Services. Three wildlife biologists were utilized on the south coast. A summary of the predator management activities can be found in the Integrated Predator Damage Management Report (Burrell, 2012), provided in Appendix B. Predator management activities (lethal control) have been occurring at Bandon SNA since 2002; the remaining SPMA's do not currently have predator management actions.

## **ENFORCEMENT**

**11. Obligation:** OPRD will seek to modify the Oregon State Rule of Ocean Shore Management to provide an ongoing mechanism for recreational use restrictions.

**2012 Actions:** OPRD entered into Rulemaking for the Ocean Shore in December 2012. The Park Commission approved the new rules in April of 2012. Final adoption is pending.

**12. Obligation:** OPRD will install symbolic fencing around nesting areas at the start of snowy plover nesting season at OPRD-owned nesting areas, and will provide signs for all SPMA's/RMA's regardless of ownership.

**2012 Actions:** Symbolic fencing was initially installed during the week of March 15 2012 at China Creek overwash to the mouth of New River. Carsonite signs were installed in Bandon SPMA south of New River on the ocean side. Fencing and signs were installed high adjacent to the foredune to avoid washing out during storms and high tides. As the season progressed, OPRD staff and ORBIC monitors adjusted the fencing and signs seaward as dictated by weather, tides, and nesting bird locations.

**13. Obligation:** OPRD will provide supervision, enforcement, and ropes and/or signage at RMAs not adjacent to Federal lands.

**2012 Actions:** Currently there is one RMA not adjacent to Federal lands – Elk River. USFWS has been working with the private owners to restore the site, including development of a site management plan. There have been no requests for OPRD to assist with supervision, enforcement, fencing, or signage at Elk River. If needed, OPRD will work with the land owner to ensure these needs are met.

**14. Obligation:** OPRD will provide funding for three full-time beach ranger positions, one each for the north, south, and central coast.

**2012 Actions:** OPRD has restructured to provide for four full-time beach ranger positions; north, mid, central, and south coast. The south coast beach ranger position was vacant during 2012. To ensure compliance with the HCP, the Bullards Beach Management Unit designated a temporary beach ranger throughout the summer to provide enforcement presence at Bandon SPMA and supplemented patrols with park rangers from Bullards Beach State Park.

**15. Obligation:** Work with Oregon State Police (OSP) and local law enforcement offices to provide additional enforcement support.

**2012 Actions:** OPRD did not contract with OSP for overtime officer patrol of beaches this year. Park enforcement staff can call on OSP for back up if a volatile situation arises, but did not have a need during 2012. OSP and OPRD both participate in the USFWS-sponsored law enforcement workshops as well as south coast working group meetings.

### ***VIOLATION SUMMARY***

Total violations were down from 2011, and no camping violations were reported (Table 6. Summary of violations at Bandon SPMA Table 6). Violations were extracted from population monitor reports and volunteer docent reports and are summarized in Table 6. ORBIC monitor reports are based on direct observation and tracks in sand; docent reports are based on direct observation from China Creek parking area. Beach ranger citations are not included, as OPRD's citation database does not currently include a function to extract plover-specific violations. Efforts are under discussion to enable tracking of plover-specific violations and compliance requests for beach rangers and other OPRD enforcement staff.

Violations are reported by total number of individuals rather than events since determining an event based on tracking is not feasible. This can inflate the total number of violations. Violations may also be high due to volunteer docents recording activities north of the SPMA boundary. A number of docents believed the SPMA began at the mouth of China Creek, which is further north of the true boundary. There is also the likelihood that some violations were double-counted by ORBIC monitors and docents, since there is currently no efficient way to note if ORBIC monitors and docents recorded the same violations.

Table 6. Summary of violations at Bandon SPMA

Violation Type	ORBIC Monitor Reports	Docent Reports	Park Rangers	Total
Camping	0	0	0	0
Dogs off-leash	15	47	1	63
Vehicle	0	0	0	0
Visitors in dry sand	34	119	0	153
<b>Grand Total</b>	<b>49</b>	<b>166</b>	<b>1</b>	<b>216</b>

## PUBLIC OUTREACH

**16. Obligation:** Work with other State and Federal agencies in the development of outreach and educational materials.

**2012 Actions:** OPRD staff are members of the Outreach Subcommittee for the Oregon Western Snowy Plover Working Team, including signage, social media and internet, etc. OPRD has developed draft signs for full implementation of the HCP as well as “dog-friendly” brochures for each occupied site.

**17. Obligation:** Provide training on HCP requirements to all OPRD coastal parks staff and volunteers.

**2012 Actions:** Internal staff training was held at Bullards Beach and Cape Lookout State Parks in March. Topics included the status of western snowy plover, basic ecology and identification, HCP rules and OPRD’s obligations. Volunteer docents for China Creek and south coast beach rangers received training related to the Bandon SPMA and enforcement coordination at RMAs.

**18. Obligation:** Assist with implementation of interpretive programs at Bullards Beach, Honeyman, Nehalem Bay, and Sunset Bay State Parks. Additional programs will be at Fort Stevens, Cape Lookout, and Harris Beach State Parks.

**2012 Actions:** Bullards Beach staff provided three Junior Ranger programs on snowy plovers.

**19. Obligation:** Develop a snowy plover webpage that contains the HCP, the management action summary matrix, the list of SPMA/RMA beaches, maps of these areas, and the efforts OPRD is undertaking to help snowy plover recovery.

**2012 Actions:** OPRD has a webpage active at [http://cms.oregon.gov/OPRD/PLANS/Pages/Coastal\\_Plans.aspx#Habitat\\_Conservation\\_Plan\\_for\\_Western\\_Snowy\\_Plovers](http://cms.oregon.gov/OPRD/PLANS/Pages/Coastal_Plans.aspx#Habitat_Conservation_Plan_for_Western_Snowy_Plovers). This site will be revised in January of 2013.

**20. Obligation:** Prepare a snowy plover brochure describing OPRD efforts in plover conservation and recovery and how park visitors can help.

**2012 Actions:** OPRD began planning interpretive materials, including a brochure, for the 2013 implementation of the HCP. A final product will be needed prior to March 15, 2013. These brochures may be a cooperative effort with the Western Snowy Plover Working Team Outreach Committee.

**21. Obligation:** Develop information sign for SPMA State Park kiosks at beach access points that includes information on the presence of snowy plovers, applicable recreational use restrictions, and the importance of snowy plover protection measures.

**2012 Actions:** OPRD began planning interpretive materials, including signs, for the 2013 implementation of the HCP. A final product will be needed prior to March 15, 2013. Drafts were presented to the Western Snowy Plover Working Team Outreach Committee in November.

**22. Obligation:** OPRD will install recreational use restriction signs at SPMA's and RMA boundaries.

**2012 Actions:** Installation of signs occurred at Bandon SPMA; other SPMA's do not currently have recreation restrictions. Signage at RMA's adjacent to Federal lands was addressed by Federal agencies.

**23. Obligation:** OPRD will work with USFWS to install signs at nesting locations outside of SPMA's and RMA's.

**2012 Actions:** ORBIC monitors installed ropes and signs around nests located outside of SPMA's and RMA's when nests were discovered.

**24. Obligation:** Include notifications statements on coastal campsite receipts notifying visitors on any recreational restrictions in the area and requesting cooperation in adherence to the restrictions.

**2012 Actions:** Until 2013, beach use restrictions are only in effect at the Bandon SNA where no camping reservations are available. OPRD will develop a statement for receipts at Fort Stevens State Park and Nehalem Bay State Park.

**25. Obligation:** OPRD will utilize volunteers at China Creek parking area in Bandon SNA for 20 hours/week from May through August. Volunteers will record information on the type of recreation use occurring, document violations, and report observed violations to the USFWS.

**2012 Actions:** Volunteer docents worked in pairs, providing outreach to beach visitors on plovers, beach regulations, and beach ecology. Docents also recorded recreation use, violations, and outreach contacts (Appendix C). OPRD had three volunteer docent positions, filled in pairs. Two positions were in collaboration with USFWS, from April through September and May through September, respectively. These two volunteer pairs each worked approximately 10 hours per week at China Creek parking area. OPRD filled The remaining pairs of docents each worked approximately 36 hours each week from April through September

**Table 7. Volunteer Docent Schedule**

Month	OPRD Docents	USFWS and OPRD Docents	USFWS and OPRD Docents
<b>April</b>	Gary and Mary Van Hooser 36 hours/week	John and Sue Ewan 10 hours/week	Lester and Pam Trout 10 hours/week
<b>May</b>	Michael and Diane Chacon 36 hours/week	John and Sue Ewan 10 hours/week	Lester and Pam Trout 10 hours/week
<b>June</b>	Larry and Mollie Folmar 36 hours/week	John and Sue Ewan 10 hours/week	Lester and Pam Trout 10 hours/week
<b>July</b>	Joehn and Bonnie Gee 36 hours/week	John and Sue Ewan 10 hours/week	Lester and Pam Trout 10 hours/week
<b>August</b>	Gloria and Doug Williams 36 hours/week	John and Sue Ewan 10 hours/week	Lester and Pam Trout 10 hours/week
<b>September</b>	Kim and Else Ireland 36 hours/week	John and Sue Ewan 10 hours/week	Lester and Pam Trout 10 hours/week

**26. Obligation:** Maintain interpretive panel on snowy plover nesting and habitat at Bandon SNA.

**2012 Actions:** The interpretive panel at Bandon SNA is shown in Figure 7.

Figure 7. Interpretive panel at Bandon SNA



**27. Obligation:** Provide programs and/or information about the snowy plover to community groups, chambers of commerce, school groups, and recreational enterprises as opportunity arises.

**2012 Actions:** OPRD and CoastWatch co-hosted an outreach event at Seaside, Oregon on March 24. Bullards Beach staff contacted staff at the Lake Bradley Christian Camp regarding their use of the beach at Bandon SPMA in relation to snowy plovers.

**28. Obligation:** Work with land and resource managers on coordinating efforts pertaining to predator management, habitat restoration, monitoring, and public outreach and education on an annual basis and report on these efforts to the USFWS.

**2012 Actions:** OPRD attended the Washington/Oregon Western Snowy Plover Working Team annual meeting in October 2012 and the Western Snowy Plover Working Team meeting in December 2012.

## ADAPTIVE MANAGEMENT

Adaptive management is defined as a process that allows resource managers to adjust their actions to reflect new information or changing conditions in order to reach the purpose and goals of the HCP (ICF International 2010).

**29. Obligation:** OPRD will work with USFWS to develop and implement protocols for assessing effectiveness of the conservation strategies based on the annual report and other information. Protocols will be developed in collaboration with other snowy plover partners (Federal, State, and local agencies and private landowners). OPRD will implement appropriate adaptive management measures, if necessary, to address snowy plover population declines or significant habitat degradation.

**2012 Actions:** OPRD attended the Western Snowy Plover Working Team meetings to address regional snowy plover conservation strategies. No significant snowy plover population declines were documented in 2012. Habitat in Bandon SPMA needed maintenance and had treatments applied in October and December.

**30. Obligation:** OPRD will evaluate the relative success of nest enclosures in preventing predators from destroying nests and eggs, and will meet with USFWS annually to review on a site-by-site basis.

**2012 Actions:** ORPD supports the guidelines developed by ORBIC monitors and USFWS determined guidelines for utilizing exclosures.

## FUNDING

**31. Obligation:** OPRD will provide and expend funds as may be necessary to fulfill its obligations under the HCP.

**2012 Actions:** Table 8 summarizes the estimated expenditures associated with implementation of the HCP. These expenditures include contracted work, materials, and estimated staff time associated with the work; some administrative fees and staff hours are not included.

Table 8. 2012 Budget Estimate

Management Action	Est. Total Cost
<b>Population Monitoring and Surveys</b>	<b>49,994</b>
<b>Habitat Management</b>	<b>11,341</b>
<b>Predator Management</b>	<b>15,000</b>
<b>Education and Outreach</b>	<b>74,964</b>
Volunteer docents	14,681
Outreach Materials	1,550
Events	1,234
Staff training	57,499
<b>Enforcement</b>	<b>28,279</b>
Fencing	20,967
Patrols	7,312
<b>HCP Administration</b>	<b>22,809</b>
HCP Coordination	6,120
Site Management Planning	14,649
Working Team Conferences	2,040
<b>Total</b>	<b>202,388</b>

**32. Obligation:** OPRD will promptly notify the USFWS of any material change in the OPRD's financial ability to fulfill its obligations. In addition, OPRD will provide USFWS with a copy of its annual report each year of the HCP or with such other reasonably available financial information that USFWS and OPRD agree will provide adequate evidence of OPRD's ability to fulfill its obligations.

**2012 Actions:** Funding sources were sufficient during 2012, and OPRD contributed funds above the maximum stipulated in the HCP.

**33. Obligation:** OPRD will compile and provide an annual report by January 1 to USFWS documenting its management actions to date and indicating anticipated efforts for the following year.

**2012 Actions:** The 2011 compliance report was submitted on DATE

**34. Obligation:** OPRD, ODFW, and USFWS will meet every 5 years following issuance of the ITP to evaluate the performance and effectiveness of the conservation measures.

**Future Actions:** The next meeting will be in 2015.

**Table 9. Implementation Schedule Summary**

<b>Action</b>	<b>Comments</b>	<b>Timing</b>
<b>Ocean Shore Rules</b>	OPRD entered into Rulemaking for the Ocean Shore in December 2011. Public comment has been completed and the Park Commission has approved the rules. Final acceptance is pending.	Accepted by Park Commission
<b>Bandon New River Habitat Management</b>	Utilize herbicide south of New River to set back beachgrass encroachment on the approximately 58 acres of habitat at Bandon New River	Ongoing
<b>Bandon Beach Habitat Management</b>	An interagency agreement is under negotiation with National Guard for work at Bandon North HRA and the four cutouts	Ongoing
<b>Necanicum Spit Site Management Plan</b>	An interagency agreement will be broached with City of Gearhart regarding access to Necanicum SPMA across their ownership and potential need to control beachgrass bordering the SPMA	Ongoing
<b>Nehalem Spit Site Management Plan</b>	Coordinate restoration areas with ACOE	Ongoing
<b>Interpretive Programs</b>	Develop interpretive programs focusing on western snowy plover and their habitat at interpretive programs at Bullards Beach, Honeyman, Nehalem Bay, Sunset Bay, Fort Stevens, Cape Lookout, and Harris Beach State Parks.	Ongoing
<b>Public Meetings</b>	OPRD will conduct public meetings in Gearhart and Tillamook on the upcoming site management plans	January 2013
<b>Volunteer positions for detect/nondetect surveys</b>	Position descriptions and outreach posted in December 2012 and January 2013 for the 2013 season.	January 2013
<b>North Coast Site Management Plans</b>	OPRD to submit draft plans Necanicum Spit and Nehalem Spit to USFWS	March 17, 2012
<b>OPRD filing for recovery permit</b>	OPRD wildlife biologist to obtain Recovery Permit. Additional staff and volunteers will be trained and listed under the biologist's supervision	2013
<b>Western snowy plover workshop at TWS meeting</b>	Provide outreach and training for USFWS protocol surveys for western snowy plover	February 13, 2013
<b>OPRD internal training</b>	Provide Recovery Permit training for OPRD staff	February –April 2013

Action	Comments	Timing
<b>OPRD field training for volunteers</b>	Provide Recovery Permit training for ORPD volunteers	February –April 2013
<b>Beach Ranger position</b>	Fill the open beach ranger position	February 2013
<b>New Interpretive Materials</b>	Dog-friendly beaches materials, share the beach materials; update website; install signs at North Coast sites	2013
<b>Detect/nondetect surveys for 2013</b>	Conduct surveys at Clatsop Spit, Nehalem Spit, Necanicum Spit, and Netarts Spit once in March and July, and twice in April, May, and June. Coordinate April and May surveys with USFWS breeding surveys.	March 15, 2013
<b>Voluntary Compliance at Suitable Habitat Areas at Clatsop Spit and Necanicum Spit</b>	SHAs will be marked with signs requesting visitors to avoid recreation inside SHAs for shorebird conservation	March 15, 2013
<b>Full enforcement of recreation restrictions at Bandon SPMA and occupied RMAs</b>	No vehicles, no dogs, no kites, and visitors must keep to the wet sand	March 15, 2013
<b>Clatsop Spit Site Management</b>	USFWS comments due back to OPRD	June 17, 2013
<b>North Coast Site Management Plans – Working Team Review</b>	Working Team review of site management plans for Clatsop Spit, Necanicum Spit, and Nehalem Spit	June, 2013
<b>Habitat restoration at Clatsop Spit expected</b>	Depending on funding, ACOE will install an HRA at Clatsop Spit in conjunction with construction of staging areas for the Mouth of the Columbia River Jetty Repair project	2014-2016
<b>Habitat restoration at Nehalem Spit expected</b>	Dependent on resolving ownership overlap with Tillamook County	2015

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