

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R8-ES-2010-0070; MO 92210-0-0009]

RIN 1018-AX10

Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Pacific Coast Population of the Western Snowy Plover

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to revise the designated critical habitat for the Pacific Coast population of the Western Snowy Plover (Pacific Coast WSP) (*Charadrius alexandrinus nivosus*) under the Endangered Species Act of 1973, as amended (Act). The areas identified in this proposed rule constitute a revision of the areas designated as critical habitat for the Pacific Coast WSP, published in the **Federal Register** on September 29, 2005. In the final rule, we designated a total of 12,145 acres (ac) (4,915 hectares (ha)) of critical habitat range-wide in 32 units in Washington, Oregon, and California. We are now proposing to revise the existing critical habitat to a total of 68 units totaling approximately 28,261 ac (11,436 ha). The area breakdown by State is as follows: Washington: 6,265 ac (2,497 ha) in 4 units; Oregon: 5,219 ac (2,112 ha) in 13 units; and California: 16,777 ac (6,789 ha) in 51 units.

DATES: We will consider comments from all interested parties until May 23, 2011. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section by May 6, 2011.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments to Docket No. FWS-R8-ES-2010-0070.

(2) *U.S. mail or hand-delivery:* Public Comments Processing, Attn: FWS-R8-ES-2010-0070; Division of Policy and Directives Management; U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, Suite 222, Arlington, VA 22203.

We will not accept e-mail or faxes. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see Public Comments section below for more information).

FOR FURTHER INFORMATION CONTACT: Jim Watkins, U.S. Fish and Wildlife Service, Arcata Fish and Wildlife Office, 1655 Heintoda Road, Arcata, CA 95521; telephone (707) 822-7201; facsimile (707) 822-8411. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at (800) 877-8339.

SUPPLEMENTARY INFORMATION:

Public Comments

We intend that any final action resulting from this proposed revised critical habitat rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from governmental agencies, the scientific community, industry, or other interested parties concerning this proposed revised rule. We particularly seek comments concerning:

(1) The reasons why we should or should not revise the designation of "critical habitat" under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat is not prudent.

(2) Specific information on:

(a) Areas that provide habitat for the Pacific Coast WSP that we did not discuss in this proposed revised critical habitat rule,

(b) Areas within the geographical area occupied by the species at the time of listing that contain elements of the physical and biological features essential to the conservation of the species which may require special management considerations or protection and that we should include in the designation, and reason(s) why (see *Physical and Biological Features* section).

(3) Specific information on our proposed designation of back-dune systems and other habitats in an attempt to offset the anticipated effects of sea-level rise caused by a warming trend associated with climate change (see *Critical Habitat Units* section).

(4) Specific information on the Pacific Coast WSP, habitat conditions, and the presence of physical and biological features essential to the conservation of the species at any of the critical habitat units proposed in this revised rule (see *Critical Habitat Units* section and previous rules (64 FR 68508, December 7, 1999; 70 FR 56970, September 29, 2005)).

(5) Comments or information that may assist us in identifying or clarifying the physical and biological features essential to the conservation of the species.

(6) How the proposed revised critical habitat boundaries could be refined to more closely circumscribe the areas identified as containing the features essential to the species' conservation.

(7) How we mapped the water's edge and whether any alternative methods could be used to better determine the critical habitat boundaries.

(8) Any probable economic, national-security, or other impacts of designating particular areas as critical habitat, and, in particular, any impacts on small entities (*e.g.*, small businesses or small governments), and the benefits of including or excluding areas that exhibit these impacts.

(9) Whether any specific areas being proposed as revised critical habitat should be excluded under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any particular area outweigh the benefits of including that area under section 4(b)(2) of the Act (see *Exclusions* section for further discussion).

(10) Any information regarding the areas exempted from this proposed revised rule (see *Exemptions* section for exempted units and further discussion).

(11) Information on any quantifiable economic costs or benefits of the proposed revised designation of critical habitat.

(12) Information on Tribal lands within the proposed revised designation.

(13) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Our final determination concerning critical habitat for the Pacific Coast WSP will take into consideration all written comments we receive during the comment period, including comments we have requested from peer reviewers, comments we receive during a public hearing should we receive a request for one, and any additional information we receive during the 60-day comment period. Our final determination will also consider all written comments and any additional information we receive during the comment period for the draft economic analysis. All comments will be included in the public record for this rulemaking. On the basis of peer reviewer and public comments, we may, during the development of our final determination, find that areas included

in this proposal do not meet the definition of critical habitat, that some modifications to the described boundaries are appropriate, or that some areas may be excluded from the final determination under section 4(b)(2) of the Act based on Secretarial discretion.

You may submit your comments and materials concerning this proposed revised rule by one of the methods listed in the **ADDRESSES** section. Please include sufficient information with your comment to allow us to verify any scientific or commercial data you submit. We will not accept comments sent by e-mail or fax or to an address not listed in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. If your written comments provide personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as a list of supporting documentation we used in preparing this proposed revised rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Arcata Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

You may obtain copies of this proposed revised rule by mail from the Arcata Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**) or by visiting the Federal eRulemaking Portal at <http://www.regulations.gov>.

Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this proposed revised rule. For more information on the Pacific Coast WSP, refer to the final rule listing the species as threatened that was published in the **Federal Register** on March 5, 1993 (58 FR 12864). See also the discussion of habitat in the sections below.

Species Description

The western snowy plover, one of two subspecies of snowy plover recognized by the American Ornithologists' Union to nest in North America, is a small shorebird with pale brown to gray upperparts, gray to black legs and bill, and dark patches on the forehead, behind the eyes, and on either side of the upper breast (Page *et al.* 1995, p. 2). The species was first described in 1758 by Linnaeus (American Ornithologists' Union 1957). The Pacific Coast distinct

population segment of the western snowy plover (Pacific Coast WSP) is defined as those individuals nesting adjacent to tidal waters within 50 miles (mi) (80 kilometers (km)) of the Pacific Ocean, including all nesting birds on the mainland coast, peninsulas, offshore islands, adjacent bays, estuaries and coastal rivers. For a more complete discussion of the ecology and life history of this population, please see the final rule for listing the Pacific Coast WSP as a threatened species, which was published in the **Federal Register** on March 5, 1993 (58 FR 12864), or the Service's April 21, 2006, 12-month finding on a petition to delist the Pacific Coast WSP (71 FR 20607).

Life History

Pacific Coast WSPs typically forage for small invertebrates in wet or dry beach sand, tide-cast kelp (*Macrocystis* sp.), low foredune vegetation (vegetation along the coastal dune or ridge that is parallel to the shoreline), and near water seeps in salt pans. Prey species include mole crabs (*Emerita analoga*), crabs (*Pachygrapsus crassipes*), polychaete worms (Neridae, *Lumbrineris zonata*, etc.), amphipods (*Corophium* spp., etc.), sand hoppers (Orchestoidea), flies (Ephydriidae, Dolichopodidae), and beetles (Carabidae, etc.). Accordingly, beach-cleaning activities that remove kelp and rake sand can harm plover foraging success (Page *et al.* 1995, p. 15; Dugan 2003, p. 138; Dugan & Hubbard 2009, p. 72).

Generally, the breeding season for Pacific Coast WSP extends from early March to late September, with birds at more southerly locations nesting earlier in the season than birds located farther north (Page *et al.* 1995, p. 10). Courtship behavior and pair bonding can occur in February, and in the southern portion of the range, a few nests have been initiated as early as late-January. Males establish nesting territories from which they advertise for mates using calls and behavioral displays. Territory sizes can vary from about 0.25 to 2.5 ac (0.1 to 1.0 ha) at interior sites (Page *et al.* 1995, p. 7). A study of coastal plovers found a maximum territory size of 1.2 ac (0.5 ha) in coastal salt pan habitat, but speculated in the absence of observational data that beach territories may have been larger (Warriner *et al.* 1986, p. 21). After pair formation, both sexes defend the nesting territory from other plovers. The purpose of such defense is apparently unrelated to protection of food resources within the territory, since both sexes frequently forage in nonterritorial areas up to 5 mi (8 km) from the nest when not incubating, and since the chicks and

attending adults typically leave the nesting territory shortly after hatching (Page *et al.* 1995, p. 10).

Clutches normally consist of three eggs laid in a shallow depression scraped in the sand by the male. Such "nests" are typically located in open flat areas, often near some conspicuous feature such as a piece of driftwood (Page and Stenzel 1981, p. 2; Page *et al.* 1995, p. 10). They are usually located within 328 feet (ft) (100 meters (m)) of the shore, but may be farther where shore access remains unblocked by dense vegetation (Page and Stenzel 1981, p. 2; Page *et al.* 1995, p. 7). Pacific Coast WSPs also tend to nest in relatively higher densities near fresh water or brackish wetlands such as river mouths, estuaries, and tidal marshes (Page and Stenzel 1981, p. 2). They use these areas both as foraging sites, and in the case of freshwater sources, for drinking water (Page and Stenzel 1981, p. 2; Page *et al.* 1995, p. 10). They may also be capable of functioning for long-periods without freshwater by subsisting on water obtained from insect prey (Purdue 1976, p. 352; Page *et al.* 1995, p. 5).

Both sexes incubate the eggs; typically females during daylight hours, and males during night. The male may relieve the female for a period during the day. Females often desert the chicks approximately 1 week after hatching (Warriner *et al.* 1986, p. 27; Page *et al.* 1995, p. 10). The last brood of the season may be raised by both the male and female. Leaving the brood for the male to raise allows females to nest up to three times in a season, particularly in more southern areas where nesting seasons are longer in duration. Males typically stay with the chicks until they fledge (take their first flight) about 30 days after hatching. Newly hatched chicks are capable of running and foraging almost immediately; from this point, parental behavior consists of defending chicks from other plovers, brooding them in cold weather, leading them to suitable feeding areas, and warning of approaching predators. Adults may also employ distraction displays to lead predators away from their young (Page *et al.* 1995, p. 9).

After their first chicks fledge, males may attempt to raise a new brood with a new partner. Both sexes will also readily attempt to renest if they lose an entire clutch of eggs or brood of chicks, assuming enough time remains in the nesting season (Page *et al.* 1995, p. 12). Clutches and broods may be lost to predators, tides and storms, and human recreational activities. Examples of the latter include both repeated flushings of incubating adult plovers and direct

damage to nests or young, as a result of humans, dogs, horses, or vehicles that either approach plover nests too closely or actually overrun plovers and nests (Service 1993, p. 12872; Ruhlen *et al.* 2003, p. 303).

Habitat, Geographic Range, and Status

The Pacific Coast WSP breeds primarily on coastal beaches from southern Washington to southern Baja California, Mexico. Sand spits, dune-backed beaches, beaches at creek and river mouths, and salt pans at lagoons and estuaries are the preferred habitats for nesting plovers (Wilson 1980, p. 4; Stenzel *et al.* 1981, p. 14). Additional Pacific Coast WSP nesting habitats include bluff-backed beaches, dredged material disposal sites, salt ponds and their adjacent levees, and river bars (Wilson 1980, p. 4; Page and Stenzel 1981, p. 14; Powell *et al.* 1996, p. 16; Tuttle *et al.* 1997, p. 174). This habitat is variable because of unconsolidated soils, high winds, storms, wave action, and colonization by plants.

Small changes in the adult survival rate can have relatively large effects on population stability (Nur *et al.* 1999, p. 14), so the maintenance of quality overwintering habitat is important to conservation. In western North America, both coastal and inland-nesting western snowy plovers winter along the coast (Page *et al.* 1995, p. 4). Some coastal plovers migrate up or down the coast to wintering locations, while others remain at their nesting beaches. Coastal individuals may also migrate some years and not others (Warriner *et al.* 1986, p. 18; Page *et al.* 1995, p. 2). Beaches used for nesting are also often used for wintering, but birds will also winter at several beaches where nesting does not occur (Service 2007, p. 19). Pacific Coast WSPs also visit or nest at other non-beach habitats such as human-made salt ponds, and estuarine sand and mud flats (Page *et al.* 1986, p. 4). Sites that have historically supported nesting, but which currently support only wintering plovers, have the potential to attract new nesters with appropriate management. This has been successfully carried out at Coal Oil Point and Hollywood Beach in southern California (Lafferty 2001). These management successes are important to conservation, since the loss of numerous historical nesting sites was a major consideration in the plover's original listing. See the final listing rule (58 FR 12864, March 5, 1993) and the Special Management Considerations or Protection section below for additional discussion of the current threats to the species in areas included in this proposed revised critical habitat designation.

Previous Federal Actions

The Pacific Coast WSP was listed as a threatened species on March 5, 1993 (58 FR 12864). A 5-year status review of the population under section 4(c)(2) of the Act was completed June 8, 2006, based on the analysis conducted for the section 4(b)(3)(B) status review for the 12-month finding on a petition to delist the Pacific Coast WSP (71 FR 20607, April 21, 2006). Because the Pacific Coast WSP was listed prior to our 1996 policy published in the **Federal Register** on February 7, 1996 (61 FR 4721) regarding recognition of distinct population segments, in our 12-month finding, we reviewed and confirmed our determination that the Pacific Coast WSP constituted a valid distinct population segment. For a complete discussion of previous Federal actions regarding the Pacific Coast WSP, please see the September 29, 2005, final rule to designate critical habitat for the Pacific Coast WSP (70 FR 56969).

We are revising our 2005 critical habitat designation as a result of legal action initiated by the Center for Biological Diversity on October 2, 2008, and the subsequent settlement of that action (*Center for Biological Diversity v. Kempthorne, et al.*, No. C-08-4594 PJH). The complaint raised several challenges to the 2005 critical habitat designation. Under the settlement agreement that resolved this action, the Service agreed to conduct a rulemaking to consider potential revisions to the designated critical habitat for Pacific Coast WSP, to submit for publication to the **Federal Register** a proposed regulation setting forth any proposed revisions to critical habitat by December 1, 2010, and to submit a final determination on any proposed revisions to the **Federal Register** by June 5, 2012. By order dated November 30, 2010, the district court approved a modification to the settlement agreement that extends the deadline to March 1, 2011, for submission of the proposed revised critical habitat designation to the **Federal Register**. The deadline for submission of a final revised critical habitat designation to the **Federal Register** is June 5, 2012.

This proposal relies upon the best scientific and commercial data available to us, including the biological and habitat information described in the previous final rules, the Recovery Plan for the Pacific Coast WSP (Service 2007) which was released September 24, 2007 (72 FR 54279), and recognized principles of conservation biology. Similar to the previous critical habitat designations for the Pacific Coast WSP, this proposal includes units that were

occupied at the time of listing that have habitat features essential to the conservation of the species. This proposal differs from the previous designations in that it includes units that may not have been occupied at the time of listing, but that have areas considered to be essential for the conservation of the species, such as those that contain degraded habitat requiring restoration. Restored habitat is essential to the species' conservation in order to offset anticipated loss of current habitat resulting from effects of sea-level rise associated with climate change.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features:

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring any endangered or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, transplantation, and in the extraordinary case where population pressures within a given ecosystem cannot otherwise be relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such

designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply, but even in the event of a destruction or adverse modification finding, the landowner's obligation is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time it was listed must contain physical and biological features which are essential to the conservation of the species and which may require special management considerations or protection. Critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical and biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat), focusing on the principal biological or physical constituent elements (primary constituent elements) within an area that are essential to the conservation of the species (such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type). Primary constituent elements are the elements of physical and biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species.

Under the Act, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species. When the best available scientific data do not demonstrate that the conservation needs of the species require such additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species. An area currently occupied by the species but that was not occupied at the time of listing may, however, be essential to the conservation of the species and may be included in the critical habitat designation.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we determine which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all habitat areas that we may eventually determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not promote the recovery of the species.

Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of

this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, Habitat Conservation Plans (HCPs), or other species conservation planning efforts if information available at the time of these planning efforts calls for a different outcome.

Methods

As required by section 4(b) of the Act, we used the best scientific and commercial data available in determining areas that contain the features essential to the conservation of the Pacific Coast WSP. We reviewed the approach to the conservation of the Pacific Coast WSP provided in the December 7, 1999, final critical habitat designation for the Pacific Coast WSP (64 FR 68507); the September 29, 2005, final revised critical habitat designation (70 FR 56969); the Recovery Plan (Service 2007); information from Federal, State, and local government agencies; and information from academia and private organizations that collected scientific data on the species. Other information used for this proposed revised critical habitat includes: Published and unpublished papers, reports, academic theses, species and habitat surveys; Geographic Information System (GIS) data (such as species occurrence data, habitat data, land use, topography, digital aerial photography, and ownership maps); correspondence to the Service from recognized experts; site visits by Service biologists; and other information as available. Mapping for this proposed revised critical habitat designation was completed using ESRI ArcMap 9.3.1 (ESRI, Inc. 2009). Specifically, the most recent National Agriculture Imagery Program images (2009 NAIP Imagery) were used to delineate unit boundaries.

The water's edge comprises the westernmost boundary of each proposed unit. Although the images were taken at different tide levels, we believe these images represent the best mapping information as beach and river habitats change seasonally, and from year to year. In part, the dynamic nature of beach and river habitats is one reason for the differences in the size of past designated critical habitat units and those units being proposed for designation in this revised rule. Additionally, the unit boundaries were extended eastward in anticipation of sea-level rise expected as a result of climate change. We used widely accepted models to help predict the amount of sea-level rise that is likely to

occur (Baker *et al.* 2006; Overpeck *et al.* 2006; Pfeffer *et al.* 2008; Fletcher 2009; Grinsted *et al.* 2009; Mitrovica *et al.* 2009; Vermeer and S. Rahmstorf 2009). Biologists used Light Detection and Ranging (LiDAR) data to help determine the extent of potential habitat loss at the water's edge resulting from future sea-level rise. As a consequence, they then extended the eastern unit boundary where appropriate to compensate for this future habitat degradation and loss.

Pacific Coast WSPs are expected to adjust their use of nesting habitat as sea level rises, provided that ample habitat is available at higher elevations. Pacific Coast WSPs have evolved to modify their use of areas due to these areas being dynamic changing habitats and are, therefore, expected to use the inland areas which we propose be restored to constitute habitat.

Maps in this revised rule use shoreline data derived from U.S. Geological Survey 7.5 minute series digital raster graphics (DRGs). Although the DRGs may not represent the exact location of the dynamic shoreline environment, they are considered to be the best vector mapping product for that purpose in common use, and are easily referenced. As a result, the depicted shoreline on the maps may not correspond directly to the proposed critical habitat unit boundaries, which were digitized using 2009 NAIP imagery. Reference information is available at: http://topomaps.usgs.gov/drg/drg_overview.html, 7.5-minute DRG series, U.S. Geological Survey.

Physical and Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical and biological features essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, and rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derive the specific physical and biological features required for the Pacific Coast WSP from studies of this species' habitat, ecology, and life history as described below, in the Background section in this proposed revised rule, in the final listing rule published in the **Federal Register** on March 5, 1993 (58 FR 12864), in the designation of critical habitat published in the **Federal Register** on September 29, 2005 (70 FR 56969), and in the 12-month finding on a petition to delist the Pacific Coast WSP (71 FR 20607; April 21, 2006). On the basis of the biological needs of the population, and on the relationship of those needs to the population's habitat, as indicated by the best scientific data available and summarized below, we have determined that the Pacific Coast WSP requires the following physical and biological features:

Habitats That Are Representative of the Historical Geographical and Ecological Distribution of the Species

The Pacific Coast WSP typically utilizes flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent (Stenzel *et al.* 1981, p. 18), such as sandy beaches, dune systems, salt flats, mud flats, and dredge spoil sites. They also regularly nest on gravel bars along the Eel River in northern California. Salt ponds in San Francisco Bay, and elsewhere, have become important habitat for the Pacific Coast WSP. These areas provide space for individual and population growth and for normal behavior and may provide micro-topographic relief offering refuge from high winds and cold weather and sites for nesting.

Space for Individual and Population Growth and for Normal Behavior

Pacific Coast WSPs require space for foraging and establishment of nesting territories. These areas vary widely in size depending on habitat type, habitat availability, life-history stage and activity. As stated in the Background section above, males establish nesting territories that vary from about 0.25 to 2.5 ac (0.1 to 1.0 ha) at interior sites (Page *et al.* 1995, p.10) and 1.2 ac (0.5 ha) in coastal salt pan habitat, with beach territories perhaps larger (Warriner *et al.* 1986, p. 18). The birds forage in nonterritorial areas up to 5 mi (8 km) from the nesting sites when not incubating. Critical habitat must, therefore, extend beyond nesting territories to include space for foraging during the nesting season, and space for overwintering, and to provide for connectivity with other portions of the Pacific Coast WSPs range. Pacific Coast

WSPs may overwinter at locations where there is no current breeding, but which are historical breeding locations (e.g., Dillon Beach, CA–9). Designating wintering areas as critical habitat provides essential areas for overwinter survival, provides protections for historical nesting areas, and allows connectivity between sites. Sandy beaches, dune systems immediately inland of an active beach face, salt flats, mud flats, seasonally exposed gravel bars, salt ponds and adjoining levees, and dredge spoil sites are areas that provide space for individual and population growth and for normal behavior.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Pacific Coast WSPs typically forage in open areas by locating prey visually and then running to seize it with their beaks (Page *et al.* 1995, p. 12). They may also probe in the sand for burrowing invertebrates, or charge flying insects that are resting on the ground, snapping at them as they flush. Accordingly they need open areas in which to forage, to facilitate both prey location and capture. Deposits of tide-cast wrack such as kelp or driftwood tend to attract certain invertebrates, and so provide important foraging sites for plovers (Page *et al.* 1995, p. 12). Pacific Coast WSPs forage both above and below high tide, but not while those areas are underwater. Foraging areas will, therefore, typically be limited by water on their shoreward side, and by dense vegetation or development on their landward sides. These areas that are subject to inundation but not currently under water support essential small invertebrate food sources such as crabs, worms, flies, beetles, spiders, sand hoppers, clams, and ostracods.

Pacific Coast WSPs use sites of freshwater for drinking where available, but some historical nesting sites, particularly in southern California, have no obvious nearby freshwater sources. Adults and chicks in those areas must be assumed to obtain their necessary water from the food they eat. Accordingly we have not included freshwater sites among the essential features of habitat for the population.

Cover or Shelter

Pacific Coast WSPs and their eggs are well camouflaged against light-colored, sandy, or pebbly backgrounds (Page *et al.* 1995, p. 12). Open areas with these substrates actually constitute shelter for purposes of nesting and foraging. Such areas provide little cover to predators, and allow plovers to fully utilize their

camouflage and running speed. Pacific Coast WSPs are visually oriented and rely on open landscapes to detect predators. Chicks and adults may also crouch amongst the sand and pebbles or near driftwood, dune plants, and piles of kelp in an attempt to blend into their surroundings in plain sight (crypsis) as a means to hide from predators (Page and Stenzel 1981, p. 7; Stevens and Merilaita 2009, p. 423). Open areas do not provide shelter from winds, storms, and the extreme high tides associated with such events, and these conditions cause many nest losses. Pacific Coast WSP readily scrape blown sand out of their nests, but there is little they can do to protect their nests against serious storms or flooding other than to attempt to lay a new clutch if the old one is lost (Page *et al.* 1995, p. 8).

Sandy beaches, dune systems immediately inland of an active beach face, salt flats, mud flats, seasonally exposed gravel bars, salt ponds and adjoining levees, and dredge spoil sites are areas that may provide micro-topographic relief offering refuge from high winds and cold weather and sites for nesting. Surf- or water-deposited organic debris such as seaweed or driftwood located on open substrates supports and attracts small invertebrates that plovers eat, provides cover or shelter from predators and weather, and assists in avoidance of detection (crypsis) for nests, chicks, and incubating adults.

No studies have quantified the amount of vegetation cover that would make an area unsuitable for nesting or foraging, but coastal nesting and foraging locations typically have relatively well-defined boundaries between open sandy substrate favorable to Pacific Coast WSPs and unfavorably dense vegetation inland. These bounds show up well in aerial and satellite photographs, which we used to map essential habitat features.

Undisturbed Areas

Disturbance of nesting or brooding plovers by humans and domestic animals is a major factor affecting nesting success. Pacific Coast WSPs leave their nests when humans or pets approach too closely. Dogs may also deliberately chase plovers and may trample nests, while vehicles may directly crush adults, chicks, or nests, separate chicks from brooding adults, and interfere with foraging and mating activities (Warriner *et al.* 1986, p. 25; Service 1993, p. 12871; Ruhlen *et al.* 2003, p. 303). Repeated flushing of incubating plovers exposes the eggs to the weather and depletes energy reserves needed by the adult, which

may result in reductions in nesting success. Surveys at Vandenberg Air Force Base, California, from 1994 to 1997, found the rate of nest loss on southern beaches at the Base to be consistently higher than on northern beaches where recreational use was much lower (Persons and Applegate 1997, p. 8). Ruhlen *et al.* (2003, p. 303) found that increased human activities on Point Reyes beaches resulted in a lower chick survival rate.

Recent efforts in various areas along the Pacific Coast that have been implemented to isolate nesting plovers from recreational beach users through the use of docents, symbolic fencing (post and signage or single rope fencing), and public outreach, have correlated with higher nesting success in those areas (Page *et al.* 2003, p. 3). The level of acceptable disturbance varies by site and is partially dependent upon the level of human use when Pacific Coast WSPs initiate courtship and nesting. Pacific Coast WSPs have had reproductive success in both highly disturbed areas (*e.g.*, Oceano Dunes State Vehicular Recreation Area), and areas that for the most part have been off-limits to direct human-related activities (*e.g.*, Vandenberg Air Force Base). Predators at some sites can provide a significant level of disturbance, as well as loss of eggs, chicks, and adults.

Sites for Breeding, Reproduction, and Rearing (or Development) of Offspring

Pacific Coast WSPs nest in depressions in open, relatively flat areas, near to tidal waters but far enough away to avoid being inundated by daily tides. Typical substrate is beach sand, but plovers may also lay their eggs in existing depressions in harder ground, such as salt pan, cobblestones, or dredge tailings. Where available, dune systems with numerous flat areas and easy access to the shore are particularly favored for nesting. Plover nesting areas must provide shelter from predators and human disturbance, as discussed above. Unfledged chicks forage with one or both parents, using the same foraging areas and behaviors as adults.

Primary Constituent Elements for the Pacific Coast Western Snowy Plover

Under the Act and its implementing regulations, we are required to identify the physical and biological features essential to the conservation of the Pacific Coast WSP in areas occupied at the time of listing, focusing on the features' primary constituent elements. We consider primary constituent elements to be the elements of physical and biological features that, when laid

out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species. We are proposing to designate critical habitat in areas within the geographical areas that were occupied by the species at the time of listing, that contain the primary constituent elements in the quantity and spatial arrangement to support life-history functions essential to the conservation of the species, and that may require special management considerations or protection. We are also proposing to designate areas outside the geographical area occupied by the species at the time of listing because we consider these areas essential for the conservation of the species. These sites are within the range of the Pacific Coast WSP, and were used by the species prior to listing. Due to habitat degradation and loss resulting from rising sea level, human development, and encroachment, we believe it prudent to include these additional sites in our designation to allow an expanding Pacific Coast WSP population to adjust to natural occurring dynamic conditions and threats. *See Criteria Used To Identify Critical Habitat* section below for a discussion of the species' geographic range.

We are proposing critical habitat designation of areas that provide some or all of the elements of physical or biological features essential to the conservation of this species. The conservation of the Pacific Coast WSP is dependent upon multiple factors, including the conservation and management of areas to maintain normal ecological functions, where existing populations survive and reproduce. The areas proposed as critical habitat in this rule contain the quantity and arrangement of elements of physical and biological features we believe are essential for the conservation and recovery of the Pacific Coast WSP. The amount and distribution of areas proposed to be designated allow for the Pacific Coast WSP populations to be distributed throughout the area currently occupied and to return to areas formerly occupied within their range, to support recovery criteria outlined for each recovery unit, and, consequently, to support recovery range-wide (*see* recovery criteria in Service 2007). Based on the best available information, the primary constituent elements essential to conservation of the Pacific Coast WSP are the following:

Sandy beaches, dune systems immediately inland of an active beach face, salt flats, mud flats, seasonally exposed gravel bars, artificial salt ponds

and adjoining levees, and dredge spoil sites, with:

(1) Areas that are below heavily vegetated areas or developed areas and above the daily high tides,

(2) Shoreline habitat areas for feeding, with no or very sparse vegetation, that are between the annual low tide or low-water flow and annual high tide or high-water flow, subject to inundation but not constantly under water,

(3) Surf- or water-deposited organic debris located on open substrates, and

(4) Minimal disturbance from the presence of humans, pets, vehicles, or human-attracted predators.

The proposed critical habitat in this revised proposed rule contains the primary constituent elements in the appropriate quantity and spatial arrangement essential to the conservation of the Pacific Coast WSP, and supports multiple life processes for the species. Portions of some proposed critical habitat units may be currently degraded; however, these areas could be restored with special management, thereby providing suitable habitat to offset habitat loss from anticipated sea-level rise resulting from climate change. Additional areas are proposed as critical habitat to allow a recovering Pacific Coast WSP population to occupy its former range, and allow adjustment to changing conditions (e.g., shifting sand dunes), expected sea-level rise, and human encroachment.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the physical and biological features within the geographical area occupied by the species at the time of listing that are essential to the conservation of the species may require special management considerations or protection.

All areas included in our proposed revision of critical habitat will require some level of management to address the current and future threats to the physical and biological features essential to the conservation of the Pacific Coast WSP. Special management considerations or protection may be required to minimize habitat destruction, degradation, and fragmentation associated with the following threats, among others: Water diversions, stabilized dunes and watercourses associated with urban development, human recreational activities, off-highway vehicle (OHV) use, beach raking, pets, nonnative vegetation, resource extraction, and fishing.

Water diversions reduce the transport of sediments which contribute to suitable nesting and foraging substrates. Stabilized dunes and watercourses associated with urban development alter the dynamic processes of beach and river systems, thereby reducing the open nature of suitable habitat needed for predator detection. Human recreational activities disturb foraging or nesting activities, or may attract and provide cover for approaching predators. The use of OHVs has been documented to crush plover nests and strike plover adults. Beach raking or grooming can remove wrack, reducing food resources and cover, and contributing to beach erosion. Pets (leashed and unleashed) can cause incubating adults to leave the nest and establish trails in the sand that can lead predators to the nest. Nonnative vegetation reduces visibility plovers need to detect predators, and occupies otherwise suitable habitat. Resource extraction can disturb incubating, brooding, or foraging plovers. Fishing can disturb Pacific Coast WSPs and can attract predators by the presence of fish offal and bait (Lafferty 2001, p. 2222; Dugan 2003, p. 134; Schlacher *et al.* 2007, p. 557; Service 2007, p. 33; Dugan and Hubbard 2010, p. 67).

For discussion of the threats to the Pacific Coast WSP and its habitat, please see the Summary of Comments and Recommendations and Summary of Factors Affecting the Species sections of the 12-Month Finding on the Petition to Delist the Pacific Coast WPS (71 FR 20607, April 21, 2006), the final listing rule (58 FR 12864, March 5, 1993) and the Public Comments and Critical Habitat Unit Descriptions sections of the final critical habitat rule (70 FR 56970, September 29, 2005). Please also see *Critical Habitat Units* section below for a discussion of the threats in each of the proposed revised critical habitat units.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(1)(A) of the Act, we use the best scientific and commercial data available to designate critical habitat. We review available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating additional areas—outside those currently occupied as well as those occupied at the time of listing—are necessary to ensure the conservation of the species. We are proposing to designate critical habitat in areas within the geographical area occupied by the species at the time of listing in 1993. We

also are proposing to designate specific areas outside the geographical area occupied by the species at the time of listing because such areas are essential for the conservation of the species. We have determined that limiting the designation of critical habitat to those areas that were considered occupied at the time of listing is no longer sufficient to conserve the species because:

(1) There has been considerable loss and degradation of habitat throughout the species range since the time of listing;

(2) We anticipate a further loss of habitat in the future due to sea-level rise resulting from climate change, and;

(3) The species needs habitat areas that are arranged spatially in a way that will maintain connectivity and allow dispersal within and between units.

The amount and distribution of critical habitat being proposed for designation will allow populations of Pacific Coast WSP to:

(1) Maintain their existing distribution;

(2) Increase their distribution into previously occupied areas (needed to offset habitat loss and fragmentation);

(3) Move between areas depending on resource and habitat availability (response to changing nature of coastal beach habitat) and support genetic interchange;

(4) Increase the size of each population to a level where the threats of genetic, demographic, and normal environmental uncertainties are diminished; and

(5) Maintain their ability to withstand local or unit level environmental fluctuations or catastrophes.

All areas proposed for critical habitat designation are within the historical range of the species. We have identified areas to include in this proposed designation by applying Criteria 1 through 6 below. In an effort to update our 2005 final designation of critical habitat for the Pacific Coast WSP, we used the best available information on occupancy and habitat conditions of areas that were analyzed in 2005 and considered other areas throughout the species historical range to determine whether to add areas to or remove areas from this proposal to revise critical habitat.

We used the following criteria to select appropriate units for this proposed revised rule:

(1) *Areas throughout the range of the Pacific Coast WSP located to allow the species to move and expand:* The dynamic nature of beach, dune, and similar habitats necessitates that Pacific Coast WSPs move to adjust for changes in habitat availability, food sources, and

pressures on survivorship or reproductive success (Colwell *et al.* 2009; p. 5). Designating units in sufficient amount and in spatially appropriate areas throughout the range of the Pacific Coast WSP allows for seasonal migration, year-to-year movements, and expansion of the Pacific Coast WSP to its historical boundaries. We consider this necessary to conserve the species because it assists in counterbalancing catastrophes, such as extreme climatic events, oil spills, or disease that might depress regional survival or productivity. Having units across the species' range helps in maintaining a robust, well distributed population and enhances survival and productivity of the Pacific Coast WSP as a whole, facilitates interchange of genetic material between units, and promotes recolonization of any sites that experience declines or local extirpations due to low productivity or temporary habitat loss. By way of example, Recovery Unit 2 in northern California (Service 2007; p. 129) currently relies on the immigration of breeding adults from other units to maintain its population as reproductive success remains low (Colwell *et al.* 2009; p. 4). Maintaining good habitat distribution is essential to maintaining a healthy range-wide population, reducing the potential for a gap in the Pacific Coast WSP's range to develop. Within this designation, we focused on areas within the six recovery units identified in the Recovery Plan (Service 2007, Appendix A).

(2) *Breeding areas:* Areas identified in the Recovery Plan (Service 2007) known to support breeding Pacific Coast WSP were selected. Selected sites include historical breeding areas and areas currently being used by breeding plovers. These areas are essential to the conservation of the species because they contain the physical and biological features necessary for Pacific Coast WSPs to breed and produce offspring and ensure that population increases are distributed throughout the Pacific Coast WSP's range. By selecting breeding areas across the Pacific Coast WSP's range, we can assist in conserving the species' genetic and demographic robustness and important life-history stages for long-term sustainability of the entire listed species. Some breeding areas are occupied year-round and also are used as wintering areas by a portion of the population.

(3) *Wintering areas:* Major wintering sites not already selected under criterion 2 above were added. A "major" wintering site is defined as one that supports more wintering birds than average for the geographical region based on current or historical numbers.

We believe these areas are necessary to provide sufficient habitat for the survival of Pacific Coast WSPs during the nonbreeding season as they allow for dispersal of adults or juveniles to nonbreeding sites and provide roosting and foraging opportunities and shelter during inclement weather.

(4) *Diverse habitat:* Additional sites were added that provide diverse habitat (mud flats, gravel bars, or salt ponds and salt pond levees), or that are situated to facilitate interchange between otherwise widely separated units. This criterion is based on standard conservation biology principles; by protecting a variety of habitats and facilitating interchange between them, we increase the ability of the species to adjust to various limiting factors that affect the population, such as predators, disease, major storms, habitat loss and degradation, and rise in sea level.

(5) *Areas to maintain connectivity of habitat:* Some areas that may be seasonally lacking in certain elements of essential physical and biological features and that contain marginal habitat were included if they were contiguous with areas containing one or more of those elements and if they contribute to the hydrologic and geologic processes essential to the ecological function of the system. These areas are essential to the conservation of the species because they maintain connectivity within populations, allow for species movement throughout the course of a given year, and allow for population expansion.

(6) *Restoration areas:* We have selected some areas within occupied units that, once restored, would be able to support the Pacific Coast WSP. These areas generally are upland habitats, adjacent to beach and other areas used by the species, and contain introduced vegetation such as European beach grass (*Ammophila arenaria*) that currently limits use of the area by the species. These areas would provide habitat to off-set the anticipated loss and degradation of habitat due to sea-level rise expected from the effects of climate change or due to development. These areas previously contained and would still contain the features essential to the conservation of the species once removal of the beachgrass and restoration of the area has occurred.

In order to translate the criteria above to the areas on the ground, we used the following methodology to identify the mapped boundaries of critical habitat for the Pacific Coast WSP:

(1) We digitally mapped occurrence data within the range of the Pacific Coast WSP at the time and subsequent to the time of listing in the form of

polygons and points using ArcMap 9.3.1 (ESRI 2009). An attempt was made to consider site-specific survey data that was both current and historical. Survey information used in this designation was compiled from several sources during various timeframes as identified in the Recovery Plan (Service 2007, Appendix B);

(2) We utilized National Agriculture Imagery Program (NAIP 2009) aerial imagery with a 3.3 ft (1 m) resolution to determine the lateral extent (width) between the water and upland areas of habitat. The western (seaward) boundary of the coastal units is the water's edge, which varies daily with each changing tide, and will vary seasonally with storm surges, and sand erosion and deposition. For mapping purposes, the western boundary of the coastal units is the water's edge based on the 2009 NAIP imagery. Given the dynamic nature of coastal beaches, riparian areas, and salt pond management, we also delineated the lateral extent to encompass the entire area up to the lower edge of permanent upland vegetation or to the edge of a permanent barrier, such as a bluff, levee, sea wall, human development, *etc.* Using aerial imagery (NAIP 2009), we also delineated the northern and southern extents of the proposed units to include the beach areas associated with the occurrence information identified above.

When determining proposed revised critical habitat boundaries, we made every effort to avoid including developed areas, such as lands covered by buildings, sea walls, pavement, and other structures, because these areas lack physical and biological features for the Pacific Coast WSP. The scale of maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed revised critical habitat have been excluded by text in this proposed revised rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical and biological features in adjacent critical habitat.

In this proposed rule to revise critical habitat, we are proposing to designate lands that we have determined were within the geographic area occupied at the time of listing and contain sufficient

elements of physical and biological features to support life-history processes essential to the conservation of the species. We are also proposing to designate lands outside of the geographical area occupied at the time of listing that we have determined are essential for the conservation of the Pacific Coast WSP. Units are proposed for revised designation based on the presence of elements of physical and biological features essential to the conservation of the species, not all of which are present in each unit, but which are contained in levels that support Pacific Coast WSP life-history processes. Some units contain all of the identified elements of physical and biological features and thus support multiple life-history processes. Some units contain only some elements of the physical and biological features and

thus support the Pacific Coast WSP's particular use of that habitat.

Summary of Changes From Previously Designated Critical Habitat

The areas identified in this proposed revised rule constitute a revision of the areas designated as critical habitat for the Pacific Coast WSP on September 29, 2005 (70 FR 56969). In the 2005 final rule, we designated approximately 12,145 ac (4,921 ha) of critical habitat in a total of 32 units within the States of Washington, Oregon, and California. Refer to that final rule to compare critical habitat designations in 2005 with those being proposed here. Table 1 below outlines the changes in areas in each unit or subunit between the 2005 final critical habitat rule and this proposed revised critical habitat rule. This proposed revision contains significant changes to the number of

units and amount of acreage compared to the designation in 2005. These changes are based on updated information, changes to our criteria and methodologies for determining areas essential to the conservation of the Pacific Coast WSP, or exclusions based on section 4(b)(2) of the Act.

A total of 39 new units and 16,116 ac (6,522 ha) are being proposed that were not designated in 2005. Of these, three (3) units in Washington are new or have new extensions; 8 units are new in Oregon; and 28 units are newly proposed in California. One (1) unit was designated as critical habitat in 2005 (San Onofre Beach, then designated as Unit CA 24), but is being exempted under section 4(a)(3) of the Act and is not being proposed in this revised rule (see Application of Section 4(a)(3) of the Endangered Species Act section below).

TABLE 1—A COMPARISON OF THE AREAS (IN ACRES AND HECTARES) IDENTIFIED AS CONTAINING FEATURES ESSENTIAL TO THE CONSERVATION OF THE PACIFIC COAST WSP IN THE 2005 FINAL CRITICAL HABITAT DESIGNATION AND THIS 2010 PROPOSED REVISED CRITICAL HABITAT DESIGNATION

[Values in this table may not sum due to rounding]

Unit No.	Unit name	2005		2010	
		Acres	Hectares	Acres	Hectares
Washington					
WA 1	Copalis Spit	0	0	407	165
WA 2	Damon Point	908	367	673	272
WA 3A	Midway Beach	786	318	697	282
WA 3B	Shoalwater/Graveyard	0	0	1,121	454
WA Unit 3 Totals		786	318	1,818	736
WA 4A	Ledbetter Spit	832	337	2,463	997
WA 4B	Gunpowder Sands Island	0	0	904	366
WA Unit 4 Totals		832	337	3,367	1,363
WASHINGTON STATE TOTALS		2,526	1,023	6,265	2,535
Oregon					
OR 1	Columbia River Spit	0	0	169	69
OR 2	Necanicum River Spit	0	0	211	85
OR 3	Nehalem River Spit	0	0	299	121
OR 4	Bayocean Spit	207	83.5	367	148
OR 5	Netarts Spit	0	0	541	219
OR 6	Sand Lake South	0	0	200	81
OR 7	Sutton/Baker Beaches	260	105	372	151
OR 8A	Siltcoos Breach	8	3	15	6
OR 8B	Siltcoos River Spit	0	0	241	97
OR 8C	Dunes Overlook/Tahkenitch Creek Spit	527	213	716	290
OR 8D	North Umpqua River Spit	0	0	236	95
Unit OR-8 Totals		535	217	1,208	489
OR 9	Tenmile Creek Spit	234.5	95	244	99
OR 10	Coos Bay North Spit	278	113	308	125
OR 11	Bandon to New River	632	256	1,016	411
OR 12*	Elk River Spit	0	0	167	68
OR 13	Euchre Creek	0	0	116	47
OREGON STATE TOTALS		2,146.5	868.5	5,219	2,112

TABLE 1—A COMPARISON OF THE AREAS (IN ACRES AND HECTARES) IDENTIFIED AS CONTAINING FEATURES ESSENTIAL TO THE CONSERVATION OF THE PACIFIC COAST WSP IN THE 2005 FINAL CRITICAL HABITAT DESIGNATION AND THIS 2010 PROPOSED REVISED CRITICAL HABITAT DESIGNATION—Continued

[Values in this table may not sum due to rounding]

Unit No.	Unit name	2005		2010	
		Acres	Hectares	Acres	Hectares
California					
CA 1	Lake Earl	57	24	74	30
CA 2	Gold Bluffs Beach	0	0	144	58
CA 3a	Humboldt Lagoons—Stone Lagoon	0	0	52	21
CA 3b	Humboldt Lagoons—Big Lagoon	280	113	212	86
Unit CA-3 Totals .....	.....	280	113	264	107
CA 4a	Clam Beach/Little River	155	63	194	79
CA 4b	Mad River	377	153	456	185
Unit CA-4 Totals .....	.....	532	215	650	263
CA 5a	Humboldt Bay South Spit	375	152	419	170
CA 5b	Eel River North Spit/Beach	283	114	259	105
CA 5c	Eel River South Spit/Beach	402	163	339	137
Unit CA-5 Totals .....	.....	1,060	429	1,017	412
CA 6	Eel River Gravel Bars	1,193	483	1,139	461
CA 7	Mackerricher Beach	1,048	424	1,176	476
CA 8	Manchester Beach	341	138	482	195
CA 9	Dillon Beach	0	0	39	16
CA 10A	Pt Reyes	462	187	460	186
CA 10B	Limantour	124	50	156	63
Unit CA-10 Totals .....	.....	586	237	617	250
CA 11	Napa	0	0	618	250
CA 12	Hayward	0	0	1	0
CA 13A	Eden Landing	0	0	237	96
CA 13B	Eden Landing	0	0	171	69
CA 13C	Eden Landing	0	0	609	246
Unit CA-13 Totals .....	.....	0	0	1,016	411
CA 14	Ravenswood	0	0	89	36
CA 15	Warm Springs	0	0	168	68
CA 16	Half Moon Bay	37	15	36	15
CA 17	Waddell Creek Beach	9	4	25	10
CA 18	Scott Creek Beach	19	8	23	9
CA 19	Wilder Creek Beach	10	4	15	6
CA 20	Jetty Road to Aptos	0	0	399	161
CA 21	Elkhorn Slough Mudflats	281	114	281	114
CA 22	Monterey to Moss Landing	0	0	967	391
CA 23	Point Sur Beach	61	25	72	29
CA 24	San Carpofo Creek	0	0	24	10
CA 25	Arroyo Laguna Creek	0	0	28	11
CA 26	San Simeon State Beach	28	11	24	10
CA 27	Villa Creek Beach	17	7	20	8
CA 28	Toro Creek	0	0	34	14
CA 29	Atascadero Beach/Morro Strand SB	0	0	213	86
CA 30	Morro Bay Beach	0	0	1,076	435
CA 31	Pismo Beach/Nipomo Dunes	0	0	1,652	669
CA 32	Vandenberg North	0	0	711	288
CA 33	Vandenberg South	0	0	423	171
CA 34	Devereaux Beach	36	15	52	21
CA 35	Santa Barbara Beaches	0	0	65	26
CA 36	Santa Rosa Island Beaches	0	0	586	237
CA 37	San Buenaventura Beach	0	0	70	28
CA 38	Mandalay to Santa Clara River	350	142	672	272
CA 39	Ormond Beach	175	71	320	130
CA 40	Mugu Lagoon South	87	35	0	0
CA 43	Zuma Beach	68	28	73	30
CA 44	Malibu Beach	0	0	13	5
CA 45A	Santa Monica Beach	25	10	48	19

TABLE 1—A COMPARISON OF THE AREAS (IN ACRES AND HECTARES) IDENTIFIED AS CONTAINING FEATURES ESSENTIAL TO THE CONSERVATION OF THE PACIFIC COAST WSP IN THE 2005 FINAL CRITICAL HABITAT DESIGNATION AND THIS 2010 PROPOSED REVISED CRITICAL HABITAT DESIGNATION—Continued

[Values in this table may not sum due to rounding]

Unit No.	Unit name	2005		2010	
		Acres	Hectares	Acres	Hectares
CA 45B	Dockweiler North	43	17	34	14
CA 45C	Dockweiler South	24	10	65	26
CA 45D	Hermosa State Beach	10	4	27	11
Unit CA-45 Totals		102	41	173	70
CA 46A	Bolsa Chica Reserve	591	239	484	196
CA 46B	Bolsa Chica Reserve	0	0	2	1
CA 46C	Bolsa Chica Reserve	0	0	21	9
CA 46D	Bolsa Chica Reserve	0	0	3	1
CA 46E	Bolsa Chica State Beach	4	2	8	3
Unit CA-46 Totals		595	241	518	210
CA 47	Santa Ana River Mouth	13	5	19	8
CA 48	Balboa Beach	0	0	25	10
	San Onofre Beach (Unit CA-24 in 2005)	49	20	0	0
CA 50A	Batiquitos Lagoon	21	9	24	10
CA 50B	Batiquitos Lagoon	23	9	23	9
CA 50C	Batiquitos Lagoon	21	8	19	8
Unit CA-50 Totals		65	26	66	27
CA 51A	San Elijo Lagoon Ecological Reserve	0	0	3	1
CA 51B	San Elijo Lagoon Ecological Reserve	0	0	5	2
CA 51C	San Elijo Lagoon Ecological Reserve	0	0	7	3
Unit CA-51 Totals		0	0	15	6
CA 52A	San Dieguito Lagoon	0	0	4	2
CA 52B	San Dieguito Lagoon	0	0	3	1
CA 52C	San Dieguito Lagoon	0	0	4	2
Unit CA-52 Totals		0	0	11	5
CA 53	Los Penasquitos Lagoon	24	10	32	13
CA 54A	Fiesta Island	0	0	2	1
CA 54B	Mariner's Point	0	0	7	3
CA 54C	South Mission Beach	0	0	38	15
CA 54D	San Diego River Channel	0	0	51	21
Unit CA-54 Totals		0	0	98	39
CA 55B	Coronado Beach	44	18	74	30
CA 55E	Sweetwater Marsh National Wildlife Refuge and D Street Fill.	128	52	132	53
CA 55F	Silver Strand State Beach	0	0	82	33
CA 55G	Chula Vista Wildlife Reserve	0	0	10	4
CA 55I	San Diego National Wildlife Refuge, South Bay Unit.	0	0	5	2
CA 55J	Tijuana Estuary and Beach	182	73	150	61
Unit CA-55 Totals		354	143	453	183
CALIFORNIA TOTALS		7,477	3,029	16,777	6,789
WASHINGTON, OREGON, CALIFORNIA GRAND TOTALS.		12,145	4,921	28,261	11,437

Some areas being proposed as revised critical habitat were omitted from the 2005 final rule. We have subsequently concluded that they are essential to the conservation of the species based on our

current criteria for determining critical habitat (*see Criteria Used To Identify Critical Habitat* section and information outlined below). Most of the units excluded between the 2004 proposed

rule and the 2005 final rule were excluded for economic reasons under section 4(b)(2) of the Act. The economic analysis for that rule quantified coextensive economic impacts of both

the listing and critical habitat for the Pacific Coast WSP. We now analyze economic impacts of proposed critical habitat designations by comparing scenarios both “with critical habitat” and “without critical habitat.” The “without critical habitat” scenario represents the baseline for the analysis, considering protections already in place for the species (e.g., under the Federal listing and other Federal, State, and local regulations), and representing the costs incurred regardless of whether critical habitat is designated. The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of

critical habitat for the species, the costs of which are solely attributable to the designation of critical habitat, above and beyond the baseline costs. Incremental impacts are the costs we now consider in the final designation of critical habitat when evaluating the benefits of excluding particular areas under section 4(b)(2) of the Act. We are currently in the process of conducting a new economic analysis on this proposed designation (see Economic Impacts section below).

Proposed Revised Critical Habitat Designation

We are proposing 28,261 ac (11,437 ha) in 68 units as revised critical habitat

for the Pacific Coast WSP: 6,265 ac (2,535 ha) in 4 units in Washington; 5,219 ac (2,112 ha) in 13 units in Oregon; and 16,777 ac (6,789 ha) in 51 units in California. The critical habitat areas described below constitute our current assessment of areas that meet the definition of critical habitat for the Pacific Coast WSP. Table 2 shows the occupied units. The approximate area and ownership of each proposed revised critical habitat unit is shown in Table 3. These units, if finalized, will replace the current critical habitat designation for the Pacific Coast WSP in 50 CFR 17.95.

TABLE 2—OCCUPANCY OF PACIFIC COAST WSP BY PROPOSED REVISED CRITICAL HABITAT UNITS

Unit	Name	Occupied at time of listing?	Currently occupied
WA 1	Copalis Spit	No	No.
WA 2	Damon Point	Yes	Yes.
WA 3A	Midway Beach	Yes	Yes.
WA 3B*	Shoalwater/Graveyard	Yes	Yes.
WA 4A	Leadbetter Spit	Yes	Yes.
WA 4B	Gunpowder Sands Island	Yes	No.
OR 1	Columbia River Spit	No	No.
OR 2	Necanicum River Spit	No	No.
OR 3	Nehalem River Spit	No	Yes.
OR 4	Bayocean Spit	Yes	Yes.
OR 5	Netarts Spit	No	No.
OR 6	Sand Lake South	No	No.
OR 7	Sutton/Baker Beaches	Yes	Yes.
OR 8A	Siltcoos Breach	Yes	Yes.
OR 8B	Siltcoos River Spit	Yes	Yes.
OR 8C	Dunes Overlook/Tahkenitch Creek Spit	Yes	Yes.
OR 8D	North Umpqua River Spit	No	No.
OR 9	Tenmile Creek Spit	Yes	Yes.
OR 10	Coos Bay North Spit	Yes	Yes.
OR 11	Bandon to New River	Yes	Yes.
OR 12*	Elk River Spit	No	No.
OR 13	Euchre Creek	No	No.
CA 1	Lake Earl	Yes	Yes.
CA 2	Gold Bluffs Beach	Yes	Yes.
CA 3a	Humboldt Lagoons—Stone Lagoon	Yes	Yes.
CA 3b	Humboldt Lagoons—Big Lagoon	Yes	Yes.
CA 4a	Clam Beach/Little River	Yes	Yes.
CA 4b	Mad River	Yes	Yes.
CA 5a	Humboldt Bay South Spit	Yes	Yes.
CA 5b	Eel River North Spit/Beach	Yes	Yes.
CA 5c	Eel River South Spit/Beach	Yes	Yes.
CA 6	Eel River Gravel Bars	Yes	Yes.
CA 7	MacKerricher Beach	Yes	Yes.
CA 8	Manchester Beach	No	Yes.
CA 9	Dillon Beach	Yes	Yes.
CA 10A	Pt Reyes	Yes	Yes.
CA 10B	Limantour	Yes	Yes.
CA 11	Napa	Yes	Yes.
CA 12	Hayward	Yes	Yes.
CA 13A		Yes	Yes.
CA 13B	Eden Landing	Yes	Yes.
CA 13C		Yes	Yes.
CA 14	Ravenswood	Yes	Yes.
CA 15	Warm Springs	Yes	Yes.
CA 16	Half Moon Bay	Yes	Yes.
CA 17	Waddell Creek Beach	Yes	No.
CA 18	Scott Creek Beach	Yes	Yes.
CA 19	Wilder Creek Beach	Yes	Yes.
CA 20	Jetty Road to Aptos	Yes	Yes.
CA 21	Elkhorn Slough Mudflats	Yes	Yes.

TABLE 2—OCCUPANCY OF PACIFIC COAST WSP BY PROPOSED REVISED CRITICAL HABITAT UNITS—Continued

Unit	Name	Occupied at time of listing?	Currently occupied
CA 22	Monterey to Moss Landing	Yes	Yes.
CA 23	Point Sur Beach	Yes	Yes.
CA 24	San Carpoforo Creek	Yes	Yes.
CA 25	Arroyo Laguna Creek	Yes	Yes.
CA 26	San Simeon State Beach	Yes	Yes.
CA 27	Villa Creek Beach	Yes	Yes.
CA 28	Toro Creek	Yes	Yes.
CA 29	Atascadero Beach/Morro Strand SB	Yes	Yes.
CA 30	Morro Bay Beach	Yes	Yes.
CA 31	Pismo Beach/Nipomo Dunes	Yes	Yes.
CA 32	Vandenberg North	Yes	Yes.
CA 33	Vandenberg South	Yes	Yes.
CA 34	Devereaux Beach	Yes	Yes.
CA 35	Santa Barbara Beaches	Yes	Yes.
CA 36	Santa Rosa Island Beaches	Yes	Yes.
CA 37	San Buenaventura Beach	Yes	Yes.
CA 38	Mandalay to Santa Clara River	Yes	Yes.
CA 39	Ormond Beach	Yes	Yes.
CA 43	Zuma Beach	Yes	Yes.
CA 44	Malibu Beach	Yes	Yes.
CA 45A	Santa Monica Beach	Yes	Yes.
CA 45B	Dockweiler North	Yes	Yes.
CA 45C	Dockweiler South	Yes	Yes.
CA 45D	Hermosa State Beach	Yes	Yes.
CA 46A		Yes	Yes.
CA 46B	Bolsa Chica Reserve	Yes	Yes.
CA 46C		Yes	Yes.
CA 46D		Yes	Yes.
CA 46E	Bolsa Chica State Beach	Yes	Yes.
CA 47	Santa Ana River Mouth	No	No.
CA 48	Balboa Beach	Yes	Yes.
CA 50A		Yes	Yes.
CA 50B	Batiquitos Lagoon	Yes	Yes.
CA 50C		Yes	Yes.
CA 51A		Yes	Yes.
CA 51B	San Elijo Lagoon Ecological Reserve	Yes	Yes.
CA 51C		Yes	Yes.
CA 52A		Yes	Yes.
CA 52B	San Dieguito Lagoon	Yes	Yes.
CA 52C		Yes	Yes.
CA 53	Los Penasquitos Lagoon	Yes	Yes.
CA 54A	Fiesta Island	Yes	No.
CA 54B	Mariner's Point	Yes	Yes.
CA 54C	South Mission Beach	Yes	Yes.
CA 54D	San Diego River Channel	Yes	Yes.
CA 55B	Coronado Beach	Yes	Yes.
CA 55E	Sweetwater Marsh National Wildlife Refuge	Yes	Yes.
CA 55F	Silver Strand State Beach	Yes	Yes.
CA 55G	Chula Vista Wildlife Reserve	Yes	No.
CA 55J	San Diego National Wildlife Refuge, South Bay Unit	Yes	Yes.
CA 55J	Tijuana Estuary and Beach	Yes	Yes.

* Unit or portions of unit may be considered for exclusion in the final critical habitat rule under section 4(b)(2) of the Act.

TABLE 3—PROPOSED REVISED CRITICAL HABITAT FOR THE PACIFIC COAST WSP SHOWING FEDERAL, STATE, TRIBAL, AND OTHER (PRIVATE AND LOCAL GOVERNMENT) LAND OWNERSHIP

Unit No.	Unit name	Total		Federal		Tribal		State		Other	
		ac	ha	ac	ha	ac	ha	ac	ha	ac	ha
Washington											
WA 1	Copalis Spit	407	165	0	0	0	0	407	165	0	0
WA 2	Damon Point	673	272	0	0	0	0	648	262	25	10

TABLE 3—PROPOSED REVISED CRITICAL HABITAT FOR THE PACIFIC COAST WSP SHOWING FEDERAL, STATE, TRIBAL, AND OTHER (PRIVATE AND LOCAL GOVERNMENT) LAND OWNERSHIP—Continued

Unit No.	Unit name	Total		Federal		Tribal		State		Other	
		ac	ha	ac	ha	ac	ha	ac	ha	ac	ha
WA 3A	Midway Beach	697	282	0	0	0	0	697	282	0	0
WA 3B*	Shoalwater/Graveyard	1,121	454	0	0	336	136	505	204	280	113
Unit WA-3 Totals		1,818	735	0	0	336	136	1,202	486	280	113
WA 4A	Leadbetter Spit	2,463	997	2,026	820	0	0	437	177	0	0
WA 4B	Gunpowder Sands Island	904	366	904	366	0	0	0	0	0	0
Unit WA-4 Totals		3,367	1,363	2,930	1,186	0	0	437	177	0	0
WASHINGTON STATE TOTALS		6,265	2,535	2,930	1,186	336	136	2,694	1,090	305	123
Oregon											
OR 1	Columbia River Spit	169	69	169	69	0	0	0	0	0	0
OR 2	Necanicum River Spit	211	85	0	0	0	0	161	65	50	20
OR 3	Nehalem River Spit	299	121	0	0	0	0	299	121	0	0
OR 4	Bayocean Spit	367	148	279	113	0	0	0	0	88	36
OR 5	Netarts Spit	541	219	0	0	0	0	541	219	0	0
OR 6	Sand Lake South	200	81	0	0	0	0	0	0	200	81
OR 7	Sutton/Baker Beaches	372	151	372	151	0	0	0	0	0	0
OR 8A	Siltcoos Beach	15	6	15	6	0	0	0	0	0	0
OR 8B	Siltcoos River Spit	241	97	241	97	0	0	0	0	0	0
OR 8C	Dunes Overlook/Tahkenitch Creek Spit.	716	290	716	290	0	0	0	0	0	0
OR 8D	North Umpqua River Spit	236	95	151	61	0	0	85	34	0	0
Unit OR-8 Totals		1,208	489	1,123	454	0	0	85	34	0	0
OR 9	Tenmile Creek Spit	244	99	244	99	0	0	0	0	0	0
OR 10	Coos Bay North Spit	308	125	308	125	0	0	0	0	0	0
OR 11	Bandon to New River	1,016	411	459	186	0	0	267	108	290	117
OR 12*	Elk River Spit	167	68	0	0	0	0	0	0	167	68
OR 13	Euchre Creek	116	47	0	0	0	0	0	0	116	47
OREGON STATE TOTALS		5,219	2,112	2,955	1,196	0	0	1,353	547	911	369
California											
CA 1	Lake Earl	74	30	0	0	0	0	22	9	52	21
CA 2	Gold Bluffs Beach	144	58	0	0	0	0	144	58	0	0
CA 3A	Humboldt Lagoons—Stone La- goon.	52	21	0	0	0	0	52	21	0	0
CA 3B	Humboldt Lagoons—Big Lagoon	212	86	0	0	0	0	174	70	38	15
Unit CA-3 Totals		264	107	0	0	0	0	226	92	38	15
CA 4A	Clam Beach/Little River	194	79	0	0	0	0	79	32	115	47
CA 4B	Mad River	456	185	0	0	0	0	152	62	304	123
Unit CA-4 Totals		650	263	0	0	0	0	231	93	419	170
CA 5A	Humboldt Bay South Spit	419	170	20	8	0	0	383	155	16	7
CA 5B	Eel River North Spit/Beach	259	105	0	0	0	0	252	102	7	3
CA 5C	Eel River South Spit/Beach	339	137	0	0	0	0	317	128	22	9
Unit CA-5 Totals		1,017	412	20	8	0	0	952	385	45	18
CA 6	Eel River Gravel Bars	1,139	461	0	0	0	0	82	33	1,057	428
CA 7	MacKerricher Beach	1,176	476	0	0	0	0	1,102	446	74	30
CA 8	Manchester Beach	482	195	68	28	0	0	402	163	12	5
CA 9	Dillon Beach	39	16	0	0	0	0	0	0	39	16
CA 10A	Pt Reyes	460	186	460	186	0	0	0	0	0	0
CA 10B	Limantour	156	63	156	63	0	0	0	0	0	0
Unit CA-10 Totals		617	250	617	250	0	0	0	0	0	0
CA 11	Napa	618	250	0	0	0	0	618	250	0	0
CA 12	Hayward	1	0	0	0	0	0	0	0	1	0
CA 13A	Eden Landing	237	96	0	0	0	0	228	92	8	3
CA 13B	Eden Landing	171	69	0	0	0	0	171	69	0	0
CA 13C	Eden Landing	609	247	0	0	0	0	602	244	7	3
Unit CA-13 Totals		1,016	411	0	0	0	0	1,001	405	15	6
CA 14	Ravenswood	89	36	0	0	0	0	0	0	89	36
CA 15	Warm Springs	168	68	168	68	0	0	0	0	0	0
CA 16	Half Moon Bay	36	15	0	0	0	0	36	15	0	0
CA 17	Waddell Creek Beach	25	10	0	0	0	0	19	8	7	3

TABLE 3—PROPOSED REVISED CRITICAL HABITAT FOR THE PACIFIC COAST WSP SHOWING FEDERAL, STATE, TRIBAL, AND OTHER (PRIVATE AND LOCAL GOVERNMENT) LAND OWNERSHIP—Continued

Unit No.	Unit name	Total		Federal		Tribal		State		Other	
		ac	ha	ac	ha	ac	ha	ac	ha	ac	ha
CA 55J	Tijuana Estuary and Beach	150	61	71	29	0	0	58	23	21	9
Unit CA-55 Totals (does not include exempt sub-units).		453	183	222	90	0	0	151	61	81	33
CALIFORNIA TOTALS		16,777	6,789	3,434	1,390	0	0	8,693	3,518	4,650	1,882
WASHINGTON, OREGON, CALIFORNIA GRAND TOTALS.		28,261	11,437	9,040	3,658	336	136	12,740	5,156	6,145	2,487

* Unit or portions of unit may be considered for exclusion in the final critical habitat rule under section 4(b)(2) of the Act. Values in this table may not sum due to rounding.

Critical Habitat Units

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Pacific Coast WSP below.

Washington

WA 1, Copalis Spit, 407 ac (165 ha):

Copalis Spit is located along the central Washington coast, approximately 20 mi (32 km) northwest of the Community of Hoquiam in Grays Harbor County. Copalis Spit is a 2-mi (3-km) long sand spit bounded by the Copalis River on the northern and landward sides. The Copalis Beach access road off State Route 109 and State Park property line demarcate the southern boundary. The unit is entirely within Griffiths-Priddy Ocean State Park (Washington State Parks and Recreation Commission).

This unit is the northernmost unit in the range of the species and historically supported 6 to 12 nesting pairs of Pacific Coast WSPs, but no use has been documented since 1984 (Service 2007, p. 21). This unit was not occupied at the time of listing and is not currently occupied. The unit consists of a long sandy beach with sparsely vegetated dunes that extend to the river, providing nesting and foraging opportunities, as well as protection from the weather. The northward shift of Connor Creek washed out the beach access road at the southern end, effectively closing the area to motorized vehicles. Because of its relatively remote location, the area receives little human use. Although currently unoccupied, the unit is considered essential for the conservation of the species as it allows for population expansion into the northern extent of the Pacific Coast WSP's historical range from adjacent occupied areas and has high quality habitat, including a long sandy beach with sparsely vegetated dunes that extend to the river, providing nesting

and foraging opportunities for the species.

WA 2, Damon Point/Oyhut Wildlife Area, 673 ac (272 ha):

This unit is located at the southern end of the City of Ocean Shores in Grays Harbor County and is a sandy spit that extends into Grays Harbor. The unit boundary begins at the Damon Point parking area off Marine View Drive. The western boundary generally follows the property line for the Oyhut Wildlife Area.

This unit was occupied at the time of listing and we consider this unit to be currently occupied. Research in the mid-1980s indicated that up to 20 Pacific Coast WSPs have used Damon Point for nesting. However, use has declined significantly at this site, with only six adult birds documented using the area during the breeding season in 2005. A historic shipwreck (S.S. Catala) was exposed during winter storms in 2006, and the vessel was removed from the spit due to oil spill and other hazardous materials concerns over a period of 17 months (State of Washington, Department of Ecology 2007). The opportunity to view the shipwreck and removal operation drew media attention, and hundreds of visitors visited the site on weekends. Visitation of the area has dropped off since the clean-up. Even though no plover nesting has been documented at Damon Point since 2006, we consider this unit occupied by the species based on previous use of the area, on the fluctuating use of areas in general by the species as a response to habitat and resource availability, and because breeding surveys are not conclusive as to the presence or absence of a species as they only provide information during the breeding season. We have determined that the unit contains the physical and biological features essential to the conservation of the species which may require special management considerations or protection. The unit includes sandy

beaches that are relatively undisturbed by human or tidal activity (nesting habitat), large expanses of sparsely vegetated barren terrain, and mudflats and sheltered bays that provide ample foraging areas.

The majority (648 ac (262 ha)) of the unit is administered by the State of Washington (Department of Fish and Wildlife and Department of Natural Resources). There are over 7 mi (11 km) of sandy beaches and shoreline at Damon Point, and the shape of the spit changes constantly with winter storms and nearshore sand drift. In recent years, some of the lower elevation areas have been overwashed, and coastal erosion may result in separation of the spit from the mainland in the near future. The western edge of the unit lies adjacent to a municipal wastewater treatment facility that is managed by the City of Ocean Shores, with a few undevelopable private parcels in the tidelands near the parking area. Similar to Copalis Spit, the access road has washed out, and the area is currently inaccessible to motorized vehicles.

The primary threats to Pacific Coast WSPs that may require special management at this time are recreational use, including pedestrians and unleashed pets, habitat loss from European beach grass, and potential reopening of the vehicle access road. Special management in the form of developing and enforcing regulations to address the recreation issues may be needed. Management to remove and control beach grass will prevent further spread of nonnative vegetation, thereby maintaining and expanding the elements of essential physical and biological features identified above.

WA 3A, Midway Beach, 697 ac (282 ha):

Located adjacent to the Community of Grayland, this subunit extends from the northern boundary of Grayland Beach State Park, through South Beach State Park to Cape Shoalwater at the southern end in Pacific County. Midway Beach is

an expansive beach and is nearly 0.5 mi (0.8 km) wide at the widest point. This subunit was occupied at the time of listing and is currently occupied. This subunit includes the following physical and biological features essential to the conservation of the species: large areas of sand dune habitat that is relatively undisturbed, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and close proximity to tidally influenced estuarine mud flats.

Beach accretion since 1998 has greatly improved habitat conditions, resulting in this beach becoming a primary nesting area in the State. From 1998 to 2005, an average of 18 plovers nested annually at Midway, and from 2003 to 2006, between 23 and 28 Pacific Coast WSPs nested at Midway Beach.

Primary threats at this subunit that may require special management include motorized vehicle use on the beaches and human activity. The recent closure of the Midway Beach Access Road due to safety concerns, *e.g.*, vehicles getting stuck in deep sand, has reduced impacts in the nesting area, but may not be permanent. Therefore, the physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats associated with human-related recreation and other activities. Developing and enforcing regulations to address the recreation issues may be needed. Management to remove and control beach grass will prevent further spread of nonnative vegetation, thereby maintaining and expanding the elements of essential physical and biological features identified above.

WA 3B, Shoalwater (Graveyard Spit), 1,121 ac (454 ha):

This unit is located in Pacific County at Shoalwater Beach (Graveyard Spit), which is an extension of Midway Beach, and extends south into the entrance of Willapa Bay. The unit starts at a narrow strip of beach adjacent to State Route 105, continuing in a southwesterly direction to the Community of Tokeland. The landward extent of the Graveyard Beach addition is State Route 105, and the sea-ward extent of the unit is the Pacific Ocean's water's edge.

This subunit was occupied at the time of listing, is currently occupied and includes the recently discovered nesting area at Graveyard Spit (since 2006). The State recovery plan for the WSP (WDFW 1995) defines the geographic area from Grayland Beach State Park south to Toke Point as "South Beach." Based on documented sightings and records of

WSP use for the South Beach geographic area (WDFW 1995, Appendix C), Shoalwater Beach/Graveyard Spit was occupied at the time of listing and is a known or presumed historical nesting area (WDFW 1995, Figure 2, p. 3). Pacific Coast WSPs have nested successfully at Shoalwater/Graveyard Spit for several years. Although fledging success is relatively high at this location, plover use of the Shoalwater/Graveyard Spit area is sporadic.

The subunit includes the following features essential to the conservation of the species: Large areas of sand dune habitat that is relatively undisturbed; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced estuarine mud flats. Special management that may be required includes management of human-related activities to reduce disturbance to breeding Pacific Coast WSPs, and maintenance of the physical and biological features within the subunit.

Based on interpretation of aerial imagery, the Cape Shoalwater area has experienced extensive erosion over the past 15 years. A nearly 0.3 mi-wide (0.5 km-wide) by 1.5 mi-long (2.4 km-long) section of the coastline, including roads and residences, has been reclaimed by the ocean, resulting in the accretion of Midway Beach. The accretion of beach improves elements of essential physical and biological features. The county ownership layer for this subunit is ambiguous and could not be used for precise acreage calculations, however it is estimated that approximately 280 ac (113 ha) of the subunit are in private ownership, 336 ac (136 ha) are managed by the Shoalwater Bay Tribe, and the rest of the area is managed by the State of Washington (505 ac (204 ha)).

WA 4A, Leadbetter Spit, 2,463 ac (997 ha):

The Leadbetter Spit subunit is located in Pacific County at the northern tip of the Long Beach Peninsula; a 26-mi-long (42 km-long) spit that defines the west side of Willapa Bay and extends down to the mouth of the Columbia River. The subunit is located just north of the community of Ocean Park and includes Leadbetter Point State Park (SP) and the Willapa National Wildlife Refuge (NWR) at the northern end of the spit. The main portion of this subunit is on the ocean side, and includes the coastal beaches from the tip of the peninsula, and the habitat restoration area down to Oysterville Road, approximately 1.8 mi (3 km) south of Leadbetter Point SP. The subunit includes approximately 8 mi

(13 km) of coastal beaches and sheltered bays. The vast majority of the subunit is on lands that are managed by the Willapa NWR (2,026 ac (820 ha)). The remaining beaches (437 ac (177 ha)) are managed by the Washington State Parks and Recreation Commission. The State jurisdiction on the Long Beach Peninsula extends well up into the foredunes.

Leadbetter Spit was occupied at the time of listing, is currently occupied, and is the largest subunit in Washington. Approximately 25 to 30 Pacific Coast WSPs nest and overwinter on the spit annually, with most of the nesting occurring in the snowy plover habitat restoration area within the Willapa NWR. Between 10 and more than 40 breeding adults were recorded between 2005 and 2009 (WDFW 2009, p. 12). A few pairs nest along the ocean beaches and on State Park lands just south of the Willapa NWR. The 2007 Recovery Plan lists a management goal of 30 breeding adults for this subunit (Service 2007, Appendix B).

The subunit includes the following features essential to the conservation of the species: Relatively undisturbed sandy beaches above and below the high-tide line and sparsely vegetated dunes for nesting, as well as miles of coastal wrackline supporting small invertebrates; and close proximity to tidally influenced estuarine mud flats and sheltered bays for foraging. The combined dynamics of weather and surf cause large quantities of wood and shell material to accumulate on the spit, providing prime nesting habitat, hiding areas from predators, foraging opportunities, and shelter from inclement weather.

European beach grass threatens the habitat quality of the subunit. Special management that may be needed includes restoration and maintenance of degraded habitat to ensure the reinfestation of nonnative vegetation does not occur. Doing so will ensure that elements of essential physical and biological features within this subunit remain intact.

WA 4B, Gunpowder Sands Island, 904 ac (366 ha):

The subunit includes Gunpowder Sands Island just off the northern tip of the Long Beach Peninsula. The island is Federally owned and is administered by the Willapa NWR.

Because the island is only accessible by boat, breeding surveys for Pacific Coast WSP at this location are sporadic. It is unknown if this Gunpowder Sands Island was occupied at the time the Pacific Coast WSP was listed in 1993, but two successful nests and one failed nest were documented on the island in

1995 (WDFW heritage data). Although nesting has not been recently confirmed for this area, we consider this unit essential for the conservation of the species because it provides a safe nesting, resting and foraging area free of human disturbance and connectivity between two currently occupied areas. We consider that it is important for the species' use, based on the proximity of the site to the occupied nesting area on Leadbetter Spit, and on fluctuating habitat and resource availability.

Gunpowder Sands Island also has physical and biological features essential to the conservation of the species: Relatively undisturbed sandy beaches above and below the high-tide line, sparsely vegetated dunes for nesting, and coastal wrackline supporting small invertebrates. The island is periodically overwashed during winter storms, resulting in dry sand and beach habitat with little or no vegetation.

Primary threats to essential physical and biological features that may require special management include the State's management of the spring razor clam season, which opens beaches to motorized vehicle and provides access into Pacific Coast WSP nesting areas that normally receive limited human use. Beaches south of the Willapa NWR are open to public use. The State Parks and Recreation Commission posts areas where plovers nest, has increased enforcement of the wet sand driving regulations, and is conducting habitat restoration on State Park lands. Controlling human-related activities will ensure that disturbance remains minimal.

Oregon

OR 1, Columbia River Spit, 169 ac (69 ha):

This unit is on the northwestern coast of Clatsop County, about 9 mi (15 km) northwest of the City of Astoria. It is bounded by the Columbia River south jetty and the Pacific Ocean to the west. The mouth of the Columbia River constitutes the northern and eastern boundaries, and Fort Stevens State Park lies along the unit's southern edge. The Columbia River Spit is managed by the U.S. Army Corps of Engineers (USACE), but is under lease to the Oregon Parks and Recreation Department (OPRD) as part of Fort Stevens State Park. Inland, the beach is overgrown with shore pine (*Pinus contorta*), European beach grass, and some alder (*Alnus* spp). Sea-level rise and overwashing of this area during the winter months is anticipated to result in vegetation removal and the creation of additional habitat for Pacific Coast WSP.

Pacific Coast WSPs were observed breeding on Clatsop Spit in 1965. Throughout the 1980s, they were observed nesting on ocean beaches directly south of the spit to the City of Gearhart. Winter use has been confirmed for this area as recently as 2008. We consider this unit essential for the conservation of the species because it provides connectivity between two currently occupied areas, dispersal habitat between units, and habitat for resting and foraging. We consider that it is likely occupied at times, based on the fluctuating use of areas by the species as a response to habitat and resource availability. The unit is comprised of a wide sand spit adjacent to mud flats and an estuary and provides habitat for foraging and resting and would facilitate interchange between otherwise widely separated units.

OR 2, Necanicum River Spit, 211 ac (85 ha):

This unit is on the western coast of Clatsop County, adjacent to the City of Gearhart, and less than 1 mi (2 km) north of the City of Seaside. It is bounded by the Necanicum River estuary on the south, City of Gearhart to the north and east, and the Pacific Ocean to the west. The mouth of the river changes periodically. The northern inland portion of the unit is overgrown with European beach grass; sea-level rise and overwashing of this area during the winter months is anticipated to result in vegetation removal and the creation of additional Pacific Coast WSP breeding habitat.

This unit was not considered occupied at the time the Pacific Coast WSP was listed in 1993. Two breeding Pacific Coast WSPs were documented in this unit in 2002 (Service unpublished data). Although the unit is not confirmed to be currently occupied, we consider this unit essential for the conservation of the species because it provides connectivity between occupied areas, dispersal habitat between units, and habitat for resting and foraging. This unit consists of 161 State-owned ac (65 ha) and 50 city-owned ac (20 ha). The OPRD is the primary land manager.

The unit is characteristic of a dune-backed beach adjacent to mud flats and an estuary. This unit includes wide sand spits or overwashes relatively undisturbed by tidal activity and sparsely vegetated; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced estuarine mud flats.

OR 3, Nehalem River Spit, 299 ac (121 ha):

This unit is on the northwestern coast of Tillamook County, next to the City of Manzanita and about 15 mi (24 km) northwest of the City of Tillamook. It is bounded by Nehalem Bay on the east, the southern boundary of the Nehalem Bay State Park campground to the north, and the Nehalem River south jetty to the south. The Pacific Ocean forms the western boundary. The southern portion of the unit extends behind a relatively low foredune into an area overgrown with European beach grass; sea-level rise and overwashing of this area during the winter months is anticipated to result in vegetation removal and creation of additional Pacific Coast WSP breeding habitat.

This unit was not considered occupied at the time the Pacific Coast WSP was listed in 1993. One breeding Pacific Coast WSP was documented in this unit in 1984 (ODFW *in litt.* 1995, Appendix, Table 2), therefore, the unit is a historical breeding site within the species' range. Winter use was documented as recently as 2009. Although nesting has not been recently confirmed for this area, we consider this unit essential for the conservation of the species because it provides connectivity between two currently occupied areas, dispersal habitat between units, and habitat for resting and foraging. We consider that it is likely occupied at times, based on record of past use and the fluctuating use of areas by the species as a response to habitat and resource availability. This unit provides habitat to support breeding plovers and would facilitate interchange between otherwise widely separated units and helps provide habitat within Recovery Unit 1 in Oregon and Washington. The unit consists of 299 State-owned ac (121 ha) and is managed by the OPRD as part of the Nehalem Bay State Park.

The unit is representative of a dune-backed beach and sand spit adjacent to mud flats and an estuary. It includes the following features essential to the conservation of the species: A wide sand spit or overwash area relatively undisturbed by human or tidal activity and sparsely vegetated; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced estuarine mud flats.

OR 4, Bayocean Spit, 367 ac (148 ha):

This unit is on the western coast of Tillamook County, and about 9 mi (15 km) northwest of the City of Tillamook. It is bounded by Tillamook Bay on the east, the Tillamook Bay South Jetty to the north, the northern boundary of Bayocean Peninsula County Park 1.4 mi (2.3 km) to the south, and the Pacific

Ocean to the west. Approximately 279 ac (113 ha) are Federally owned, and 88 ac (36 ha) are owned by local governments or private parties. The northern half of the unit extends behind a relatively low foredune. Sea-level rise and overwashing of this area during the winter months is anticipated to result in vegetation removal and creation of additional Pacific Coast WSP breeding habitat.

This unit was occupied at the time of listing, and is likely currently occupied. Two Pacific Coast WSPs were documented in 1993 and six plovers in 1995 in this unit during the breeding season (ODFW *in litt.* 1995, Appendix, Table 2). Prior to 2001, winter use of the area by plovers was documented consistently. Recent records indicate use by wintering plovers in 2007 and 2008. Although nesting has not been recently confirmed for this area, we consider that it is likely occupied at times, and is needed by the species for use in response to fluctuating habitat and resource availability. This unit provides habitat to support breeding plovers, facilitates interchange between otherwise widely separated units under intensive management, and helps provide habitat within Recovery Unit 1 in Oregon and Washington.

The unit is characteristic of a dune-backed beach in close proximity to mud flats and an estuary. It includes the following features essential to the conservation of the species: Large areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced estuarine mud flats.

Primary threats to essential physical and biological features that may require special management in this unit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from humans, pets, and horses in important foraging and nesting areas; and predators.

OR 5, Netarts Spit, 541 ac (219 ha):

The unit is on the western coast of Tillamook County, about 5.5 mi (9 km) southwest of the City of Tillamook. It is bounded by Netarts Bay to the east and the north, Cape Lookout State Park campground 2.6 mi to the south, and the Pacific Ocean to the west. The unit extends behind a low foredune with a large expanse of European beach grass. Sea-level rise and overwashing of this area during the winter months is anticipated to result in vegetation removal and creation of additional Pacific Coast WSP breeding habitat.

This unit was not considered occupied at the time the Pacific Coast WSP was listed in 1993; however, three breeding Pacific Coast WSPs were documented in this unit in 1982 (ODFW *in litt.* 1995, Appendix, Table 2). Although nesting and wintering have not been recently confirmed for this area, we consider this unit essential for the conservation of the species because it provides connectivity between two currently occupied areas, dispersal habitat between units, and habitat for resting and foraging. It is needed by the species for use in response to fluctuating habitat and resource availability. This unit provides habitat to support breeding plovers, facilitates interchange between otherwise widely separated units under intensive management, and helps provide habitat within Recovery Unit 1 in Oregon and Washington. The unit consists of 541 State-owned ac (219 ha) managed by OPRD as Cape Lookout State Park.

The unit is characteristic of a dune-backed beach and sand spit in close proximity to mud flats. It includes the following features essential to the conservation of the species: Wide sand spits or overwashes and large areas of sandy dune relatively undisturbed by tidal activity and sparsely vegetated; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced mud flats.

OR 6, Sand Lake South, 200 ac (81 ha):

This unit is on the southwestern coast of Tillamook County, about 4.5 mi (7 km) north of Pacific City. It is bounded by Sand Lake estuary to the north and east, the northern limit of development in the town of Tierra Del Mar to the south, and the Pacific Ocean to the west. The unit is characteristic of a dune-backed beach and sand spit in close proximity to mud flats and an estuary. The mouth of the lake changes periodically. The unit extends into a small upland portion of the spit. Sea-level rise and overwashing of this area during the winter months is anticipated to result in vegetation removal and the creation of additional Pacific Coast WSP breeding habitat.

This unit was not considered occupied at the time the Pacific Coast WSP was listed in 1993. However, four snowy plovers were observed during the breeding season at Sand Lake in 1986 (ODFW, *in litt.* 1995, Appendix, Table 2). Although nesting and wintering has not been recently confirmed for this area, the unit is a historical breeding site within the species' range, and we consider this unit essential for the

conservation of the species because it provides connectivity between two currently occupied areas, dispersal habitat between units, and habitat for resting and foraging. We consider the area is needed by the species for use in response to fluctuating habitat and resource availability. This unit provides habitat to support breeding plovers, facilitates interchange between otherwise widely separated units under intensive management, and helps provide habitat within Recovery Unit 1 in Oregon and Washington. The unit consists of 200 privately owned ac (81 ha).

The unit includes the following features essential to the conservation of the species: Wide sand spits or overwashes and sparsely vegetated areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced mud flats.

OR 7, Sutton/Baker Beaches, 372 ac (151 ha):

This unit is on the western coast of Lane County, about 5 mi (8 km) north of the City of Florence. It is bounded by Sutton Creek to the south, Heceta Head to the north, the Oregon Dunes National Recreation Area (NRA) to the east, and the Pacific Ocean to the west.

This unit was occupied at the time of listing and is currently occupied. The most recently documented Pacific Coast WSPs for this unit include four breeding plovers in 2007 (Lauten *et al.* 2007, p. 5). We have determined that the unit contains the physical and biological features essential to the conservation of the species which may require special management considerations or protection. This unit provides habitat to support breeding plovers and would facilitate interchange between otherwise widely separated units under intensive management. The unit consists of 372 Federally owned ac (151 ha) managed by the U.S. Forest Service's (USFS) Siuslaw National Forest. The unit extends behind a relatively low foredune in several places into areas overgrown with beach grass. Sea-level rise and overwashing of these areas during the winter months is anticipated to result in vegetation removal and the creation of additional plover breeding habitat.

The unit is characteristic of a dune-backed beach and wide sand spits with overwash areas and contains an interdune flat created through habitat restoration. It includes the following features essential to the conservation of the species: Large areas of sandy dunes or overwashes relatively undisturbed by

tidal activity and areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates.

Primary threats to essential physical and biological features that may require special management in this unit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from humans, pets, and horses in important foraging and nesting areas; and predators.

OR 8A, Siltcoos Beach, 15 ac (6 ha):

This subunit is on the southwestern coast of Lane County, about 7 mi (11 km) southwest of the City of Florence. It is an important wintering area that includes a large opening in the foredune 1.2 mi (2 km) north of the Siltcoos River. The southern boundary is located 0.6 mi (1 km) north of the Siltcoos River, with the Oregon Dunes NRA to the east and the Pacific Ocean to the west. The subunit consists of 15 Federally owned ac (6 ha) managed by the USFS as the Oregon Dunes NRA in the Siuslaw National Forest.

This subunit was occupied at the time of listing and is currently occupied with recently documented wintering Pacific Coast WSPs in 2005, 2006, and 2007, and 2010 (Service unpublished data). As many as 59 plovers were documented during the winter of 2005 (C. Burns, pers. comm. 2006) and 26, 36, and 24 in 2006, 2007 and 2010 respectively (Service unpublished data).

The subunit is characteristic of a dune-backed beach and sand spit in close proximity to a tidally influenced river mouth. It includes the following features essential to the conservation of the species: sparsely vegetated areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced freshwater areas.

Primary threats to essential physical and biological features that may require special management in this subunit are introduced European beach grass that encroaches on the available roosting habitat, disturbance from vehicles, and predators.

OR 8B, Siltcoos River Spit, 241 ac (97 ha):

This subunit is on the southwestern coast of Lane County, about 7 mi (11 km) southwest of the City of Florence. It includes the sand spits to the north and south of the Siltcoos River and is bounded by the Wax Myrtle Trail and campground to the east, and Pacific Ocean to the west.

This subunit was occupied at the time of listing and is currently occupied.

Most recently documented Pacific Coast WSPs for this subunit include 24 breeding plovers in 2009 (Lauten *et al.* 2009, p. 26). Subunit OR 8B consists of 241 Federally owned ac (97 ha) managed by the USFS as the Oregon Dunes NRA in the Siuslaw National Forest.

The subunit is characteristic of a dune-backed beach and sand spit in close proximity to a tidally influenced river mouth. It includes the following features essential to the conservation of the species: wide sand spits or overwashes and sparsely vegetated areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced freshwater areas.

Primary threats to essential physical and biological features that may require special management in this subunit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from humans, pets, and OHVs in important foraging and nesting areas; and predators such as the American crow and common raven.

OR 8C, Dunes Overlook/Tahkenitch Creek Spit, 716 ac (290 ha):

This subunit is primarily in Douglas County, about 9 mi (15 km) southwest of the City of Florence. The southern boundary of the unit is about 5.3 mi (9 km) northwest of the City of Reedsport. It is bounded by the subunit 8A to the north, an OHV open ride area (part of the Oregon Dunes NRA) to the south, Oregon Dunes NRA to the east, and the Pacific Ocean to the west.

This subunit was occupied at the time of listing and is currently occupied. Documented Pacific Coast WSPs for this subunit include 12 breeding plovers in 2009 (Lauten *et al.* 2009, p. 26). Subunit OR 8C consists of 716 Federally managed ac (290 ha) managed by the USFS as the Oregon Dunes NRA in the Siuslaw National Forest.

The subunit is characteristic of a dune-backed beach and sand spit in close proximity to a tidally influenced river mouth and contains interdune flats created through habitat restoration. It includes the following features essential to the conservation of the species: wide sand spits or overwashes and sparsely vegetated areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced freshwater areas.

Primary threats to essential physical and biological features that may require

special management in this subunit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from humans, pets, and vehicles in important foraging and nesting areas; and predators.

OR 8D, North Umpqua River Spit, 236 ac (95 ha):

This subunit is on the western coast of Douglas County, about 4 mi (5 km) west of the City of Reedsport. It is bounded by the Umpqua River North Jetty to the south, Oregon Dunes NRA land to the north and east, and the Pacific Ocean to the west. The subunit consists of 151 ac (61 ha) of Federally owned land and 85 ac (34 ha) of State-owned land. The primary land manager is the USFS for the Oregon Dunes NRA.

Nesting Pacific Coast WSPs were documented in this unit in the 1980s. The last documented winter use of this area was in 1993. Although use of the area has not been recently documented, it contains features essential to the conservation of the species and is needed by the species for use in response to fluctuating habitat and resource availability. The subunit is located adjacent to currently occupied areas and provides dispersal habitat between units. The subunit also contains physical and biological features essential to the conservation of the species which may require special management considerations or protection. The subunit is characteristic of a dune-backed beach and includes the following features essential to the conservation of the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates (for nesting and foraging).

Threats to essential physical and biological features that may require special management in this subunit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from vehicles in important foraging and nesting areas; and predators.

OR 9, Tenmile Creek Spit, 244 ac (99 ha):

This unit is on the northwestern coast of Coos County, about 11 mi (18 km) southwest of the City of Reedsport. It includes the sand spits and beaches to the north and south of the Tenmile River. The unit is bounded to the north, east, and south by OHV riding areas, part of the Oregon Dunes (NRA), and by the Pacific Ocean to the west.

This unit was occupied at the time of listing and is currently occupied. Documented Pacific Coast WSPs for this unit include 23 breeding plovers in 2009 (Lauten *et al.* 2009, p. 26). Unit OR

9 consists of 244 Federally owned ac (99 ha) managed as the Oregon Dunes NRA by the USFS.

The unit is characteristic of a dune-backed beach and sand spit. It includes the following features essential to the conservation of the species: Wide sand spits or overwashes and sparsely vegetated areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced freshwater areas.

Primary threats to essential physical and biological features that may require special management in this subunit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from humans and pets in important foraging and nesting areas; and predators.

OR 10, Coos Bay North Spit, 308 ac (125 ha):

This unit is on the western coast of Coos County, about 3 mi (5 km) west of the City of Coos Bay. It is bounded by Coos Bay to the east, the Coos Bay North Jetty to the south, an OHV riding area to the north, and the Pacific Ocean to the west.

This unit was occupied at the time of listing and is currently occupied. Documented Pacific Coast WSPs for this unit include 45 breeding plovers in 2009 (Lauten *et al.* 2009, p. 26). The unit consists of 308 Federally owned ac (125 ha) primarily managed by the U.S. Bureau of Land Management (BLM).

The unit is characteristic of a dune-backed beach and interior interdune flats created through dredge material disposal or through habitat restoration. It includes the following features essential to the conservation of the species: Expansive, sparsely vegetated interdune flats; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced estuarine areas.

Threats to essential physical and biological features that may require special management in this unit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from humans, pets, and vehicles in important foraging and nesting areas; and predators.

OR 11, Bandon to New River, 1,016 ac (411 ha):

This unit is on the southwestern coast of Coos County, about 3 mi (5 km) south of the City of Bandon. It is bounded by China Creek to the north, the New River to the east, north of the Floras Creek outlet to the south, and the Pacific

Ocean to the west. The unit encompasses all of New River Spit and extends behind a relatively low foredune north of Floras Creek. Sea-level rise and overwashing of these areas during the winter months is anticipated to result in vegetation removal and the creation of additional Pacific Coast WSP breeding habitat.

This unit was occupied at the time of listing and is currently occupied. Documented Pacific Coast WSPs for this unit include 49 breeding plovers in 2009 (Lauten *et al.* 2009, p. 26). The unit consists of 459 ac (186 ha) of Federally owned land, 267 ac (108 ha) of State-owned land, 290 ac (117 ha) of county and private land. The BLM and OPRD are the unit's primary land managers.

The subunit is characteristic of a dune-backed beach and barrier spit and contains interdune flats created through habitat restoration. It includes the following features essential to the conservation of the species: Wide sand spits or overwashes and sparsely vegetated areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced freshwater areas.

Threats to essential physical and biological features that may require special management in this unit are introduced European beach grass that encroaches on the available nesting and foraging habitat; disturbance from humans, pets, horses, and vehicles in important foraging and nesting areas; and predators.

OR 12, Elk River Spit, 167 ac (68 ha):

This unit is on the northwestern coast of Curry County, about 4 mi (6 km) northwest of the City of Port Orford and 2.3 mi (4 km) southeast of Cape Blanco. It is bounded by the Elk River to the east and north, private land to the south, and the Pacific Ocean to the west. Unit OR 12 consists of 167 privately owned ac (68 ha).

There are no documented occurrences of Pacific Coast WSPs for this unit. Since this unit is largely on private land, it was not surveyed prior to listing of the Pacific Coast WSP. As a consequence, its occupancy at the time of listing is unknown. However, we have determined that this unit is essential for the conservation of the Pacific Coast WSP because it provides habitat to support breeding or wintering plovers and would facilitate interchange between otherwise widely separated units under intensive management (*see Criteria Used to Identify Critical Habitat* section for a detailed discussion). The Recovery Plan identifies this area as a

Recovery Site (OR-17) (Service 2007, Appendix B) that could support four breeding birds as it includes a dune-backed beach and wide sand spits or overwashes with sparsely vegetated areas of undisturbed sandy dunes.

OR 13, Euchre Creek Spit, 116 ac (47 ha):

This unit is on the western coast of Curry County, approximately 10 mi (6 km) north of the City of Gold Beach. It includes the sand spits to the north and south of the Euchre Creek and is bounded by the Pacific Ocean to the west. The unit consists of 116 privately owned ac (47 ha).

The unit extends into low-elevation areas on the north and south side of Euchre Creek. Sea-level rise and overwashing of these areas during the winter months is anticipated to result in vegetation removal and the creation of additional Pacific Coast WSP breeding habitat.

Although this area was not considered occupied at the time the Pacific Coast WSP was listed in 1993, this beach is a historical nesting site. The most recently documented Pacific Coast WSP in the area was one wintering plover in 1989 (ODFW *in litt.* 1994, Appendix, Table 3). Although nesting and wintering has not been recently confirmed for this area, we consider this unit essential for the conservation of the species because it provides connectivity between two currently occupied areas, dispersal habitat between units, and habitat for resting and foraging. We consider the area is needed by the species for use in response to fluctuating habitat and resource availability. This unit provides habitat to support breeding plovers and would facilitate interchange between otherwise widely separated units and helps provide habitat within Recovery Unit 1 in Oregon and Washington.

The unit is characteristic of a dune-backed beach and sand spit in close proximity to a tidally influenced river mouth and includes wide sand spits or overwashes and sparsely vegetated areas of sandy dune relatively undisturbed by tidal activity; areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates; and close proximity to tidally influenced freshwater areas.

California

CA 1, Lake Earl; 74 ac (30 ha):

This unit is located directly west of the Lake Earl/Lake Tolowa lagoon system in Del Norte County about 4 mi (7 km) north of Crescent City. The Lake Earl Lagoon spit is approximately 3 mi (5 km) in length, encompasses approximately 74 ac (30 ha), and lies approximately 2 mi (3 km) north of

Point Saint George and the McNamara Airfield.

This unit was occupied at the time of listing and is currently occupied. This unit is a historical breeding site (Yocom and Harris 1975, p. 30), and has harbored a small population of wintering Pacific Coast WSP in recent years (Service unpublished data). This unit is capable of supporting 10 breeding plovers with adaptive management (Service 2007, Appendix B). Although 22 ac (9 ha) are State-owned, all 74 ac (24 ha) are managed by the State under the jurisdiction of the California Department of Fish and Game (CDFG), and California Department of Parks and Recreation (CDPR).

Essential features of the unit for Pacific Coast WSP conservation include sandy beaches above and below the mean high-tide line, wind-blown sand in dune systems immediately inland of the active beach face, and the wash-over area at the lagoon mouth.

Threats to the species requiring special management include the following: degradation of the sand dune system due to encroachment of European beach grass; destruction of habitat and loss of wintering and nesting plovers from OHV use; and destruction of habitat from annual mechanical breaching (as authorized by the U.S. Army Corps of Engineers (USACE)) of the spit between the Lake Earl/Lake Tolowa Lagoon and the Pacific Ocean. Monitoring indicates that the practice of breaching has only temporary, short-term effects to wintering Pacific Coast WSPs (Service unpublished data).

CA 2, Gold Bluffs Beach, 144 ac (58 ha):

This unit is located in Humboldt County about 5 mi (6 km) north of the Town of Orick within Prairie Creek State Park (north of Gold Bluffs Beach campground), and is managed cooperatively with Redwood National Park, collectively known as Redwood National and State Parks (RNSP). This unit was occupied at the time of listing, is currently occupied, incorporates the primary use area of a pair of Pacific Coast WSPs that nested in Prairie Creek State Park during the summer of 2005, and is commonly used by wintering plovers.

Although not considered a main breeding location, unit CA 2 provides a fairly undisturbed location for breeding Pacific Coast WSP that lose nests to predation or other causes at various nest sites, and could offset habitat loss as sea-level rise prevents nesting at sites currently being used by plovers. One chick was fledged from the unit during 2004. Up to five Pacific Coast WSPs

were observed within the unit in March 2007. The unit's primary value is as a wintering site (Service 2007, Appendix B). The site is often used as wintering habitat on an irregular basis (Service unpublished data). The RNSP are actively managing the area for Pacific Coast WSP.

The northeast portion of the unit is currently vegetated with European beach grass, and is, therefore, currently unsuitable for nesting. However, with restoration, that portion of the unit would be considered suitable nesting habitat. We include that portion of the unit to help offset the anticipated effects of sea-level rise over time and thus have determined it is essential for conservation of the species so as to provide replacement habitat for habitat that may be lost. RNSP have restored beach habitat by removing nonnative vegetation on other portions of Gold Bluffs Beach. We anticipate similar restoration within the proposed unit to occur sometime in the future.

The unit contains the following features essential to the conservation of the Pacific Coast WSP: low-lying sandy dunes; open sandy areas that are relatively undisturbed by humans; and sandy beach above and below the high-tide line that supports small invertebrates.

Threats to essential physical and biological features that may require special management include human-related use from recreation and OHV use associated with commercial fishing. Most visitor use in the area is in Fern Canyon, which is to the east of the unit and outside of suitable Pacific Coast WSP habitat. Visitation is light relative to other State and National Parks within the Pacific Coast WSP's range. Limited vehicle use of the beach is allowed for commercial and Tribal fishing, and park administrative use.

CA 3A, Stone Lagoon, 52 ac, (21 ha):

This subunit is approximately 0.9 mi (1.5 km) in length, and is located on the Stone Lagoon spit. Stone Lagoon borders the subunit on the east, and the Pacific Ocean makes up the subunit's western edge. Subunit CA 3A is located in Humboldt County, approximately 3 mi (5 km) south of the Town of Orick. It is entirely State-owned.

The subunit was occupied at the time of listing and is currently occupied. Nesting has recently occurred within the subunit. In 2009 a single nest hatched three chicks, all of which fledged (Colwell, *et al.* 2009, p. 9). The Recovery Plan estimates that up to 16 Pacific Coast WSPs can be supported within Unit CA 3; however, all are attributed to subunit CA 3B. Recent data indicates that the population

management potential for subunit CA 3A is underestimated by the Recovery Plan (Service 2007, Appendix B), as it does contribute towards the reproductive success in northern California (Colwell *et al.* 2009, p. 9; Service unpublished data).

The subunit contains the following features essential to the conservation of the Pacific Coast WSP: low-lying sandy dunes; open sandy areas that are relatively undisturbed by humans; and sandy beach above and below the high-tide line that supports small invertebrates. Special management may be needed to control nonnative vegetation and enforce existing regulations to ensure the physical or biological features are maintained within the subunit. With time, we anticipate that the entire subunit will be inundated with sea-level rise associated with climate change.

CA 3B, Big Lagoon, 212 ac (86 ha):

This subunit consists of a large sand spit that divides the Pacific Ocean from Big Lagoon. The northern extent of Big Lagoon Spit is located in Humboldt County and is approximately 6 mi (10 km) south of the Town of Orick. This subunit was occupied at the time of listing and is currently occupied. Big Lagoon Spit is historical nesting habitat (Page and Stenzel 1981, p. 9), and currently maintains a winter population of fewer than 10 Pacific Coast WSPs (Service unpublished data). Recent nesting occurred within the subunit during 2005, in which a single nest hatched and fledged three chicks. We estimate the subunit can support 16 breeding plovers (Service 2007, Appendix B). The subunit is located on the Big Lagoon Spit, which is approximately 4 mi (7 km) in length. Although only 174 ac (70 ha) are owned by the State, most of the subunit is managed by the CDPR. Approximately 0.6 ac (0.3 ha) are managed by Humboldt County.

Essential features of the subunit that contribute towards the conservation of the Pacific Coast WSP include: low-lying sandy dunes and open sandy areas that are relatively undisturbed by humans; and sandy beach above and below the high-tide line that supports small invertebrates.

CDPR has conducted habitat restoration at this unit through the hand-removal of nonnative vegetation. The primary threat to wintering and breeding Pacific Coast WSPs that may require special management is disturbance from humans and pets from walking through winter flocks and potential nesting areas. In addition, control of nonnative vegetation and enforcement of existing human-use

regulations are needed to ensure the physical or biological features are maintained within the subunit. With time, we anticipate that the entire subunit will be inundated with sea-level rise associated with climate change.

CA 4A, Clam Beach/Little River, 194 ac (79 ha):

The subunit is located in Humboldt County immediately east and north of the Town of McKinleyville. The Clam Beach/Little River subunit's northern boundary is directly across from the south abutment of the U.S. Highway 101 Bridge that crosses the Little River. The southern subunit boundary is aligned with the north end of the southernmost, paved Clam Beach parking area. The length of the subunit is approximately 2 mi (3 km). Approximately 79 ac (32 ha) are State owned.

This subunit was occupied at the time of listing and is currently occupied. During 2003, the subunit supported a breeding population of approximately 12 Pacific Coast WSPs, and a winter population of up to 55 plovers (Service unpublished data). This subunit is one of four primary nesting locations within northern California. Based on the Recovery Plan, we expect the subunit to be capable of supporting six pairs of breeding plovers (Service 2007, Appendix B).

Essential features of the subunit that contribute towards the conservation of the Pacific Coast WSP include large areas of sandy dunes, areas of sandy beach above and below the high-tide line, and generally barren to sparsely vegetated terrain.

Primary threats to nests, chicks, and both wintering and breeding adult Pacific Coast WSPs that may require special management in this subunit are: nonnative vegetation, OHV use, predators, and disturbance caused by humans and pets. Special management is needed to control nonnative vegetation and enforcement of existing human-use regulations. With time, we anticipate that the lower portions of this subunit will be inundated with sea-level rise associated with climate change.

CA 4B, Mad River Beach, 456 ac (184 ha):

The subunit is located in Humboldt County immediately east of the Town of McKinleyville. This subunit was largely swept clean of European beach grass when the Mad River temporarily shifted north in the 1980s and 1990s. The Mad River Beach subunit is approximately 3 mi (5 km) long, and ranges from the U.S. Highway 101 Vista Point below the Arcata-Eureka Airport in the north, to School Road in the south. Approximately 152 ac (62 ha) are managed by the State, and the

remaining 304 ac (123 ha) are owned and managed by Humboldt County, or are privately owned. This subunit was occupied at the time of listing and is currently occupied. We expect it to eventually support 12 breeding Pacific Coast WSPs with proper management (Service 2007, Appendix B). The current breeding population is believed to be less than 5 plovers, although plovers from this subunit readily intermix with plovers in CA 4A and elsewhere (Colwell *et al.* 2009, p. 9; Service unpublished data). Occasional winter use by plovers has been intermittently documented, with most wintering within the adjacent critical habitat subunit to the north (Service unpublished data).

Essential features of the subunit that contribute towards the conservation of the Pacific Coast WSP include large areas of sandy dunes, areas of sandy beach above and below the high-tide line, and generally barren to sparsely vegetated terrain.

Primary threats to nests, chicks, and both wintering and breeding adult Pacific Coast WSPs that may require special management are: nonnative vegetation, OHV use, and disturbance caused by equestrians (*i.e.*, people riding horses) and humans with accompanying pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the subunit. With time, we anticipate that the lower portions of this subunit will be inundated with sea-level rise associated with climate change.

CA 5A, Humboldt Bay, South Spit Beach, 419 ac (170 ha):

This subunit is located in Humboldt County adjacent to Humboldt Bay, less than 1 mi west of the City of Eureka, with the southern boundary being Table Bluff. Approximately 383 ac (155 ha) of the unit are owned by the CDFG, but are managed by BLM, 10.1 ac (4.1 ha) are owned and managed by Humboldt County, and 20.2 ac (8.2 ha) are owned by the USACE. The subunit is 5 mi (8 km) in total length.

This subunit was occupied at the time of listing and is currently occupied. The Pacific Coast WSP wintering population within the subunit is estimated at fewer than 15 individuals. Three nests, from four breeders, were attempted within the subunit in 2003 (Service unpublished data). This subunit is capable of supporting 30 breeding plovers (Service 2007, Appendix B). The BLM has conducted habitat restoration within the subunit, in consultation with us.

The following features essential to the conservation of the Pacific Coast WSP can be found within the unit: Large areas of sandy dunes, areas of sandy beach above and below the high-tide line, and generally barren to sparsely vegetated terrain.

Primary threats to adult Pacific Coast WSPs, chicks, and nests that may require special management are: nonnative vegetation, OHV use, and disturbance from equestrians and humans with pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 5B, Eel River North Spit and Beach, 259 ac (105 ha):

This subunit is located in Humboldt County about 4 mi (7 km) east of the Town of Loleta and stretches from Table Bluff on the north to the mouth of the Eel River in the south. The subunit is estimated to be 3.9 mi (7 km) long, and is managed by the CDFG, except for 7 ac (3 ha) of private land.

This subunit was occupied at the time of listing and is currently occupied with a wintering population of Pacific Coast WSPs estimated at less than 20 (Service unpublished data). As many as 11 breeders have been observed during breeding season window surveys, with a breeding population estimated at less than 15 (Colwell *et al.* 2009, p. 9). We expect this subunit to eventually support 20 breeding plovers with proper management (Service 2007, Appendix B).

Essential features of the subunit include: Large areas of sandy, sparsely vegetated dunes for reproduction and normal behavior, and areas of sandy beach above and below the high-tide line supporting small invertebrates for foraging. Surf-cast organic debris is an important component of the habitat in this subunit, providing shelter from the wind both for nesting Pacific Coast WSPs and for invertebrate prey species.

Threats to essential physical and biological features that may require special management include nonnative vegetation, predators, OHVs, and disturbance from equestrians and humans with pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the subunit. With time, we anticipate that the lower portions of this subunit will be inundated with sea-level rise associated with climate change.

CA 5C, Eel River South Spit and Beach, 339 ac (137 ha):

This subunit, located in Humboldt County, encompasses the beach segment from the mouth of the Eel River, south to Centerville Road, approximately 4 mi (7 km) west of the City of Ferndale. The subunit is 5 mi (8 km) long, 317 ac (128 ha) are managed by the State, and the remaining 22 ac (9 ha) are managed by Humboldt County or are privately owned.

This subunit was occupied at the time of listing and is currently occupied and capable of supporting 20 breeding Pacific Coast WSPs. A single nest was found during the 2004 breeding season (Colwell *et al.* 2004, p. 7). The winter population is estimated at under 80 plovers, many of which breed on the Eel River gravel bars (CA 5) (Service unpublished data).

Essential physical and biological features of the subunit include: large areas of sandy dunes, areas of sandy beach above and below the high-tide line, and generally barren to sparsely vegetated terrain for foraging. Threats to essential features that may require special management include nonnative vegetation, predators, OHVs, and disturbance from equestrians and humans with pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the subunit. With time, we anticipate that the lower portions of this subunit will be inundated with sea-level rise associated with climate change.

CA 6, Eel River Gravel Bars, 1,139 ac (461 ha):

This unit, located in Humboldt County, is largely inundated during winter months due to high flows in the Eel River. The unit is 6.4 mi (8 km) from the City of Fernbridge, and includes gravel bars between Fernbridge and the confluence of the Van Duzen River. The Eel River is contained by levees in this section, and consists of gravel bars and wooded islands. The unit contains a total of 1,139 ac (461 ha), of which 176 ac (71 ha) are owned and managed by Humboldt County, 82 ac (33 ha) are under the jurisdiction of the California State Lands Commission, and 881 ac (357 ha) are privately owned.

This unit was occupied at the time of listing and is currently occupied and capable of supporting 40 breeding Pacific Coast WSPs. Breeding window surveys have documented 22 breeding birds in this unit; however, those numbers have dropped off in recent years (Colwell *et al.* 2009, p. 9; Service unpublished data).

Essential features of this unit include bare, open gravel bars comprised of both sand and cobble, which support reproduction and foraging. This unit harbors the most important breeding habitat in California north of San Francisco Bay, having the highest fledging success rate of any area from Mendocino County to the Oregon border. Threats to essential physical and biological features that may require special management include predators, OHVs, disturbance from gravel mining, and humans with pets. Gravel mining is managed through a Clean Water Act permit issued by the USACE. Monitoring of the unit is needed to ensure mining activities and recreational activities do not reduce the suitability of the habitat by reducing important elements of essential physical and biological features.

CA 7, MacKerricher Beach, 1,176 ac (476 ha):

This unit is approximately 3.5 mi (5.6 km) long. The unit is just south of the Ten Mile River, and approximately 4 mi (6 km) north of the City of Fort Bragg located in Mendocino County. CDPR manages approximately 1,102 ac (446 ha), and 74 ac (30 ha) are private. CDPR has been conducting removal of European beach grass to improve habitat for the Pacific Coast WSP and other sensitive dune species within the unit. This unit was occupied at the time of listing and is currently occupied and is capable of supporting 20 breeding plovers (Service 2007, Appendix B). The current breeding population is estimated at less than 10 (Colwell *et al.* 2009, p. 9). The winter population of plovers is under 45 (Service unpublished data).

Essential features of the unit include: Large areas of sandy dunes, areas of sandy beach above and below the high-tide line, and generally barren to sparsely vegetated terrain.

Threats to nests, chicks and both wintering and breeding adults that may require special management include nonnative vegetation, predators, and disturbance from equestrians and humans with pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 8, Manchester Beach, 482 ac (195 ha):

The Manchester Beach unit is approximately 3.5 mi (6 km) long and located in Mendocino County about 1 mi (2 km) east of the Town of

Manchester. The CDPR manages 402 ac (163 ha) of the unit, while the remaining 12 ac (5 ha) are private.

This unit is currently occupied and provides an important wintering site for Pacific Coast WSPs in the region (Service 2007, Appendix B). In 2003, a pair of Pacific Coast WSPs nested within the unit, and successfully hatched two chicks. However, those chicks did not survive (Colwell *et al.* 2004, p. 7). The current wintering population is estimated at less than 20 (Service unpublished data). Although occupancy at the time of listing has not been confirmed, we consider this unit essential for the conservation of the species because it provides connectivity between two currently occupied areas, dispersal habitat between units, and provides habitat for resting and foraging. This unit provides habitat to support breeding plovers and would facilitate interchange between otherwise widely separated units and helps provide habitat within a Recovery Unit. Essential features of the unit include: Large areas of sandy dunes, areas of sandy beach above and below the high-tide line, and generally barren to sparsely vegetated terrain.

CA 9, Dillon Beach, 39 ac (16 ha):

This unit is located at the mouth of Tomales Bay, in Marin County, just south of the Town of Dillon Beach. It stretches for about 0.7 mi (1 km) north from Sand Point. The unit was occupied at the time of listing, is currently occupied, and is an important wintering area for the species. Seventy-five wintering plovers were counted at this location during the January 2007 winter window survey (Service 2007, p. 4). The unit does not extend as far north as did the unit proposed for Dillon Beach in 2004 (69 FR 75607, December 17, 2004) because subsequent site visits and discussions with local surveyors have established that Pacific Coast WSPs only rarely used the area north of the presently proposed unit. The unit is entirely on private land.

Elements of essential physical and biological features provided by the unit include surf-cast debris supporting small invertebrates for foraging, and large stretches of relatively undisturbed, sparsely vegetated sandy beach, both above and below high-tide line, for foraging and potentially for nesting.

Potential threats to essential physical and biological features that may require special management include nonnative vegetation, predators, and disturbance by humans and their pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained

within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 10A, Point Reyes Beach, 460 ac (186 ha):

This subunit is located in Marin County to the west of the unincorporated Community of Inverness and occupies most of the west-facing beach between Point Reyes and Tomales Point. It is located entirely within the Point Reyes National Seashore, and consists primarily of dune-backed beaches. This unit was occupied at the time of listing and is currently occupied and supports both nesting and wintering Pacific Coast WSPs, and has the potential to support 50 breeding birds with proper management (Service 2007, Appendix B).

The Point Reyes Beach unit includes the following elements of physical and biological features essential to Pacific Coast WSP conservation: Sparsely vegetated sandy beach above and below high tide for nesting and foraging, wind-blown sand dunes for nesting and predator avoidance, and tide-cast debris attracting small invertebrates for foraging.

Threats in the area that may require special management include nonnative vegetation, disturbance by humans and pets, and predators (particularly ravens and crows). Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the subunit. With time, we anticipate that the lower portions of this subunit will be inundated with sea-level rise associated with climate change.

CA 10B, Limantour Spit, 156 ac (63 ha):

Limantour Spit is a roughly 2.25-mi (4-km) sand spit at the north end of Drake's Bay located in Marin County to the west of the unincorporated Community of Olema. The subunit includes the end of the spit, and narrows to include only the south-facing beach towards the base of the spit. It is completely within the Point Reyes National Seashore. This unit was occupied at the time of listing and is currently occupied and can support both nesting and wintering Pacific Coast WSPs, although nesting has not been documented since 2000 (Stenzel *in litt.* 2004, p. 3; Service 2009, p. 3). Ninety-eight wintering plovers were counted at the site during the January 2007 window survey (Service 2007, p. 4). The subunit is expected to contribute significantly to plover conservation in the region by providing habitat capable

of supporting 10 nesting birds (Service 2007, Appendix B).

Elements of essential physical and biological features at the subunit include sparsely vegetated beach sand, above and below high tide for nesting and foraging, and tide-cast debris supporting small invertebrates.

Threats to essential physical and biological features that may require special management include nonnative vegetation, disturbance by humans and pets, and nest predators such as crows and ravens. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the subunit. With time, we anticipate that the lower portions of this subunit will be inundated with sea-level rise associated with climate change.

San Francisco Bay Units, (CA 11-CA 15) 1,892 ac (766 ha):

Pacific Coast WSPs nesting along the shores of the San Francisco Bay typically do so on or near managed salt ponds, which were originally established, beginning in the mid-1800s, to support a solar salt industry (Service 2009, p. 11). Although some natural salt pans existed in the area prior to establishment of the industry, they have been modified to facilitate salt production, and no such natural pans remain (Service 2009, p. 9). The salt industry eventually converted over 27,000 ac (11,000 ha) of tidal marsh to managed salt pond, mostly in the South Bay, to the detriment of many species dependent on tidal marshlands, such as the California clapper rail (*Rallus longirostris obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*) (Service 2009, p. viii, 11). The Service is, therefore, working with the CDFG and the California State Coastal Conservancy (CSCC) to carry out the South Bay Salt Pond Restoration Project (SBSRP), which will restore over 15,000 ac (6,070 ha) of salt ponds in the South Bay back to tidal marshland (SBSRP 2010, p. 1). This restoration effort is closely coordinated with the Service's draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California (Draft Tidal Marsh Recovery Plan; Service 2009). Because the restored areas will not provide suitable habitat for Pacific Coast WSPs, we are not proposing to designate areas in the South Bay that are either currently undergoing or soon to undergo restoration under the SBSRP (SBSRP 2007, p. 1), or that are likely to undergo restoration in the future based on restoration maps in the draft Tidal Marsh Recovery Plan (Service 2009, pp. 261, 263).

CA 11, Napa-Sonoma Marshes, 618 ac (250 ha):

This proposed unit encompasses salt evaporation ponds 7 and 7A, in the Napa-Sonoma Marshes Wildlife Area, owned by the CDFG. It is situated in Napa County, about 2.3 mi (4 km) west of the Napa County Airport, and about 1.5 mi (2.4 km) south of Las Amigas Rd. The unit was occupied at the time of listing and is currently occupied. Twelve Pacific Coast WSPs were identified at the location in the summer 2009 during window surveys (Service 2009, p. 2). This is the only location in the northern portion of the San Francisco Bay known to support nesting plovers.

Elements of essential physical and biological features provided by the unit include sparsely vegetated areas above daily high tides, such as salt pans, artificial salt ponds, and adjoining levees, for nesting and foraging.

Threats to essential physical and biological features that may require special management include flooding, and nest predators such as great egrets and common ravens (Robinson-Nilsen *et al.* 2009, p. 14). Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 12, Hayward, 1 ac (0 ha):

This unit comprises Island 5 at the Hayward Regional Shoreline Park, located to the west of the City of Hayward in Alameda County. The area is managed by the East Bay Regional Park District (EBRPD) as a nesting area for shorebirds—primarily least terns (*Sterna antillarum browni*), but also Pacific Coast WSPs (Riensch 2007, p. 1). The unit was occupied at the time of listing and is currently occupied. Three plover chicks from one nest successfully fledged from the unit in 2008 (Robinson *et al.* 2008, pp. 19, 34; Riensch 2008, p. 2), but since then seven plover nesting attempts in the area have failed, primarily due to predation (Robinson-Nilsen *et al.* 2009, pp. 16, 32; Robinson-Nilsen 2010, pers. comm.). The most commonly observed avian predators at the site have been California gulls, although the only actual depredation observed was by a killdeer (*Charadrius vociferus*) (Robinson-Nilsen *et al.* 2009, pp. 14, 16).

Elements of essential physical and biological features provided by the unit include sparsely vegetated areas above daily high tides, such as salt pans,

artificial salt ponds, and adjoining levees, for nesting and foraging.

Threats to essential physical and biological features that may require special management focus on predation and salt pond management to control vegetation. The EBRPD is implementing a predator management program utilizing numerous volunteers as well as staff from the U.S. Department of Agriculture's (USDA) Wildlife Services program (Riensch 2008, p. 2) to reduce predation at this site.

CA 13A, Eden Landing, 237 ac (96 ha):

This subunit encompasses salt ponds E11, E15B, and E16B, just south of highway 92 and the San Mateo Bridge and west of Union City in Alameda County. This unit was occupied at the time of listing and is currently occupied and supported a total of 30 Pacific Coast WSP nests in 2009, 15 of which hatched (Robinson-Nilsen *et al.* 2009, p. 32). Approximately 228 ac (92 ha) are State owned.

Elements of essential physical and biological features provided by the unit include sparsely vegetated areas above daily high tides, such as salt pans, artificial salt ponds, and adjoining levees, for nesting and foraging.

Threats to essential physical and biological features that may require special management include flooding and avian nest predators such as California gulls (Robinson-Nilsen *et al.* 2009, p. 13).

CA 13B, Eden Landing, 171 ac (69 ha):

This subunit is located west of Union City in Alameda County and encompasses salt pond E14, just south of Eden Creek. This unit was occupied at the time of listing and is currently occupied and supported nine Pacific Coast WSP nests in 2009, three of which hatched young (Robinson-Nilsen *et al.* 2009, p. 32). The subunit does not include salt ponds E12 and E13 (just north of E14), because those are being converted to high salinity ponds for birds such as eared grebes (*Podiceps nigricollis*) and phalaropes (*Phalaropus* spp.) that forage well on such habitat (Strong 2010a, p. 1). Approximately 171 ac (69 ha) are State-owned.

Elements of essential physical and biological features provided by the unit include sparsely vegetated areas above daily high tides, such as salt pans, artificial salt ponds and adjoining levees, for nesting and foraging. Threats to essential features that may require special management include flooding and avian nest predators such as California gulls (Robinson-Nilsen *et al.* 2009, p. 13).

CA 13C, Eden Landing, 609 ac (246 ha):

This subunit encompasses salt ponds E6A and E6B, and is located just north of Old Alameda Creek and west of Union City in Alameda County. This unit was occupied at the time of listing and is currently occupied and supported a total of two Pacific Coast WSP nests in 2009, both of which hatched young (Robinson-Nilsen *et al.* 2009, p. 32). The subunit does not include a panhandle-shaped area of potential habitat just north of pond E6A because it is being converted to tidal marsh as part of a pre SBSRP restoration project (Strong 2010b, p. 7; Strong 2010c, p. 1). Six hundred two (602) ac are State-owned.

Elements of essential physical and biological features provided by the subunit include sparsely vegetated areas above daily high tides, such as salt pans, artificial salt ponds, and adjoining levees, for nesting and foraging.

Threats to essential physical and biological features that may require special management include flooding and avian nest predators such as California gulls (Robinson-Nilsen *et al.* 2009, p. 13).

CA 14, Ravenswood, 89 ac (36 ha):

This unit consists of the southwestern portion of salt pond SF2 located east of the City of East Palo Alto in San Mateo County near the western approach to the Dumbarton Bridge. Pond SF2 is undergoing renovations intended to provide ponded areas, islands, and salt pan for several species of shorebirds, including Pacific Coast WSPs (SBSRP 2010, p. 3). The Ravenswood unit is drawn to encompass the salt pan area (Strong 2010b, pp. 3, 4). This unit was occupied at the time of listing and is currently occupied. In 2009, pond SF2 supported 23 plover nests, 17 of which hatched young (Robinson-Nilsen *et al.* 2009, p. 32). The entire unit is privately owned.

Elements of essential physical and biological features provided by the unit include sparsely vegetated areas above daily high tides, such as salt pans, artificial salt ponds, and adjoining levees, for nesting and foraging. Threats to essential features that may require special management include flooding and avian nest predators such as California gulls (Robinson-Nilsen *et al.* 2009, p. 13).

CA 15, Warm Springs, 168 ac (68 ha):

This unit encompasses the northeastern portion of salt evaporation ponds A22 and A23 in the Warm Springs area of the South San Francisco Bay near Foster City in San Mateo County. This unit was occupied at the time of listing and is currently

occupied. Fourteen breeding Pacific Coast WSPs were identified at these ponds during the 2009 summer window surveys (Service unpublished data). Additionally, Robinson-Nilsen *et al.* (2009, p. 32) found a total of 21 plover nests at the ponds in 2009, 11 of which successfully hatched young. The southwestern portions of the ponds are excluded in keeping with tidal marsh restoration plans envisioned under the draft Tidal Marsh Recovery Plan (Service 2009, p. 266). The entire unit is Federally owned.

Elements of essential physical and biological features provided by the unit include sparsely vegetated areas above daily high tides, such as salt pans, artificial salt ponds, and adjoining levees, for nesting and foraging.

Threats to essential features that may require special management include flooding and avian nest predators such as California gulls (Robinson-Nilsen *et al.* 2009, p. 13).

CA 16, Half Moon Bay, 36 ac (15 ha):

This unit is located next to the City of Half Moon Bay in San Mateo County and stretches for about 1.25 mi (2 km) along Half Moon Bay State Beach, and is entirely within CDPR land. It includes sandy beach above and below the high-tide line for nesting and foraging, and surf-cast debris to attract small invertebrates. This unit was occupied at the time of listing and is currently occupied. Small numbers of breeding Pacific Coast WSPs have been found at the location in the past five surveys (Service 2009, p. 3). The unit also supports a sizeable winter flock, consisting of 50 plovers in 2007 (Service 2007, p. 4). We expect the unit to eventually support 10 breeding plovers in the unit under proper management (Service 2007).

Potential threats in the area that may require special management include nonnative vegetation, disturbance by humans and pets, and nest predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 17, Waddell Creek Beach, 25 ac (10 ha):

This unit includes the mouth of Waddell Creek and is located about 20 mi (32 km) north of the City of Santa Cruz in Santa Cruz County. It extends about 0.6 mi (1 km) north along the coast from a point about 0.4 mi (0.6 km) south of the creek mouth to a point about 0.2 mi (1 km) north of the creek

mouth. Unit CA 17 encompasses approximately 19 ac (8 ha) of State land and 7 ac (3 ha) of private land.

This unit was occupied at the time of listing and the unit has historically (prior to 2004) been an important breeding and wintering site, supporting up to 11 breeding, and up to 50 wintering, Pacific Coast WSPs (Service unpublished data). Although Pacific Coast WSPs have not been documented in recent years, this unit contains features essential to the conservation of the species and is needed to allow use by the species in response to fluctuating habitat and resource availability. The unit is located between currently occupied areas and provides dispersal habitat between units. This unit provides habitat to support breeding plovers and would facilitate interchange between otherwise widely separated units and helps provide habitat within Recovery Unit 4 along the central California Coast.

This unit includes the following physical and biological features essential to the conservation of the species which may require special management considerations or protection: Wind-blown sand dunes, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

The primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation and human disturbance. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 18, Scott Creek Beach, 23 ac (9 ha):

This unit includes the mouths of Scott and Molino Creeks and is located about 13 mi (21 km) north of the City of Santa Cruz in Santa Cruz County. It extends about 0.7 mi (1 km) north along the coast from the southern end of the sandy beach, 0.3 mi (0.5 km) south of Molino Creek, to a point about 0.1 mi (0.2 km) north of Scott Creek. Unit CA 18 encompasses approximately 15 ac (6 ha) of State land and 8 ac (3 ha) of local jurisdictional land. This unit was occupied at the time of listing and is currently occupied and recent surveys have found up to 4 breeding Pacific Coast WSPs, while historical surveys (prior to 2004) have found up to 12 breeding plovers occupying the area

(Service unpublished data). Unit CA 18 is an important wintering area, with up to 129 plovers recorded in a single season (Service unpublished data).

This unit is essential to the conservation of the species because, with proper management, and in conjunction with the other two relatively small units proposed for Santa Cruz County (CA 17 and 19), it can attract additional breeding Pacific Coast WSPs and thereby facilitate interchange between the larger units at Half Moon Bay (CA 16).

The unit includes the following habitat features essential to the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, and predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 19, Wilder Creek Beach, 15 ac (6 ha):

This unit is located at the mouth of Laguna Creek and is about 8 mi (13 km) north of the City of Santa Cruz in Santa Cruz County. It extends about 0.25 mi (0.4 km) north along the coast from the southern end of the sandy beach to the northern end of the beach across the mouth of Laguna Creek. The unit is entirely situated on State-owned land. This unit was occupied at the time of listing and is currently occupied. Although no breeding Pacific Coast WSPs have been observed in recent years, five breeding plovers were found in the area prior to 2004 (Service unpublished data). Unit CA 19 is capable of supporting 16 breeding plovers under proper management (Service 2007, Appendix B). Unit CA 19 is an important wintering area; up to 26 wintering plovers have been observed at one time between the 2004 and 2009 period.

This unit is essential to the conservation of the species because, with proper management, and in conjunction with the other two relatively small units proposed for Santa Cruz County (CA 17 and 18), it can attract additional breeding Pacific Coast WSPs and thereby facilitate interchange between the larger units at Half Moon Bay (CA 16). The unit includes the

following habitat features essential to the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this subunit are nonnative vegetation, human disturbance, development, OHV use, pets, and predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 20, Jetty Road to Aptos, 399 ac (161 ha):

This unit is located about 5 mi (8 km) west of the City of Watsonville and includes Sunset State Beach located in Santa Cruz County and Zmudowski State Beach located in Monterey County. The mouth of the Pajaro River is located near the center of the subunit, and Elkhorn Slough is at the south end of the subunit. It extends about 8 mi (13 km) along the coast from Elkhorn Slough to Zils Road. Approximately 369 ac (149 ha) are State-owned. This unit was occupied at the time of listing and is currently occupied and is an important breeding area, with as many as 105 breeding Pacific Coast WSPs each year, and is also an important wintering area, with up to 250 plovers each winter (Service unpublished data).

The unit includes the following habitat features essential to the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, development, horses, OHV use, pets, predators, and habitat changes resulting from exotic vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 21, Elkhorn Slough Mudflats, 281 ac (114 ha):

This unit is located about 3.5 mi (6 km) north of the City of Castroville along the north side of Elkhorn Slough

east of Highway 1 located in Monterey County. This unit is 1.5 mi (2 km) long, extending about 1 mi (2 km) along the north shore of Elkhorn Slough east of Highway 1 and about 0.5 mi (1 km) north from Elkhorn Slough to Bennett Slough. The unit is situated entirely on State-owned land. This unit was occupied at the time of listing and is currently occupied and is an important breeding area, with as many as 41 breeding Pacific Coast WSPs each year, and is also an important wintering area, with up to 137 plovers each winter (Service unpublished data). This unit is capable of supporting 80 breeding plovers under proper management (Service 2007, Appendix B).

The unit includes the following habitat features essential to the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, development, horses, OHV use, pets, predators, and habitat changes resulting from exotic vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 22, Monterey to Moss Landing, 967 ac (391 ha):

This unit includes the beaches along the southern half of Monterey Bay from the City of Monterey at the south end of the unit to Moss Landing and the mouth of Elkhorn Slough at the north end of the unit in Monterey County. The mouth of the Salinas River is located near the center of the unit. It extends about 15 mi (24 km) north along the coast from Monterey to Moss Landing. Unit CA 22 includes approximately 285 ac (115 ha) of State lands, 36 ac (14 ha) of local jurisdictional lands, and 423 ac (171 ha) of Federal land and the remainder is privately owned. This unit was occupied at the time of listing, is currently occupied, is an important breeding area, with as many as 162 breeding Pacific Coast WSPs each year, and is also an important wintering area, with up to 363 plovers each winter (Service unpublished data).

The unit includes the following habitat features essential to the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small

invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, development, horses, OHV use, pets, predators, and habitat changes resulting from exotic vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 23, Point Sur Beach, 72 ac (29 ha):

This unit is about 17 mi (27 km) south of the City of Monterey and immediately north of Point Sur State Historic Park (SHP) in Monterey County. It extends about 0.7 mi (1 km) north along the coast from Point Sur SHP. This unit encompasses approximately 38 ac (15 ha) of State land and 34 ac (14 ha) of private land. This unit was occupied at the time of listing and is currently occupied and has supported up to 13 breeding Pacific Coast WSPs each year (Service unpublished data). This unit is capable of supporting 20 breeding plovers under proper management (Service 2007, Appendix B). Unit CA 23 is an important wintering area, historically supporting up to 65 plovers each winter (Service unpublished data).

The unit includes the following habitat features essential to the species: wind-blown sand dunes, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance and habitat changes resulting from exotic vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 24, San Carpoforo Creek, 24 ac (10 ha):

This unit is located approximately 20 mi (32 km) north of the Town of Cambria and 2.5 mi (4 km) south of the San Luis Obispo/Monterey County boundary in San Luis Obispo County. It extends approximately 0.57 mi (1 km) along the coast. This unit contains approximately 4 ac (2 ha) of land owned

by the USFS, 18 ac (7 ha) owned by the CDPR, and 3 ac (1 ha) of private land. The unit was occupied at the time of listing and is currently occupied and has supported as many as nine breeding Pacific Coast WSPs; however, breeding does not occur here every year (Service unpublished data). This unit is capable of supporting 10 breeding plovers under proper management (Service 2007, Appendix B). This unit consistently supports 40 to 50 wintering plovers (Service unpublished data). San Carpoforo Creek is approximately 53 mi (84 km) south of the closest proposed unit to the north (CA 23, Point Sur), and approximately 11 mi (18 km) north of the closest proposed unit to the south (CA 25, Arroyo Laguna Creek). Therefore, this unit may facilitate interchange between widely separated habitats.

This unit includes the following physical and biological features essential to the conservation of the species: Areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, pets, and dune-stabilizing vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 25, Arroyo Laguna Creek, 28 ac (11 ha):

This unit is located 11 mi (8 km) south of San Carpoforo Creek and 10 mi (16 km) north of the Town of Cambria in San Luis Obispo County. It extends approximately 0.9 mi (2 km) along the coast from a rocky headland 0.2 mi (0.3 km) south of Adobe Creek to 0.2 mi (0.3 km) north of Oak Knoll Creek. This unit encompasses approximately 18 ac (72 ha) of land owned by the CDPR and 10 ac (4 ha) of private land. This unit was occupied at the time of listing and is currently occupied and Arroyo Laguna Creek has historically (prior to 2000) been an important site, supporting as many as 6 breeding and 91 wintering Pacific Coast WSPs; however, neither breeding nor wintering occurs here every year (Service unpublished data). This unit is capable of supporting six breeding plovers under proper management (Service 2007, Appendix B). This unit is roughly equidistant between CA 24 (San Carpoforo Creek)

and CA 26 (San Simeon State Beach) and may facilitate interchange between widely separated habitats.

This unit includes the following physical and biological features essential to the conservation of the species: Areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates (for nesting and foraging) and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, pets, and dune-stabilizing vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 26, San Simeon State Beach, 24 ac (10 ha):

This unit is located about 2 mi (3 km) north of the Town of Cambria in San Luis Obispo County. It extends about 0.9 mi (2 km) along the coast from a point opposite the intersection of Highway 1 and Moonstone Beach Drive to the northwestern corner of San Simeon State Beach. Unit CA 26 is owned by the CDP. The unit was occupied at the time of listing and is currently occupied. San Simeon State Beach has supported as many as seven breeding Pacific Coast WSPs; however, breeding does not occur here every year (Service unpublished data). This unit is an important wintering area with up to 143 plovers recorded in a single season over the last 7 years (Service unpublished data).

This unit includes the following physical and biological features essential to the conservation of the species: Areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, pets, and dune-stabilizing vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 27, Villa Creek Beach, 20 ac (8 ha):

This unit is located about 3.5 mi (6 km) northwest of the Community of Cayucos in San Luis Obispo County. It extends 0.3 mi (0.5 km) northwest along the beach from an unnamed headland 1.4 mi (2 km) north of Point Cayucos to an unnamed headland northwest of Villa Creek. This unit is owned by the CDP. This unit was occupied at the time of listing and is currently occupied, and Villa Creek Beach is an important breeding and wintering site. This unit has supported as many as 33 breeding Pacific Coast WSPs in a single season (Service unpublished data). Wintering numbers vary widely from year to year, with 10 to 112 plovers recorded over the last 7 seasons (Service unpublished data).

This unit includes the following physical and biological features essential to the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, pets, horses, and predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 28, Toro Creek, 34 ac (14 ha):

This unit is located about 3 mi (5 km) north of the City of Morro Bay in San Luis Obispo County, extending from 0.4 mi (1 km) north of Toro Creek Road to 0.5 mi (1 km) south of Toro Creek Road (total length: 0.9 mi (1 km)). This unit was occupied at the time of listing and is currently occupied and Toro Creek Beach was historically (prior to 2000) an important breeding area, having supported as many as 16 breeding Pacific Coast WSPs (Service unpublished data). Breeding has not occurred at this unit in the last 5 seasons; however, the unit is capable of supporting 25 breeding plovers under proper management (Service 2007, Appendix B). This unit is an important wintering area with up to 121 plovers recorded in a single season (Service unpublished data). The unit encompasses approximately 11 ac (4 ha) of State land and 23 ac (9 ha) of private land.

This unit includes the following physical and biological features essential to the species: Areas of sandy

beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, pets, and predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 29, Atascadero Beach/Morro Strand State Beach, 213 ac (86 ha):

This unit is located at Morro Strand State Beach just north of the City of Morro Bay in San Luis Obispo County. It extends about 2.25 mi (4 km) north along the beach from the parking area northeast of Morro Rock to an unnamed rocky outcrop opposite the end of Yerba Buena Street at the north end of the City of Morro Bay. This unit encompasses approximately 64 ac (26 ha) of State land, 51 ac (21 ha) of local jurisdictional land, and 98 ac (40 ha) of private land. This unit was occupied at the time of listing and is currently occupied and is an important breeding area, having supported as many as 24 breeding Pacific Coast WSPs in a single season (Service unpublished data). It is capable of supporting 40 breeding plovers under proper management (Service 2007, Appendix B). This unit is also an important wintering area, with up to 249 plovers being recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features essential to the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, pets, and predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 30, Morro Bay Beach, 1,076 ac (435 ha):

This unit is located at Morro Bay State Park south of Morro Rock and adjacent to the City of Morro Bay in San Luis Obispo County. It extends 5.5 mi (9 km) north along the beach from a rocky outcrop about 350 ft (105 m) north of Hazard Canyon to the northern tip of the sand spit. This unit encompasses approximately 948 ac (383 ha) of State land, 69 ac (28 ha) of local jurisdictional land, and 60 ac (24 ha) of private land. This unit was occupied at the time of listing and is currently occupied and is an important breeding area, supporting as many as 205 breeding Pacific Coast WSPs in a single season (Service unpublished data). Morro Bay Beach is also an important wintering area, supporting up to 104 plovers during a single season over the last seven seasons (Service unpublished data).

This unit includes the following physical and biological features essential to the species: wind-blown sand dunes, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, horses, pets, predators, and dune-stabilizing vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 31, Pismo Beach/Nipomo Dunes, 1,652 ac (669 ha):

This unit is located south of the City of Grover Beach and west of the Town of Oceano and extends from San Luis Obispo County into northern Santa Barbara County west of the City of Guadalupe. The unit has approximately 242 ac (98 ha) of Federal land, 552 ac (223 ha) of State land, 377 ac (152 ha) of local jurisdictional land, and 481 ac (195 ha) of private land. This unit extends about 12 mi (19 km) along the beach from a point about 0.4 mi (1 km) north of Mussel Point to a point on the north side of Arroyo Grande Creek at the south end of Strand Way in the Town of Oceano. This unit was occupied at the time of listing and is currently occupied, and is an important breeding area, having supported as many as 162 breeding Pacific Coast WSPs in a single season (Service unpublished data). This unit is capable of supporting 350

breeding plovers under proper management (Service 2007, Appendix B). Pismo Beach/Nipomo Dunes is an important wintering area, having supported up to 287 plovers during a single season over the last 7 years (Service unpublished data). The unit includes portions of Pismo State Beach and Oceano Dunes State Vehicular Recreation Area, owned and managed by the CDPR; the Guadalupe-Nipomo Dunes National Wildlife Refuge, owned and managed by the Service; the Guadalupe Oil Field, owned and managed by the Chevron Corporation; and Rancho Guadalupe County Park, owned and managed by the County of Santa Barbara.

This unit includes the following physical and biological features essential to the species: wind-blown sand dunes, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, OHVs, horses, pets, and predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 32, Vandenberg North, 711 ac (288 ha):

This unit is located on Vandenberg Air Force Base about 14 mi (23 km) southwest of the City of Santa Maria in Santa Barbara County. It extends about 7 mi (11 km) along the coast from a point along the beach 0.6 mi (1 km) north of Purisima Point to an unnamed creek and canyon 0.6 mi (1 km) south of Lion's Head, an area of rocky outcrops. This unit was occupied at the time of listing and is currently occupied and is an important breeding area with as many as 103 breeding Pacific Coast WSPs recorded in a single season (Service unpublished data). This unit is capable of supporting 250 breeding plovers under proper management (Service 2007, Appendix B). This is also an important wintering area with up to 105 plovers recorded during a single season over the last seven years (Service unpublished data). The unit is entirely owned by the U.S. Air Force.

This unit includes the following physical and biological features essential to the conservation of the species: Wind-blown sand dunes, areas

of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, pets, military activities, predators, and the spread of dense vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 33, Vandenberg South, 423 ac (171 ha):

This unit is located on Vandenberg Air Force Base about 9 mi (15 km) west of the City of Lompoc in Santa Barbara County. It extends about 6.7 mi (11 km) north along the coast from an unnamed rocky outcrop 0.3 mi (0.5 km) north of Cañada la Honda Creek to the western terminus of New Beach Road, approximately 0.9 mi (2 km) north of the Santa Ynez River. This unit was occupied at the time of listing and is currently occupied and is capable of supporting 156 breeding plovers under proper management (Service unpublished data). This unit is also an important wintering area with up to 289 Pacific Coast WSPs recorded during a single season over the last seven years (Service unpublished data). Approximately 373 ac (151 ha) are Federally owned.

This unit includes the following physical and biological features essential to the conservation of the species: Wind-blown sand dunes, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, military activities, pets, predators, and the spread of dense-growing vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 34, Devereaux Beach, 52 ac (21 ha):

This unit is located on the University of California's Coal Oil Point Natural

Reserve, about 7 mi (11 km) west along the coast from the City of Santa Barbara in Santa Barbara County. It extends about 1.8 mi (3 km) north along the coast from the western boundary of Isla Vista County Park to a point along the beach opposite the end of Santa Barbara Shores Drive. This unit consists of 43 ac (17 ha) of State land and 9 ac (4 ha) of local jurisdictional land. This unit was occupied at the time of listing and is currently occupied and is an important breeding area with as many as 39 breeding Pacific Coast WSPs recorded in a single season (Service unpublished data). This unit is also an important wintering area with up to 360 plovers recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features essential to the conservation of the species: areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, pets, and predators. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 35, Santa Barbara Beaches, 65 ac (26 ha):

This unit is located within the City of Santa Barbara in Santa Barbara County. It extends about 1.8 mi (3 km) along the coast from the Andree Clark Bird Refuge intersection with the Pacific Ocean to the Santa Barbara Harbor. This unit encompasses approximately 30 ac (12 ha) of State land, 35 ac (14 ha) of City of Santa Barbara lands and 0.3 ac (0.1 ha) of private land. The unit was occupied at the time of listing and is currently occupied. The unit is an important wintering area with up to 111 Pacific Coast WSPs recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features essential to the conservation of the species: Areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, development, and pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 36, Santa Rosa Island, 586 ac (237 ha):

This unit is located on Santa Rosa Island about 31 mi (50 km) southwest of the City of Santa Barbara in Santa Barbara County. This unit is comprised of 11 different beaches (subunits A–K) around the island. This unit encompasses approximately 586 ac (237 ha) of Channel Islands National Park land. This unit was occupied at the time of listing and is currently occupied and is an important breeding area with as many as 37 breeding Pacific Coast WSPs recorded in a single season (Service unpublished data). This unit is capable of supporting 130 breeding plovers under proper management (Service 2007, Appendix B). This is also an important wintering area with up to 242 plovers recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features essential to the conservation of the species: Areas of sandy beach above and below the high-tide line with surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

The primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, and direct disturbance from expanding marine mammal populations. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 37, San Buenaventura Beach, 70 ac (28 ha):

This unit is located within the City of Ventura in Ventura County. It extends about 2 mi (3 km) north along the coast from rock groin immediately north of Marina Park to the Ventura Pier. San Buenaventura State Beach is a unit that is owned by the CDPR. This unit was occupied at the time of listing and is

currently occupied and is an important wintering area with up to 72 Pacific Coast WSPs recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features essential to the conservation of the species: Areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, and pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 38, Mandalay Beach to Santa Clara River, 672 ac (272 ha):

This unit is located near the City of Oxnard in Ventura County. It extends about 6 mi (10 km) north along the coast from the north jetty of Channel Islands Harbor to a point about 0.5 mi (1 km) north of the Santa Clara River mouth. This unit encompasses approximately 213 ac (86 ha) of private land and 459 ac (186 ha) of State land. This unit was occupied at the time of listing and is currently occupied and is an important breeding area with as many as 70 breeding Pacific Coast WSPs recorded in a single season (Service unpublished data). This unit is also an important wintering area with up to 129 plovers recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features essential to the conservation of the species: Wind-blown sand dunes, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are human disturbance, development, pets, and dune-stabilizing vegetation. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-

level rise associated with climate change.

CA 39, Ormond Beach, 320 ac (130 ha):

This unit is located near the cities of Port Hueneme and Oxnard in Ventura County. It extends about 3 mi (5 km) northwest along the coast from Arnold Road and the boundary of Naval Base Ventura County, Point Mugu (NBVC, Point Mugu) to the south jetty of Port Hueneme. This unit encompasses approximately 161 ac (65 ha) of private land and 159 ac (65 ha) of State land. This unit was occupied at the time of listing and is currently occupied and is an important breeding area with as many as 33 breeding Pacific Coast WSPs recorded in a single season (Service unpublished data). This unit is capable of supporting 50 breeding plovers under proper management (Service 2007, Appendix B). This unit is also an important wintering area with up to 117 plovers recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features essential to the conservation of the species: Wind-blown sand dunes, areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates, and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, and pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 40, Mugu Lagoon North, 136 ac (55 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 136 ac (55 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 40 from critical habitat designation under section 4(a)(3) of the Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 41, Mugu Lagoon South, 72 ac (29 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 72 ac (29 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 41 from critical habitat designation under section 4(a)(3) of the

Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 42, San Nicolas Island Beaches, 321 ac (130 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 321 ac (130 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 42 from critical habitat designation under section 4(a)(3) of the Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 43, Zuma Beach, 73 ac (30 ha):

This unit is located about 8 mi (13 km) west of the City of Malibu in Los Angeles County. It extends about 3 mi (5 km) north along the coast from the north side of Point Dume to the base of Trancas Canyon. This unit encompasses approximately 72 ac (29 ha) of Los Angeles County lands, and 1 ac (0.5 ha) of State land. This unit was occupied at the time of listing and is currently occupied and is an important wintering area with up to 213 Pacific Coast WSPs recorded during a single season over the last seven years (Service unpublished data; Ryan *et al.* 2010, p. 19).

This unit includes the following physical and biological features essential to the conservation of the species: Areas of sandy beach above and below the high-tide line with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, development, horses, and pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 44, Malibu Beach, 13 ac (5 ha):

This unit is located within the City of Malibu in Los Angeles County. It extends about 0.5 mi (1 km) north along the coast from approximately 300 ft (94 m) north of the Malibu Pier to Malibu Point. This unit is owned by the CDP. This unit was occupied at the time of listing and is currently occupied and is an important wintering area with up to 67 Pacific Coast WSPs recorded during a single season over the last seven years (Service unpublished data).

This unit includes the following physical and biological features for the conservation of the species: Areas of sandy beach above and below the high-tide line with occasional surf-cast wrack

supporting small invertebrates and generally barren to sparsely vegetated terrain.

Primary threats to essential physical and biological features that may require special management in this unit are nonnative vegetation, human disturbance, and pets. Control of nonnative vegetation and enforcement of existing human-use regulations are needed to ensure the physical or biological features are maintained within the unit. With time, we anticipate that the lower portions of this unit will be inundated with sea-level rise associated with climate change.

CA 45A, Santa Monica Beach, 48 ac (19 ha):

This subunit is located between the cities of Santa Monica and Los Angeles in Los Angeles County. It stretches roughly 1 mi (2 km) from Montana Avenue to the mouth of Santa Monica Canyon. This subunit consists of 29 ac (12 ha) of State-owned land, and 19 ac (8 ha) are owned by the City of Santa Monica. This subunit was occupied at the time of listing and is currently occupied and annually supports a significant wintering flock of Pacific Coast WSPs (an average wintering flock of 36 from 2003 to 2010 (Service unpublished data)) in a location with high-quality breeding habitat. This location also facilitates interchange between wintering locations.

This location contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, pets, and beach raking.

CA 45B, Dockweiler North, 34 ac (14 ha):

This subunit is located south of Ballona Creek and west of the El Segundo Dunes, and immediately west of the Los Angeles International Airport, in the City of Los Angeles, Los Angeles County. It stretches roughly 0.5 mi (0.8 km) centered at Sandpiper Street. This subunit is owned by the State of California. This subunit was occupied at the time of listing and is currently occupied and in conjunction with Subunits CA 45C and CA 45D, annually supports a significant wintering flock of Pacific Coast WSPs in a location with high quality breeding habitat (Page *in litt.* 2004) and facilitates interchange between wintering locations.

This location contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, pets, and beach raking.

CA 45C, Dockweiler South, 65 ac (26 ha):

This subunit is located immediately west of the Hyperion Wastewater Treatment Plant between the cities of Los Angeles and El Segundo in Los Angeles County. It stretches approximately 1 mi (1.6 km) along Vista del Mar from W. Imperial Highway extending past E. Grand Avenue. This subunit consists of 54 ac (22 ha) of State land and 11 ac (5 ha) of privately owned land. This unit was occupied at the time of listing and is currently occupied and in conjunction with Subunits CA 45B and CA 45D, annually supports a significant wintering flock of Pacific Coast WSPs in a location with high quality breeding habitat (Page *in litt.* 2004) and facilitates interchange between wintering locations.

This location contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, pets, and beach raking.

CA 45D, Hermosa State Beach, 27 ac (11 ha):

This subunit is located immediately west of the City of Hermosa Beach in Los Angeles County. This subunit stretches roughly 0.5 mi (1 km) from Eleventh Street to First Street. This subunit consists of 8 ac (3 ha) of State land and 19 ac (8 ha) of privately owned land. This unit was occupied at the time of listing and is currently occupied and supported an average wintering flock of 25 Pacific Coast WSPs from 2003 to 2010 (Service unpublished data). In conjunction with subunits CA 45B and CA 45C, this subunit annually supports a large and significant wintering flock of Pacific Coast WSP and facilitates interchange between wintering locations.

This location contains the physical and biological features essential to the

conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, pets, and beach raking.

CA 46 (Subunits A–D), Bolsa Chica Reserve, 510 ac (207 ha):

These subunits are located east of the Pacific Coast Highway, in the City of Huntington Beach, Orange County. They consist of 510 ac (207 ha), all of which are owned by the State of California. Bolsa Chica Reserve contains significant nesting areas (which we are labeling as individual Subunits A, B, C, and D). This location supported 47 breeding adult Pacific Coast WSP in 2009 (Knapp and Peterson 2009, p. 8). These subunits were occupied at the time of listing and are currently occupied and annually support one of the largest breeding populations of Pacific Coast WSP in the region. The Recovery Plan for the Pacific Coast WSP states that this location contributes to the conservation goal for the region by providing a management potential of 70 breeding birds (Service 2007, Appendix B). This location also supported an average wintering flock of 14 Pacific Coast WSP from 2003 through 2010 (Service unpublished data). This reserve is an abandoned oil field that underwent significant reconstruction and restoration between 2004 and 2006, including the addition of three new nest sites and a new ocean inlet that allows the water level to rise and fall resembling the irregular semi-diurnal tidal range of southern California's ocean waters (Knapp and Peterson 2009, p. 1).

This location contains the physical and biological features essential to the conservation of the species, including tidally influenced estuarine mud flats supporting small invertebrates, and seasonally dry ponds that provide nesting and foraging habitat for Pacific Coast WSP.

The physical and biological features essential to the conservation of the species in these subunits may require special management considerations or protection to address threats from predation of chicks and eggs.

CA 46E, Bolsa Chica State Beach; 8 ac (3 ha):

This subunit is located south of CA 46A, in the City of Huntington Beach, Orange County. It stretches roughly 0.3 mi (0.5 km) from Seapoint Avenue north to the lagoon mouth channel into Bolsa

Chica Ecological Reserve. This subunit consists of 8 ac (3 ha) owned by the State of California. This subunit was occupied at the time of listing and is currently occupied and supported an average wintering flock of 27 Pacific Coast WSPs from 2003 through 2010 (Service unpublished data). The subunit annually supports a significant wintering flock of Pacific Coast WSPs in a location with high quality breeding habitat.

This location contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance and beach raking.

CA 47, Santa Ana River Mouth, 19 ac (8 ha):

This unit is located north of the Santa Ana River mouth, immediately west of the City of Huntington Beach in Orange County. This unit consists of 19 ac (8 ha), of which 18 ac (7 ha) are owned by the State of California, and 1 ac (0.4 ha) is privately owned.

This unit was not occupied at the time of listing, and we have no current records of occupancy. However, we consider this unit essential for the conservation of the species because it provides connectivity between two currently occupied areas, dispersal habitat between units and provides habitat for resting and foraging. This unit provides habitat to support breeding plovers and would facilitate interchange between otherwise widely separated units and helps provide habitat within the Recovery Unit.

This location contains habitat such as a wide, sandy beach with surf-cast wrack supporting small invertebrates, and tidally influenced estuarine mud flats that provide nesting and foraging habitat for Pacific Coast WSPs.

CA 48 Balboa Beach, 25 ac (10 ha):

This unit is located on the Balboa Peninsula, immediately west of the City of Newport Beach in Orange County. This unit stretches roughly 0.3 mi (0.5 km) from A Street south to G Street, including a total of 25 ac (10 ha), all of which are owned by the City of Newport Beach. This unit was occupied at the time of listing and is currently occupied and supported two breeding adult Pacific Coast WSPs in 2009 (P. Knapp, pers. comm. 2010) and three breeding adult Pacific Coast WSPs in 2010 (T. Ryan, *in litt.* 2010). It also supported an

average wintering flock of 35 Pacific Coast WSPs from 2003 through 2010 (Service unpublished data).

This location contains elements of the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats from human recreational disturbance, predation of chicks and eggs, and beach raking.

CA 49, Marine Corps Base Camp Pendleton, 441 ac (179 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 441 ac (179 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 49 from critical habitat designation under section 4(a)(3) of the Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 50 (Subunits A–C), Batiquitos Lagoon, 66 ac (27 ha):

These subunits are located between the cities of Carlsbad and Encinitas, in San Diego County. These subunits consist of a total of 66 ac (27 ha), of which approximately 32 ac (13 ha) are owned by the State of California, and 33 ac (14 ha) are privately owned. Batiquitos Lagoon includes three nest sites (which we are labeling as individual Subunits CA 50A, CA 50B, and CA 50C) that were created during restoration of the lagoon in 1996 to create habitat for seabirds and shorebirds, including Pacific Coast WSP and California least tern. These subunits were occupied at the time of listing and are currently occupied. Also included in Unit CA 50 is a portion of South Carlsbad State Beach (Subunit CA 50A) that supports a significant wintering population of Pacific Coast WSPs. The Recovery Plan for the Pacific Coast WSP states that subunits A–C contribute significantly to the conservation goal for the region by providing a management potential of 70 breeding birds (Service 2007, Appendix B). Three breeding adults were recorded within this unit in 2009 (B. Foster, *in litt.* 2010a), and 2010 (Ryan, *in litt.* 2010). This unit also facilitates interchange between wintering locations.

These subunits contain elements of the physical and biological features essential to the conservation of the species, including sandy beaches and tidally influenced estuarine mud flats with tide-cast organic debris supporting small invertebrates.

The physical and biological features essential to the conservation of the species in these subunits may require special management considerations or protection to address threats from human recreational disturbance at South Carlsbad State Beach, vegetation encroachment in the intertidal zone, and predation of chicks and eggs.

CA 51 (Subunits A–C), San Elijo Lagoon Ecological Reserve, 15 ac (6 ha):

These subunits are located between the cities of Solana Beach and Encinitas in San Diego County. These subunits were occupied at the time of listing and are currently occupied and consist of 15 ac (6 ha), of which 11 ac (4 ha) are owned by the State of California, and 4 ac (2 ha) are privately owned. San Elijo Lagoon includes three nest sites (which we are labeling as individual Subunits CA 51A, CA 51B, and CA 51C). The San Elijo Lagoon Restoration Working Group is planning to restore habitat at the San Elijo Lagoon Ecological Reserve, which may include nest sites for nesting sea birds and shorebirds including Pacific Coast WSP and California least tern. Restoration and enhancement of coastal dune habitat at this site is ongoing, and the Service is currently participating in a cooperative agreement with the San Elijo Lagoon Conservancy to create suitable nesting areas for Pacific Coast WSPs, California least terns, and other shorebirds in the southwest corner of the West Basin of the lagoon. The Recovery Plan for the Pacific Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 20 breeding birds (Service 2007, Appendix B). This unit may facilitate interchange between wintering locations (*see Criteria Used to Identify Critical Habitat* section above).

These subunits contain elements of the physical and biological features essential to the conservation of the species, including sandy beaches and tidally influenced estuarine mud flats with tide-cast organic debris supporting small invertebrates. Restoration of degraded habitat within these subunits will improve the habitat.

The physical and biological features essential to the conservation of the species in these subunits may require special management considerations or protection to address threats from human recreational disturbance, vegetation encroachment in the intertidal zone, and predation of chicks and eggs.

CA 52 (Subunits A–C) San Dieguito Lagoon, 11 ac (5 ha):

These subunits are located at the west end of San Dieguito River Park between the cities of San Diego and Del Mar in

San Diego County. These subunits were occupied at the time of listing and are currently occupied and consist of 11 ac (5 ha), of which 4 ac (2 ha) are owned by the State of California, and 7 ac (3 ha) are privately owned. San Dieguito Lagoon includes three nest sites (which we are labeling as individual Subunits CA 52A, CA 52B, and CA 52C) that were created for nesting seabirds and shorebirds including Pacific Coast WSP and California least tern. The Recovery Plan for the Pacific Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 20 breeding birds (Service 2007, Appendix B). This unit also facilitates interchange between wintering locations. Additionally, restoration of this site occurred in 2009, improving areas used by breeding and wintering shorebirds. Use of one nesting site by a pair of plovers was reported in 2010 (Foster, pers. comm. 2010b). Additional improvements to the nest sites are expected in the future.

These subunits contain elements of the physical and biological features essential to the conservation of the species, including wide sandy beaches and tidally influenced estuarine mud flats with tide-cast organic debris supporting small invertebrates.

The physical and biological features essential to the conservation of the species in these subunits may require special management considerations or protection to address threats from human recreational disturbance, vegetation encroachment in the intertidal zone, and predation of chicks and eggs.

CA 53, Los Penasquitos Lagoon, 32 ac (13 ha):

This unit is located immediately south of the City of Del Mar in the City of San Diego in San Diego County. This unit stretches roughly 0.6 mi (0.96 km) from South Camino del Mar to North Torrey Pines Road, and consists of 32 ac (13 ha), all of which are owned by the State of California. This unit was occupied at the time of listing and is currently occupied and consists of a portion of Torrey Pines State Beach that supports a wintering population of Pacific Coast WSPs. This unit contained an average wintering flock of 22 Pacific Coast WSPs from 2003 to 2010 (Service unpublished data). The Recovery Plan for the Pacific Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 10 breeding birds (Service 2007, Appendix B).

This unit contains the physical and biological features essential to the

conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates, as well as tidally influenced estuarine mud flats with tide-cast organic debris.

The physical and biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats from human recreational disturbance, vegetation encroachment in the intertidal zone, and predation of chicks and eggs.

CA 54A, Fiesta Island, 2 ac (1 ha):

This subunit is located on the northwest side of Fiesta Island in Mission Bay Park, within the City of San Diego in San Diego County. This subunit stretches roughly 0.5 mi (0.8 km) along the northwest side of the island from and includes approximately 1 ac (1 ha) of lands owned by the State of California, and 1 ac (0.4 ha) of land owned by the City of San Diego. This unit was occupied at the time of listing. Although occupancy is currently unconfirmed, this unit contains features essential to the conservation of the species and is needed by the species for use in response to fluctuating habitat and resource availability or use for migration between other nearby occupied sites. This subunit also facilitates interchange between wintering locations. The Recovery Plan for the Pacific Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 10 breeding birds (Service 2007, Appendix B).

This subunit contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with tide-cast organic debris supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, off-leash pets, and predation of chicks and eggs.

CA 54B, Mariner's Point, 7 ac (3 ha):

This subunit is located on the west side of Mission Bay Park near the mouth of the Mission Bay Channel, within the City of San Diego in San Diego County. This subunit includes 7 ac (3 ha), of which 1 ac (0.4 ha) is owned by the State of California, and 6 ac (2 ha) are owned by the City of San Diego. This unit was occupied at the time of listing and is currently occupied and contains the physical and biological features essential to the conservation of the

species. This subunit has supported an average wintering flock of 21 Pacific Coast WSPs from 2003 to 2010 (Service unpublished data). In conjunction with subunits CA 54C and CA 54D, it annually supports a large and significant wintering flock of Pacific Coast WSPs in high quality breeding habitat and facilitates interchange between wintering locations.

Additionally, this location was a breeding site in 1995 (K. Forburger, pers. comm. 2010); thus, special management may encourage Pacific Coast WSPs to resume breeding in areas currently used by wintering birds.

This subunit contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with tide-cast organic debris supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, off-leash pets, and predation of chicks and eggs.

CA 54C, South Mission Beach, 38 ac (15 ha):

This subunit is located immediately south of Mission Bay Park in the City of San Diego in San Diego County. This unit stretches roughly 0.5 mi (0.8 km) along the southern-most end of South Mission Beach, and includes 38 ac (15 ha), of which 8 ac (3 ha) are owned by the State of California, and 30 ac (12 ha) are owned by the City of San Diego. This unit was occupied at the time of listing and is currently occupied and contains the physical and biological features essential to the conservation of the species. This subunit has supported an average wintering flock of 50 Pacific Coast WSPs from 2003 to 2010 (Service unpublished data). In conjunction with subunits CA 54B and CA 54D, this subunit annually supports a large and significant wintering flock of Pacific Coast WSPs in high quality breeding habitat, and the area facilitates interchange between wintering locations.

This subunit contains the following habitat: wide sandy beach with surf-cast wrack supporting small invertebrates. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, off-leash pets, and predation of chicks and eggs.

CA 54D, San Diego River Channel, 51 ac (21 ha):

This subunit spans the mouth of the San Diego River Channel, including sandy accumulations created by the freshwater output of the river, in the City of San Diego in San Diego County. This unit was occupied at the time of listing and is currently occupied and contains the physical and biological features essential to the conservation of the species. This subunit consists of 51 ac (21 ha), of which 38 ac (15 ha) are owned by the State of California, and 13 ac (5 ha) are owned by the City of San Diego. In conjunction with subunits CA 54B and CA 54C, this location annually supports a large and significant wintering flock of Pacific Coast WSPs in high quality breeding habitat and facilitates interchange between wintering locations.

This subunit contains the following habitat: wide sandy beaches with occasional surf-cast wrack supporting small invertebrates, as well as tidally influenced estuarine mud flats with tide-cast organic debris. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance, off-leash pets, and predation of chicks and eggs.

CA 55A, Naval Air Station North Island, 142 ac (58 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 142 ac (58 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 55A from critical habitat designation under section 4(a)(3) of the Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 55B, Coronado Beach, 74 ac (30 ha):

This subunit is located immediately west of the City of Coronado in San Diego County. This subunit stretches roughly 0.6 mi (0.96 km) from the boundary with Naval Air Station North Island (NASNI) to the south end of the natural sand dunes at Coronado Beach. This subunit includes a total of 74 ac (30 ha) owned by the State of California. This subunit was occupied at the time of listing and is currently occupied and is adjacent to the sizable Pacific Coast WSP population at NASNI, which contained an average wintering flock of 69 Pacific Coast WSPs from 2003 to 2010 (Service unpublished data). Additionally, biologists recorded 17 breeding adults at NASNI during 2009 surveys (Service unpublished data). The Recovery Plan for the Pacific Coast WSP states that this location (in conjunction with adjacent military lands)

contributes significantly to the conservation goal for the region by providing a management potential of 20 breeding birds (Service 2007, Appendix B). This unit also facilitates interchange between wintering locations.

This subunit contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates, as well as wind-blown sand in dune systems immediately inland of the active beach face.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance and beach raking.

CA 55C, Silver Strand Beach, 180 ac (73 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 180 ac (73 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 55C from critical habitat designation under section 4(a)(3) of the Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 55D, Delta Beach, 90 ac (36 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 90 ac (36 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 55D from critical habitat designation under section 4(a)(3) of the Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 55E, Sweetwater Marsh National Wildlife Refuge and D Street Fill, 132 ac (54 ha):

This subunit is located on the east side of San Diego Bay in the City of Chula Vista in San Diego County. This subunit consists of approximately 132 ac (54 ha), of which 77 ac (31 ha) are owned by the Service, and 54 ac (22 ha) are owned by the Unified Port of San Diego. This subunit was occupied at the time of listing and is currently occupied and supported nesting Pacific Coast WSPs in 2000 (R. Patton, pers. comm. 2010), and two adult Pacific Coast WSPs in 2009 (Service unpublished data). The Recovery Plan for the Pacific Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 25 breeding birds (Service 2007, Appendix B). Additionally, this subunit annually supports a large and significant wintering flock of Pacific Coast WSPs and facilitates interchange between wintering locations.

This subunit contains the physical and biological features essential to the

conservation of the species, including sandy beaches above and below mean high-tide line and tidally influenced estuarine mud flats that provide nesting and foraging habitat for Pacific Coast WSPs.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from vegetation encroachment in the intertidal zone, and predation of chicks and eggs.

CA 55F, Silver Strand State Beach, 82 ac (33 ha):

This subunit is located immediately north of the City of Imperial Beach, in the City of Coronado in San Diego County. This subunit was occupied at the time of listing and is currently occupied and stretches roughly 1.5 mi (2.4 km) west of Silver Strand Boulevard, and is centered roughly at Coronado Cays Park. This subunit, in conjunction with adjacent lands at Naval Amphibious Base Coronado supported at least 10 breeding adults in 2009 (Service unpublished data), and 8 breeding adults in 2010 (Ryan, *in litt.* 2010). The Recovery Plan for the Pacific Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 65 breeding birds (Service 2007, Appendix B). This subunit contained an average wintering flock of 13 Pacific Coast WSPs from 2003 to 2010 (Service unpublished data). This subunit also facilitates interchange between wintering locations. Approximately 8 ac (3 ha) are State-owned.

This subunit contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates, as well as wind-blown sand in dune systems immediately inland of the active beach face.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance and predation of chicks and eggs.

CA 55G, Chula Vista Wildlife Reserve, 10 ac (4 ha):

This subunit is located on an island in south San Diego Bay in the City of Chula Vista in San Diego County. This location is centered in between the major wintering and breeding sites at Silver Strand State Beach (CA 55F), Sweetwater National Wildlife Refuge (CA 55E), Tijuana Estuary and Beach (CA 55K), the South Bay National

Wildlife Refuge (CA 55I-J), and Navy lands (CA 55-A, D, H). The subunit consists of 10 ac (4 ha), all of which are owned by the State of California. This location was a significant breeding site in the 1980s, and was occupied at the time of listing with one nest being observed in 1998 (Patton, pers. comm. 2010). This subunit contains relatively undisturbed habitat and is centralized between other significant areas; however, it is not currently utilized by Pacific Coast WSPs for breeding or wintering. However, this unit contains features essential to the conservation of the species, is needed by the species for use in response to fluctuating habitat and resource availability or use for migration between other nearby occupied sites, and assists in maintaining habitat within Recovery Unit 6. Increased restoration and special management at this site could cause this wildlife reserve to become more useful to breeding and wintering Pacific Coast WSPs, and facilitate interchange between locations.

This subunit contains the physical and biological features essential to the conservation of the species, including sandy beach and sparsely vegetated areas above the daily high tide, as well as tidally influenced estuarine mud flat with tide-cast organic debris supporting small invertebrates.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from vegetation encroachment in the intertidal zone, shoreline revetment, and predation of chicks and eggs.

CA 55H, Naval Radio Receiving Facility, 66 ac (27 ha):

Under section 4(a)(3) of the Act, we have exempted approximately 66 ac (27 ha) of land containing features essential to the conservation of the Pacific Coast WSP in Unit CA 55H from critical habitat designation under section 4(a)(3) of the Act (*see Application of Section 4(a)(3) of the Act* section below).

CA 55I, San Diego National Wildlife Refuge, South Bay Unit, 5 ac (2 ha):

This subunit is located at the southernmost end of San Diego Bay in a location that is operated by Western Salt Works as salt evaporation ponds. This subunit is immediately north of the City of Imperial Beach, in the City of San Diego in San Diego County, and consists entirely of Federal land. This unit was occupied at the time of listing and is currently occupied and supported at least three breeding adults in 2009 (Collins, *in litt.* 2010), and seven breeding adults in 2010 (Ryan, *in litt.* 2010). The Recovery Plan for the Pacific

Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 30 breeding birds (Service 2007, Appendix B).

The subunit contains the physical and biological features essential to the conservation of the species, including sparsely vegetated areas on artificial salt flats and adjoining dikes, as well as tidally influenced estuarine mud flats with tide-cast organic debris supporting small invertebrates for foraging.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from egg and chick predation.

CA 55J, Tijuana Estuary and Border Field State Park, 150 ac (61 ha):

This subunit is located in the City of Imperial Beach in San Diego County. This subunit stretches roughly 2 mi (3.2 km) from the end of Seacoast Drive to the U.S./Mexico border, extending across both the Tijuana Slough National Wildlife Refuge and Border Field State Park. This unit was occupied at the time of listing and is currently occupied and supported at least 10 adult breeding Pacific Coast WSPs in 2009 (B. Collins, *in litt.* 2010), and 19 breeding adults in 2010 (Ryan, *in litt.* 2010). This location also supported an average wintering flock of 54 Pacific Coast WSPs from 2003 to 2010 (Service unpublished data). The Recovery Plan for the Pacific Coast WSP states that this location contributes significantly to the conservation goal for the region by providing a management potential of 40 breeding birds (Service 2007, Appendix B).

This subunit contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates, as well as tidally influenced estuarine mud flats with tide-cast organic debris supporting small invertebrates for foraging.

The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from human recreational disturbance and predation of chicks and eggs.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to

jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of "destruction or adverse modification" (50 CFR 402.02) (*see Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not Federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action;

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction;

(3) Are economically and technologically feasible; and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for Pacific Coast

WSP. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Pacific Coast WSP. These activities include, but are not limited to:

(1) Actions and management efforts affecting Pacific Coast WSP on Federal lands such as national seashores, parks, and wildlife reserves. Such activities may include clearing and raking of tidal debris (seaweed, driftwood) from beaches causing a loss in cover and forage; high levels of visitor use, which can disturb and disrupt normal behavior; and utility corridors that require maintenance, which can lead to disturbance of Pacific Coast WSPs.

(2) Dredging and dredge spoil placement that permanently removes elements of essential physical and biological features to the extent Pacific Coast WSPs are affected for the foreseeable future.

(3) Construction and maintenance of roads, walkways, marinas, access points, bridges, culverts and other structures which interfere with Pacific Coast WSP nesting, breeding, or foraging or result in increases in predation.

(4) Storm water and wastewater discharge from communities, which could impact the abundance of invertebrates upon which Pacific Coast WSPs rely for food.

(5) Flood control actions that change the elements of essential physical and biological features to the extent that the habitat no longer contributes to the conservation of the species.

Exemptions

Application of Section 4(a)(3) of the Endangered Species Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resource management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: “The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the range of the proposed critical habitat designation for Pacific Coast WSP to determine if they are exempt under section 4(a)(3) of the Act. The following areas are Department of Defense lands with completed, Service-approved INRMPs within the proposed revised critical habitat designation.

Approved INRMPs

Naval Base Ventura County Point Mugu (Units CA 40 and CA 41), 208 ac (84 ha)

The Department of the Navy, Naval Base Ventura County, manages two facilities in Ventura County, California: Point Mugu and San Nicolas Island. Naval Base Ventura County, Point Mugu (NBVC, Point Mugu) was established in 1949 as the Naval Air Weapons Station to support a new U.S. Naval Air Missile Test Center, which provided material and Service support, including military personnel administration, air traffic control, and flight line functions. The NBVC, Point Mugu occupies

approximately 4,490 ac (1,817 ha) of land on the coast of southern California, Ventura County. Currently, the installation is used for target drone launches, aircraft operations, beach missile launch operations, maintenance of the roads and perimeter fence, utilities maintenance, pest management, recreation, and natural resource management.

The NBVC, Point Mugu INRMP is a planning document that guides the management and conservation of natural resources under the installation’s control. The INRMP was prepared to ensure that natural resources are managed in support of the Naval Base Ventura County’s military command mission and that all activities are consistent with Federal stewardship requirements. The NBVC, Point Mugu INRMP was completed in 2002, and renewed and approved by the Service in 2008. The INRMP is Naval Base Ventura County’s adaptive plan for managing natural resources to support and be consistent with the military mission, while protecting and enhancing the biological integrity of lands under its use (U.S. Navy 2002, p. ES–3). Naval Base Ventura County is committed to an ecosystem management approach for its natural resources program by integrating all components of natural resource management into a comprehensive and coordinated effort. An integrated approach to ecosystem management will help protect the biological diversity found at NBVC, Point Mugu.

The INRMP identifies the following management and protective measure goals for the Pacific Coast WSP:

(1) Monitor and manage breeding habitat of Pacific Coast WSPs;

(2) Monitor and manage wintering and migration areas to maximize Pacific Coast WSP population survival;

(3) Develop mechanisms for long-term management and protection of Pacific Coast WSPs and their breeding and wintering habitat;

(4) Undertake scientific investigations that facilitate recovery efforts;

(5) Undertake public information and education programs for Pacific Coast WSPs;

(6) Continue measures in place for Pacific Coast WSP protection, including beach closures;

(7) Protect and maintain natural coastal processes that perpetuate high-quality breeding habitat;

(8) Keep Pacific Coast WSP management areas closed to all pets, leashed or not, with the exception of NBVC security dogs on official duty (e.g., apprehending a suspect);

(9) Monitor habitat to maintain the nesting substrates necessary for Pacific Coast WSP breeding success;

(10) Identify factors that limit the quality of wintering and breeding habitat;

(11) Clean and restore the eastern arm of Mugu Lagoon to sandy beach;

(12) Improve methods of monitoring Pacific Coast WSPs, such as color banding; and

(13) Develop and implement public information and education programs on Pacific Coast WSPs and recovery efforts at the proposed Mugu Lagoon Visitor Education Center.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that conservation efforts identified in the 2008 INRMP for NBVC, Point Mugu have and will provide a benefit to the Pacific Coast WSP and features essential to its conservation, and will benefit Pacific Coast WSPs occurring in habitats on the installation. Therefore, lands subject to the INRMP for the NBVC, Point Mugu (Units CA 40 and CA 41) are exempt from critical habitat designation under section 4(a)(3)(B) of the Act, and we are not including approximately 208 ac (84 ha) of habitat in this proposed revised critical habitat designation because of this exemption.

Department of the Navy, Naval Base Ventura County, San Nicolas Island (Unit CA 42), 321 ac (130 ha):

San Nicolas Island is under the jurisdiction of Department of the Navy, Naval Base Ventura County. The 14,230-ac (5,759-ha) San Nicolas Island is located approximately 65 mi (105 km) south of NBVC, Point Mugu. Naval facilities on San Nicolas Island include a 10,000 ft (3,048 m) concrete and asphalt runway, radar tracking instrumentation, electro-optical devices, telemetry, communications equipment, missile and target launch areas, as well as personnel support. Currently, the island is used as the management launch platform for short- and medium-range missile testing, and an observation facility for missile testing. Primarily, San Nicolas Island's mission is to support the primary research, design, development, testing, and evaluation of air weapons and associated aircraft systems into anti-surface and anti-air warfare aircraft.

The San Nicolas Island INRMP (U.S. Navy 2005, pp. 1–129) is a planning document that guides the management and conservation of natural resources under the Navy Base Ventura County's control. The INRMP was prepared to ensure that natural resources are managed in support of the Naval Base

Ventura County's military command mission and that all activities are consistent with Federal stewardship requirements. The San Nicolas Island INRMP was completed and approved by the Service in 2003 and renewed in 2005. The San Nicolas Island INRMP is Naval Base Ventura County's adaptive plan for managing natural resources to support and be consistent with the military mission while protecting and enhancing the biological integrity of lands under its use (U.S. Navy 2005, p. 5). Naval Base Ventura County is committed to an ecosystem management approach for its natural resources program by integrating all components of natural resource management into a comprehensive and coordinated effort. An integrated approach to ecosystem management will help protect the biological diversity found at San Nicolas Island.

The San Nicolas INRMP identifies the following management and protective measure goals for the Pacific Coast WSP:

(1) Monitor Pacific Coast WSP's nests during missile launches, barge landings, and other activities that may disturb nesting behaviors;

(2) Close Pacific Coast WSP nesting areas to recreational activity during the breeding season (March through September); and

(3) Monitor the effects of Navy activities on Pacific Coast WSPs by conducting island-wide Pacific Coast WSP censuses twice annually, once during the breeding season and once during the winter season;

(4) Educate island personnel regarding protected species regulations and responsibilities;

(5) Maintain signs around breeding sites to alert personnel of closures;

(6) Conduct site-specific Pacific Coast WSP surveys in potential or known breeding habitat prior to disturbance activities;

(7) Remove unnecessary structures in Pacific Coast WSP nesting areas and attach avian excluders to essential structures, if feasible;

(8) Conduct amphibious training exercises on beaches not harboring nesting Pacific Coast WSPs;

(9) Continue to implement a feral cat control/removal program;

(10) Develop and maintain a computer database for storing information on locations of nesting sites, incidental sightings and size and results of surveys for resource management purposes;

(11) Continue to participate with recovery planning and other efforts to help establish stable Pacific Coast WSP populations; and

(12) Support research to explore the effects of increasing pinniped (seal, sea

lion) populations on nesting success of Pacific Coast WSPs.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that conservation efforts identified in the 2005 INRMP for San Nicolas Island have and will provide a benefit to the Pacific Coast WSP and physical and biological features essential to its conservation. Therefore, lands subject to the INRMP for the San Nicolas Island (Unit CA 42) are exempt from critical habitat designation under section 4(a)(3)(B) of the Act, and we are not including approximately 321 ac (130 ha) of habitat in this proposed revised critical habitat designation because of this exemption. We request public comment regarding this exemption.

Marine Corps Base (MCB) Camp Pendleton (Unit CA 49), 441 ac (179 ha):

Marine Corps Base (MCB) Camp Pendleton is the Marine Corps' premier amphibious training installation and it is the only west coast amphibious assault training center. The installation has been conducting air, sea, and ground assault training since World War II. MCB Camp Pendleton occupies over 125,000 ac (50,586 ha) of coastal southern California in the northwest corner of San Diego County. Aside from nearly 10,000 ac (4,047 ha) that is developed, most of the installation is largely undeveloped land that is used for training. MCB Camp Pendleton is situated between two major metropolitan areas: the City of Los Angeles that is 82 mi (132 km) to the north, and the City of San Diego that is 38 mi (61 km) to the south. MCB Camp Pendleton is located north of the City of Oceanside, southeast of the City of San Clemente, and adjacent to the western side of the unincorporated community of Fallbrook, San Diego County, California. Aside from a portion of the installation's border that is shared with the Cleveland National Forest's San Mateo Wilderness Area and Fallbrook Naval Weapons Station, surrounding land use includes urban development, rural residential development, and farming and ranching. The largest single leaseholder on the installation is California Department of Parks and Recreation (CDPR), which possesses a 50-year real estate lease granted on September 1, 1971, for 2,000 ac (809 ha) that encompasses San Onofre State Beach.

The MCB Camp Pendleton INRMP is a planning document that guides the management and conservation of natural resources under the installation's control. The INRMP was prepared to assist installation staff and users in their efforts to conserve and

rehabilitate natural resources consistent with the use of MCB Camp Pendleton to train Marines and set the agenda for managing natural resources on MCB Camp Pendleton. Marine Corps Base Camp Pendleton completed its INRMP in 2001, followed by a revised and updated version in 2007 to address conservation and management recommendations within the scope of the installation's military mission, including conservation measures for Pacific Coast WSP (MCB Camp Pendleton 2007, Appendix F, Section F.23, pp. F85–F89). The Service provided concurrences in 2001 and 2007 for the respective INRMPs. Additionally, CDPR is required to conduct its natural resources management consistent with the philosophies and supportive of the objectives in the revised 2007 INRMP (MCB Camp Pendleton 2007, Chapter 2, p. 31).

The Pacific Coast WSP and its habitat are provided protection and management by the Estuarine and Beach Conservation Plan (MCB Camp Pendleton 2007, Appendix B, pp. B-1–B-20), which was addressed through the section 7 consultation process with a biological opinion issued by the Service on October 30, 1995 (Service 1995, Biological Opinion 1–6–95–F02), and is now implemented under the 2007 INRMP. Base-wide protection measures for avoidance and minimization of impacts to Pacific Coast WSP and its habitat, especially during the breeding season, are provided in both the conservation plan and Base Order P3500.1M. The base-wide protection measures for Pacific Coast WSP include, but are not limited to:

- (1) Minimize reduction or loss of upland buffers surrounding coastal wetlands;
- (2) Restore the dune system in the vicinity of the Santa Margarita Estuary following the guidance developed by The Nature Conservancy;
- (3) Maintain integrity of listed species' habitat; and
- (4) Promote growth of current population of Pacific Coast WSPs (MCB Camp Pendleton 2007, Appendix B, pp. B5–B7).

Annual management and protection measures for Pacific Coast WSPs identified in Appendix F of the INRMP include, but are not limited to:

- (1) Installation of sign postings describing the sensitive nature of the breeding area/season;
- (2) Installation of permanent/temporary fencing that directs military training away from sensitive nesting and foraging areas;

(3) Beach habitat enhancement (nonnative vegetation control and sand mobilization);

(4) Ant control (ants can cause incubating adults to abandon a nest, and can contribute towards chick mortality); and

(5) Focused predator control (MCB Camp Pendleton 2007, Appendix F, pp. F89).

Current environmental training regulations and restrictions are provided to all military personnel to maintain compliance with the terms of the INRMP. Training regulations guide activities to protect threatened and endangered species on the installation, including Pacific Coast WSP, and its habitat. First, specific conservation measures, outlined in the Instructions for Military Training Activities section of the Estuarine and Beach Conservation Plan are applied to Pacific Coast WSP and its habitat (MCB Camp Pendleton 2007, p. B–13). These include:

(1) Military activities are kept to a minimum within the Santa Margarita Management Zone (*i.e.*, the area on the base where the majority of nesting sites occur) and any nesting site outside the traditionally fenced nesting areas during the breeding/nesting season (1 March–31 August) for the Pacific Coast WSP. A buffer distance of 984 ft (300 m) away from fenced or posted nesting areas must be adhered to for all activities involving smoke, pyrotechnics, loud noises, blowing sand, and large groupings of personnel (14 or more). Aircraft are not authorized to land within 984 ft (300 m) of fenced nesting areas on Blue Beach or White Beach and are required to maintain an altitude of 300 ft (91 m) Above Ground Level (AGL) or more above nesting areas.

(2) Recreational activities within the Santa Margarita Management Zone and posted nest locations during the breeding season are to be kept to a minimum and camping at Cocklebur Canyon Beach is prohibited.

(3) Foot traffic within the Santa Margarita Management Zone is prohibited within 150 ft (46 m) of posted nesting areas during the breeding season.

(4) A 300-ft (91-m) buffer from posted nesting areas is required for surf fishermen, and no live baitfish or amphibians are allowed for fishing activities.

Additionally, MCB Camp Pendleton Environmental Security staff review projects and enforce existing regulations and orders that, through their implementation under NEPA requirements, avoid and minimize impacts to natural resources, including the Pacific Coast WSP and its habitat.

MCB Camp Pendleton also provides training to personnel on environmental awareness for sensitive resources on the base, including the Pacific Coast WSP and its habitat. As a result of these regulations and restrictions, activities occurring on MCB Camp Pendleton are currently conducted in a manner that minimizes impacts to Pacific Coast WSPs and their habitat.

MCB Camp Pendleton's INRMP also benefits Pacific Coast WSP through ongoing monitoring and research efforts. To assess the effectiveness of MCB Camp Pendleton's Estuarine and Beach Conservation Plan, biennial monitoring is conducted to determine number of pairs, hatching success, and reproductive success (MCB Camp Pendleton 2007, Appendix B, p. B12). Annual monitoring of nests is conducted to track Pacific Coast WSP population trends (MCB Camp Pendleton 2007, Appendix F, p. F89). Data are provided to all necessary personnel through MCB Camp Pendleton's GIS database on sensitive resources and MCB Camp Pendleton's published resource atlas.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that conservation efforts identified in the 2007 INRMP for MCB Camp Pendleton have and will continue to provide a benefit to Pacific Coast WSP and its habitat. This includes habitat located in the following areas: San Onofre Beach, Aliso/French Creek Mouth, and Santa Margarita River Estuary (names of areas follow those used in the draft recovery plan (Service 2001, Appendix B, p. B–16). Therefore, lands subject to the INRMP for MCB Camp Pendleton, which includes lands leased from the Department of Defense by other parties (such as CDPR for San Onofre State Beach) (Unit CA 49), are exempt from critical habitat designation under section 4(a)(3)(B) of the Act. CDPR is required to conduct its natural resources management consistent with the philosophies and supportive of the objectives of the INRMP (MCB Camp Pendleton 2007, p. 2–30). We are not including approximately 441 ac (179 ha) of habitat in this proposed revised critical habitat designation because of this exemption. We request public comment regarding this exemption.

Naval Base Coronado, Naval Air Station (North Island Unit CA 55A, Silver Strand Beach Unit CA 55C, Delta Beach Unit CA 55D, and Naval Radio Receiving Facility Unit CA 55H), 734 ac (297 ha):

Naval Base Coronado includes eight military facilities in San Diego County, California. Three of these facilities—

Naval Air Station North Island (Unit CA 55A); Naval Amphibious Base Coronado (Units CA 55C, and CA 55D); and Naval Radio Receiving Facility (Unit CA 55H)—include beach habitat that supports Pacific Coast WSPs. For planning and description purposes regarding these beaches and the military training that occurs here, the U.S. Navy describes these areas as:

(1) Naval Air Station North Island (NAS North Island),

(2) Naval Amphibious Base Coronado or Silver Strand Training Complex—North (SSTC—North), and

(3) Naval Radio Receiving Facility or Silver Strand Training Complex—South (SSTC—South).

NAS North Island is located north of the City of Coronado and encompasses 2,803 ac (1134 ha), of which approximately 95 ac (39 ha) is southern foredune/beach habitat. SSTC—North is located south of the City of Coronado and encompasses roughly 1,000 ac (405 ha), of which approximately 257 ac (104 ha) are beach-front habitat leased from CDPR for amphibious military training activities. SSTC—North, including the San Diego Bay-front beach referred to as Delta Beach, supports approximately 278 ac (113 ha) of southern foredune/beach habitat. SSTC—South is located north of the City of Imperial Beach, and encompasses 450 ac (182 ha), of which approximately 78 ac (32 ha) is southern foredune/beach habitat.

The U.S. Navy completed an INRMP in 2002 to provide a viable framework for the management of natural resources on lands controlled by Naval Base Coronado, which was approved by the Service. The U.S. Navy continues to implement the completed INRMP (which provides a benefit to the Pacific Coast WSP) as a revision is being drafted. The INRMP identifies conservation and management recommendations within the scope of the installation's military mission, including conservation measures for Pacific Coast WSP and its habitat (Naval Base Coronado 2002, Section 3, pp. 81–83). The management strategy outlines actions that would contribute to the recovery of Pacific Coast WSP through development of cooperative, ecosystem management-based strategies (Naval Base Coronado 2002, Section 4, pp. 56–58).

The U.S. Navy will continue to implement the 2002 INRMP, subject to modified management strategies identified in the 2010 Silver Strand Training Area BO until completion of a revised INRMP. The INRMP revision will reflect the management changes driven by the U.S. Navy's need for additional beach training. The revised

INRMP will include the management strategy identified in the 2010 Silver Strand Training BO. The INRMP identifies conservation and management recommendations within the scope of the installation's military mission, including conservation measures for Pacific Coast WSP and its habitat (Naval Base Coronado 2002, Section 3, pp. 81–83). The management strategy outlines actions that would contribute to the recovery of Pacific Coast WSP through development of cooperative, ecosystem management-based strategies (Naval Base Coronado 2002, Section 4, pp. 56–58). Management actions that will benefit the Pacific Coast WSP to be implemented by the Navy on the U.S. Navy's Silver Strand Training Complex Operations, Naval Base, Coronado, in accordance with the 2002 INRMP as modified by the 2010 SSTC BO (08B0503–09F0517) include:

(1) Minimize the potential for take of nests and chicks at SSTC—N and SSTC—S Beaches during the breeding season;

(2) Monitor training activities to ascertain the impact on Pacific Coast WSP distribution and report any observed incidental take to the Service annually;

(3) Modify the beach to create hummocks to deter plovers from nesting in intensively used beach lanes;

(4) Schedule efforts to avoid beach lanes with higher nest numbers;

(5) Study the effects of military working dogs on plovers to develop additional conservation measures, if necessary;

(6) Require that dogs be on leashes.

(7) Annual nest site preparation;

(8) Mark and avoid up to 22 nests at SSTC—S, SSTC—N Beaches, plus any additional nests that exceed 22 that are initiated in beach lanes Orange 1 and Orange 2;

(9) Protect nesting and foraging areas at NAS North Island, SSTC—North, SSTC—South, and Delta Beach from predation by supporting consistent and effective predator management;

(10) Enhance and disallow mowing of remnant dune areas as potential nest sites in areas that can be protected from human disturbance and predators during nesting season;

(11) Conduct monitoring throughout Naval Base Coronado and establish a consistent approach to monitoring nesting attempts and hatching success to determine the success of predator management activities, and limit predator-prey interactions by fencing unless it conflicts with U.S. Navy training;

(12) Identify opportunities to use dredge material that has high sand content for expansion and rehabilitation

of beach areas at NAS North Island and Delta Beach to create improved nesting substrate;

(13) Minimize activities that can affect invertebrate populations necessary for Pacific Coast WSP foraging by prohibiting beach raking on Naval Base Coronado beaches, with the exception of the area immediately in front of the Navy Lodge at NAS North Island and Camp Surf at SSTC—South;

(14) If any relocation of nest/eggs is necessary as a protective measure, each nest/egg will be relocated the shortest distance possible into suitable habitat by Service-approved monitors to increase the chance of nest success;

(15) Identify conflicts for immediate action and response;

(16) Public outreach to military residents of adjacent housing;

(17) Post signs to eliminate human trespassers during nesting season and possibly for nest avoidance as well; and,

(18) Work with the Service and others to develop a regional approach to managing and conserving the habitat needed to sustain Pacific Coast WSP.

The 2010 SSTC BO (08B0503–09F0517, p. 128) also specifies that if new information reveals that the increased training is affecting Pacific Coast WSP in a manner inconsistent with the conclusion of the Biological Opinion, then reinitiation of consultation may be warranted. If monitoring indicates that the western snowy plover numbers within the area of increased military training decline below the 5-year average, as determined by maximum active nest numbers—average of 18 plover pairs at SSTC (range of 11 to 22); 10 plover pairs at NASNI (range of 7 to 14); and 8 plover pairs at SSSB (range of 5 to 9)—reinitiation of consultation may be warranted. If snowy plover use of SSTC beaches declines, Service and Navy biologists will evaluate alternative explanations for any observed decline (such as continuation of low productivity associated with predation) and the need for additional conservation measures. This cooperative relationship allows the Service to work closely with the Navy for the continued implementation of beneficial measures to Pacific Coast WSP, while minimizing impacts associated with the increased training activities that are required for military readiness.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the conservation efforts identified in the existing Service approved INRMP Naval Base Coronado provide a benefit to Pacific Coast WSP and its habitat at NAS North Island,

SSTC–North, and SSTC–South. The Service also considers that the draft revised INRMP will provide a benefit to the Pacific Coast WSP and its habitat, but will revisit this exemption as necessary to evaluate the conservation efforts in Naval Base Coronado’s final revised INRMP. Therefore, lands containing features essential to the

conservation of Pacific Coast WSP on Naval Base Coronado (Units CA 55A, CA 55C, CA 55D, and CA 55H) are exempt under section 4(a)(3) of the Act, and we are not including approximately 734 ac (297 ha) of habitat in this proposed revised critical habitat designation because of this exemption.

We request public comment on this exemption.

Table 3 below provides approximate areas (ac, ha) of lands that meet the definition of critical habitat but are exempt from designation under section 4(a)(3)(B) of the Act. Table 3 also provides our reasons for the exemptions.

TABLE 3—EXEMPTIONS FROM DESIGNATION BY CRITICAL HABITAT UNIT

Unit	Specific area	Basis for exclusion/exemption	Areas meeting the definition of critical habitat in Ac (Ha)	Areas exempted in Ac (Ha)
CA 40	Naval Base Ventura County Point Mugu, Mugu Lagoon North.	4(a)(3)(B)	136 ac (55 ha)	136 ac (55 ha).
CA 41	Naval Base Ventura County Point Mugu, Mugu Lagoon South.	4(a)(3)(B)	72 ac (29 ha)	72 ac (29 ha).
CA 42	Naval Base Ventura County, San Nicolas Island	4(a)(3)(B)	321 ac (130 ha)	321 ac (130 ha).
CA 49	Marine Corps Base (MCB) Camp Pendleton	4(a)(3)(B)	441 ac (179 ha)	441 ac (179 ha).
CA 55A	Naval Base Coronado, Naval Air Station North Island.	4(a)(3)(B)	142 ac (58 ha)	142 ac (57 ha).
CA 55C	Naval Base Coronado Silver Strand Beach	4(a)(3)(B)	436 ac (176 ha)	436 ac (176 ha).
CA 55D	Naval Base Coronado Delta Beach	4(a)(3)(B)	90 ac (36 ha)	90 ac (36 ha).
CA 55H	Naval Base Coronado Naval Radio Receiving Facility.	4(a)(3)(B)	66 ac (27 ha)	66 ac (27 ha).
Total				1,704 ac (690 ha).

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, the Secretary may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the

benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise his discretion to exclude the area only if such exclusion would not result in the extinction of the species.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors.

An analysis of the economic impacts for the previous proposed critical habitat designation was conducted and made available to the public in the **Federal Register** on August 16, 2005 (70 FR 48094). The availability of that final economic analysis was announced in the final rule to designate critical habitat for the Pacific Coast WSP published on September 29, 2005 (70 FR 56969). The activities identified in the 2005 economic analysis that may have been affected by plover conservation included recreation, plover management, real estate development, military base operations, and gravel extraction. In the September 29, 2005, final designation of critical habitat (70 FR 56969), we excluded six subunits along the California Coast for economic reasons under section 4(b)(2) of the Act.

The economic analysis prepared for the 2005 critical habitat designation included costs coextensive with the listing of the species; *i.e.*, costs attributable to the listing of the species, as well as costs attributable to the designation of critical habitat, and it did not distinguish between them. The new analysis will analyze the specific incremental costs attributable to designating all areas proposed in this revised rule as critical habitat, separate from the costs of those protections already accorded the species through Federal listing and other Federal, State, and local regulations.

We will announce the availability of the draft economic analysis on this proposed revised critical habitat designation as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://www.regulations.gov>, or by contacting the Arcata Fish and Wildlife Office directly (**SEE FOR FURTHER INFORMATION CONTACT** section). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this proposal, we have exempted from the designation of critical habitat those Department of Defense lands with completed INRMPs determined to provide a benefit to the Pacific Coast WSP. We have also determined that the remaining lands within the proposed designation of critical habitat for Pacific Coast WSP are not owned or managed by the Department of Defense, and, therefore, we anticipate no impact on national security. Consequently, the Secretary does not propose to exercise his discretion to exclude any areas from the final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any Tribal issues, and consider the government-to-government relationship of the United States with Tribal entities. We also consider any social impacts that might occur because of the designation.

We are not considering any exclusions at this time from the proposed revised designation under section 4(b)(2) of the Act based on partnerships, management, or protection afforded by cooperative management efforts. Some areas within the proposed revised designation are included in management plans or other large scale HCPs such as the Oregon State-wide Habitat Conservation Plan. In this proposed revised rule, we are seeking input from the public as to whether or not the Secretary should exclude habitat conservation plan areas or other such areas under management that benefit the Pacific Coast WSP from the final revised critical habitat designation. We are also seeking input on potential exclusion of Tribal lands within this proposed revised designation (Please see *Government-to-Government Relationship with Tribes* section below regarding Tribal lands within this proposed revised designation and the

Public Comments section of this proposed revised rule for instructions on how to submit comments).

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed revised rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We will invite these peer reviewers to comment during this public comment period, on our specific assumptions and conclusions regarding the proposed revised designation of critical habitat.

We will consider all comments and information received during this comment period on this proposed revised rule during our preparation of a final determination. Accordingly, our final decision may differ from this proposal.

Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests for public hearings must be received within 45 days after the date of publication of this proposed revised rule in the **Federal Register**. Such requests must be sent to the address shown in the **ADDRESSES** section. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the first hearing.

Required Determinations

Regulatory Planning and Review—Executive Order 12866

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this proposed rule revision under Executive Order 12866 (Regulatory Planning and Review). OMB bases its determination upon the following four criteria:

- (1) Whether the rule will have an annual effect of \$100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government;
- (2) Whether the rule will create inconsistencies with other Federal agencies' actions;
- (3) Whether the rule will materially affect entitlements, grants, user fees,

loan programs, or the rights and obligations of their recipients; and
(4) Whether the rule raises novel legal or policy issues.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C. 801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, we lack the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, we defer the RFA finding until completion of the draft economic analysis prepared under section 4(b)(2) of the Act and Executive Order 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, we will announce availability of the draft economic analysis of the proposed designation in the **Federal Register** and reopen the public comment period for the proposed designation. We will include with this announcement, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination.

An analysis of the economic impacts for the previous proposed critical habitat designation was conducted and made available to the public on August 16, 2005 (70 FR 48094). This economic analysis was finalized for the final rule to designate critical habitat for the Pacific Coast WSP as published in the **Federal Register** on September 29, 2005 (70 FR 56969). The costs associated with critical habitat for the Pacific Coast WSP, across the entire area considered for designation, were primarily a result of the potential effect of critical habitat

on recreation, plover management, development, military operations, and gravel extraction. Based on the 2005 economic analysis, we concluded that the designation of critical habitat for the Pacific Coast WSP would not result in significant small business impacts.

We have concluded that deferring the RFA finding until completion of the draft economic analysis on this proposed revised critical habitat designation is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that we make a sufficiently informed determination based on adequate economic information and provide the necessary opportunity for public comment.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect the designation of this proposed revised critical habitat to significantly affect energy supplies, distribution, or use. This is based on our previous analysis conducted for the previous designation of critical habitat. This analysis was finalized for the final rule to designate critical habitat for the Pacific Coast WSP as published in the **Federal Register** on September 29, 2005 (70 FR 56969). Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and we will review and revise this assessment as warranted.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or Tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary

Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or Tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) Based in part on an analysis conducted for the previous designation of critical habitat and extrapolated to this designation, we do not expect this rule to significantly or uniquely affect small governments. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Therefore, a Small Government Agency Plan is not required. However, we will

further evaluate these issues as we conduct our economic analysis, and review and revise this assessment as warranted.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Pacific Coast WSP in a takings implications assessment. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. The takings implications assessment concludes that this designation of critical habitat for the Pacific Coast WSP does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Washington, Oregon, and California. The designation of critical habitat in areas currently occupied by the Pacific Coast WSP may impose nominal additional restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical and biological features essential to the conservation of the species are more clearly defined, and the elements of the features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what Federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required.

While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the elements of physical and biological features essential to the conservation of the Pacific Coast WSP within the designated areas to assist the public in understanding the habitat needs of the species.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the

Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

The Shoalwater Bay Tribe in Washington is the only Tribe affected by this proposed revised critical habitat rule. Approximately 335 ac (136 ha) of Tribal lands within subunit 3B could be designated. The Lacey Fish and Wildlife Office has entered into discussion with the Tribe regarding the proposed revised designation in preparation of this revised rule. We will be contacting the Shoalwater Bay Tribe and requesting comments regarding the status of Pacific Coast WSPs on lands under Tribal ownership and management. The Tribe has stated that they are committed to continue with their efforts to manage their lands to benefit the Pacific Coast

WSP, and are asking that their lands be excluded from designation.

References Cited

A complete list of all references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> and upon request from the Field Supervisor, Arcata Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT** section).

Authors

The primary authors of this notice are the staff members of the Arcata Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.95(b), revise the entry for “Western Snowy Plover (*Charadrius alexandrinus nivosus*)—Pacific Coast Population” to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(b) *Birds.*

* * * * *

Western Snowy Plover (*Charadrius alexandrinus nivosus*)—Pacific Coast Population.

(1) Critical habitat units are depicted on the maps below for:

- (i) Washington—Grays Harbor and Pacific Counties;
- (ii) Oregon—Clatsop, Tillamook, Lane, Douglas, Coos, and Curry Counties; and
- (iii) California—Del Norte, Humboldt, Mendocino, Marin, Napa, Alameda, San Mateo, Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego Counties.

(2) The primary constituent elements of physical and biological features essential to conservation of the Pacific Coast western snowy plover are sandy beaches, dune systems immediately inland of an active beach face, salt flats,

mud flats, seasonally exposed gravel bars, artificial salt ponds and adjoining levees, and dredge spoil sites, with:

(i) Areas that are below heavily vegetated areas or developed areas and above the daily high tides,

(ii) Shoreline habitat areas for feeding, with no or very sparse vegetation, that are between the annual low tide or low-water flow and annual high tide or high-water flow, subject to inundation but not constantly under water,

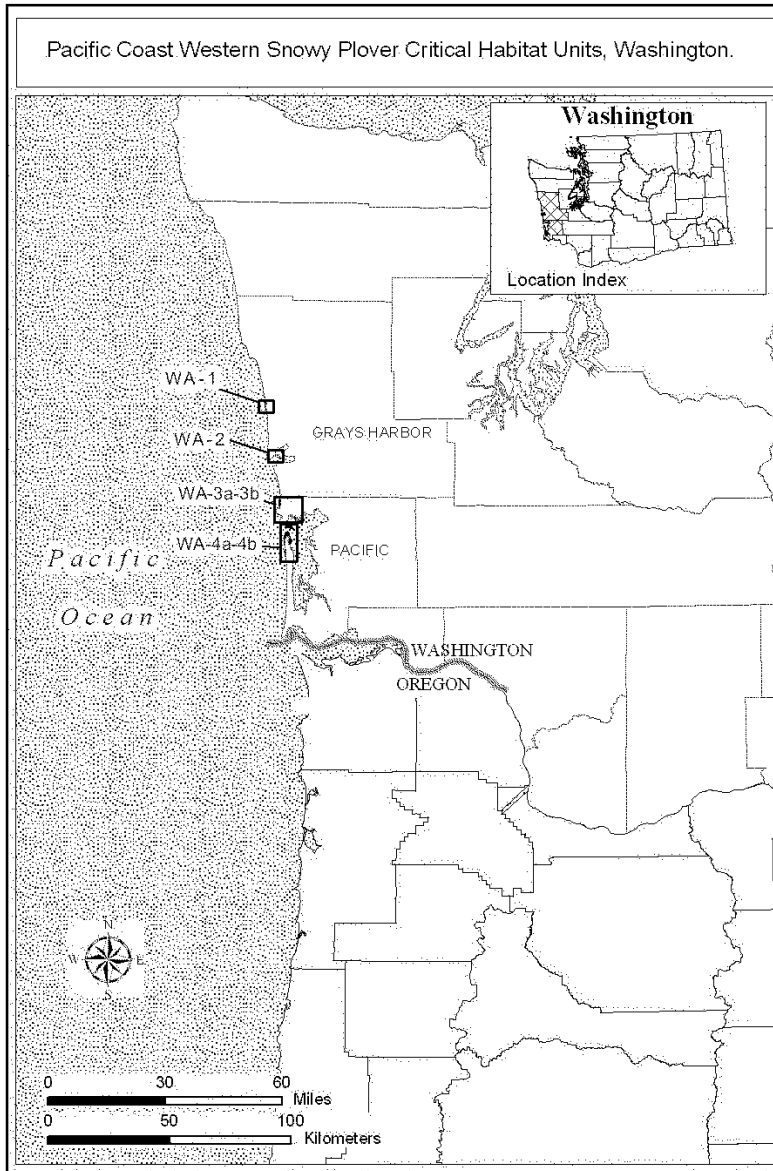
(iii) Surf- or water-deposited organic debris located on open substrates, and
 (iv) Minimal disturbance from the presence of humans, pets, vehicles, or human-attracted predators.

(3) Critical habitat does not include existing features and structures, such as buildings, paved areas, boat ramps, and other developed areas not containing one or more of the primary constituent elements. Any such structures that were inside the boundaries of a critical

habitat unit at the time it was designated are not critical habitat. The land on which such structures directly sit is also not critical habitat, so long as the structures remain in place.

(4) **Note:** Index map of critical habitat units for the Pacific Coast western snowy plover (*Charadrius alexandrinus nivosus*) in Washington follows:

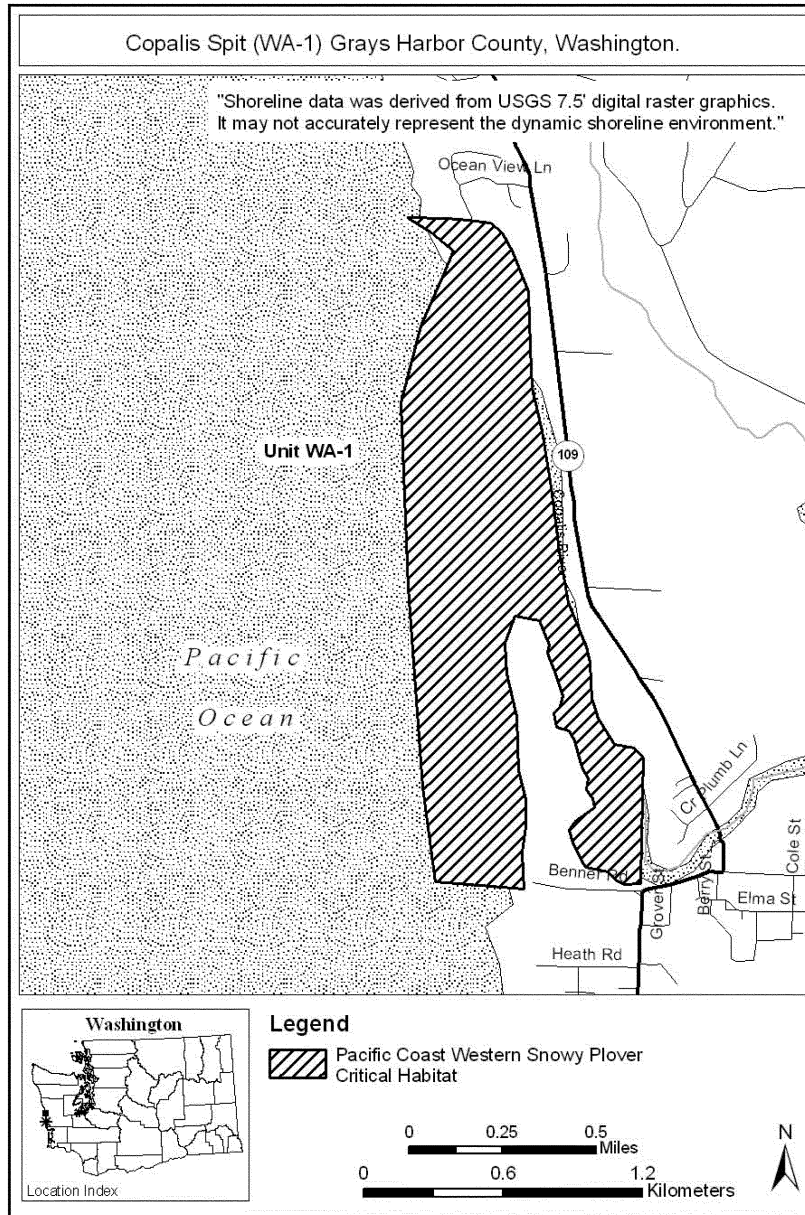
BILLING CODE 4310-55-P



(5) Unit WA 1: Copalis Spit, Grays Harbor County, Washington.

(i) [Reserved for textual description of Unit WA 1: Copalis Spit, Grays Harbor County, Washington]

(ii) **Note:** Map of Unit WA 1: Copalis Spit, Grays Harbor County, Washington, follows:



(7) Subunit WA 3A: Midway Beach, Pacific County, Washington.

(i) [Reserved for textual description of Subunit WA 3A: Midway Beach, Pacific County, Washington]

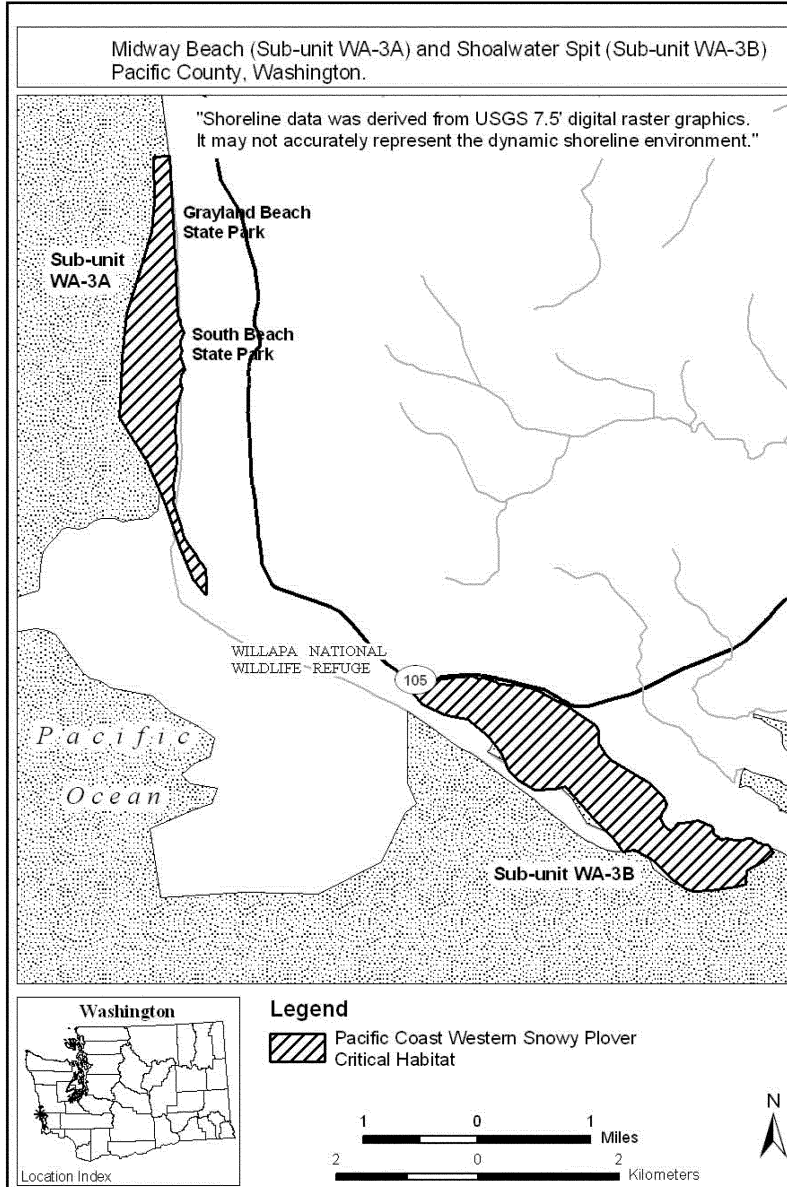
(ii) **Note:** Subunit WA 3A: Midway Beach, Pacific County, Washington, is

depicted on the map in paragraph (8)(ii) of this entry.

(8) Subunit WA 3B: Shoalwater/Graveyard, Pacific County, Washington.

(i) [Reserved for textual description of Subunit WA 3B: Shoalwater/Graveyard, Pacific County, Washington]

(ii) **Note:** Map of Subunits WA 3A Midway Beach and 3B Shoalwater/Graveyard, Pacific County, Washington, follows:



(9) Subunit WA 4A: Leadbetter Spit, Pacific County, Washington.

(i) [Reserved for textual description of Subunit WA 4A: Leadbetter Spit, Pacific County, Washington]

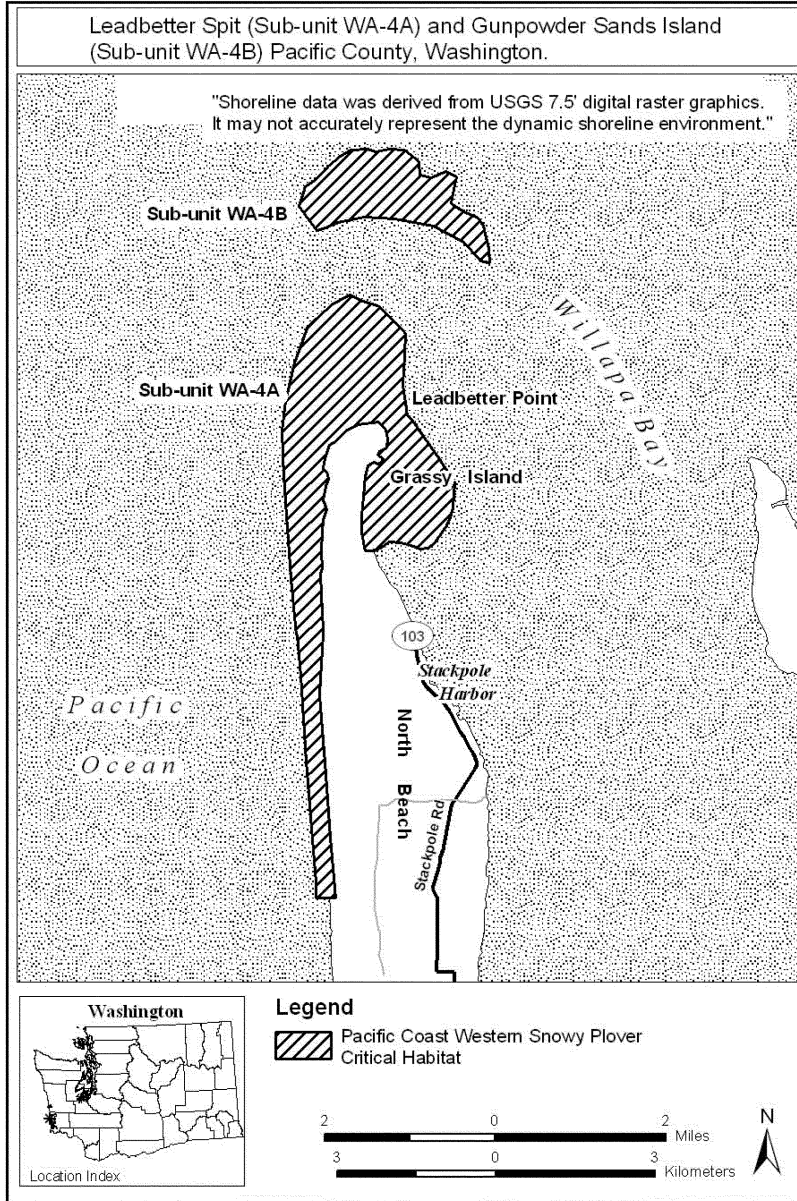
(ii) **Note:** Subunit WA 4A: Leadbetter Spit, Pacific County, Washington, is

depicted on the map in paragraph (10)(ii) of this entry.

(10) Subunit WA 4B: Gunpowder Sands Island, Pacific County, Washington.

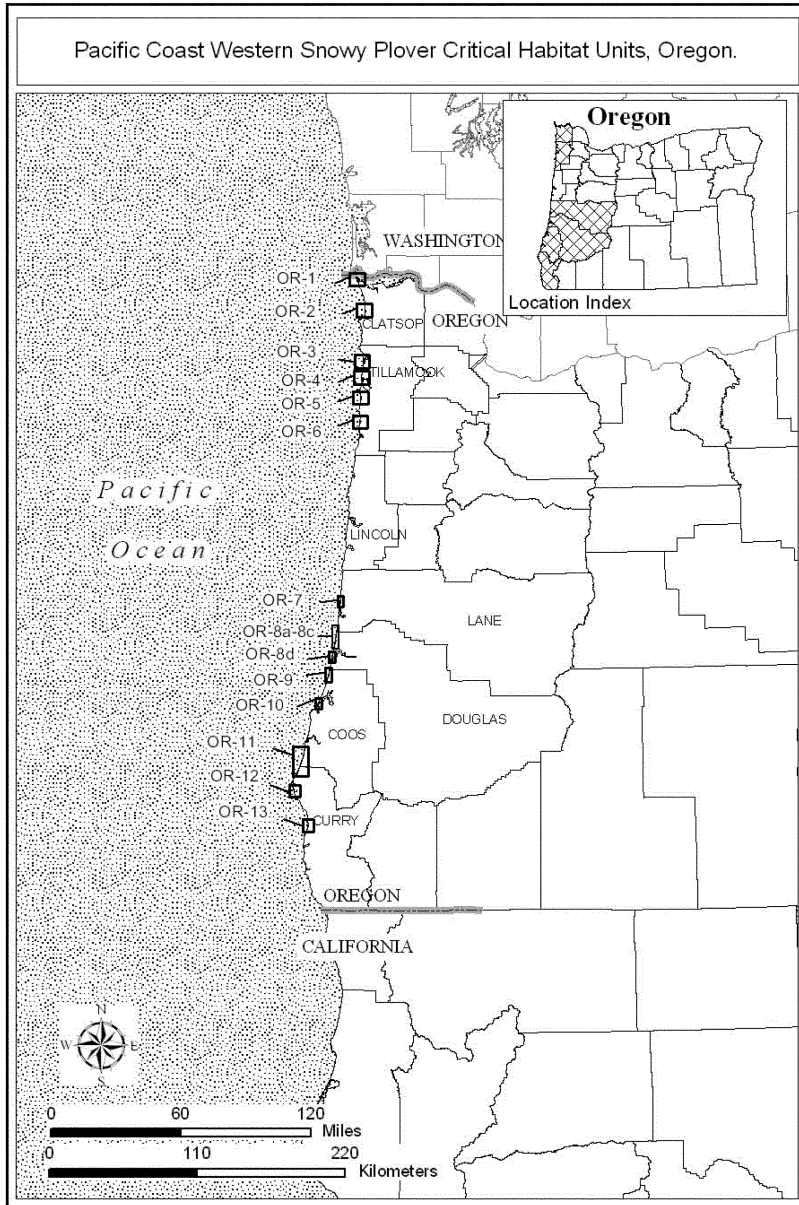
(i) [Reserved for textual description of Subunit WA 4B: Gunpowder Sands Island, Pacific County, Washington]

(ii) **Note:** Map of Subunits WA 4A: Leadbetter Spit and WA 4B: Gunpowder Sands Island, Pacific County, Washington, follows:



(11) **Note:** Index map of critical habitat units for the Pacific Coast western snowy plover (*Charadrius*

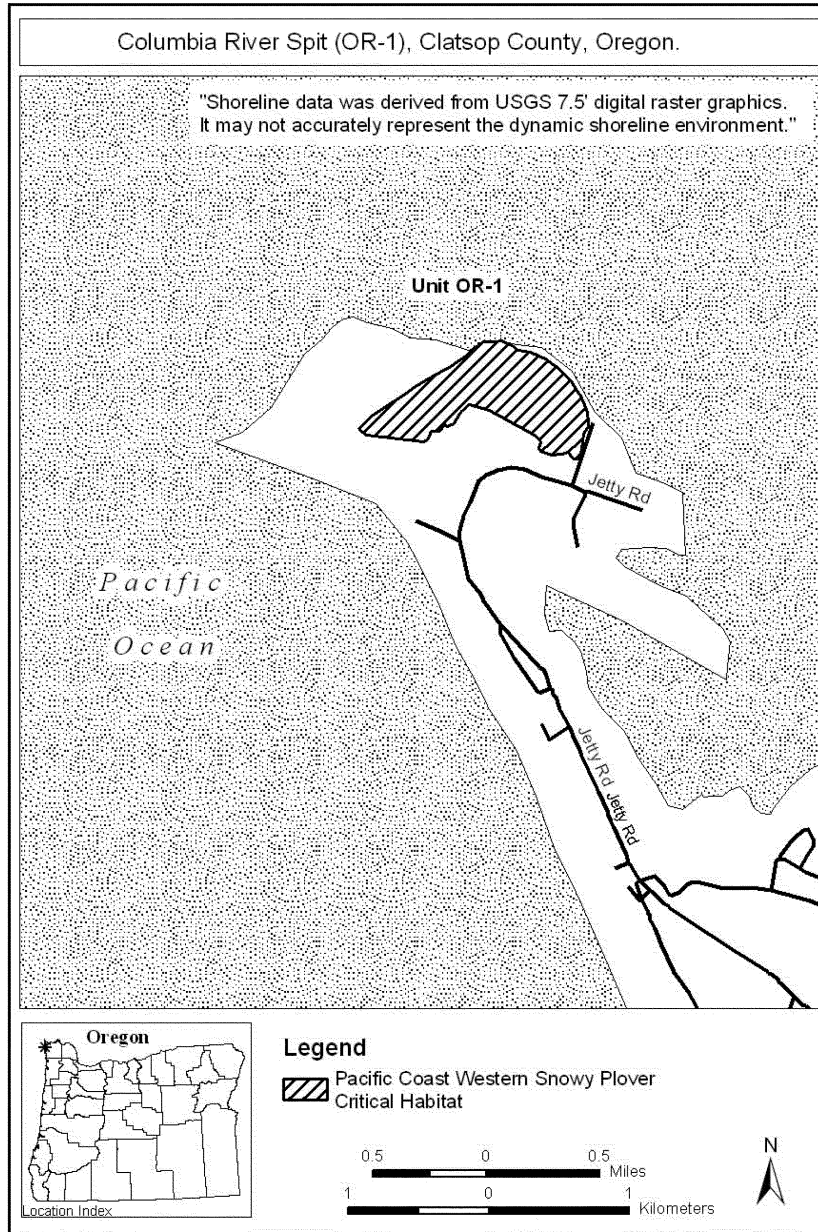
alexandrinus nivosus) in Oregon follows:



(12) Unit OR 1: Columbia River Spit, Clatsop County, Oregon.

(i) [Reserved for textual description of Unit OR 1: Columbia River Spit, Clatsop County, Oregon]

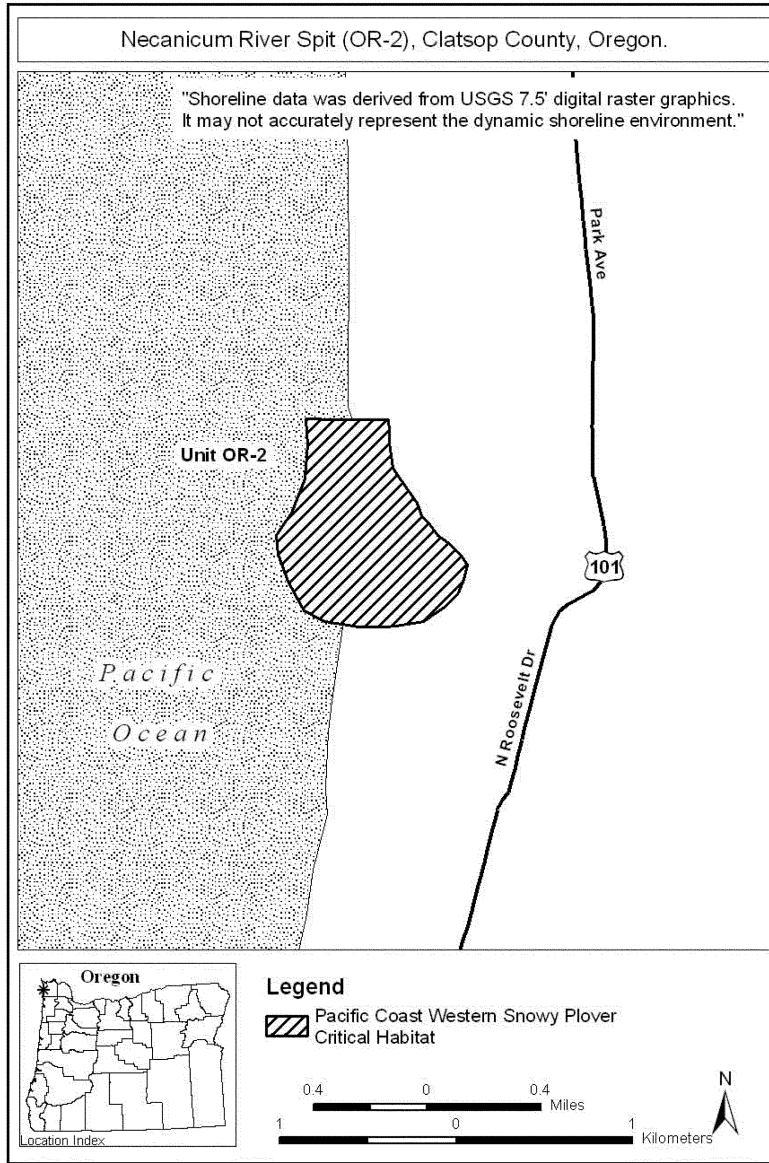
(ii) **Note:** Map of Unit OR 1: Columbia River Spit, Clatsop County, Oregon, follows:



(13) Unit OR 2: Necanicum River Spit, Clatsop County, Oregon.

(i) [Reserved for textual description of Unit OR 2: Necanicum River Spit, Clatsop County, Oregon]

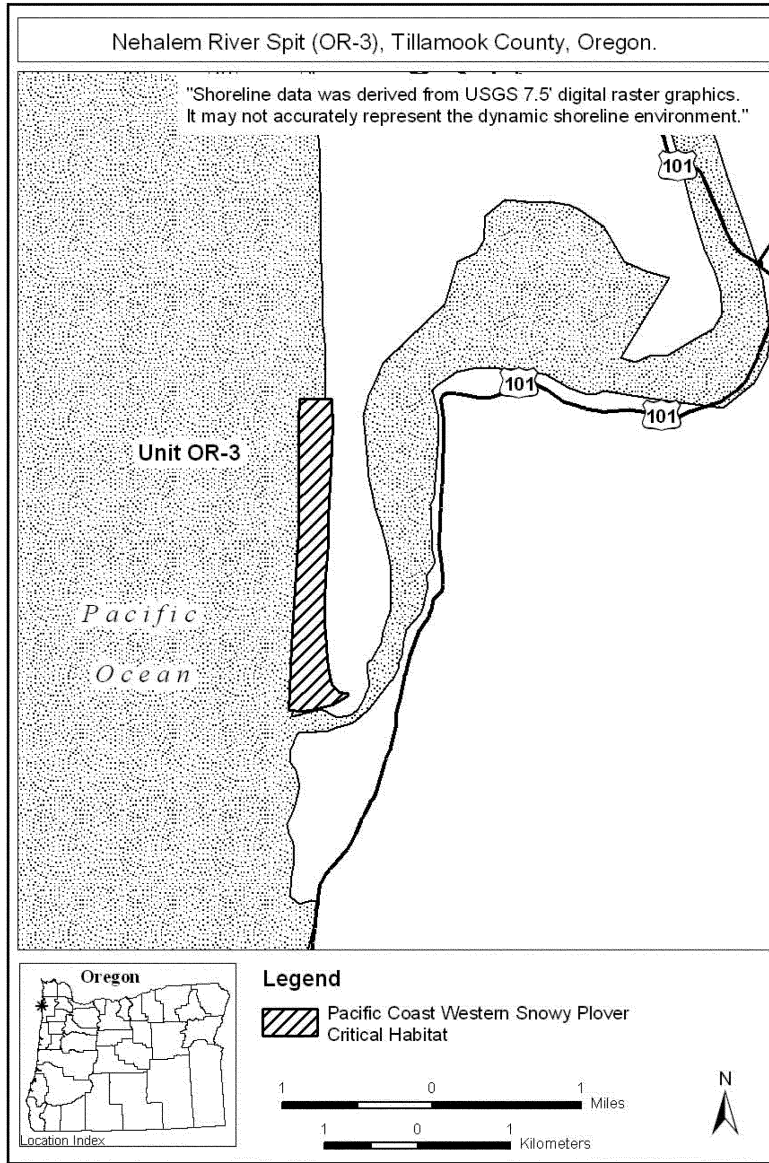
(ii) **Note:** Map of Unit OR 2: Necanicum River Spit, Clatsop County, Oregon, follows:



(14) Unit OR 3: Nehalem River Spit, Tillamook County, Oregon.

(i) [Reserved for textual description of Unit OR 3: Nehalem River Spit, Tillamook County, Oregon]

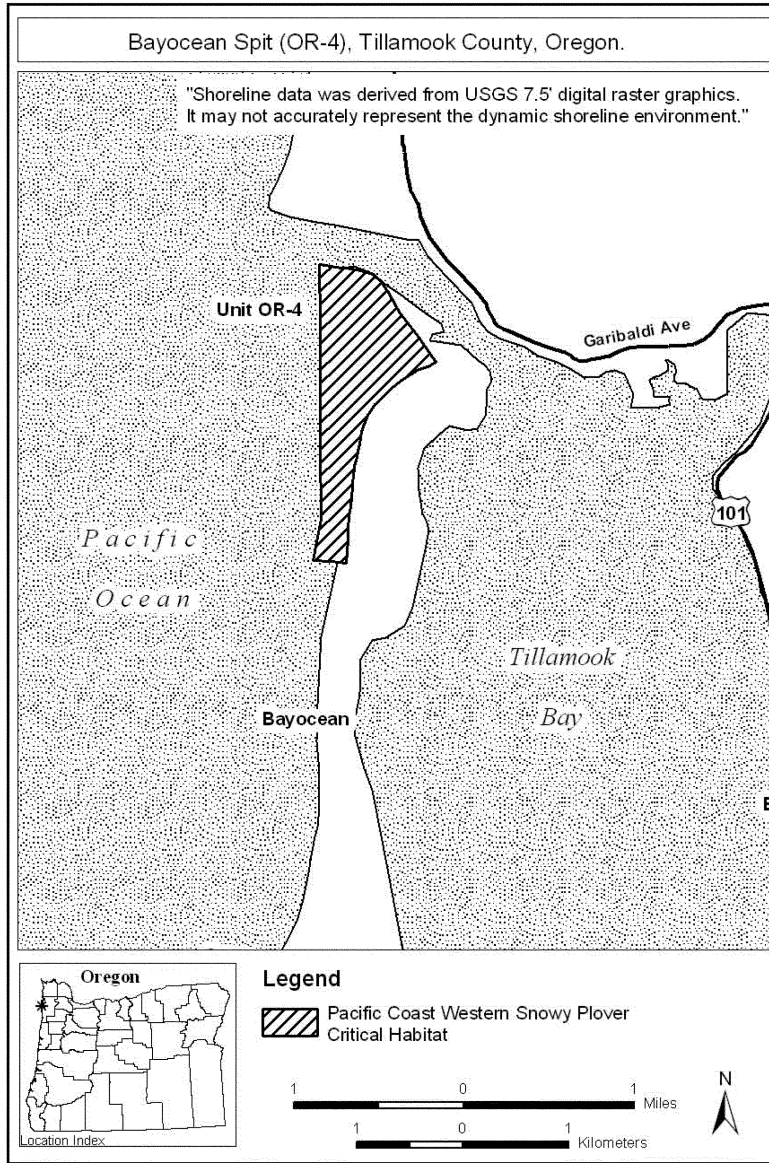
(ii) **Note:** Map of Unit OR 3: Nehalem River Spit, Tillamook County, Oregon, follows:



(15) Unit OR 4: Bayocean Spit, Tillamook County, Oregon.

(i) [Reserved for textual description of Unit OR 4: Bayocean Spit, Tillamook County, Oregon]

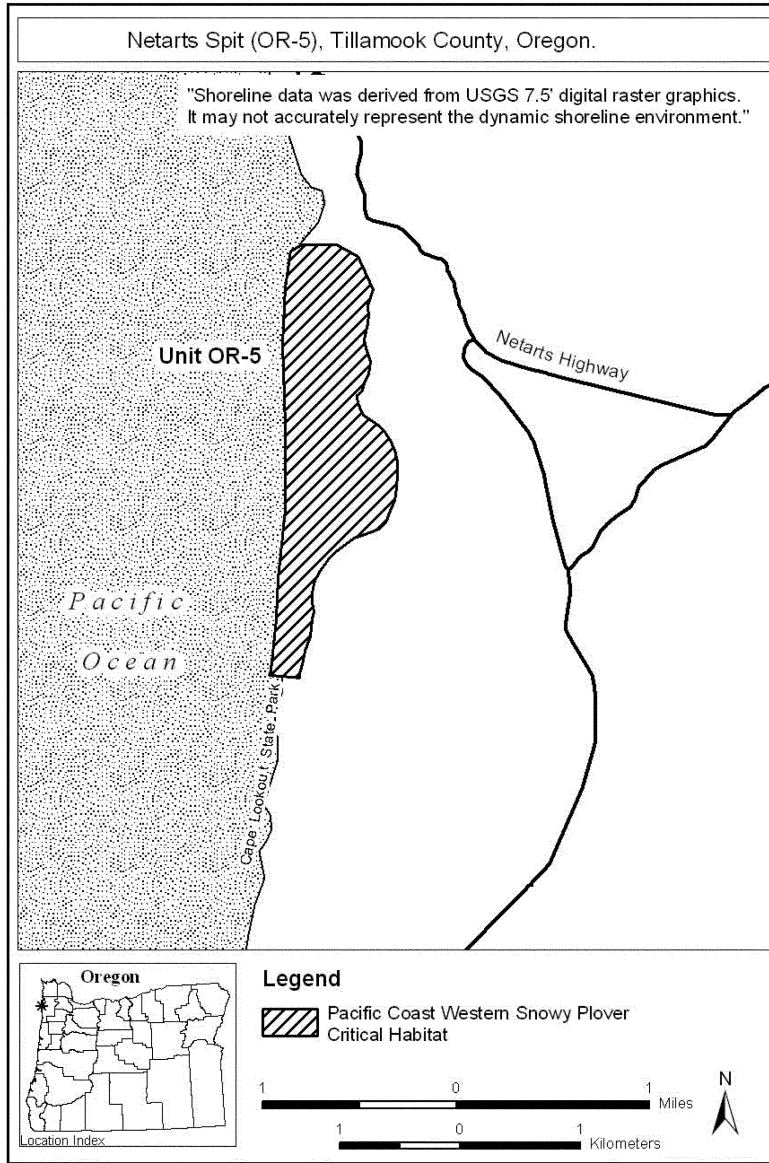
(ii) **Note:** Map of Unit OR 4: Bayocean Spit, Tillamook County, Oregon, follows:



(16) Unit OR 5: Netarts Spit, Tillamook County, Oregon.

(i) [Reserved for textual description of Unit OR 5: Netarts Spit, Tillamook County, Oregon]

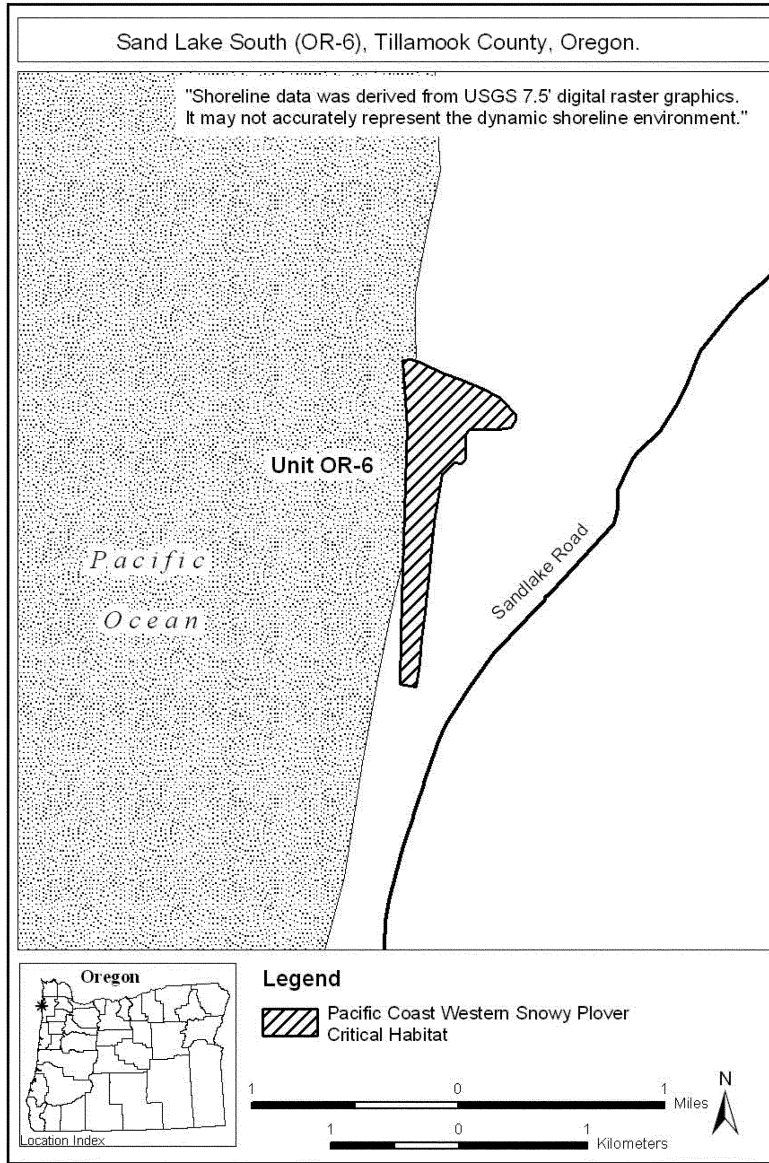
(ii) **Note:** Map of Unit OR 5: Netarts Spit, Tillamook County, Oregon, follows:



(17) Unit OR 6: Sand Lake South, Tillamook County, Oregon.

(i) [Reserved for textual description of Unit OR 6: Sand Lake South, Tillamook County, Oregon]

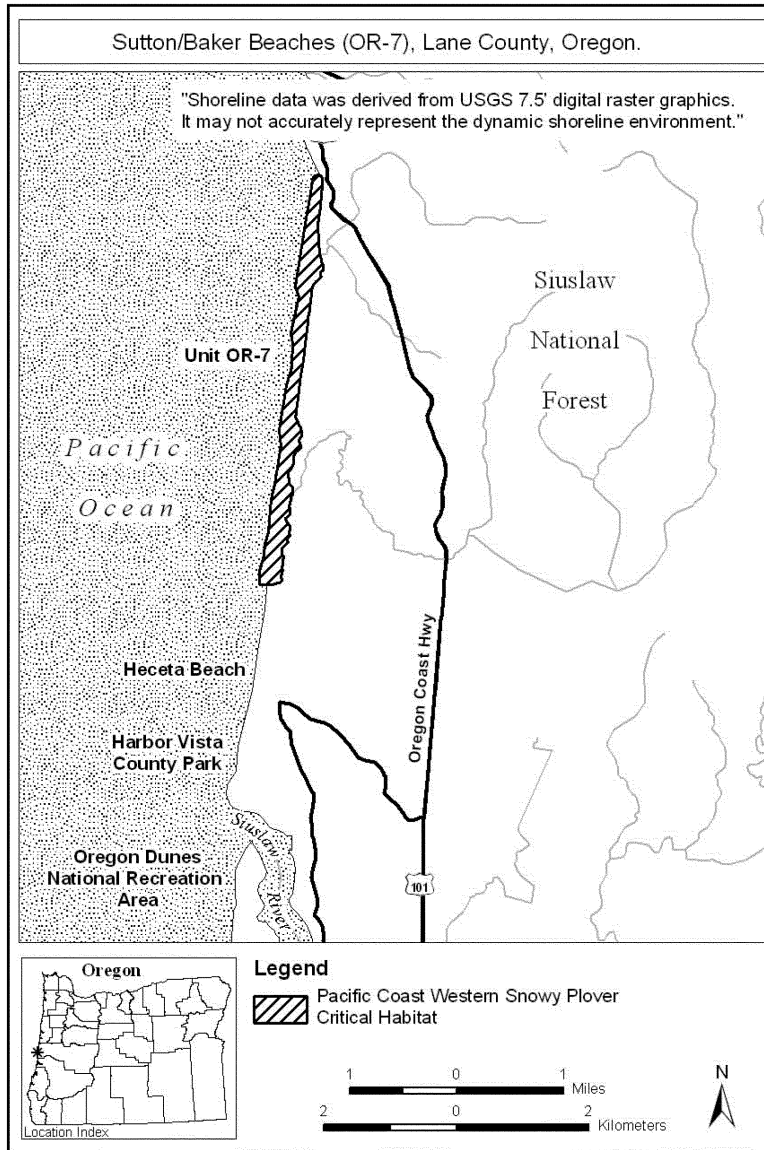
(ii) **Note:** Map of Unit OR 6: Sand Lake South, Tillamook County, Oregon, follows:



(18) Unit OR 7: Sutton/Baker Beaches, Lane County, Oregon.

(i) [Reserved for textual description of Unit OR 7: Sutton/Baker Beaches, Lane County, Oregon]

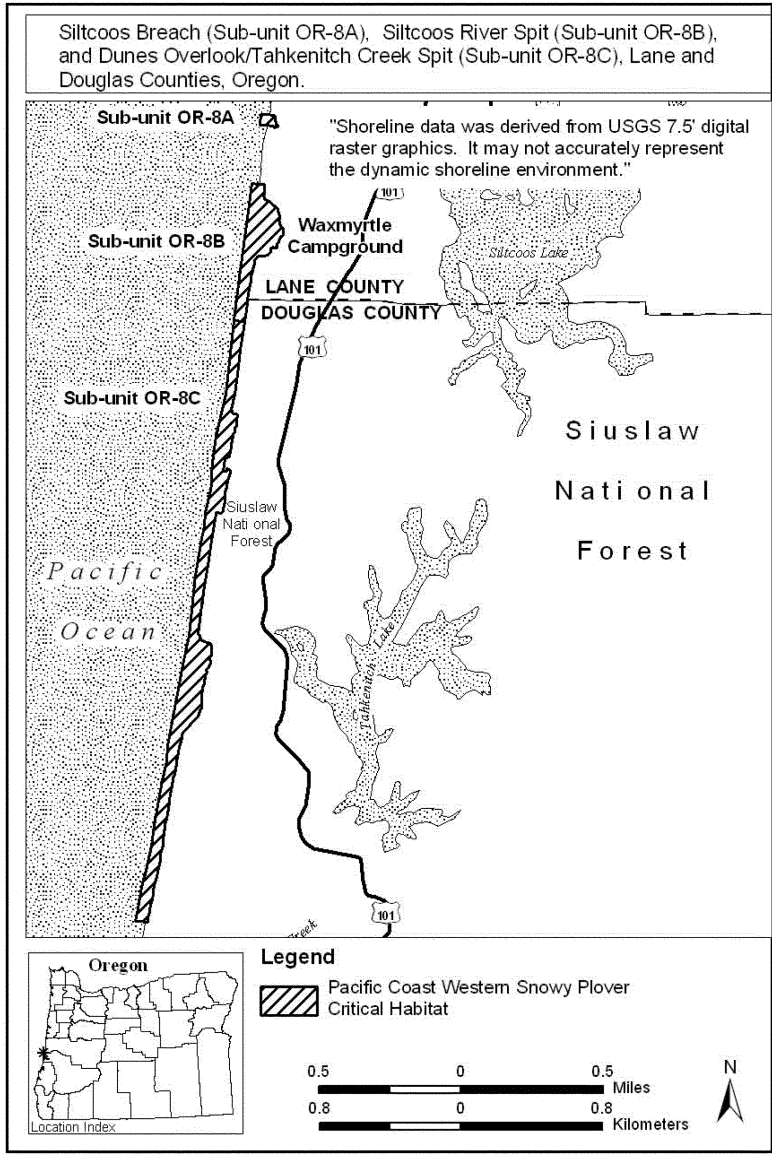
(ii) **Note:** Map of Unit OR 7: Sutton/Baker Beaches, Lane County, Oregon, follows:



(19) Subunit OR 8A: Siltcoos Breach, Lane County, Oregon.
 (i) [Reserved for textual description of Subunit OR 8A: Siltcoos Breach, Lane County, Oregon]
 (ii) **Note:** Subunit OR 8A: Siltcoos Breach, Lane County, Oregon, is depicted on the map in paragraph (21)(ii) of this entry.
 (20) Subunit OR 8B: Siltcoos River Spit, Lane County, Oregon.

(i) [Reserved for textual description of Subunit OR 8B: Siltcoos River Spit, Lane County, Oregon]
 (ii) **Note:** Subunit OR 8B: Siltcoos River Spit, Lane County, Oregon, is depicted on the map in paragraph (21)(ii) of this entry.
 (21) Subunit OR 8C: Dunes Overlook/Tahkenitch Creek Spit, Douglas County, Oregon.

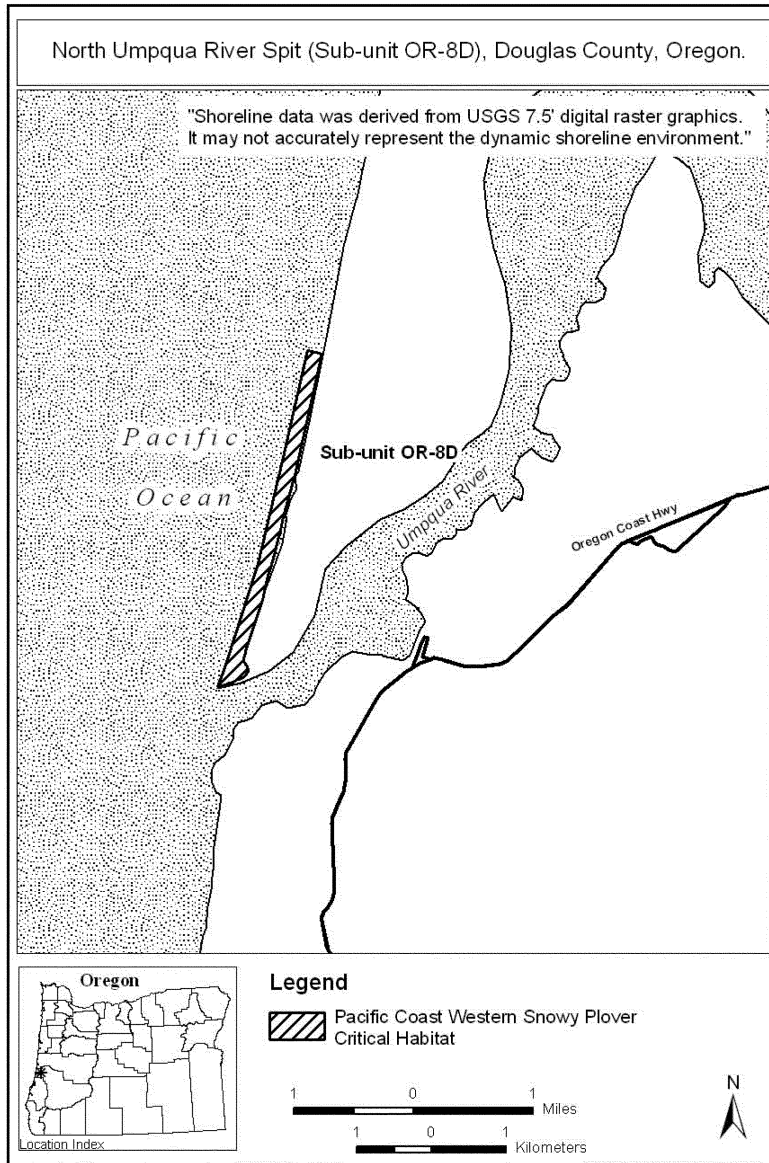
(i) [Reserved for textual description of Subunit OR 8C: Dunes Overlook/Tahkenitch Creek Spit, Douglas County, Oregon]
 (ii) **Note:** Map of Subunits OR 8A: Siltcoos Breach, OR 8B: Siltcoos River Spit, and OR 8C: Dunes Overlook/Tahkenitch Creek Spit, Douglas County, Oregon, follows:



(22) Subunit OR 8D: North Umpqua River Spit, Douglas County, Oregon.

(i) [Reserved for textual description of Subunit OR 8D: North Umpqua River Spit, Douglas County, Oregon]

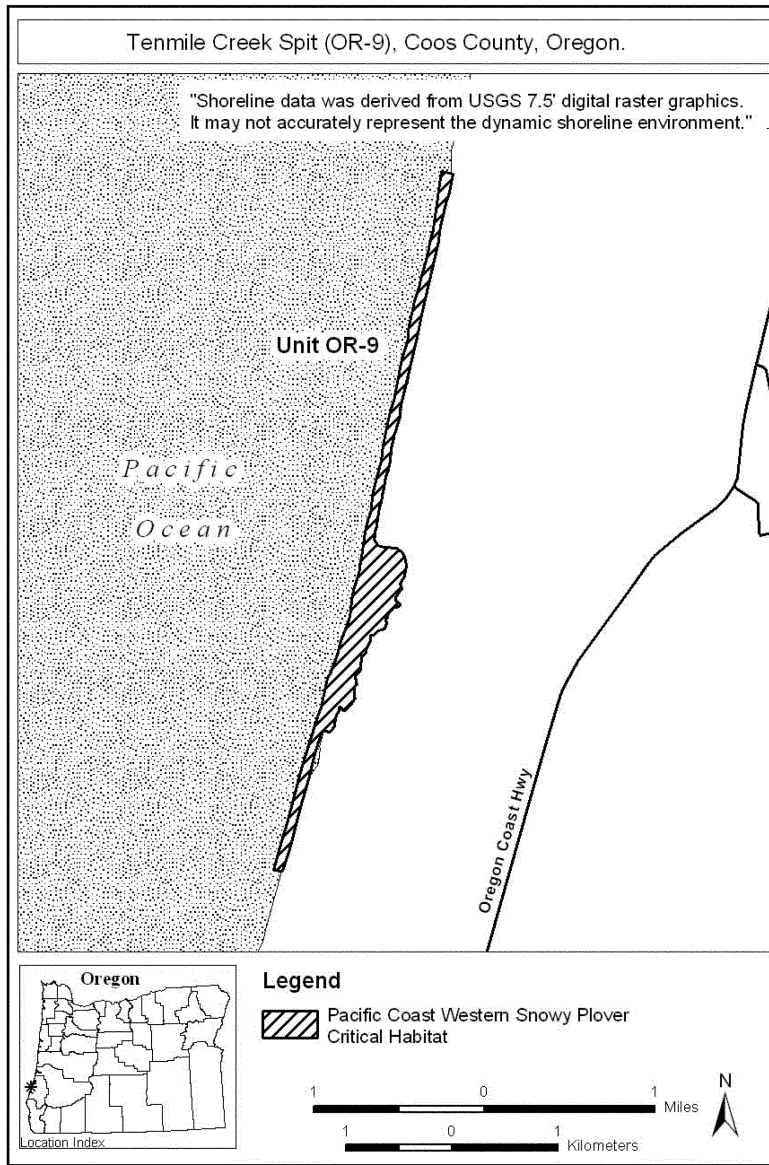
(ii) **Note:** Map of Subunit OR 8D: North Umpqua River Spit, Douglas County, Oregon, follows:



(23) Unit OR 9: Ten Mile Creek Spit, Coos County, Oregon.

(i) [Reserved for textual description of Unit OR 9: Ten Mile Creek Spit, Coos County, Oregon]

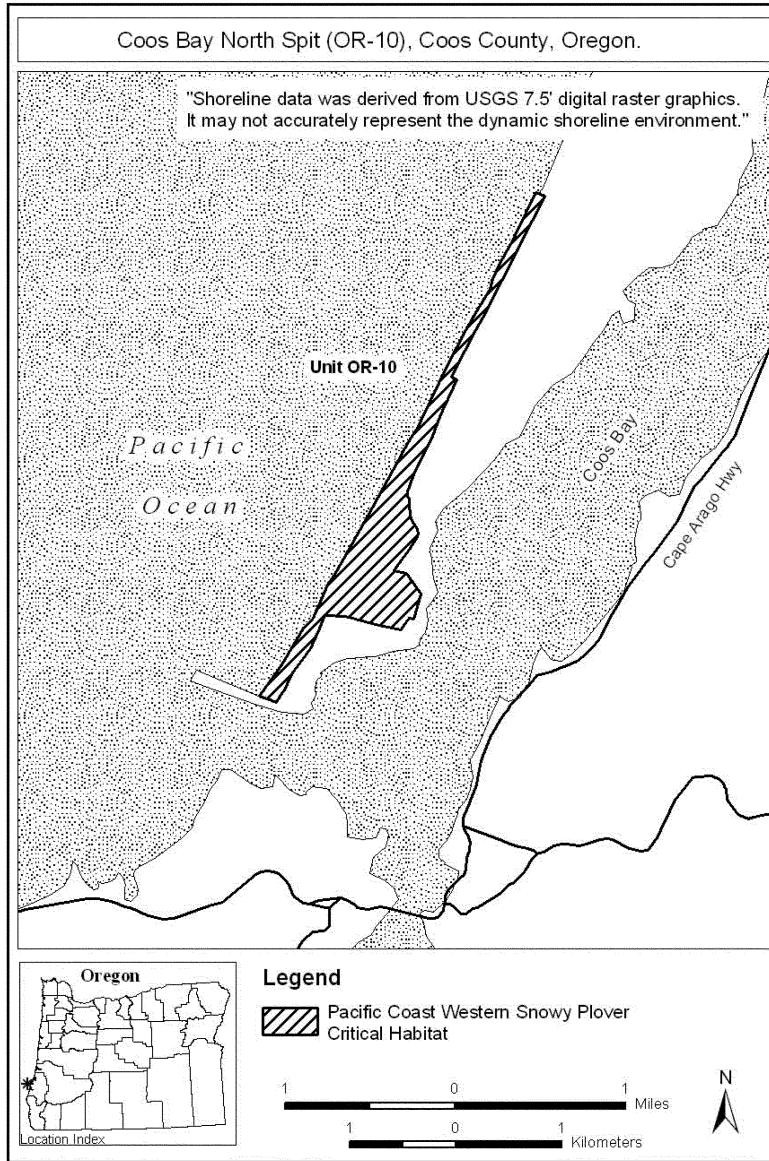
(ii) **Note:** Map of Unit OR 9: Ten Mile Creek Spit, Coos County, Oregon, follows:



(24) Unit OR 10: Coos Bay North Spit, Coos County, Oregon.

(i) [Reserved for textual description of Unit OR 10: Coos Bay North Spit, Coos County, Oregon]

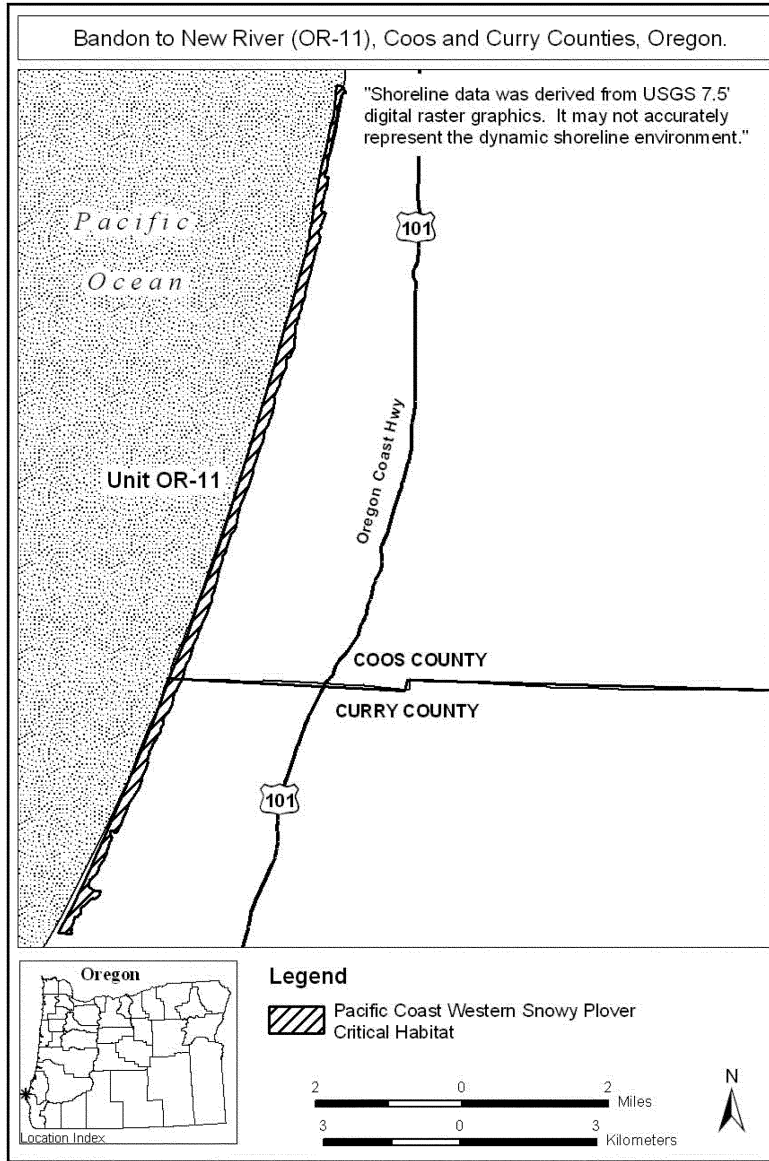
(ii) **Note:** Map of Unit OR 10: Coos Bay North Spit, Coos County, Oregon, follows:



(25) Unit OR 11 Bandon to New River, Coos County, Oregon.

(i) [Reserved for textual description of Unit OR 11 Bandon to New River, Coos County, Oregon]

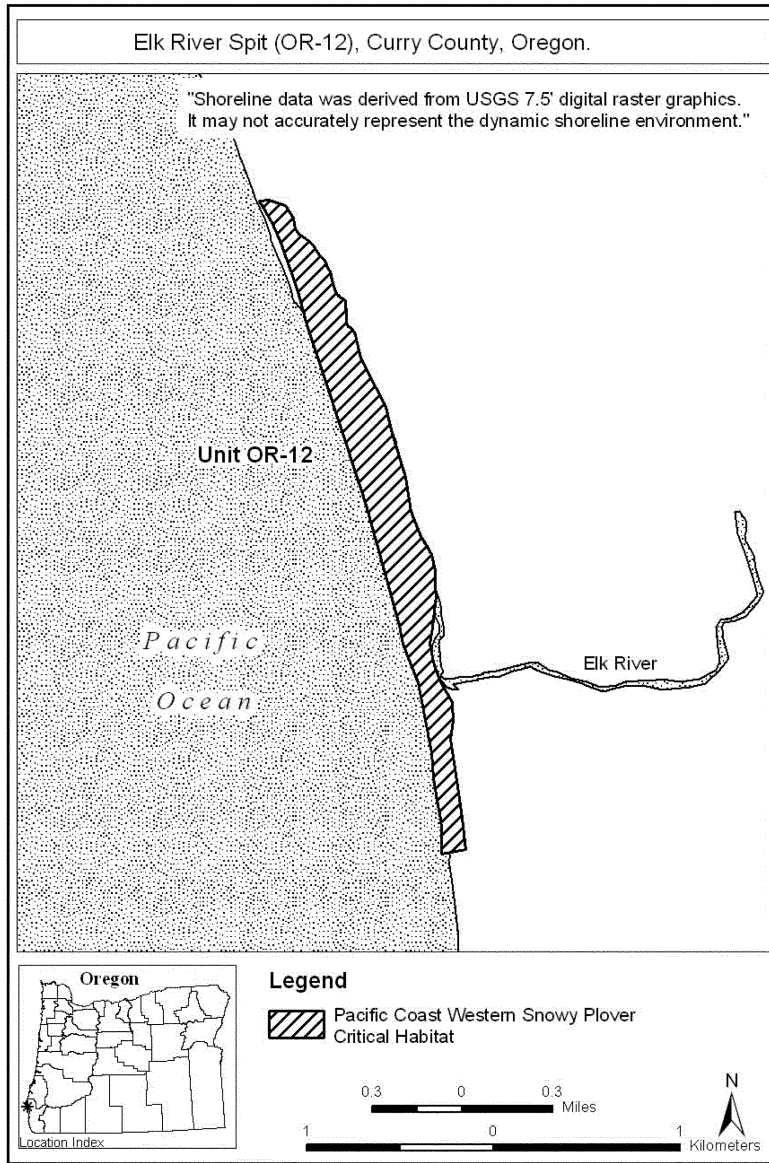
(ii) **Note:** Map of Unit OR 11 Bandon to New River, Coos County, Oregon, follows:



(26) Unit OR 12: Elk River Spit, Curry County, Oregon.

(i) [Reserved for textual description of Unit OR 12: Elk River Spit, Curry County, Oregon]

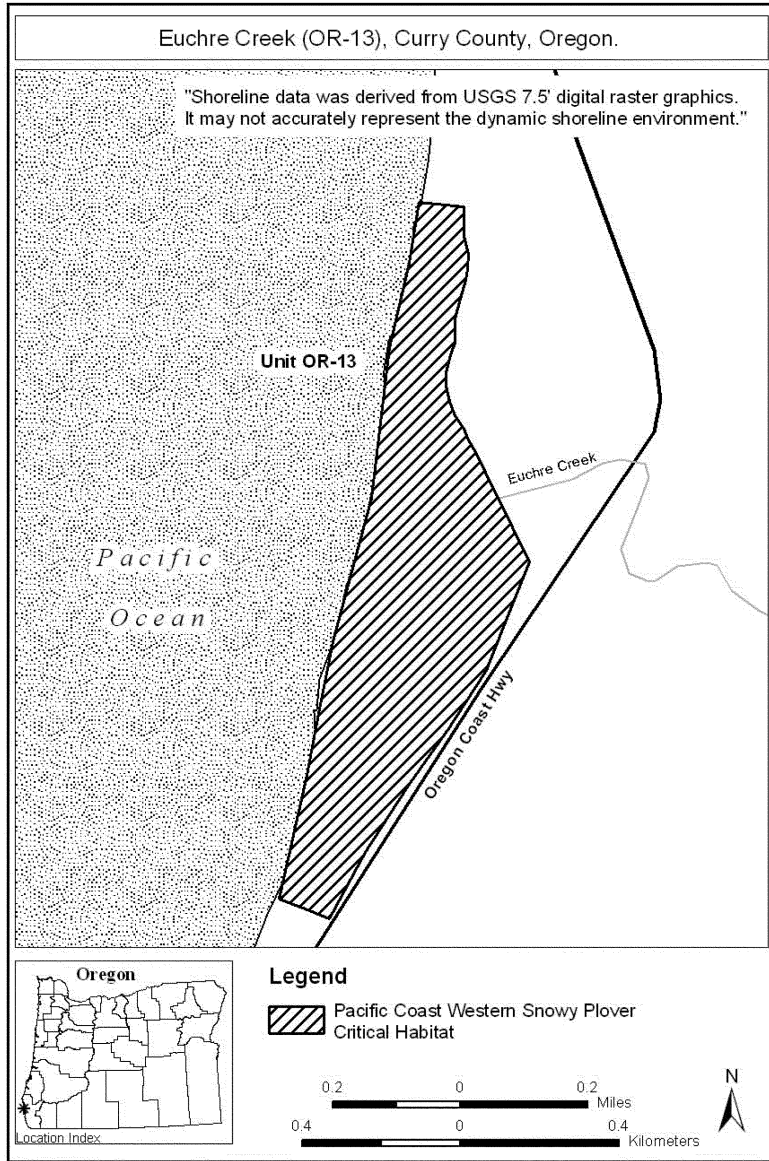
(ii) **Note:** Map of Unit OR 12: Elk River Spit, Curry County, Oregon, follows:



(27) Unit OR 13: Euchre Creek, Curry County, Oregon.

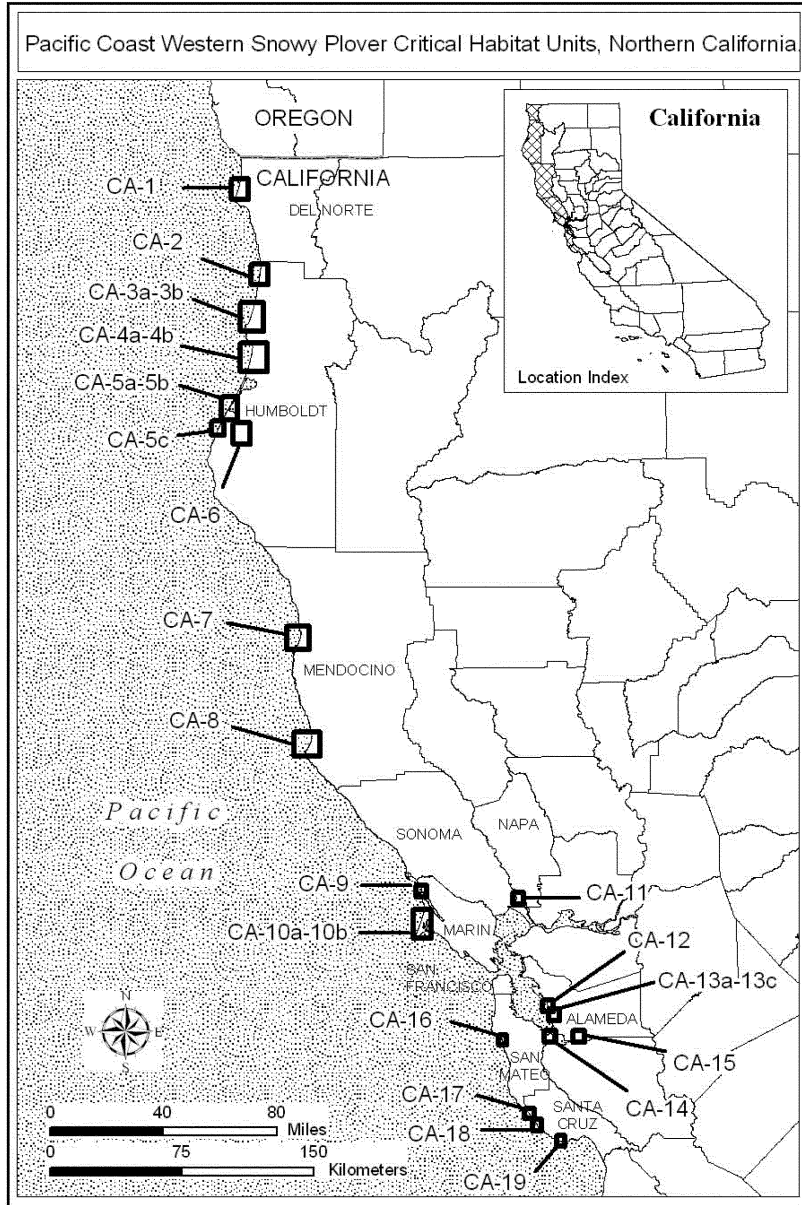
(i) [Reserved for textual description of Unit OR 13: Euchre Creek, Curry County, Oregon]

(ii) **Note:** Map of Unit OR 13: Euchre Creek, Curry County, Oregon, follows:



(28) **Note:** Index map of critical habitat units for the Pacific Coast western snowy plover (*Charadrius*

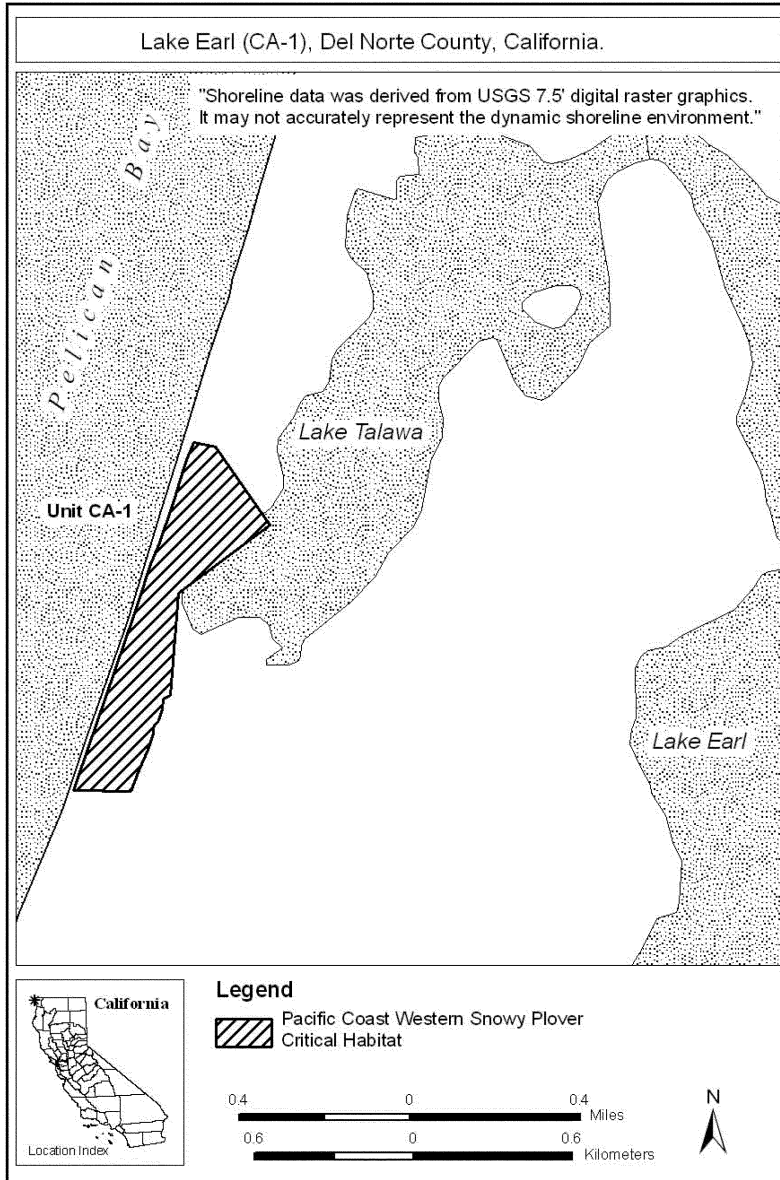
alexandrinus nivosus) in Northern California, follows:



(29) Unit CA 1: Lake Earl, Del Norte County, California.

(i) [Reserved for textual description of Unit CA 1: Lake Earl, Del Norte County, California]

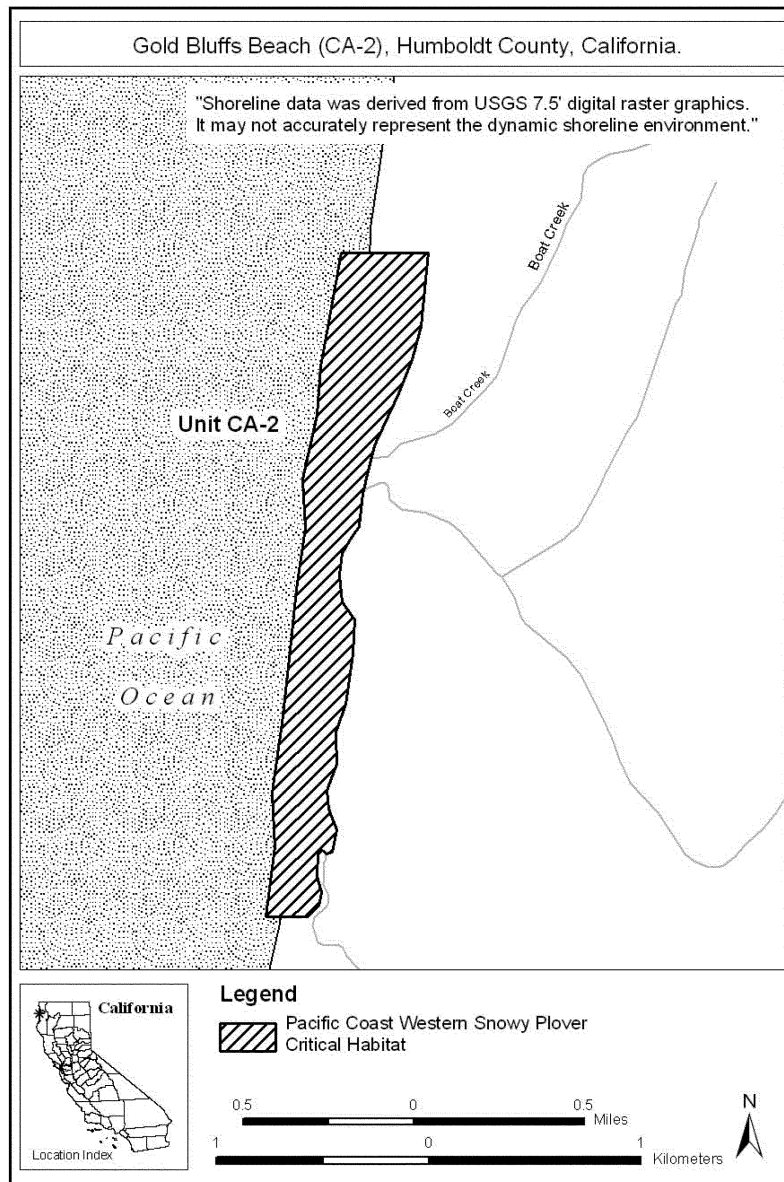
(ii) **Note:** Map of Unit CA 1: Lake Earl, Del Norte County, California, follows:



(30) Unit CA 2: Gold Bluffs Beach, Humboldt County, California.

(i) [Reserved for textual description of Unit CA 2: Gold Bluffs Beach, Humboldt County, California]

(ii) **Note:** Map of Unit CA 2: Gold Bluffs Beach, Humboldt County, California, follows:



(31) Subunit CA 3A: Humboldt Lagoons—Stone Lagoon, Humboldt County, California.

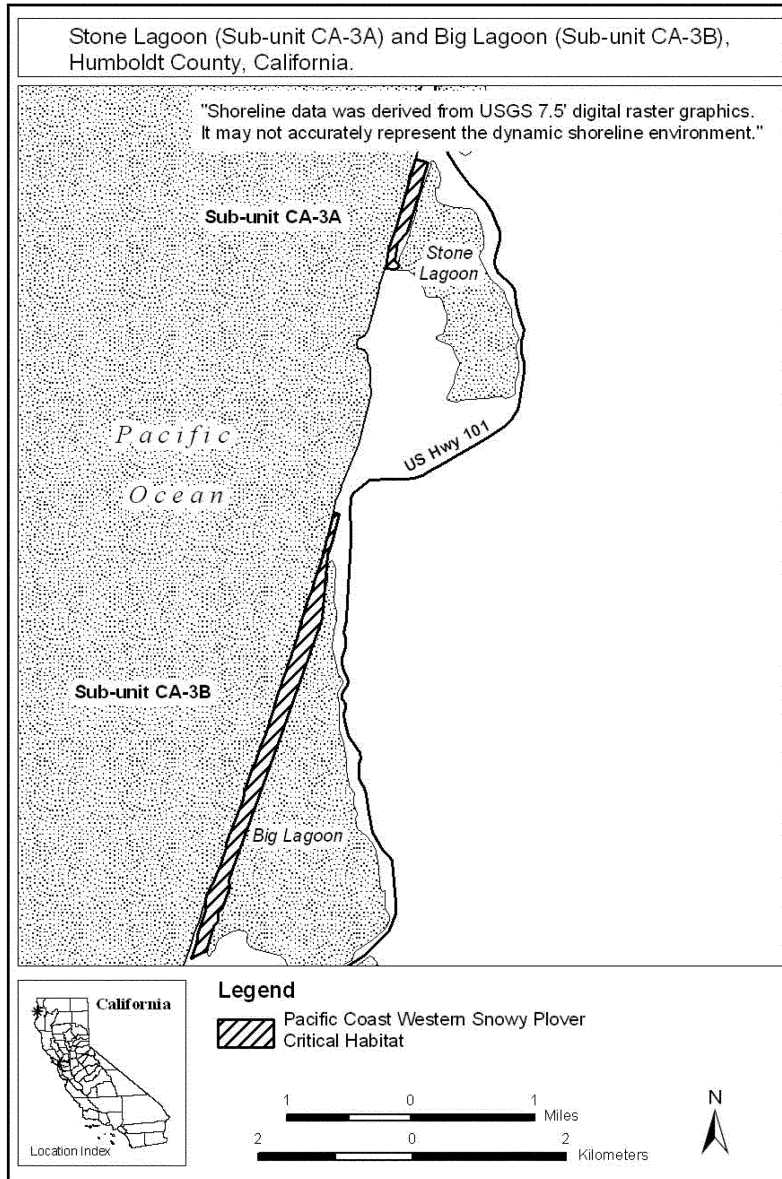
(i) [Reserved for textual description of Subunit CA 3A: Humboldt Lagoons—Stone Lagoon, Humboldt County, California]

(ii) **Note:** Subunit CA 3A: Humboldt Lagoons—Stone Lagoon, Humboldt County, California is depicted on the map in paragraph (32)(ii) of this entry.

(32) Subunit CA 3B: Humboldt Lagoons—Big Lagoon, Humboldt County, California.

(i) [Reserved for textual description of Subunit CA 3B: Humboldt Lagoons—Big Lagoon, Humboldt County, California]

(ii) **Note:** Map of Subunits CA 3A Humboldt Lagoons—Stone Lagoon and CA 3B: Humboldt Lagoons—Big Lagoon, Humboldt County, California, follows:



(33) Subunit CA 4A: Clam Beach/Little River, Humboldt County, California.

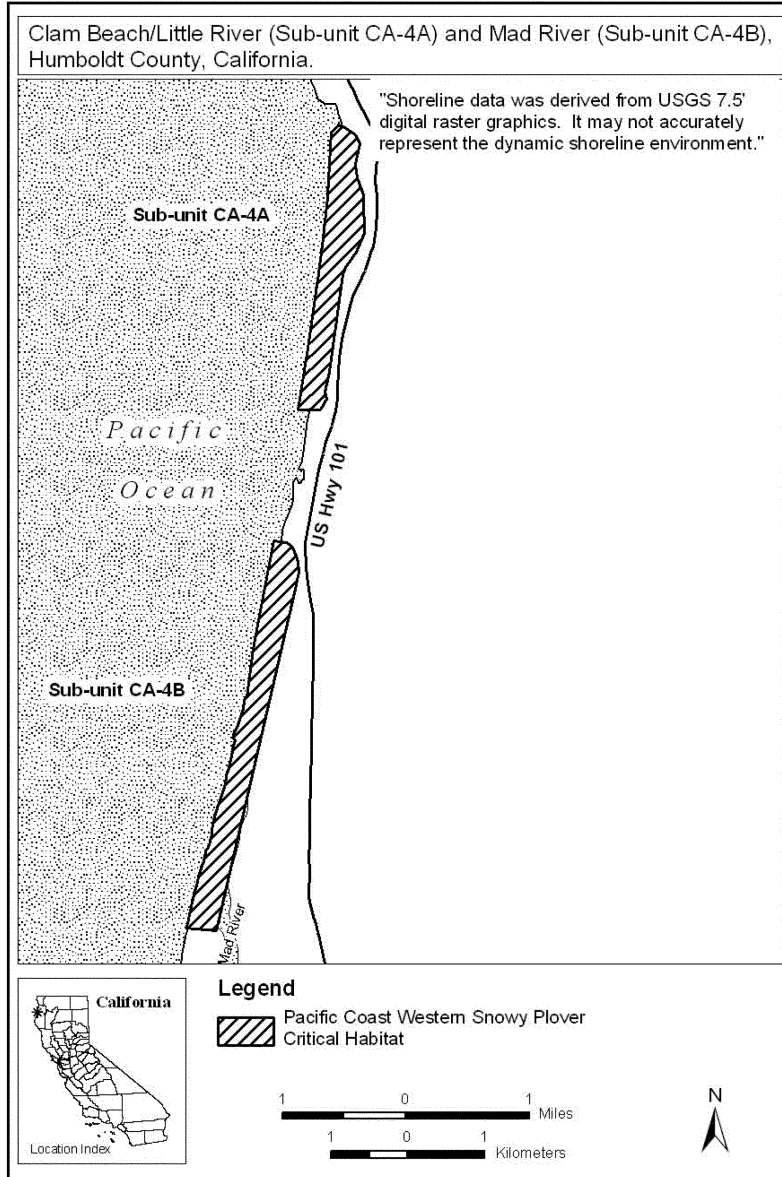
(i) [Reserved for textual description of Subunit CA 4A: Clam Beach/Little River, Humboldt County, California]

(ii) **Note:** Subunit CA 4A: Clam Beach/Little River, Humboldt County, California is depicted on the map in paragraph (34)(ii) of this entry:

(34) Subunit CA 4B: Mad River, Humboldt County, California.

(i) [Reserved for textual description of Subunit CA 4B: Mad River, Humboldt County, California]

(ii) **Note:** Map of Subunits CA 4A: Clam Beach/Little River and CA 4B: Mad River, Humboldt County, California, follows:



(35) Subunit CA 5A: Humboldt Bay South Spit, Humboldt County, California.

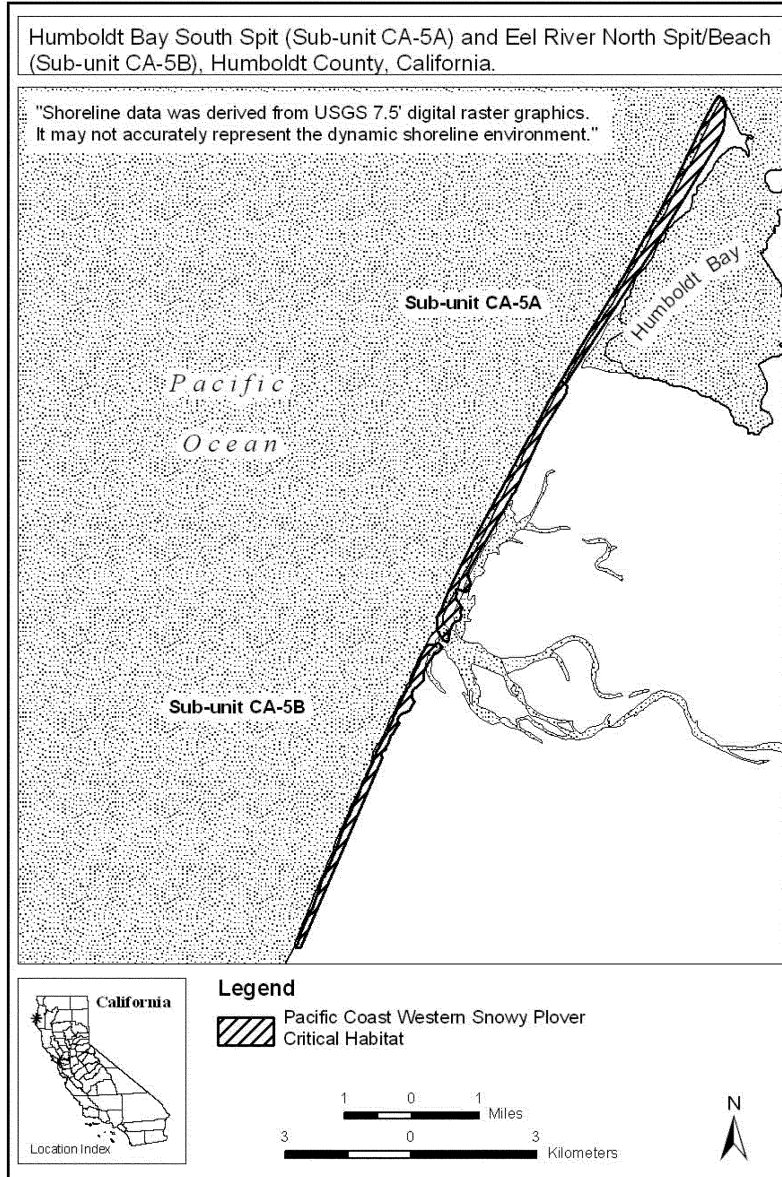
(i) [Reserved for textual description of Subunit CA 5A: Humboldt Bay South Spit, Humboldt County, California]

(ii) **Note:** Subunit CA 5A: Humboldt Bay South Spit, Humboldt County, California, is depicted on the map in paragraph (36)(ii) of this entry.

(36) Subunit CA 5B: Eel River North Spit/Beach, Humboldt County, California.

(i) [Reserved for textual description of Subunit CA 5B: Eel River North Spit/Beach, Humboldt County, California]

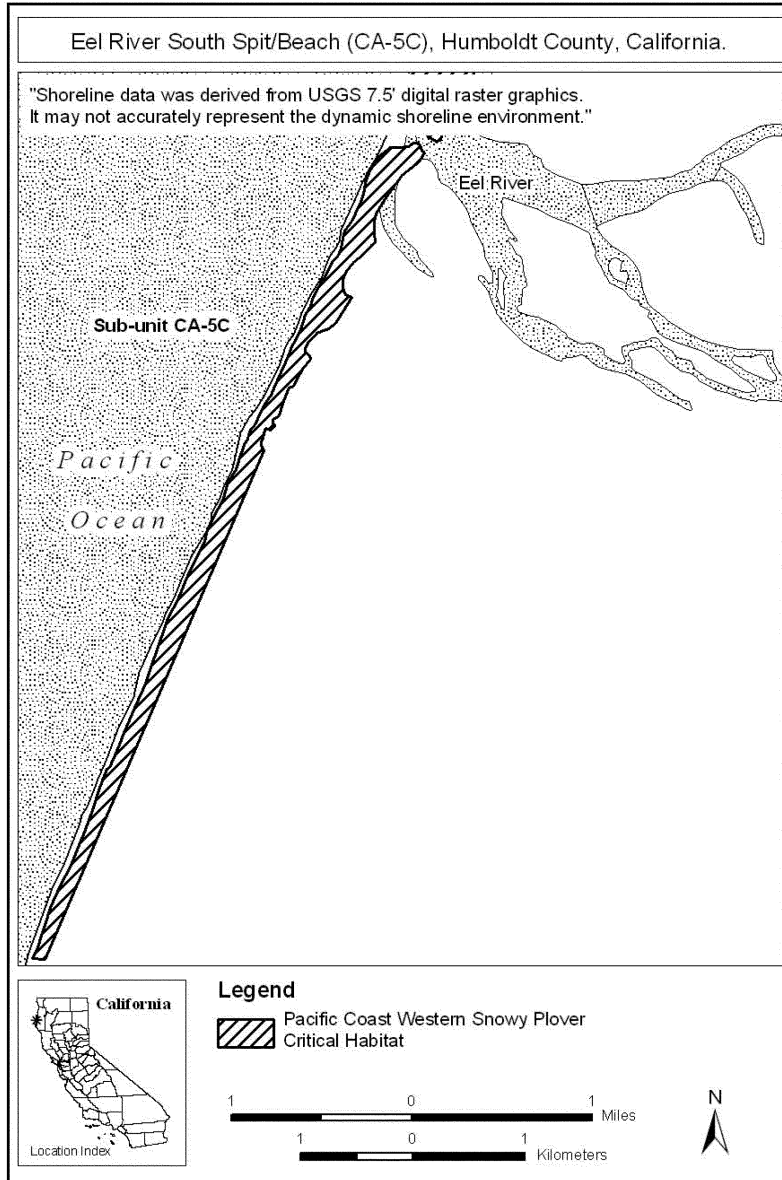
(ii) **Note:** Map of Subunit CA 5A: Humboldt Bay South Spit and CA 5B: Eel River North Spit/Beach, Humboldt County, California, follows:



(37) Subunit CA 5C: Eel River South Spit/Beach, Humboldt County, California.

(i) [Reserved for textual description of Subunit CA 5C: Eel River South Spit/Beach, Humboldt County, California]

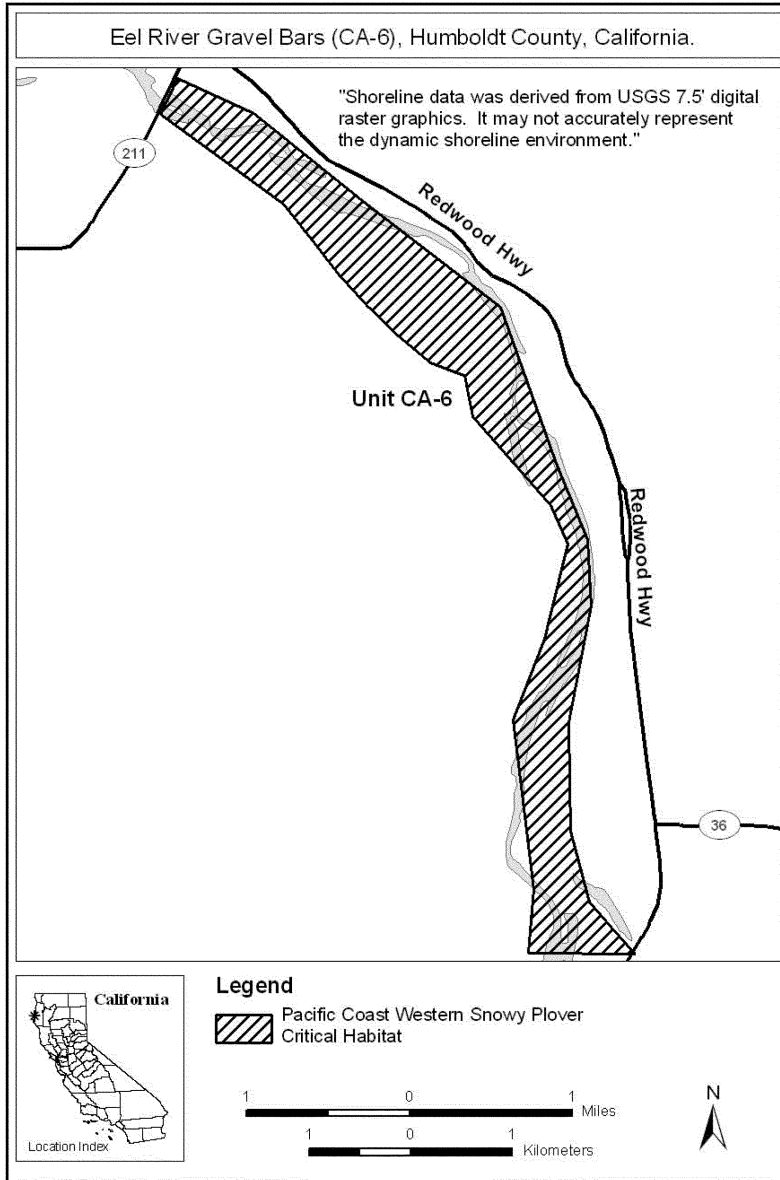
(ii) **Note:** Map of Subunit CA 5C: Eel River South Spit/Beach, Humboldt County, California, follows:



(38) Unit CA 6: Eel River Gravel Bars, Humboldt County, California.

(i) [Reserved for textual description of Unit CA 6: Eel River Gravel Bars, Humboldt County, California]

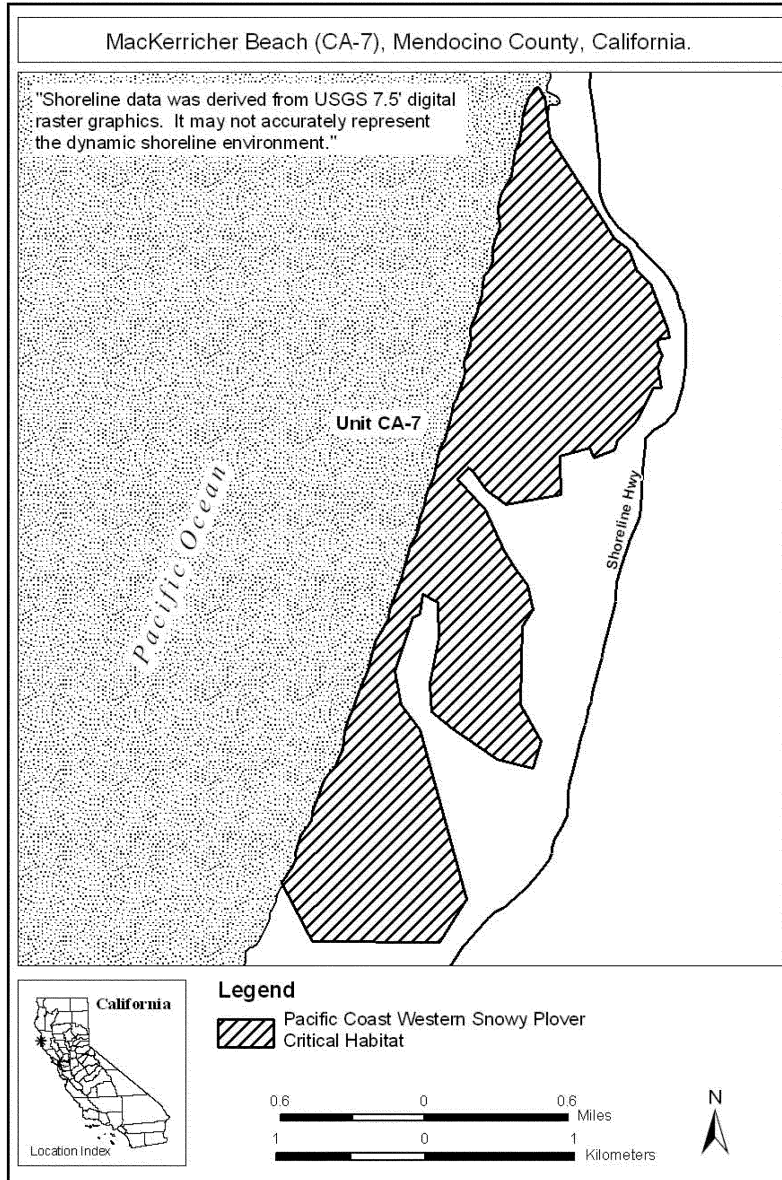
(ii) **Note:** Map of Unit CA 6: Eel River Gravel Bars, Humboldt County, California, follows:



(39) Unit CA 7: MacKerricher Beach, Mendocino County, California.

(i) [Reserved for textual description of Unit CA 7: MacKerricher Beach, Mendocino County, California]

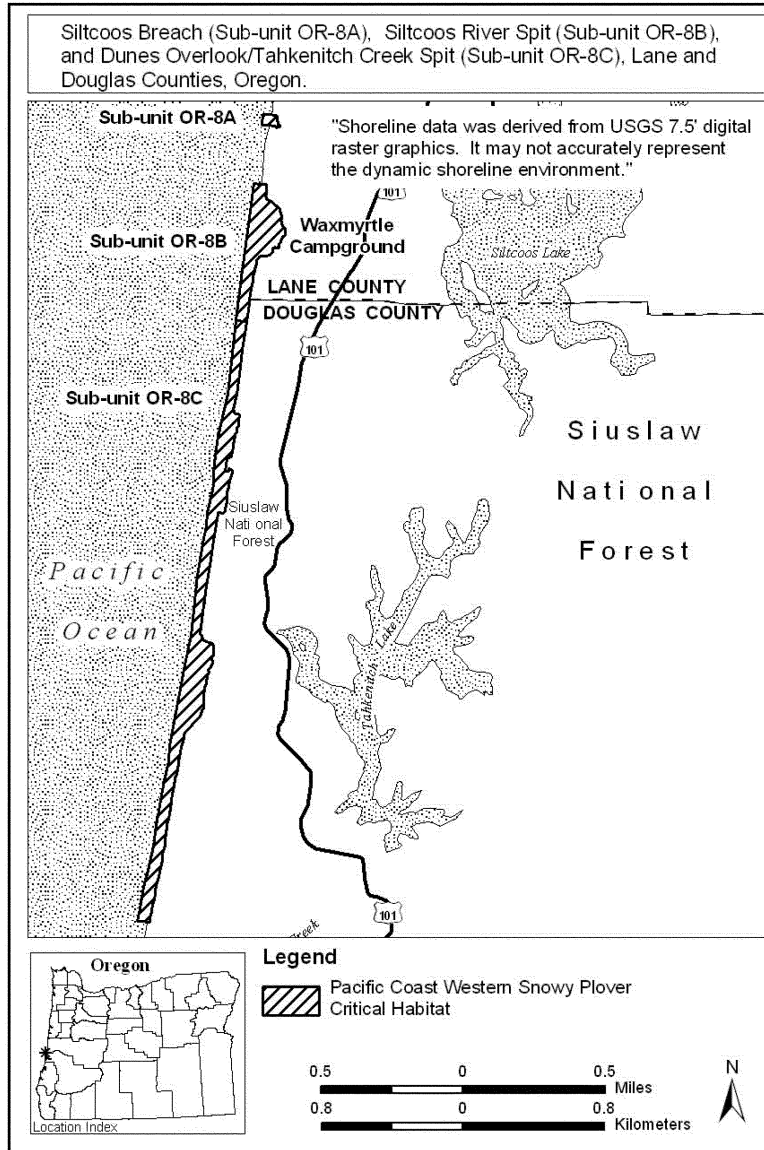
(ii) **Note:** Map of Unit CA 7: MacKerricher Beach, Mendocino County, California, follows:



(40) Unit CA 8: Manchester Beach, Mendocino County, California.

(i) [Reserved for textual description of Unit CA 8: Manchester Beach, Mendocino County, California]

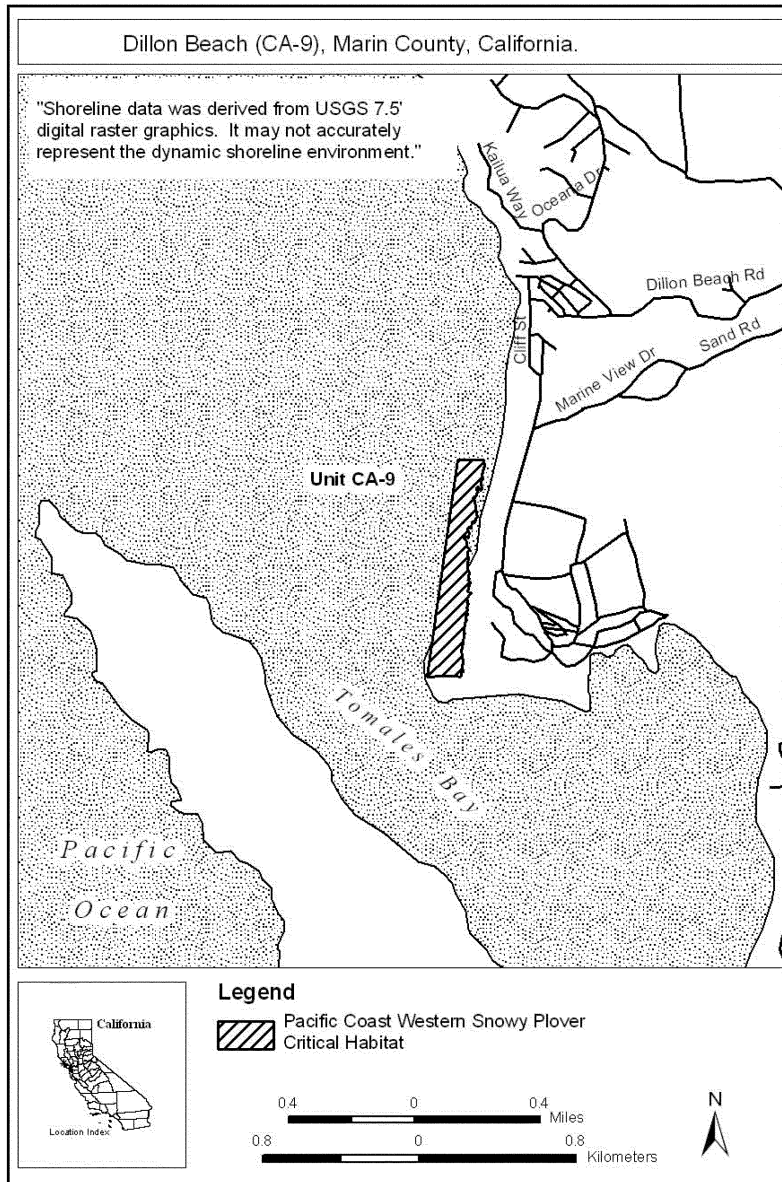
(ii) **Note:** Map of Unit CA 8: Manchester Beach, Mendocino County, California, follows:



(41) Unit CA 9: Dillon Beach, Marin County, California.

(i) [Reserved for textual description of Unit CA 9: Dillon Beach, Marin County, California]

(ii) **Note:** Map of Unit CA 9: Dillon Beach, Marin County, California, follows:



(42) Subunit CA 10A: Point Reyes, Marin County, California.

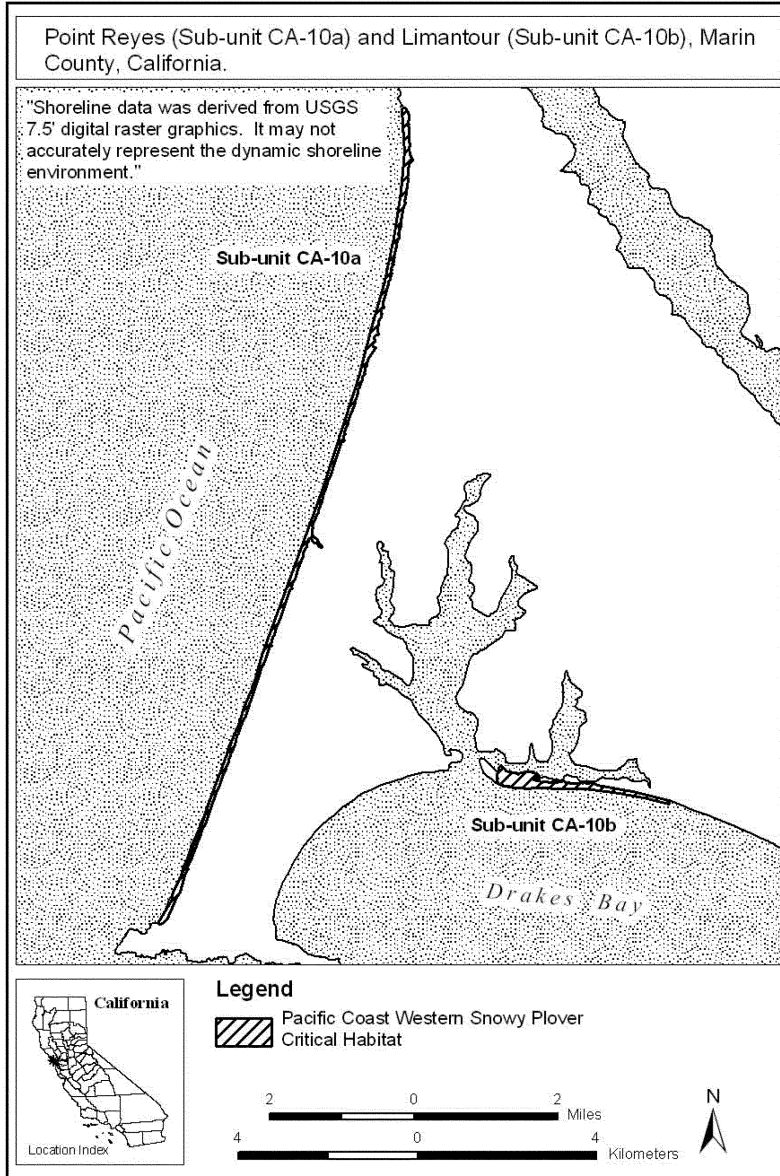
(i) [Reserved for textual description of Subunit CA 10A: Point Reyes, Marin County, California]

(ii) **Note:** Subunit CA 10A: Point Reyes, Marin County, California, is depicted on the map in paragraph (43)(ii) of this entry.

(43) Subunit CA 10B: Limantour, Marin County, California.

(i) [Reserved for textual description of Subunit CA 10B: Limantour, Point Reyes, Marin County, California]

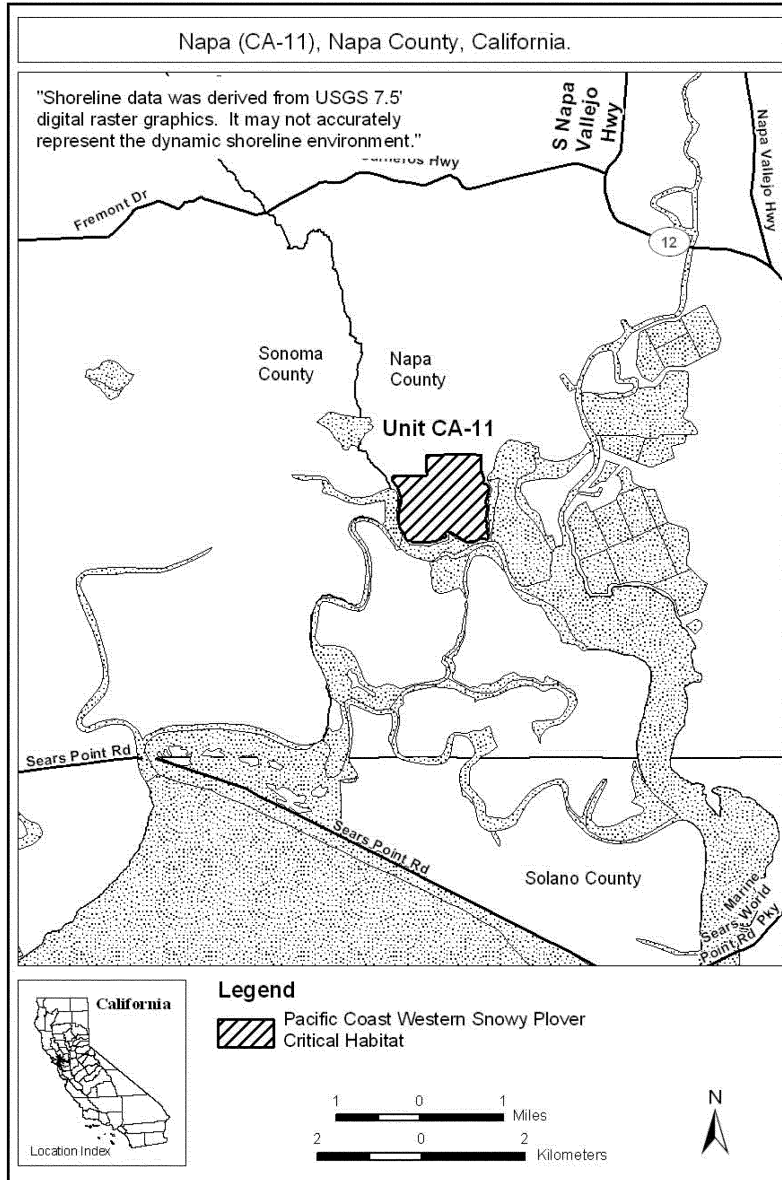
(ii) **Note:** Map of Subunits CA 10A: Point Reyes and CA 10B: Limantour, Marin County, California, follows:



(44) Unit CA 11: Napa, Napa County, California.

(i) [Reserved for textual description of Unit CA 11: Napa, Napa County, California]

(ii) **Note:** Map of Unit CA 11: Napa, Napa County, California, follows:



(45) Unit CA 12: Hayward, Alameda County, California.

(i) [Reserved for textual description of Unit CA 12: Hayward, Alameda County, California]

(ii) **Note:** Map of Unit CA 12: Hayward, Alameda County, California, follows:



(46) Subunit CA 13A: Eden Landing, Alameda County, California.

(i) [Reserved for textual description of Subunit CA 13A: Eden Landing, Alameda County, California]

(ii) **Note:** Subunit CA 13A: Eden Landing, Alameda County, California, is depicted on the map in paragraph (48)(ii) of this entry.

(47) Subunit CA 13B: Eden Landing, Alameda County, California.

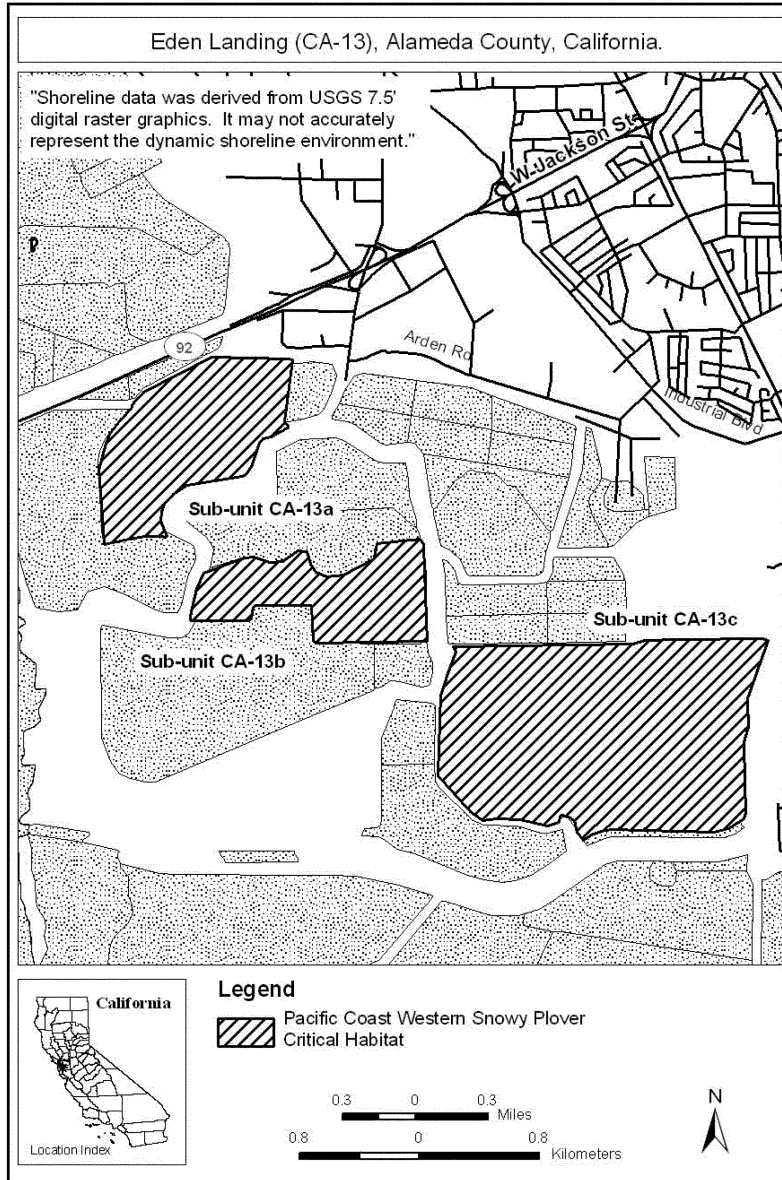
(i) [Reserved for textual description of Subunit CA 13B: Eden Landing, Alameda County, California]

(ii) **Note:** Subunit CA 13B: Eden Landing, Alameda County, California, is depicted on the map in paragraph (48)(ii) of this entry.

(48) Subunit CA 13C: Eden Landing, Alameda County, California.

(i) [Reserved for textual description of Subunit CA 13C: Eden Landing, Alameda County, California]

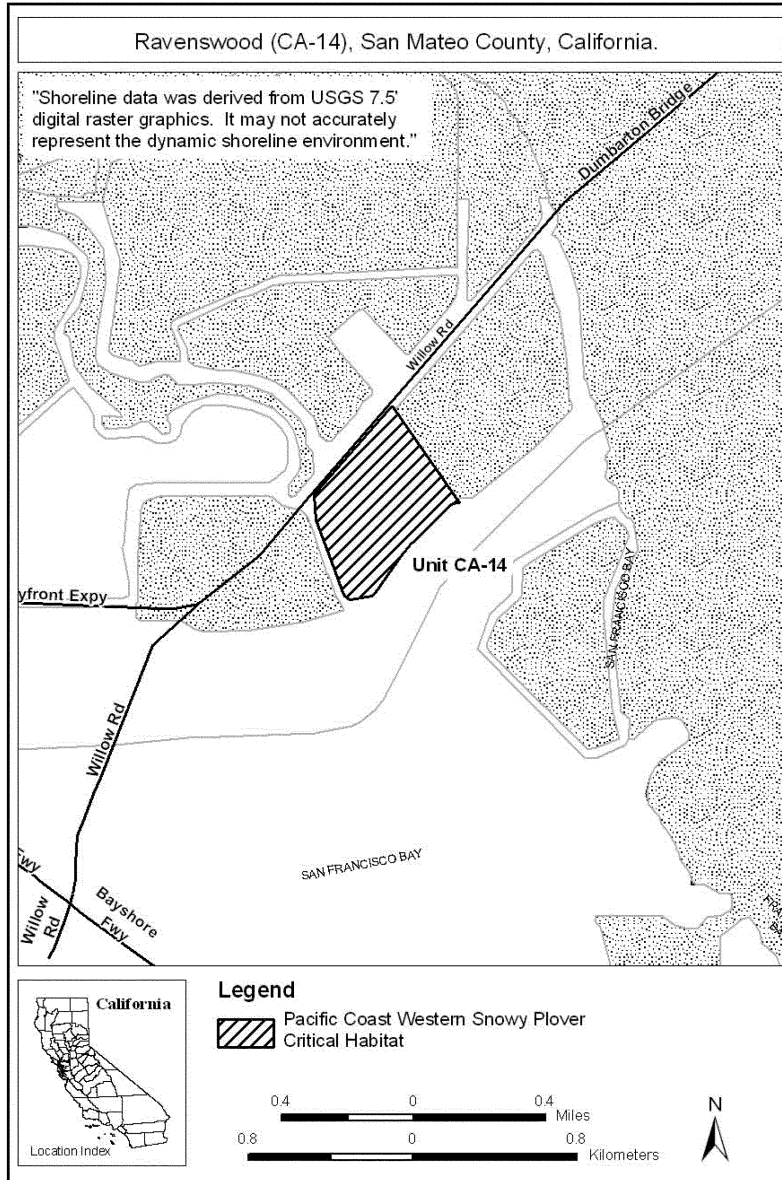
(ii) **Note:** Map of Subunits CA 13A, CA 13B, and CA 13C: Eden Landing, Alameda County, California, follows:



(49) Unit CA 14: Ravenswood, San Mateo County, California.

(i) [Reserved for textual description of Unit CA 14: Ravenswood, San Mateo County, California]

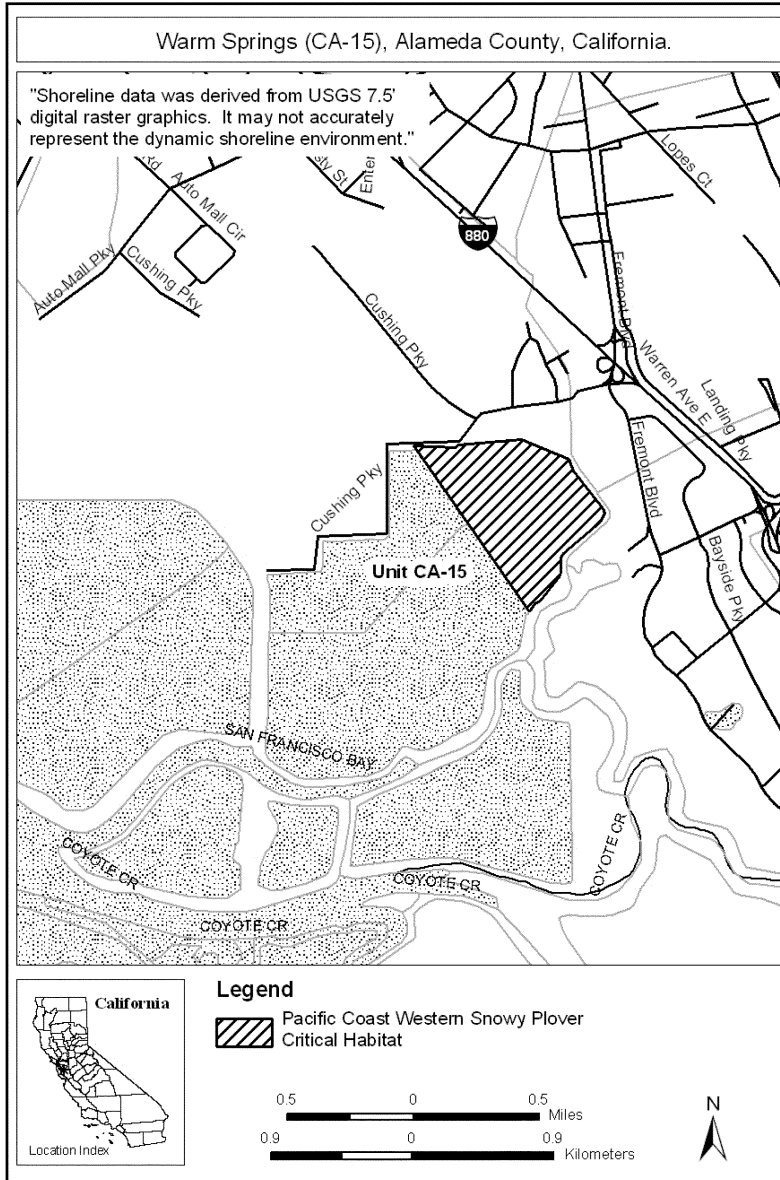
(ii) **Note:** Map of Unit CA 14: Ravenswood, San Mateo County, California, follows:



(50) Unit CA 15: Warm Springs, San Mateo County, California.

(i) [Reserved for textual description of Unit CA 15: Warm Springs, San Mateo County, California]

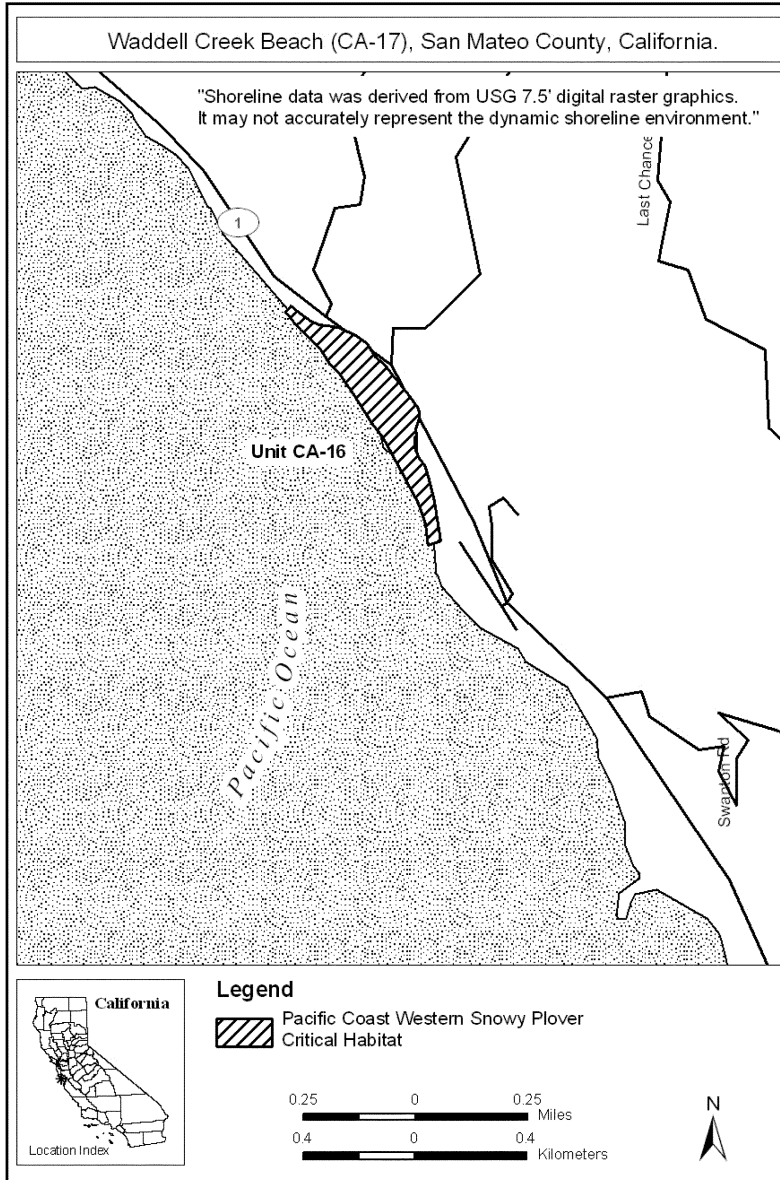
(ii) **Note:** Map of Unit CA 15: Warm Springs, San Mateo County, California, follows:



(52) Unit CA 17: Waddell Creek Beach, Santa Cruz County, California.

(i) [Reserved for textual description of Unit CA 17: Waddell Creek Beach, Santa Cruz County, California]

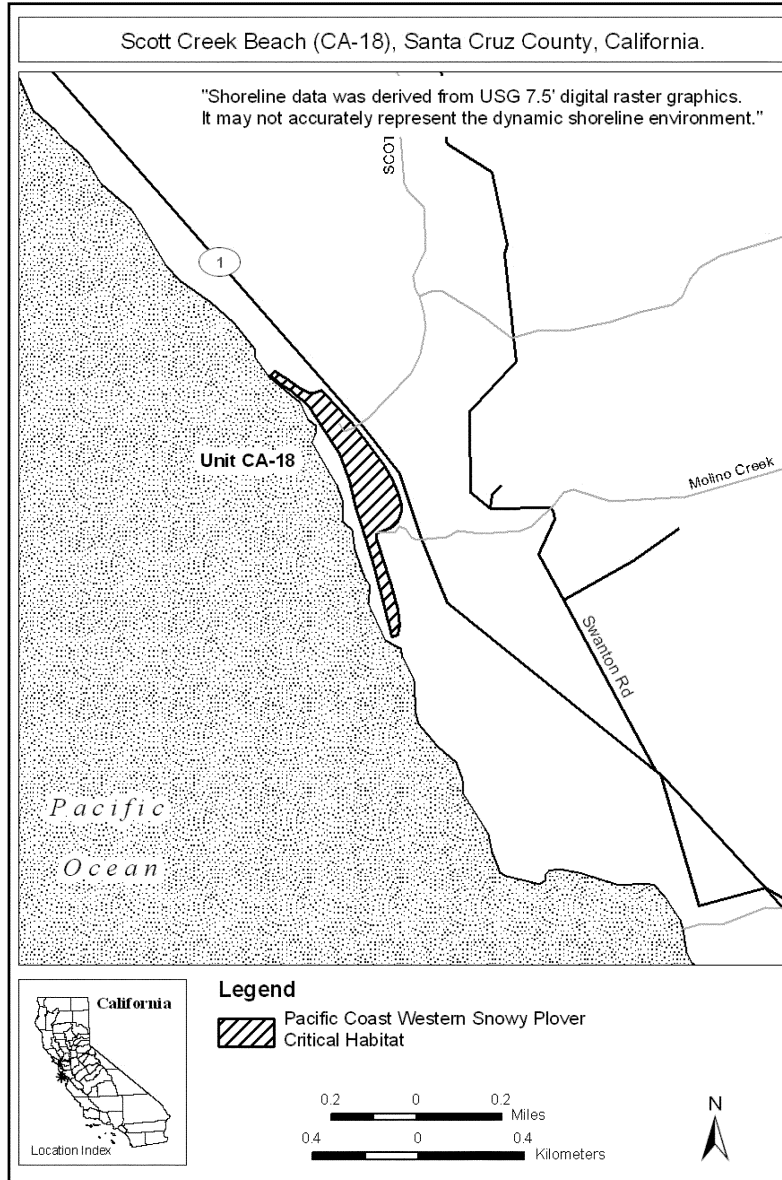
(ii) **Note:** Map of Unit CA 17: Waddell Creek Beach, Santa Cruz County, California, follows:



(53) Unit CA 18: Scott Beach Creek, Santa Cruz County, California.

(i) [Reserved for textual description of Unit CA 18: Scott Beach Creek, Santa Cruz County, California]

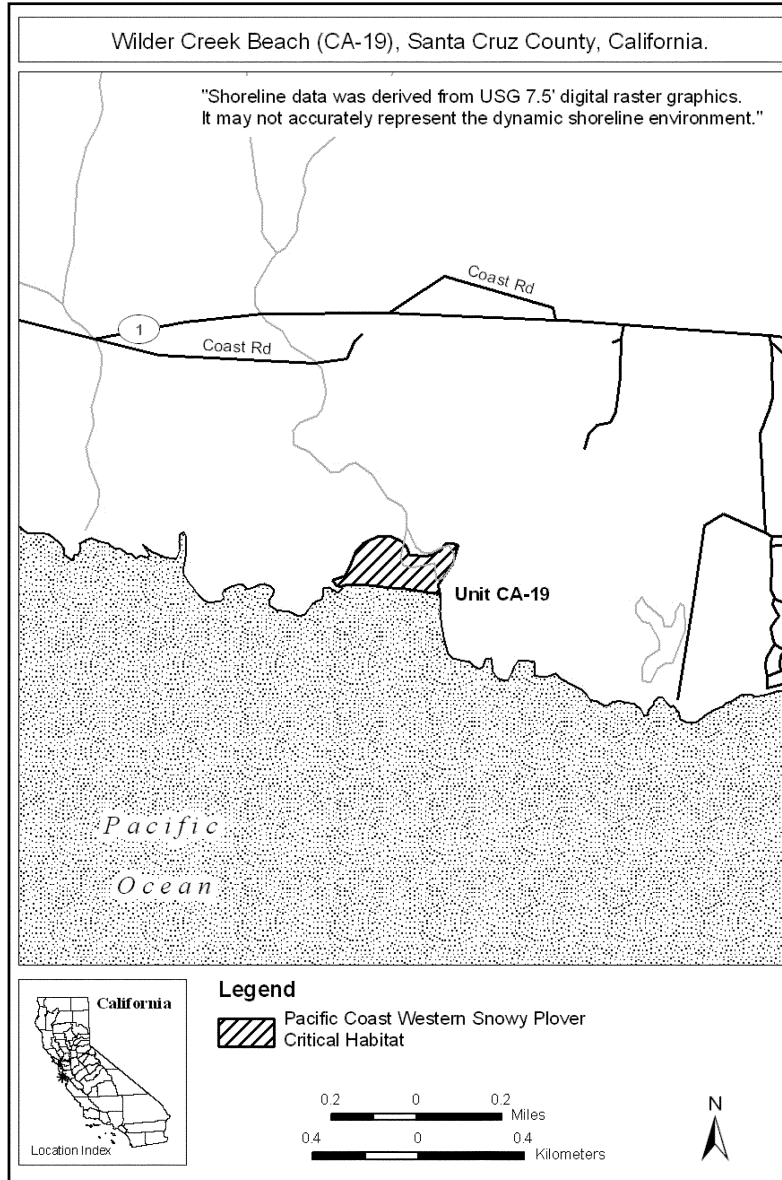
(ii) **Note:** Map of Unit CA 18: Scott Beach Creek, Santa Cruz County, California, follows:



(54) Unit CA 19: Wilder Creek Beach, Santa Cruz County, California.

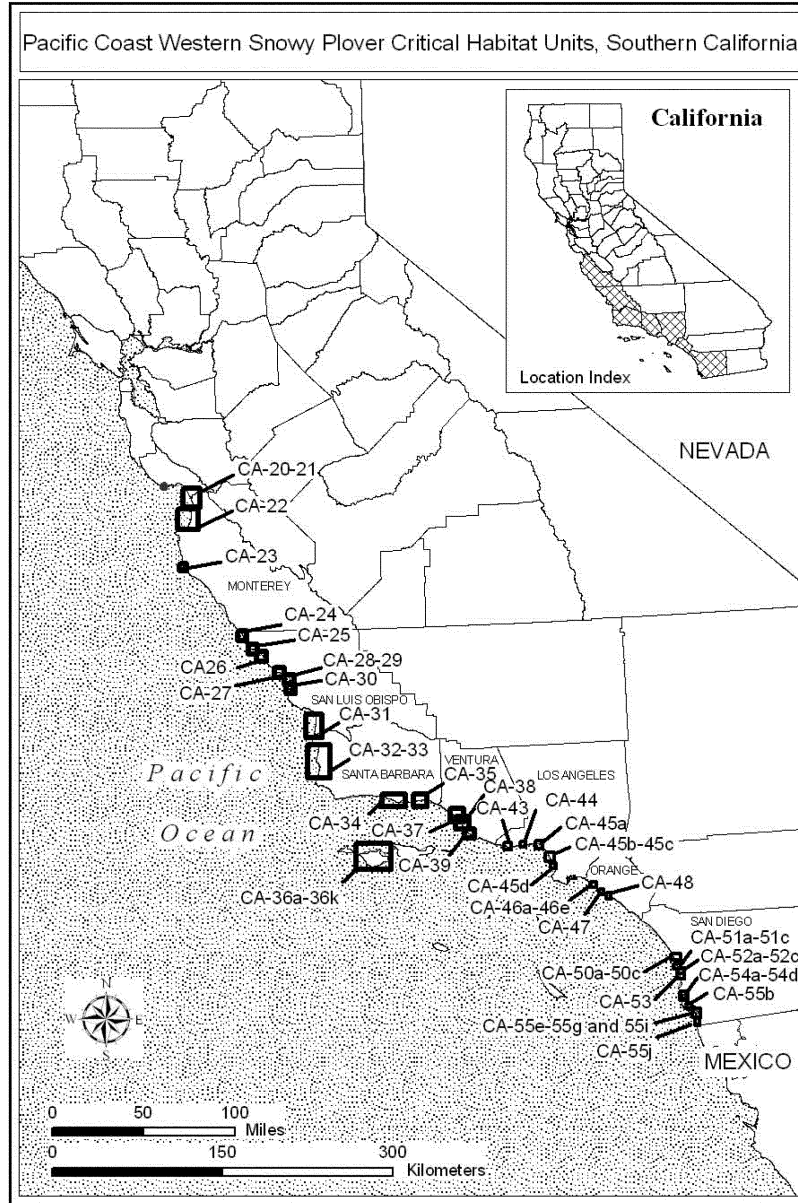
(i) [Reserved for textual description of Unit CA 19: Wilder Creek Beach, Santa Cruz County, California]

(ii) **Note:** Map of Unit CA 19: Wilder Creek Beach, Santa Cruz County, California, follows:



(55) **Note:** Index map of critical habitat units for the Pacific Coast western snowy plover (*Charadrius*

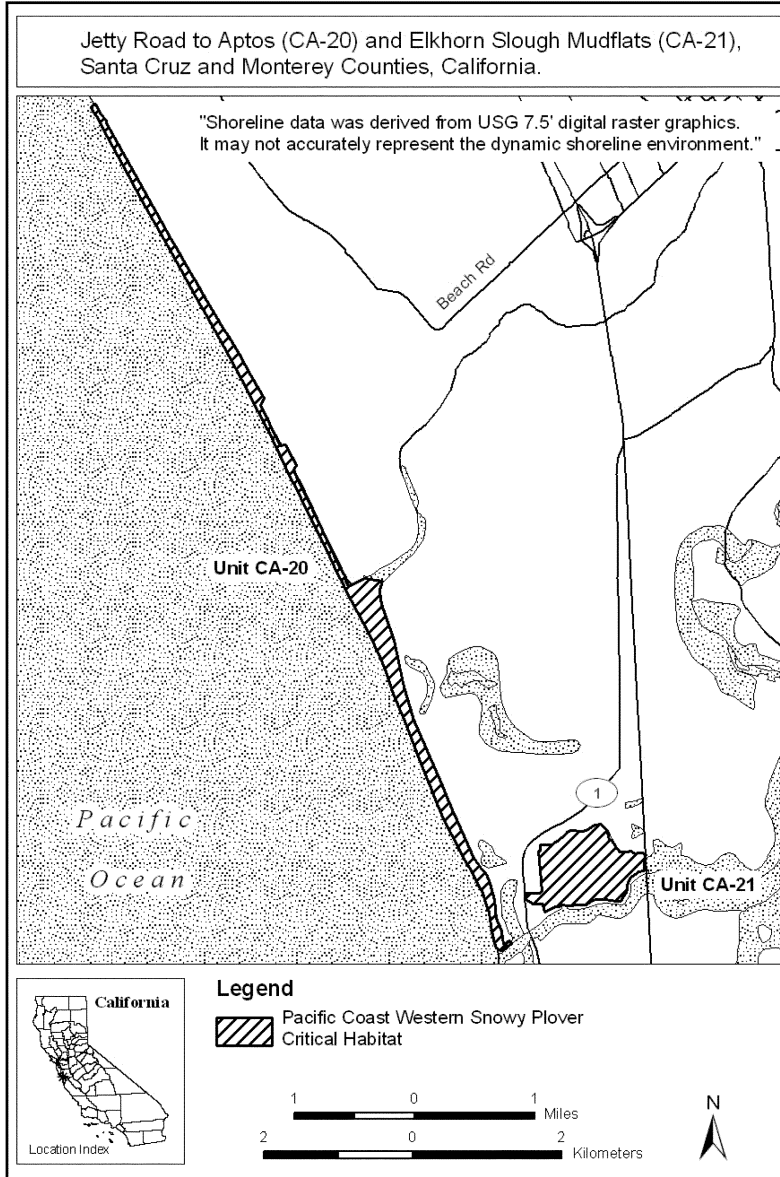
alexandrinus nivosus) in Southern California, follows:



(56) Unit CA 20: Jetty Road to Aptos, Santa Cruz County, California.
 (i) [Reserved for textual description of Unit CA 20: Jetty Road to Aptos, Santa Cruz County, California]
 (ii) **Note:** Unit CA 20: Jetty Road to Aptos, Santa Cruz County, California is

depicted on the map in paragraph (57)(ii) of this entry.
 (57) Unit CA 21: Elkhorn Slough Mudflats, Monterey County, California.
 (i) [Reserved for textual description of Unit CA 21: Elkhorn Slough Mudflats, Monterey County, California]

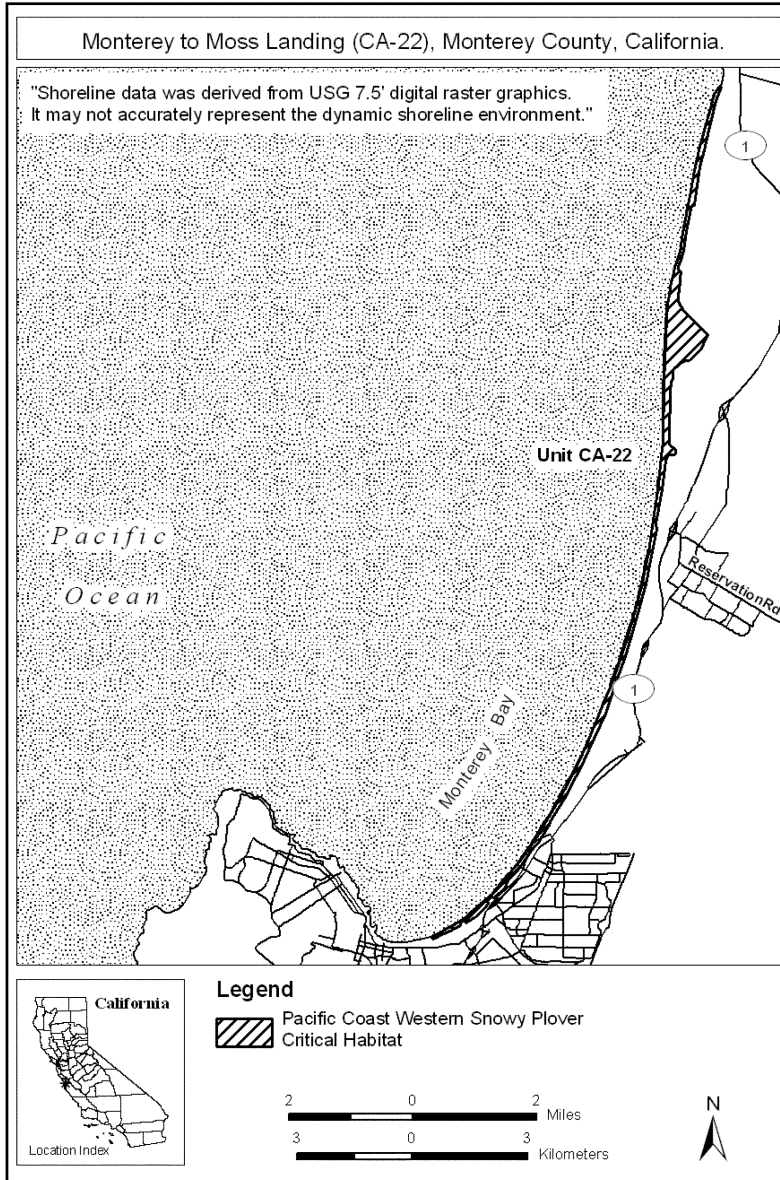
(ii) **Note:** Map of Unit CA 20: Jetty Road to Aptos and Unit CA 21: Elkhorn Slough Mudflats, Monterey County, California, follows:



(58) Unit CA 22: Monterey to Moss Landing, Monterey County, California.

(i) [Reserved for textual description of Unit CA 22: Monterey to Moss Landing, Monterey County, California]

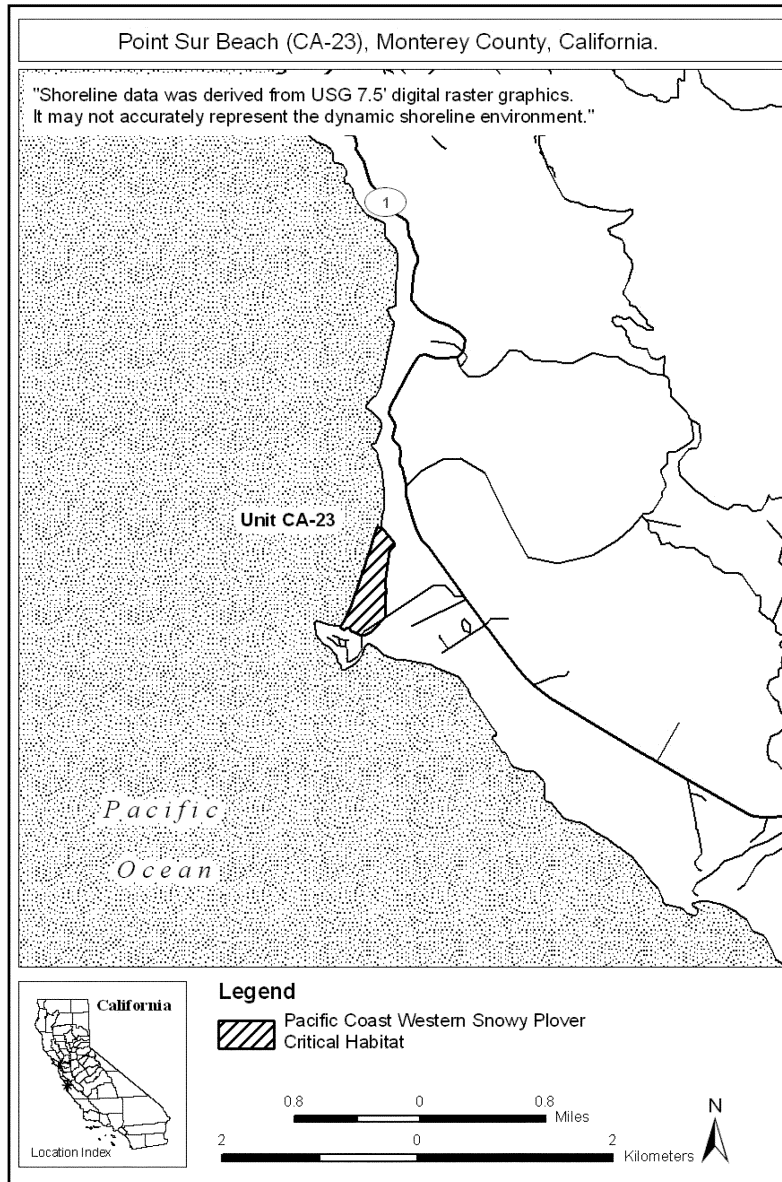
(ii) **Note:** Map of Unit CA 22: Monterey to Moss Landing, Monterey County, California, follows:



(59) Unit CA 23: Point Sur Beach, Monterey County, California.

(i) [Reserved for textual description of Unit CA 23: Point Sur Beach, Monterey County, California]

(ii) **Note:** Map of Unit CA 23: Point Sur Beach, Monterey County, California, follows:



(60) Unit CA 24: San Carpofooro Creek, Monterey and San Luis Obispo Counties, California.

(i) [Reserved for textual description of Unit CA 24: San Carpofooro Creek, Monterey and San Luis Obispo Counties]

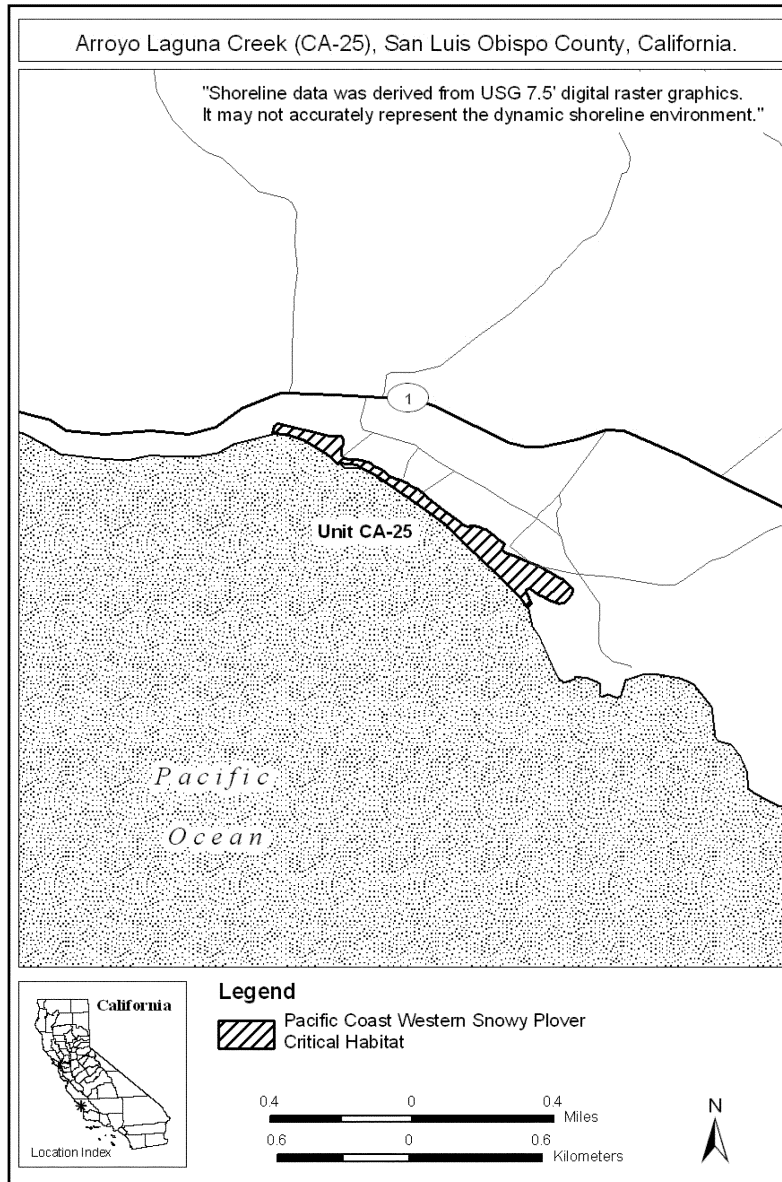
(ii) **Note:** Map of Unit CA 24: San Carpofooro Creek, Monterey and San Luis Obispo Counties, California, follows:



(61) Unit CA 25: Arroyo Laguna Creek, San Luis Obispo County, California.

(i) [Reserved for textual description of Unit CA 25: Arroyo Laguna Creek, San Luis Obispo County, California]

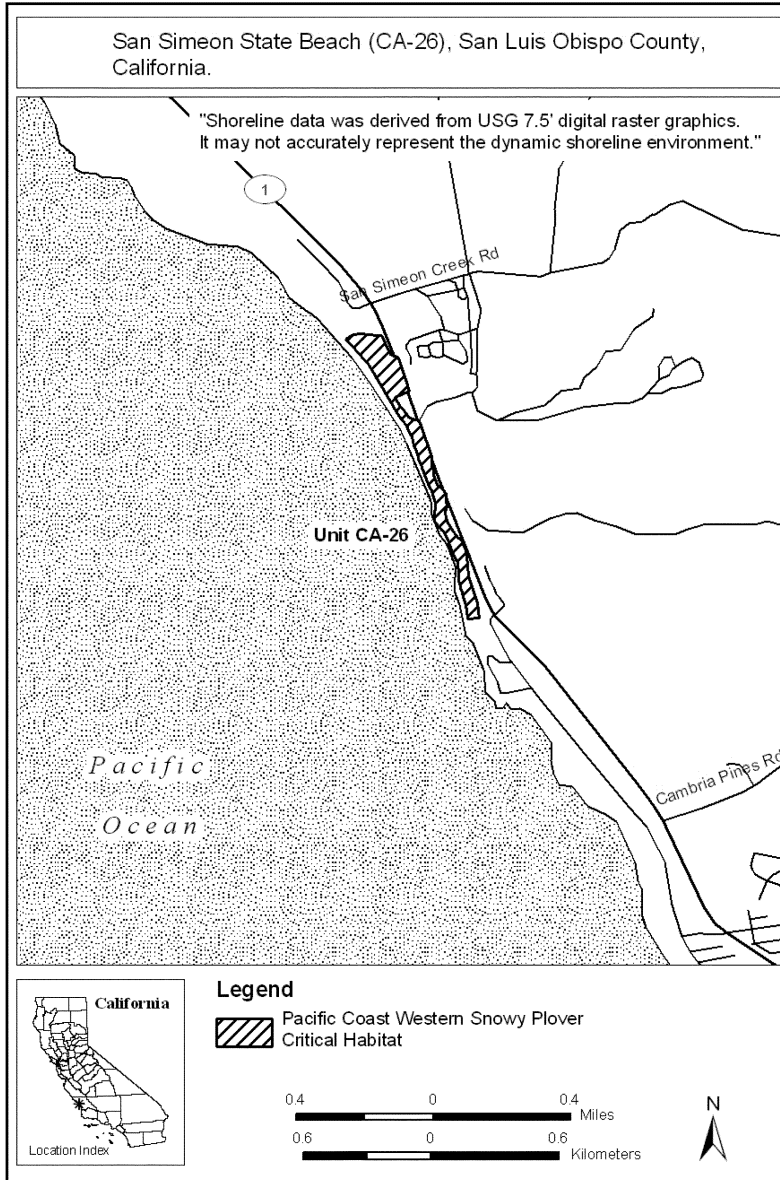
(ii) **Note:** Map of Unit CA 25: Arroyo Laguna Creek, San Luis Obispo County, California, follows:



(62) Unit CA 26: San Simeon State Beach, San Luis Obispo County, California.

(i) [Reserved for textual description of Unit CA 26: San Simeon State Beach, San Luis Obispo County, California]

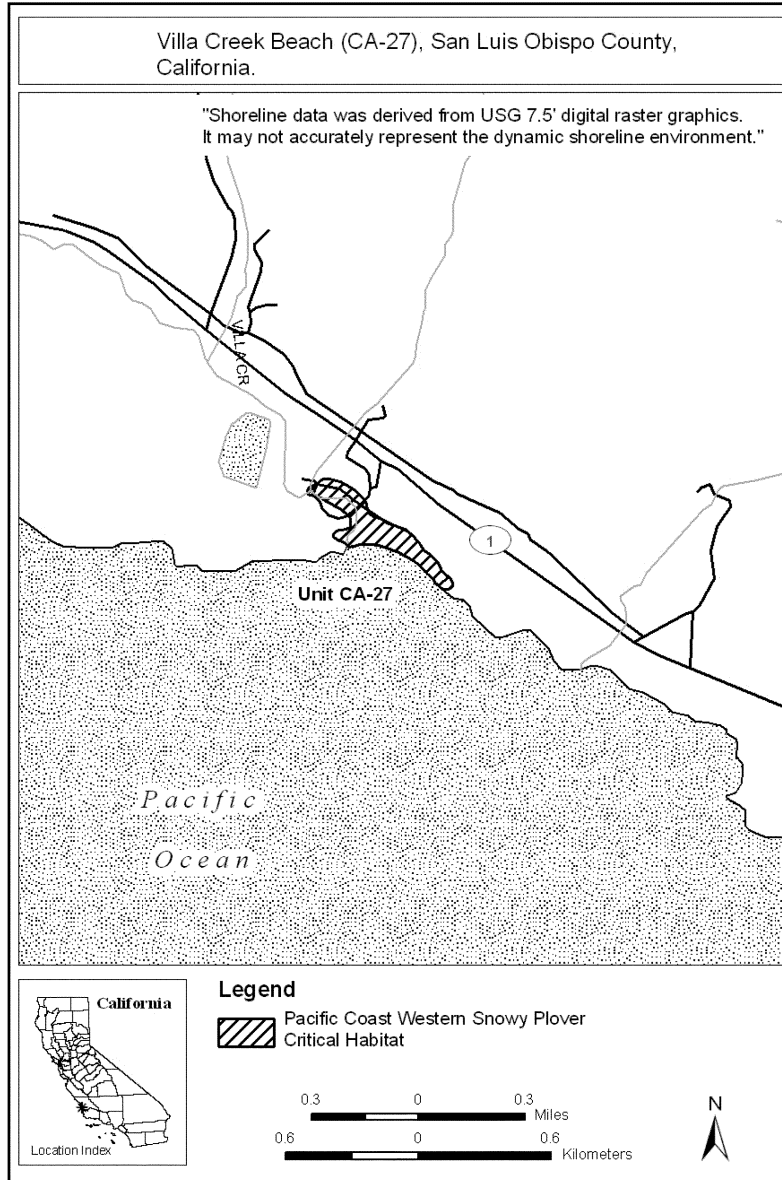
(ii) **Note:** Map of Unit CA 26: San Simeon State Beach, San Luis Obispo County, California, follows:



(63) Unit CA 27: Villa Creek Beach, San Luis Obispo County, California.

(i) [Reserved for textual description of Unit CA 27: Villa Creek Beach, San Luis Obispo County, California]

(ii) **Note:** Map of Unit CA 27: Villa Creek Beach, San Luis Obispo County, California, follows:



(64) Unit CA 28: Toro Creek, San Luis Obispo County, California.

(i) [Reserved for textual description of Unit CA 28: Toro Creek, San Luis Obispo County, California]

(ii) **Note:** Unit CA 28: Toro Creek, San Luis Obispo County, California, is

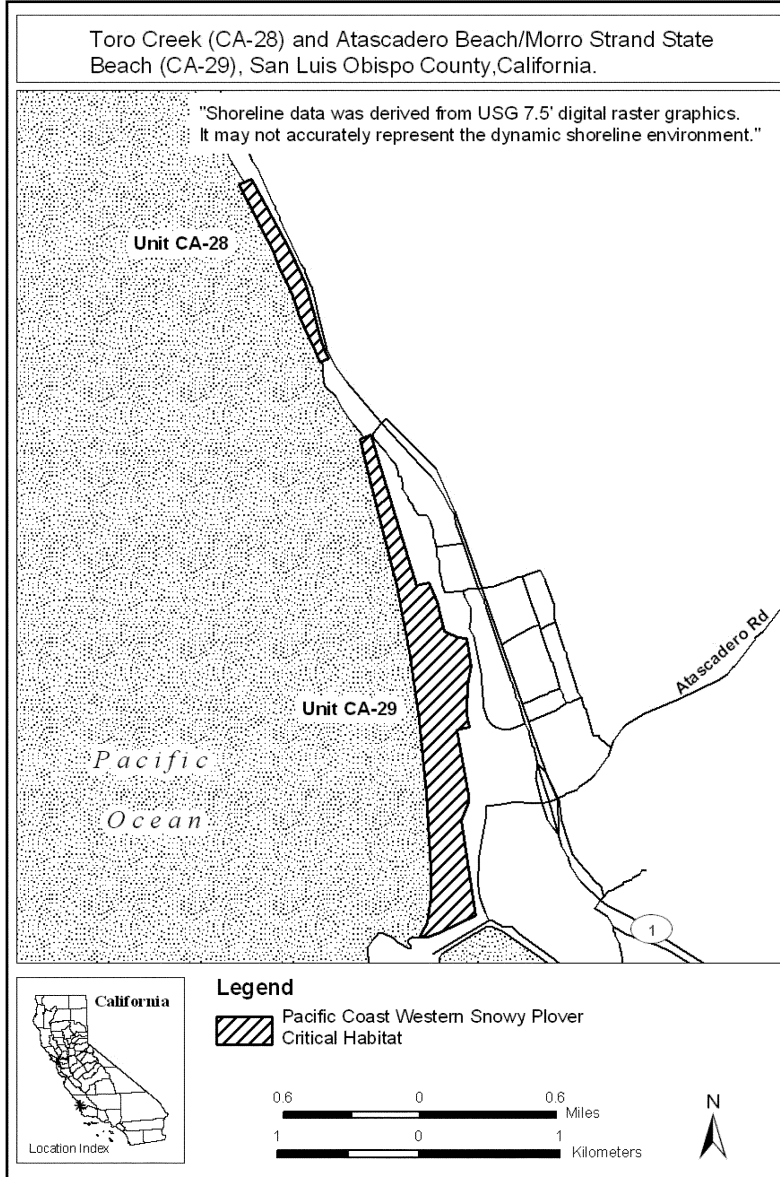
depicted on the map in paragraph (65)(ii) of this entry.

(65) Unit CA 29: Atascadero Beach/Moro Strands State Beach, San Luis Obispo County, California.

(i) [Reserved for textual description of Unit CA 29: Atascadero Beach/Moro

Strands State Beach, San Luis Obispo County, California]

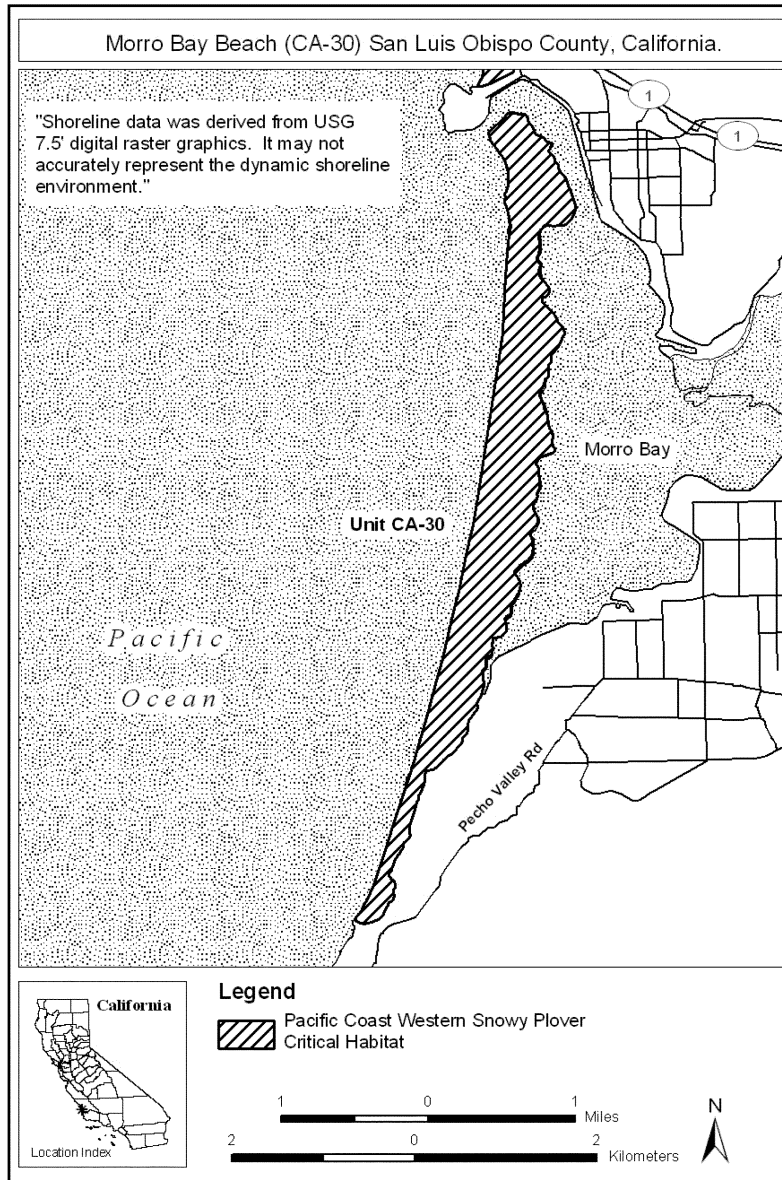
(ii) **Note:** Map of Units CA 28: Toro Creek and CA 29: Atascadero Beach/Moro Strands State Beach, San Luis Obispo County, California, follows:



(66) Unit CA 30: Moro Bay Beach, San Luis Obispo County, California.

(i) [Reserved for textual description of Unit CA 30: Moro Bay Beach, San Luis Obispo County, California]

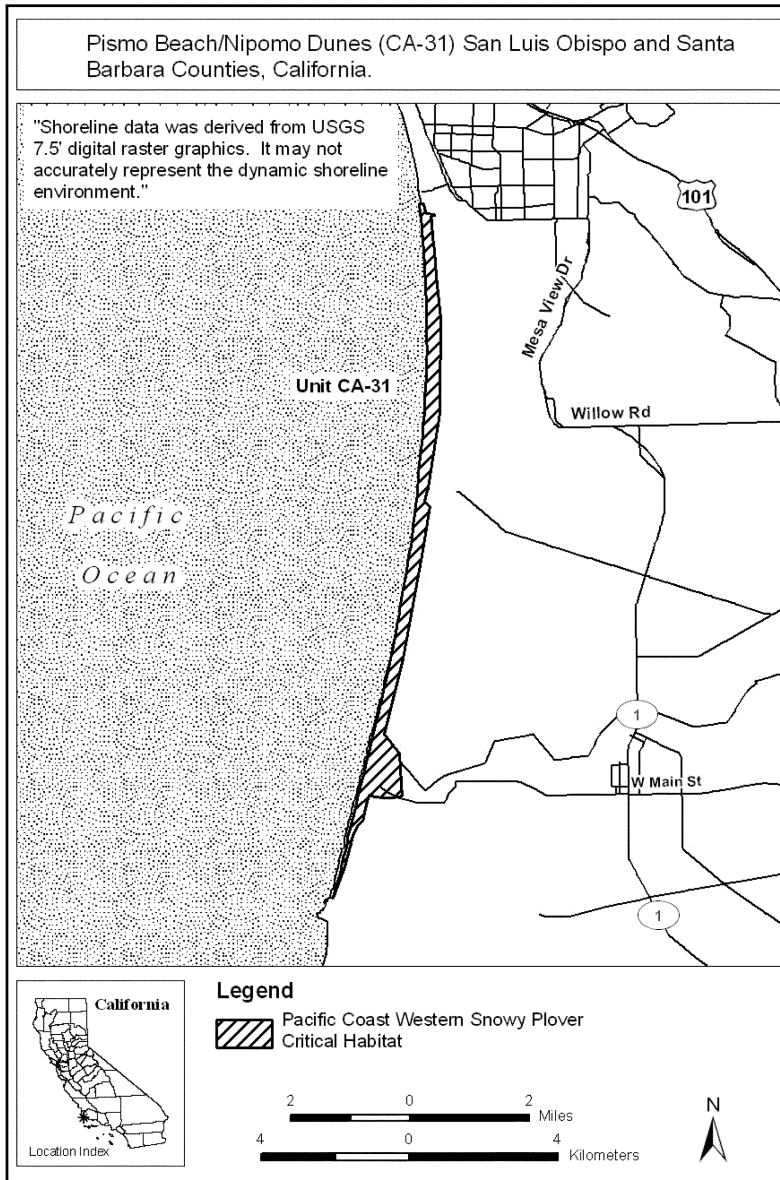
(ii) **Note:** Map of Unit CA 30: Moro Bay Beach, San Luis Obispo County, California, follows:



(67) Unit CA 31: Pismo Beach/
Nipomo Dunes, San Luis Obispo and
Santa Barbara Counties, California.

(i) [Reserved for textual description of
Unit CA 31: Pismo Beach/Nipomo
Dunes, San Luis Obispo and Santa
Barbara Counties, California]

(ii) **Note:** Map of Unit CA 31: Pismo
Beach/Nipomo Dunes, San Luis Obispo
and Santa Barbara Counties, California,
follows:



(68) Unit CA 32: Vandenberg North, Santa Barbara County, California.

(i) [Reserved for textual description of Unit CA 32: Vandenberg North, Santa Barbara County, California]

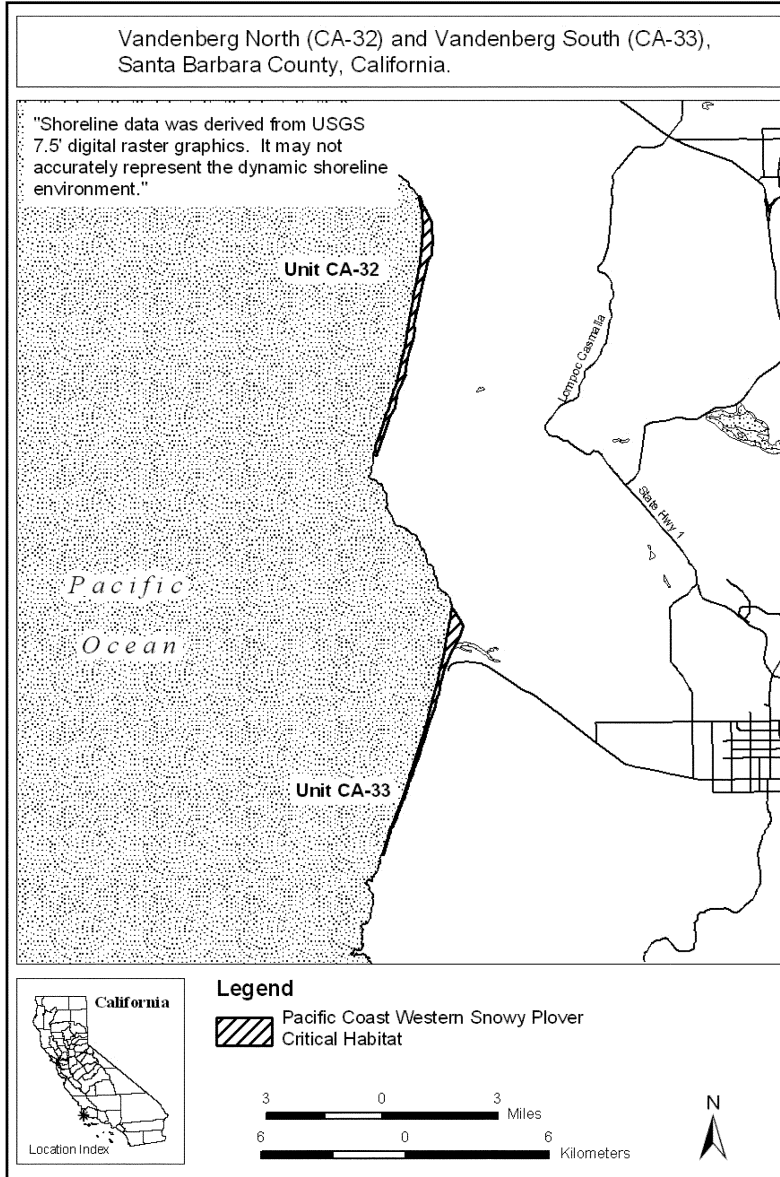
(ii) **Note:** Unit CA 32: Vandenberg North, Santa Barbara County, California,

is depicted on the map in paragraph (69)(ii) of this entry.

(69) Unit CA 33: Vandenberg South, Santa Barbara County, California.

(i) [Reserved for textual description of Unit CA 33: Vandenberg South, Santa Barbara County, California]

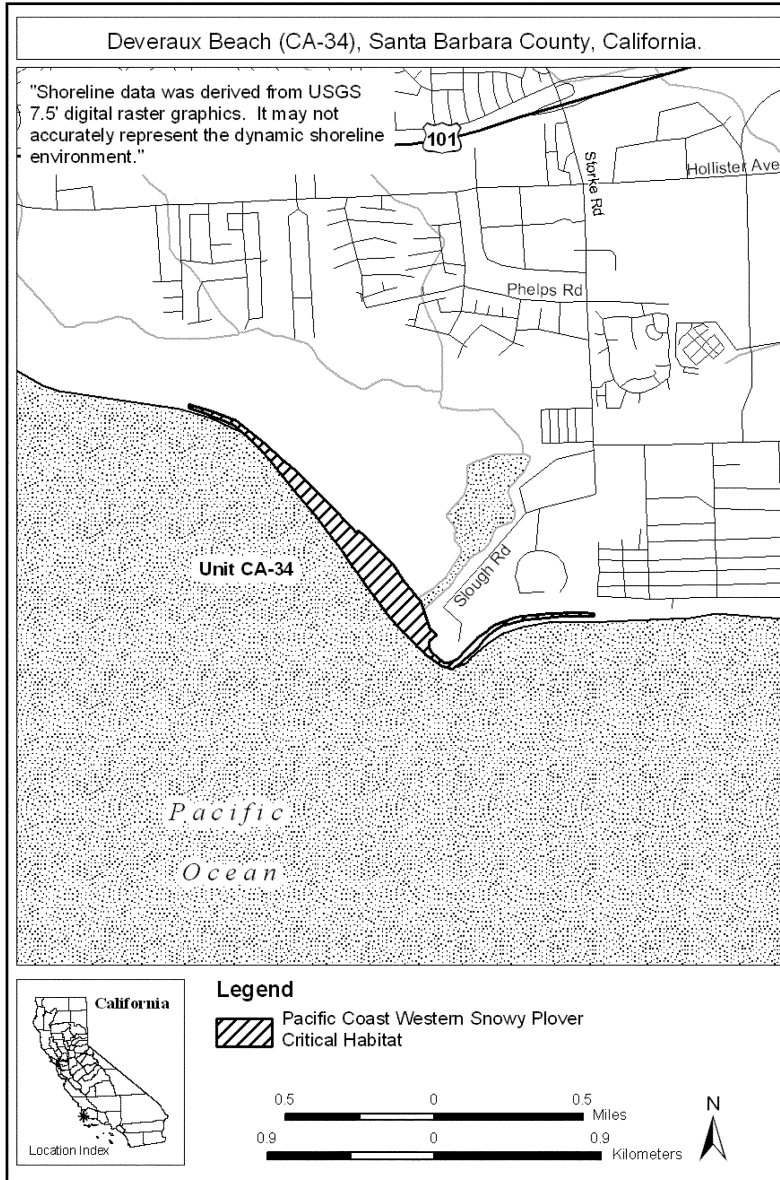
(ii) **Note:** Map of Unit CA 32: Vandenberg North and Unit CA 33: Vandenberg South, Santa Barbara County, California, follows:



(70) Unit CA 34: Devereaux Beach, Santa Barbara County, California.

(i) [Reserved for textual description of Unit CA 34: Devereaux Beach, Santa Barbara County, California]

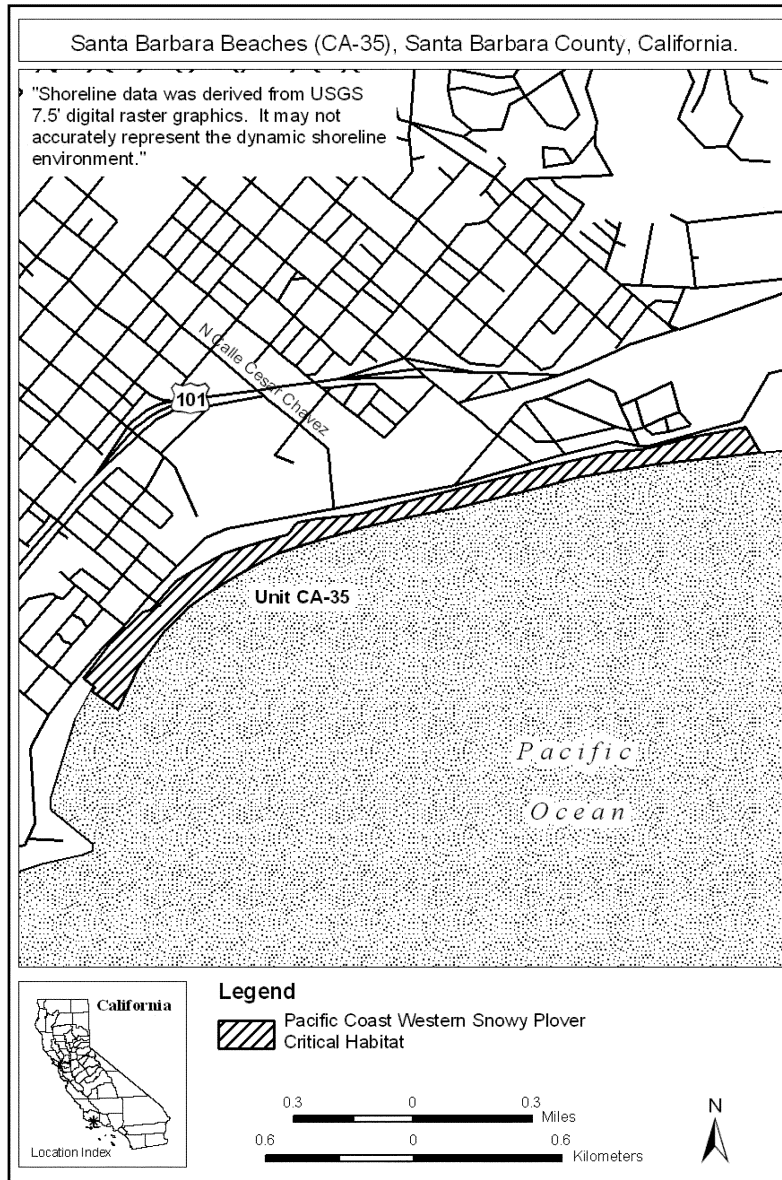
(ii) **Note:** Map of Unit CA 34: Devereaux Beach, Santa Barbara County, California, follows:



(71) Unit CA 35: Santa Barbara Beaches, Santa Barbara County, California.

(i) [Reserved for textual description of Unit CA 35: Santa Barbara Beaches, Santa Barbara County, California]

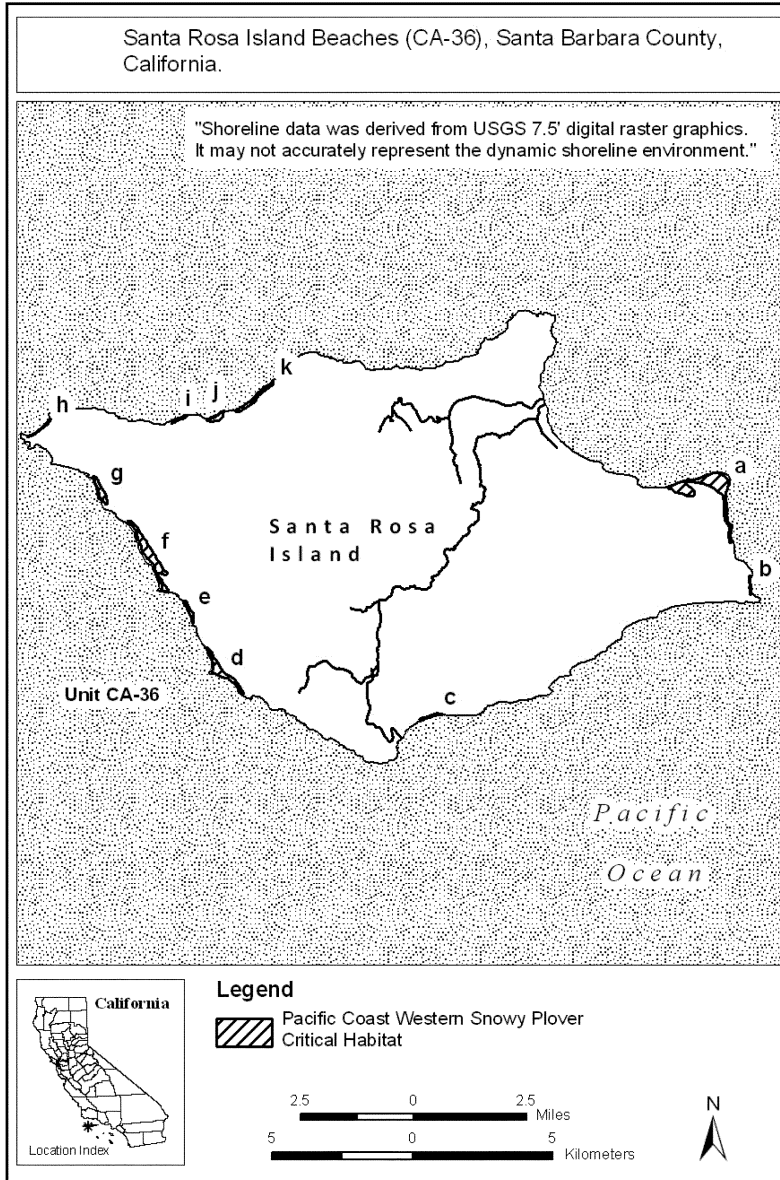
(ii) **Note:** Map of Unit CA 35: Santa Barbara Beaches, Santa Barbara County, California, follows:



(72) Unit CA 36: Santa Rosa Island Beaches, Santa Barbara County, California.

(i) [Reserved for textual description of Unit CA 36: Santa Rosa Island Beaches, Santa Barbara County, California]

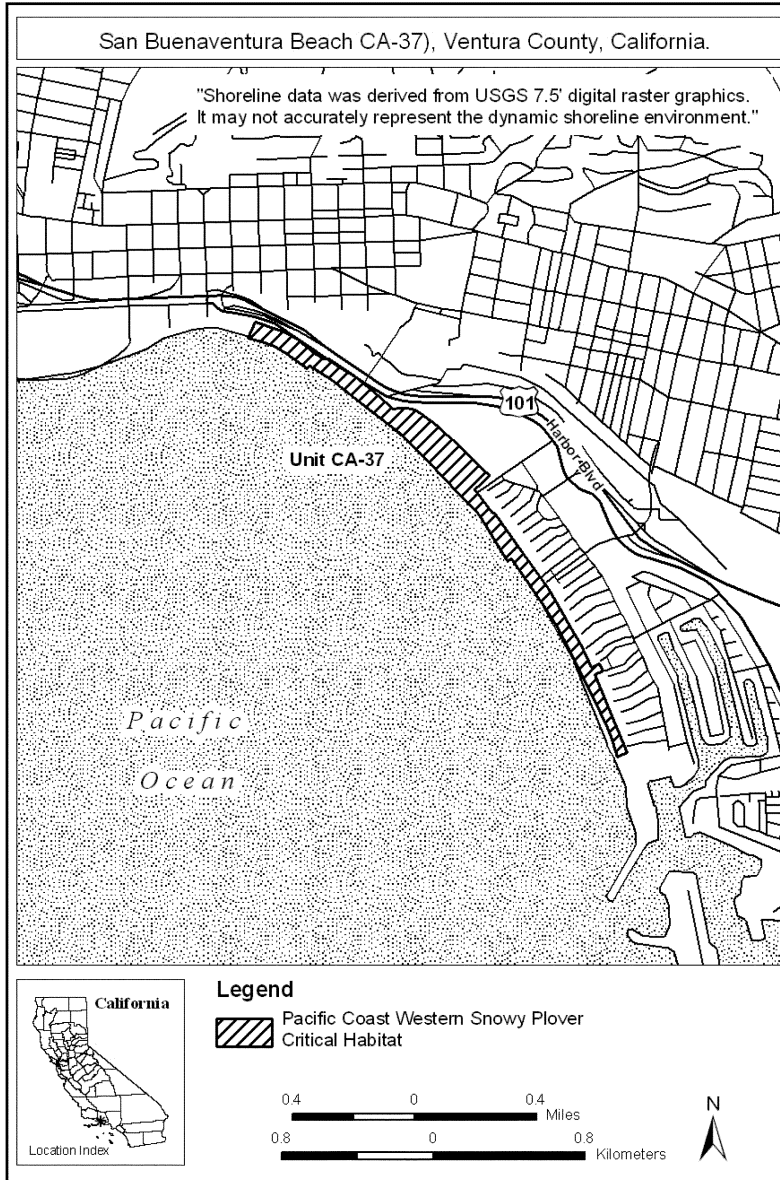
(ii) **Note:** Map of Unit CA 36: Santa Rosa Island Beaches, Santa Barbara County, California, follows:



(73) Unit CA 37: San Buenaventura Beach, Ventura County, California.

(i) [Reserved for textual description of Unit CA 37: San Buenaventura Beach, Ventura County, California]

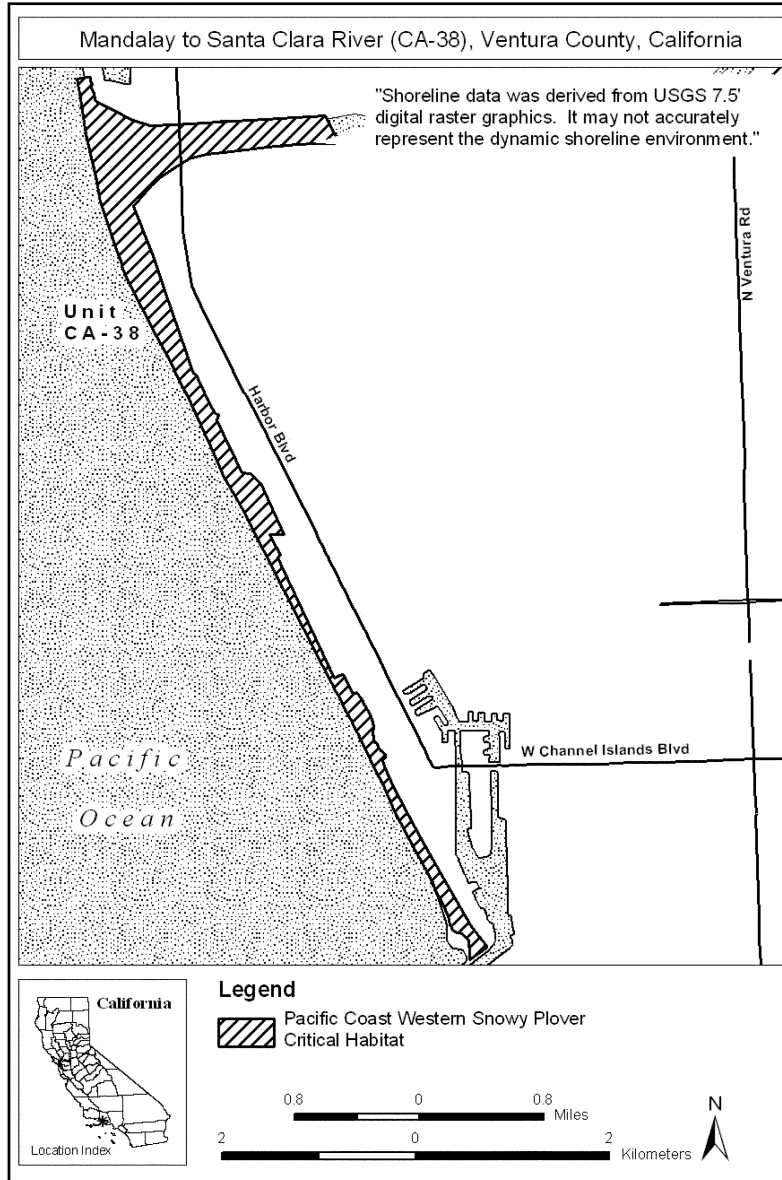
(ii) **Note:** Map of Unit CA 37: San Buenaventura Beach, Ventura County, California, follows:



(74) Unit CA 38: Mandalay to Santa Clara River, Ventura County, California.

(i) [Reserved for textual description of Unit CA 38: Mandalay to Santa Clara River, Ventura County, California]

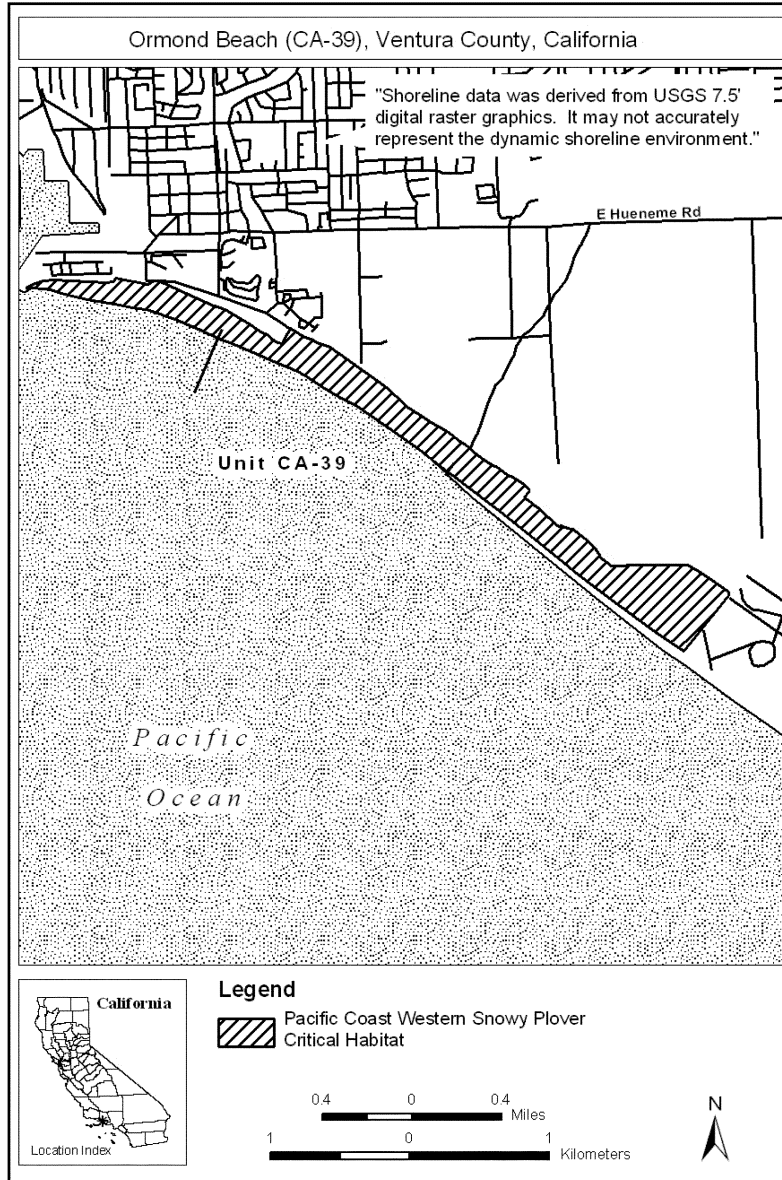
(ii) **Note:** Map of Unit CA 38: Mandalay to Santa Clara River, Ventura County, California, follows:



(75) Unit CA 39: Ormand Beach, Ventura County, California.

(i) [Reserved for textual description of Unit CA 39: Ormand Beach, Ventura County, California]

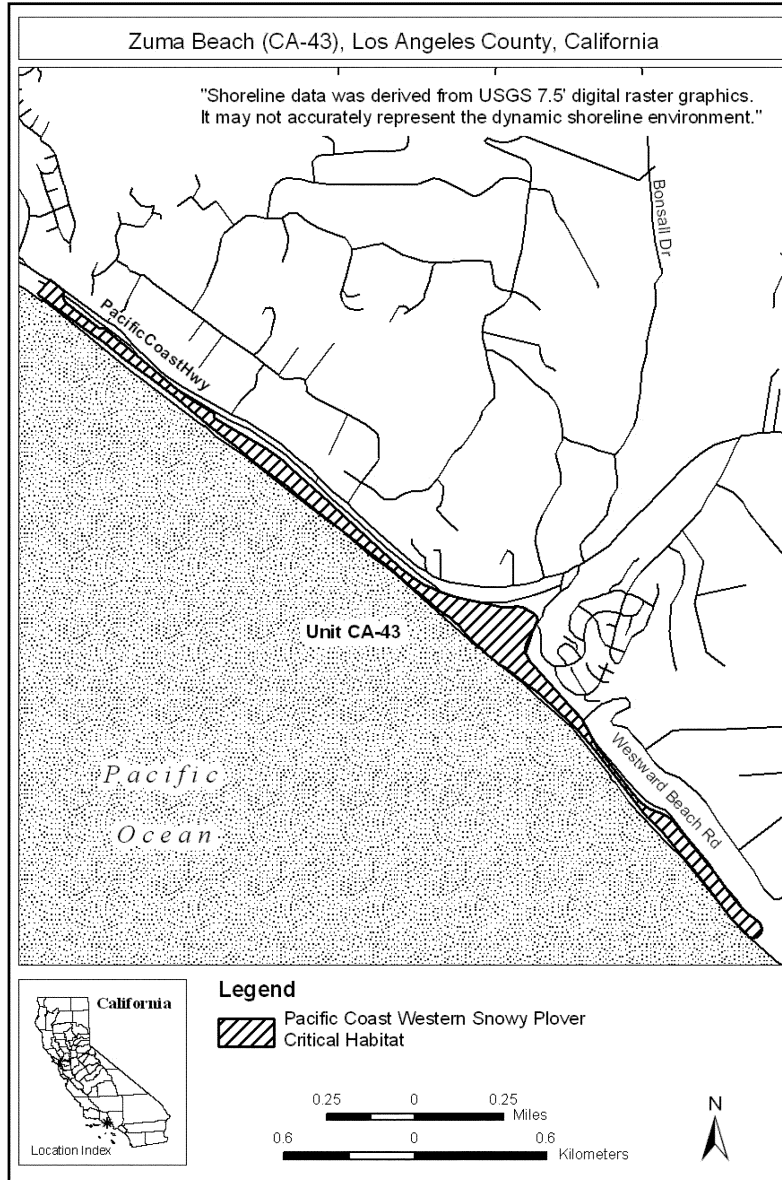
(ii) **Note:** Map of Unit CA 39: Ormand Beach, Ventura County, California, follows:



(76) Unit CA 43: Zuma Beach, Los Angeles County, California.

(i) [Reserved for textual description of Unit CA 43: Zuma Beach, Los Angeles County, California]

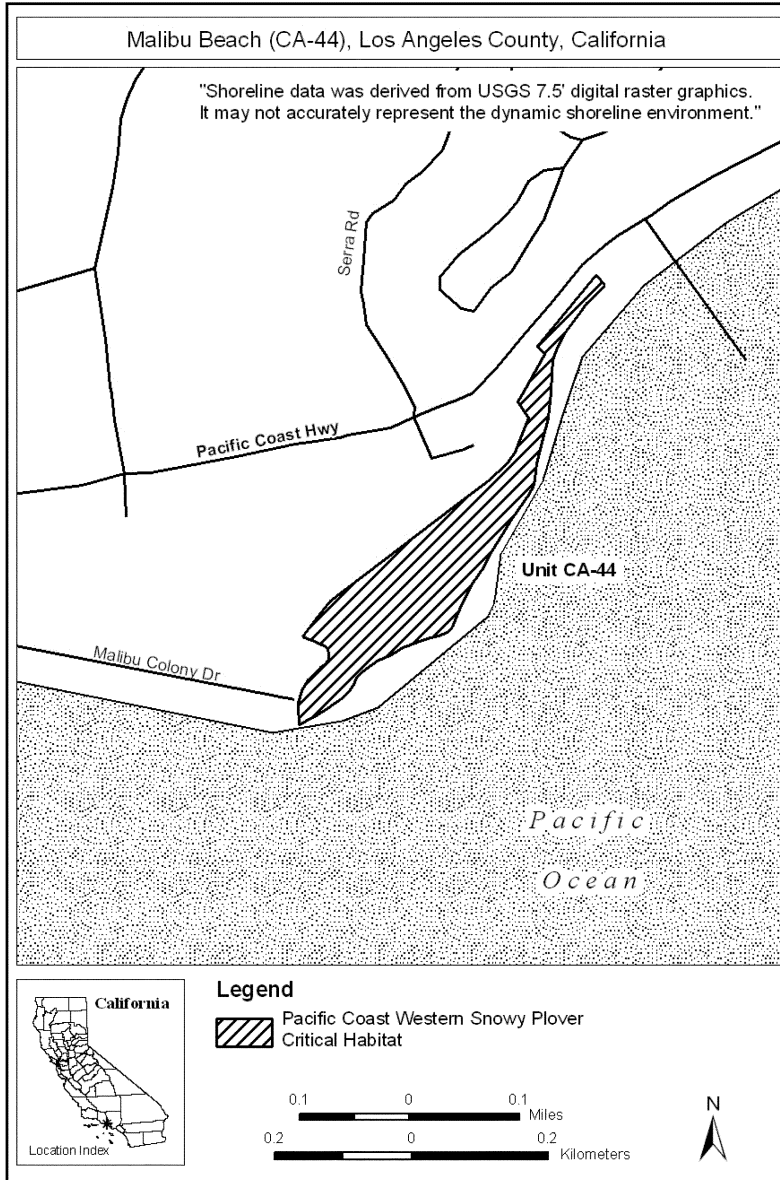
(ii) **Note:** Map of Unit CA 43: Zuma Beach, Los Angeles County, California, follows:



(77) Unit CA 44: Malibu Beach, Los Angeles County, California.

(i) [Reserved for textual description of Unit CA 44: Malibu Beach, Los Angeles County, California]

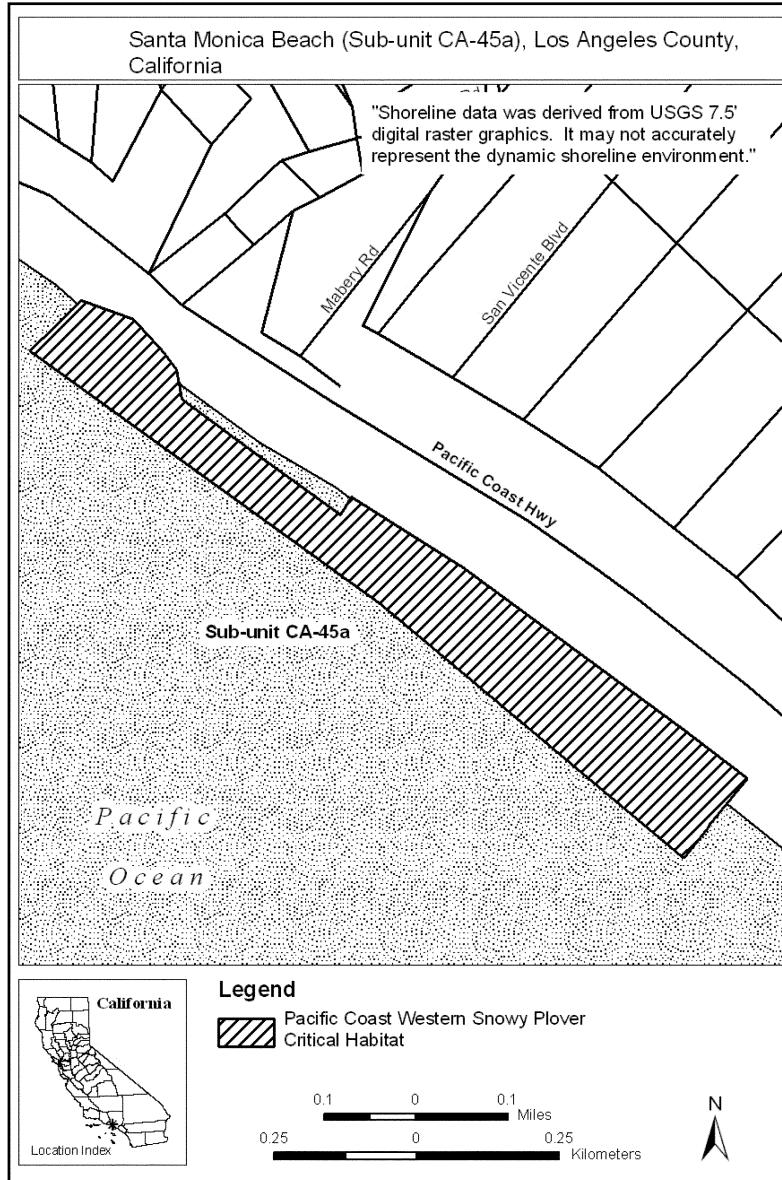
(ii) **Note:** Map of Unit CA 44: Malibu Beach, Los Angeles County, California, follows:



(78) Subunit CA 45A: Santa Monica Beach, Los Angeles County, California.

(i) [Reserved for textual description of Subunit CA 45A: Santa Monica Beach, Los Angeles County, California]

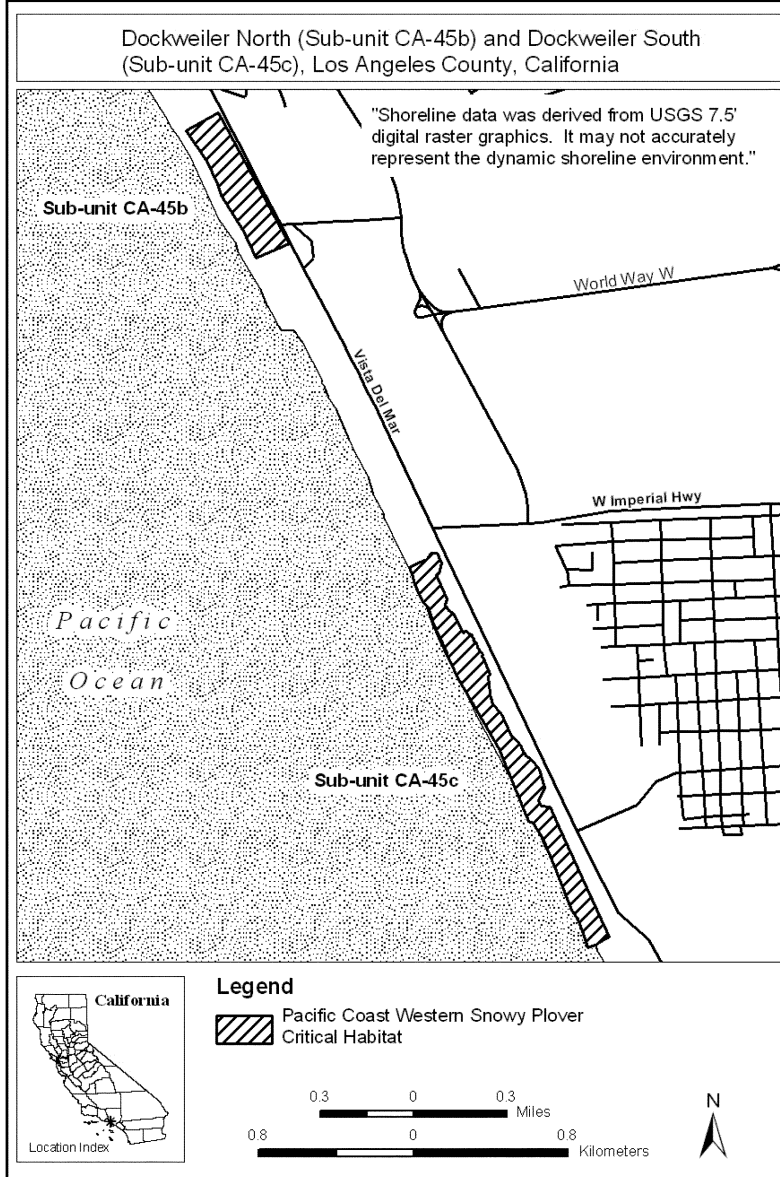
(ii) **Note:** Map of Subunit CA 45A: Santa Monica Beach, Los Angeles County, California, follows:



(79) Subunit CA 45B: Dockweiler North, Los Angeles County, California.
(i) [Reserved for textual description of Subunit CA 45B: Dockweiler North, Los Angeles County, California]
(ii) **Note:** Subunit CA 45B: Dockweiler North, Los Angeles County, California is

depicted on the map in paragraph (80)(ii) of this entry.
(80) Subunit CA 45C: Dockweiler South, Los Angeles County, California.
(i) [Reserved for textual description of Subunit CA 45C: Dockweiler South, Los Angeles County, California]

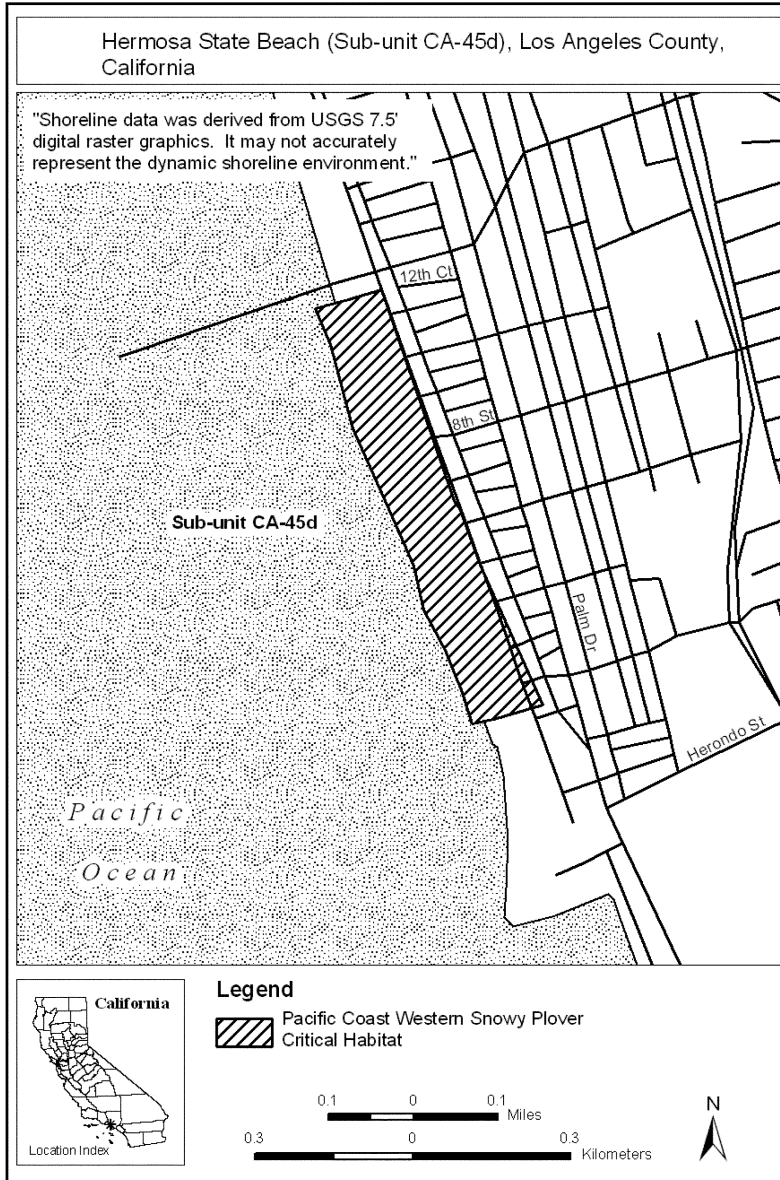
(ii) **Note:** Map of Subunit CA 45B: Dockweiler North and CA 45C: Dockweiler South, Los Angeles County, California, follows:



(81) Subunit CA 45D: Hermosa State Beach, Los Angeles County, California.

(i) [Reserved for textual description of Subunit CA 45D: Hermosa State Beach, Los Angeles County, California]

(ii) **Note:** Map of Subunit CA 45D: Hermosa State Beach, Los Angeles County, California, follows:



(82) Subunit CA 46A: Bolsa Chica Reserve, Orange County, California.

(i) [Reserved for textual description of Subunit CA 46A: Bolsa Chica Reserve, Orange County, California]

(ii) **Note:** Subunit CA 46A: Bolsa Chica Reserve, Orange County, California, is depicted on the map in paragraph (86)(ii) of this entry.

(83) Subunit CA 46B: Bolsa Chica Reserve, Orange County, California.

(i) [Reserved for textual description of Subunit CA 46B: Bolsa Chica Reserve, Orange County, California]

(ii) **Note:** Subunit CA 46B: Bolsa Chica Reserve, Orange County, California, is depicted on the map in paragraph (86)(ii) of this entry.

(84) Subunit CA 46C: Bolsa Chica Reserve, Orange County, California.

(i) [Reserved for textual description of Subunit CA 46C: Bolsa Chica Reserve, Orange County, California]

(ii) **Note:** Subunit CA 46C: Bolsa Chica Reserve, Orange County, California, is depicted on the map in paragraph (86)(ii) of this entry.

(85) Subunit CA 46D: Bolsa Chica Reserve, Orange County, California.

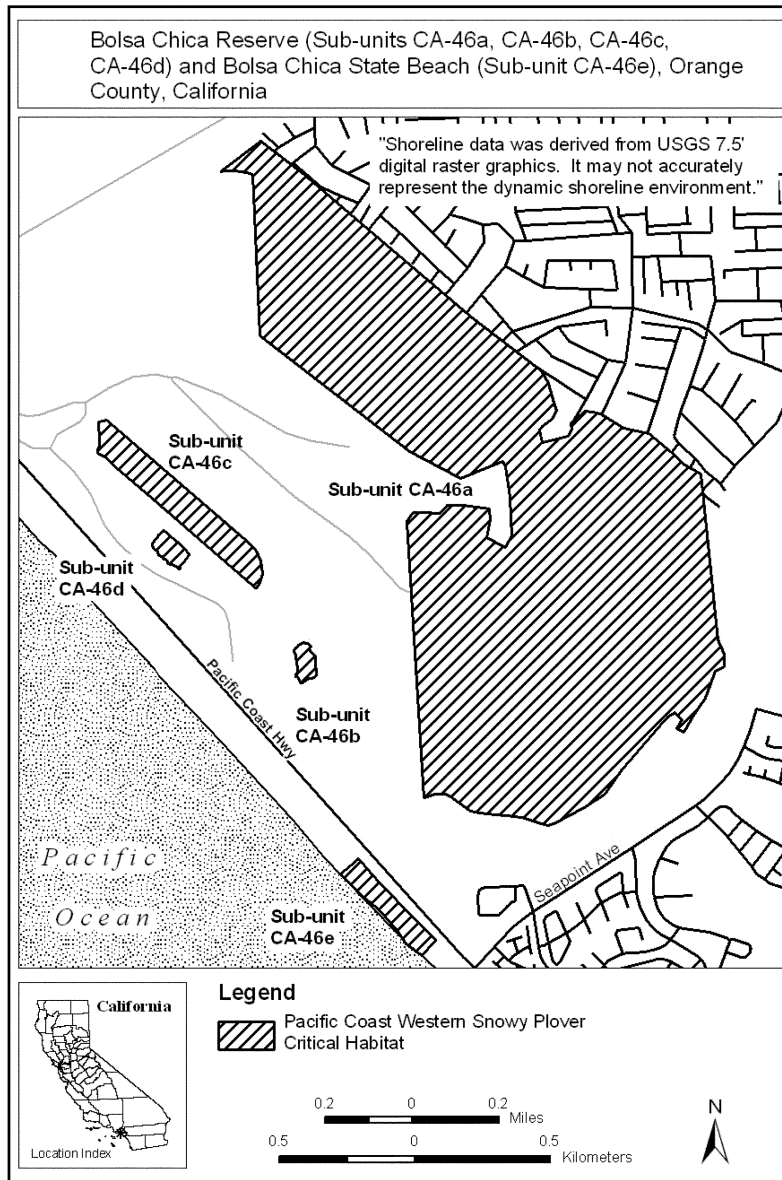
(i) [Reserved for textual description of Subunit CA 46D: Bolsa Chica Reserve, Orange County, California]

(ii) **Note:** Subunit CA 46D: Bolsa Chica Reserve, Orange County, California, is depicted on the map in paragraph (86)(ii) of this entry.

(86) Subunit CA 46E: Bolsa Chica State Beach, Orange County, California.

(i) [Reserved for textual description of Subunit CA 46E: Bolsa Chica State Beach, Orange County, California]

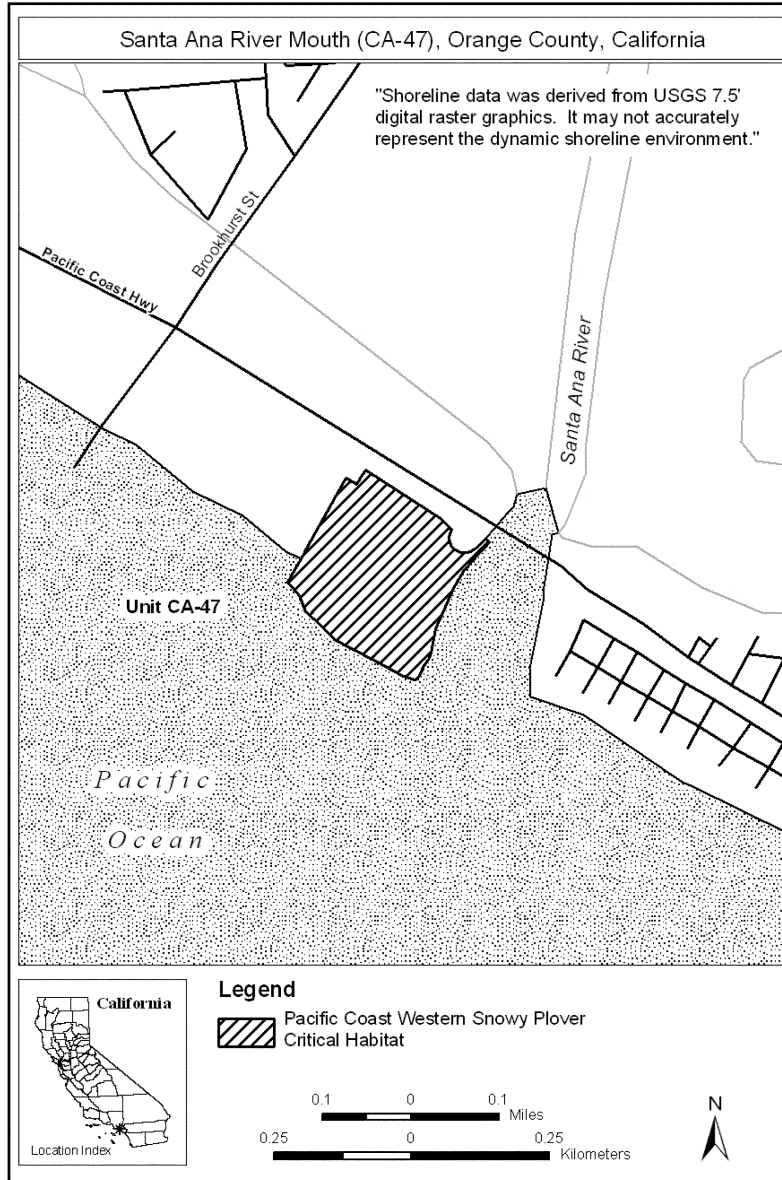
(ii) **Note:** Map of Subunits CA 46A–46E: Bolsa Chica Reserve, Orange County, California, follows:



(87) Unit CA 47: Santa Ana River Mouth, Orange County, California.

(i) [Reserved for textual description of Unit CA 47: Santa Ana River South, Orange County, California]

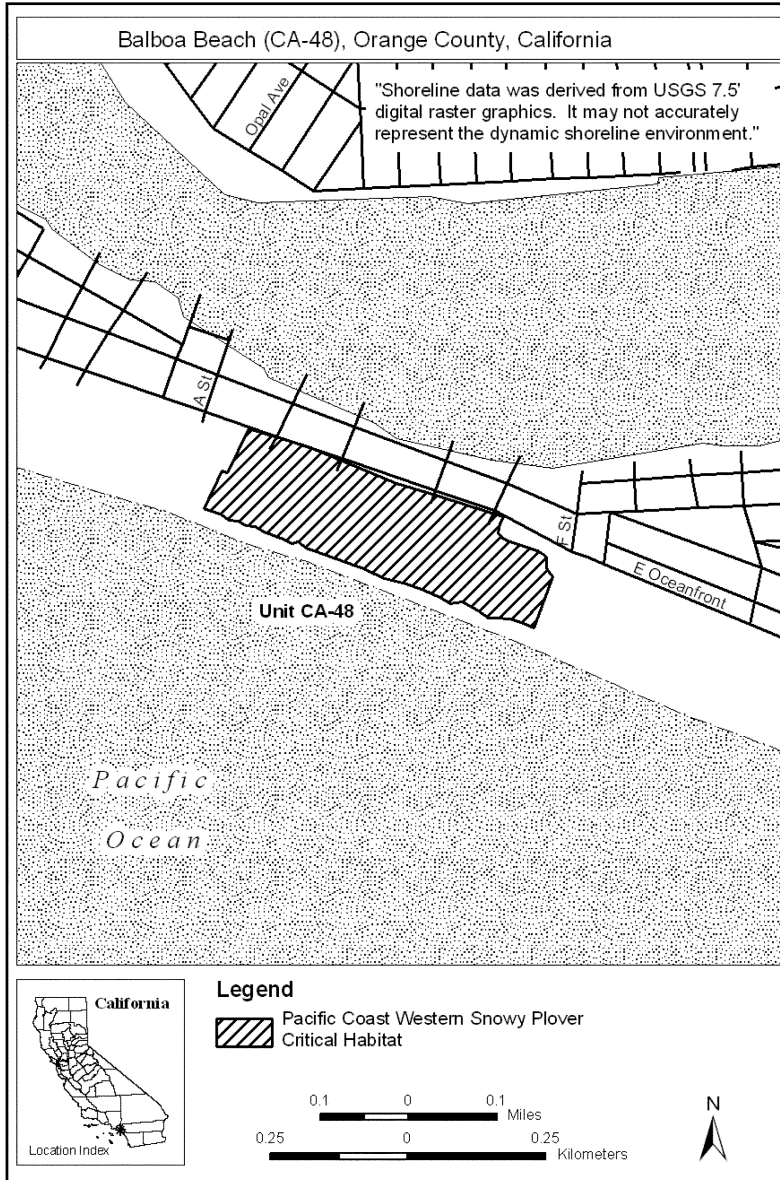
(ii) **Note:** Map of Unit CA 47: Santa Ana River Mouth, Orange County, California, follows:



(88) Unit CA 48: Balboa Beach, Orange County, California.

(i) [Reserved for textual description of Unit CA 48: Balboa Beach, Orange County, California.]

(ii) **Note:** Map of Unit CA 48: Balboa Beach, Orange County, California, follows:



(89) Subunit CA 50A: Batiqitos Lagoon, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 50A: Batiqitos Lagoon, San Diego County, California.]

(ii) **Note:** Subunit CA 50A: Batiqitos Lagoon, San Diego County, California is depicted on the map in paragraph (91)(ii) of this entry.

(90) Subunit CA 50B: Batiqitos Lagoon, San Diego County, California.

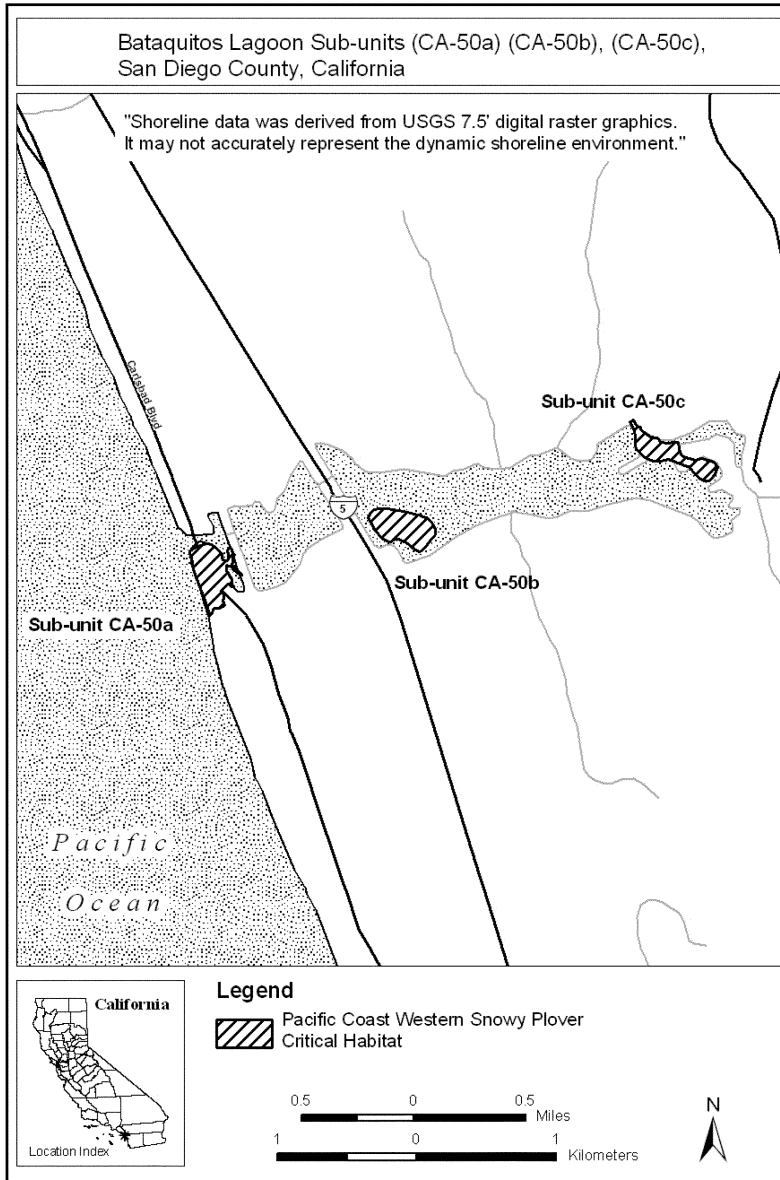
(i) [Reserved for textual description of Subunit CA 50B: Batiqitos Lagoon, San Diego County, California]

(ii) **Note:** Subunit CA 50B: Batiqitos Lagoon, San Diego County, California is depicted on the map in paragraph (91)(ii) of this entry.

(91) Subunit CA 50C: Batiqitos Lagoon, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 50C: Batiqitos Lagoon, San Diego County, California]

(ii) **Note:** Map of Subunits CA 50A–50C: Batiqitos Lagoon, San Diego County, California, follows:



(92) Subunit CA 51A: San Elijo Lagoon Ecological Reserve, San Diego County, California.

(i) [Reserved for textual description of Subunit 51A: San Elijo Lagoon Ecological Reserve, San Diego County, California]

(ii) **Note:** Subunit 51A: San Elijo Lagoon Ecological Reserve, San Diego County, California, is depicted on the map in paragraph (94)(ii) of this entry.

(93) Subunit CA 51B: San Elijo Lagoon Ecological Reserve, San Diego County, California.

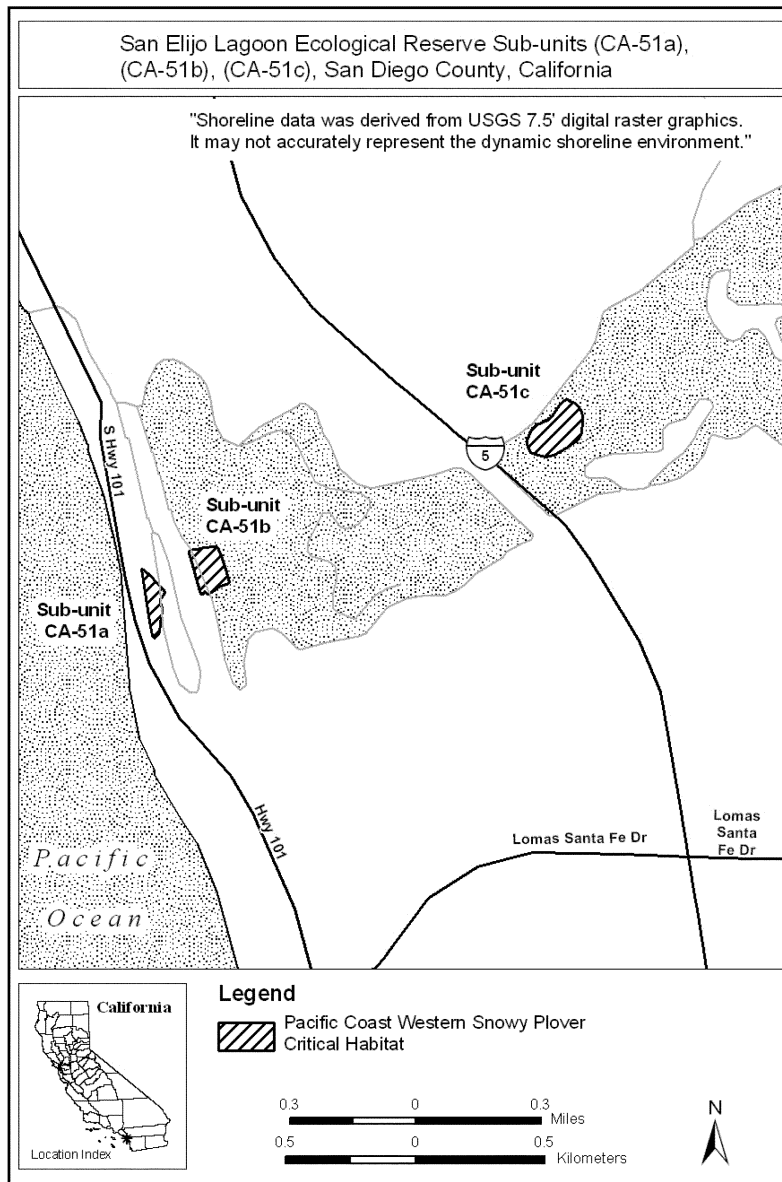
(i) [Reserved for textual description of Subunit CA 51B: San Elijo Lagoon Ecological Reserve, San Diego County, California]

(ii) **Note:** Subunit CA 51B: San Elijo Lagoon Ecological Reserve, San Diego County, California, is depicted on the map in paragraph (94)(ii) of this entry.

(94) Subunit CA 51C: San Elijo Lagoon Ecological Reserve, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 51C: San Elijo Lagoon Ecological Reserve, San Diego County, California]

(ii) **Note:** Map of Subunits CA 51A–51C: San Elijo Lagoon Ecological Reserve, San Diego County, California, follows:



(95) Subunit CA 52A: San Dieguito Lagoon, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 52A: San Dieguito Lagoon, San Diego County, California]

(ii) **Note:** Subunit CA 52A: San Dieguito Lagoon, San Diego County, California, is depicted on the map in paragraph (97)(ii) of this entry.

(96) Subunit CA 52B: San Dieguito Lagoon, San Diego County, California.

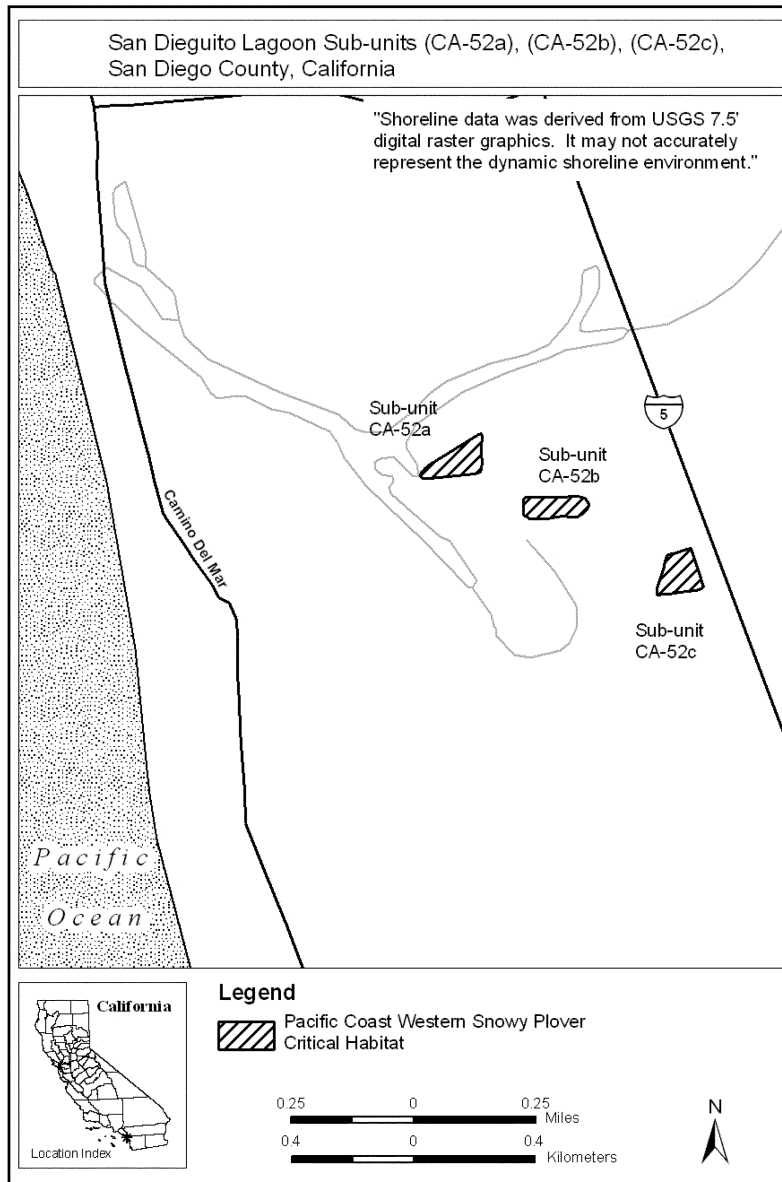
(i) [Reserved for textual description of Subunit CA 52B: San Dieguito Lagoon, San Diego County, California]

(ii) **Note:** Subunit CA 52B: San Dieguito Lagoon, San Diego County, California, is depicted on the map in paragraph (97)(ii) of this entry.

(97) Subunit CA 52C: San Dieguito Lagoon, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 52C: San Dieguito Lagoon, San Diego County, California]

(ii) **Note:** Map of Subunits CA 52A–52C: San Dieguito Lagoon, San Diego County, California, follows:



(99) Subunit CA 54A: Fiesta Island, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 54A: Fiesta Island, San Diego County, California]

(ii) **Note:** Subunit CA 54A: Fiesta Island, San Diego County, California, is depicted on the map in paragraph (102)(ii) of this entry.

(100) Subunit CA 54B: Mariner's Point, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 54B: Mariner's Point, San Diego County, California]

(ii) **Note:** Subunit CA 54B: Mariner's Point, San Diego County, California, is depicted on the map in paragraph (102)(ii) of this entry.

(101) Subunit CA 54C: South Mission Beach, San Diego County, California.

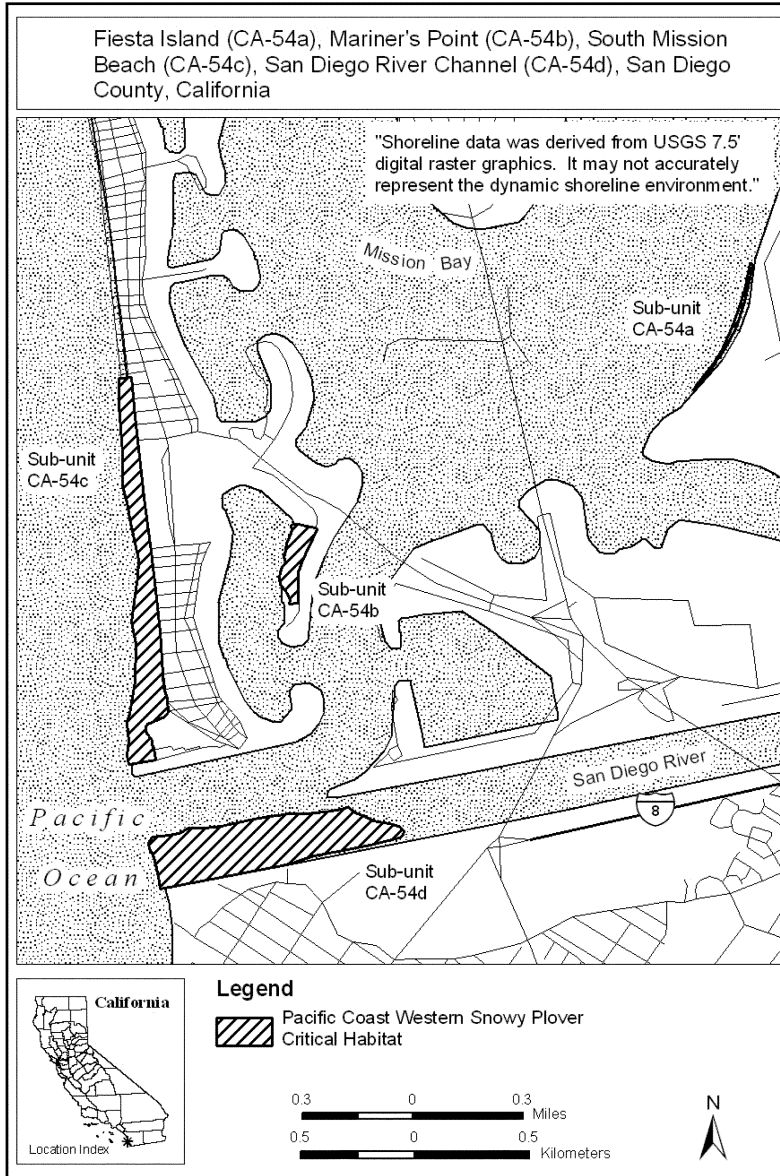
(i) [Reserved for textual description of Subunit CA 54C: South Mission Beach, San Diego County, California]

(ii) **Note:** Subunit CA 54C: South Mission Beach, San Diego County, California is depicted on the map in paragraph (102)(ii) of this entry.

(102) Subunit CA 54D: San Diego River Channel, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 54D: San Diego River Channel, San Diego County, California]

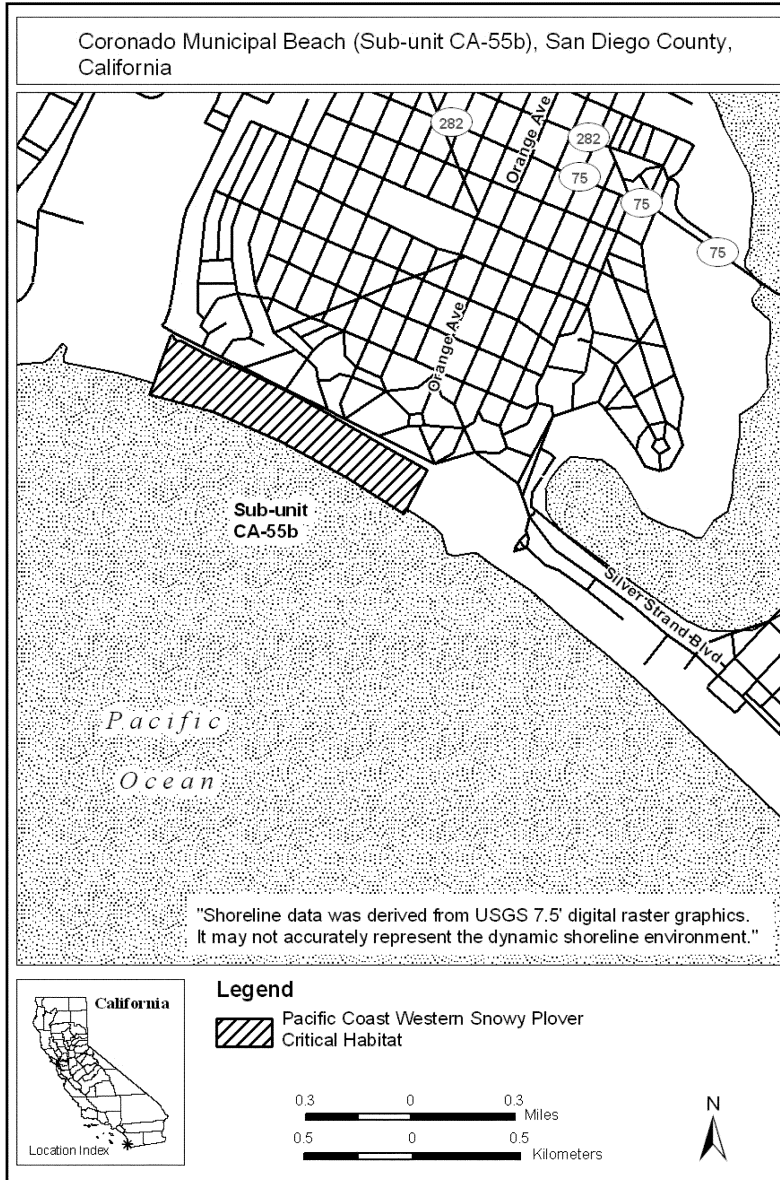
(ii) **Note:** Map of Subunits CA 54A–54D: San Diego River Channel, San Diego County, California, follows:



(103) Subunit CA 55B: Coronado Beach, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 55B: Coronado Municipal Beach, San Diego County, California]

(ii) **Note:** Map of Subunit CA 55B: Coronado Beach, San Diego County, California follows:



(104) Subunit CA 55E: Sweetwater Marsh National Wildlife Refuge, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 55E: Sweetwater Marsh National Wildlife Refuge, San Diego County, California]

(ii) **Note:** Subunit CA 55E: Sweetwater Marsh National Wildlife Refuge, San Diego County, California, is depicted on the map in paragraph (107)(ii) of this entry.

(105) Subunit CA 55F: Silver Strand State Beach, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 55F: Silver Strand State

Beach, San Diego County, San Diego County, California]

(ii) **Note:** Subunit CA 55F: Silver Strand State Beach, San Diego County, San Diego County, California, is depicted on the map in paragraph (107)(ii) of this entry.

(106) Subunit CA 55G: Chula Vista Wildlife Reserve, San Diego County, California.

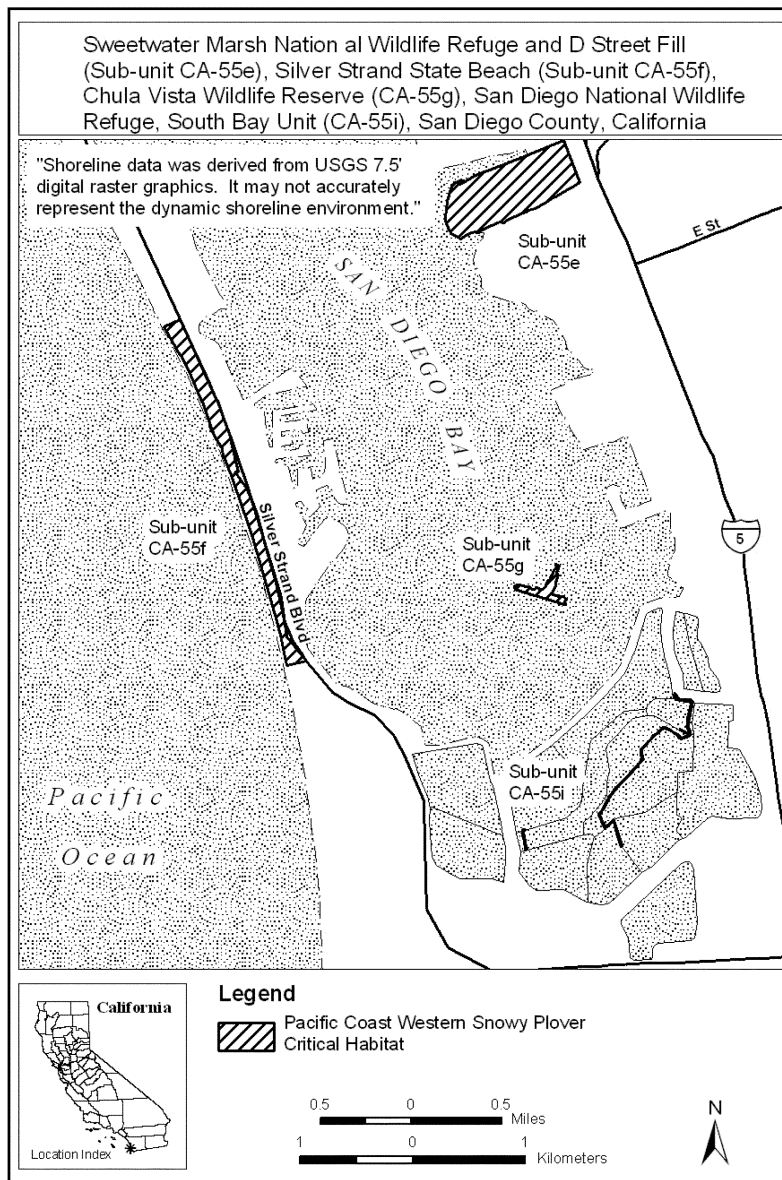
(i) [Reserved for textual description of Subunit CA 55G: Chula Vista Wildlife Reserve, San Diego County, California]

(ii) **Note:** Subunit CA 55G: Chula Vista Wildlife Reserve, San Diego County, California, is depicted on the map in paragraph (107)(ii) of this entry.

(107) Subunit CA 55I: San Diego National Wildlife Refuge—South Bay Unit, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 55I: San Diego National Wildlife Refuge—South Bay Unit, San Diego County, California]

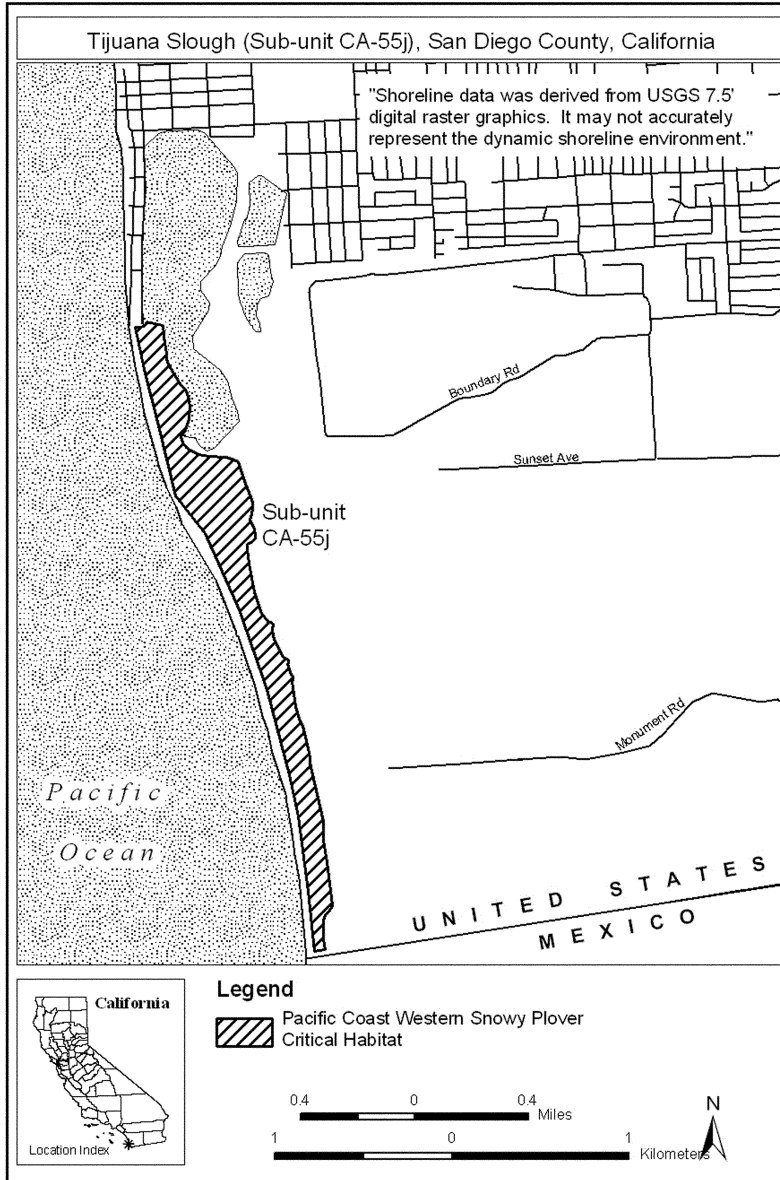
(ii) **Note:** Map of Subunit CA 55E: Sweetwater Marsh National Wildlife Refuge, CA 55F: Silver Strand State Beach, CA 55G: Chula Vista Wildlife Reserve, and CA 55I: San Diego National Wildlife Refuge—South Bay Unit, San Diego County, California, follows:



(108) Subunit CA 55j: Tijuana Estuary and Beach, San Diego County, California.

(i) [Reserved for textual description of Subunit CA 55j: Tijuana Estuary and Beach, San Diego County, California]

(ii) **Note:** Map of Subunit CA 55j: Tijuana Estuary and Beach, San Diego County, California, follows:



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Dated: February 25, 2011.

Will Shafroth,
Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2011-4906 Filed 3-21-11; 8:45 am]

BILLING CODE 4310-55-C