

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

RIN 1018-AD10

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

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) proposes to designate 28 areas along the coast of California, Oregon, and Washington as critical habitat for the Pacific coast vertebrate population segment of the western snowy plover (*Charadrius alexandrinus nivosus*). This small shorebird is listed as a threatened species under the Endangered Species Act of 1973, as amended (Act). Critical habitat designation would provide additional protection under section 7 of the Act with regard to activities that require Federal agency action. As required by section 4 of the Act, the Service will consider economic and other relevant impacts prior to making a final decision on the size and configuration of critical habitat.

**DATES:** Comments from all interested parties must be received by May 31, 1995. Public hearing requests must be received by April 17, 1995.

**ADDRESSES:** Comments and materials concerning this proposal should be sent to Joel Medlin, Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Field Office, 2800 Cottage Way, Room E-1803, Sacramento, CA 95825-1846. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Ms. Karen J. Miller, Sacramento Field Office (see ADDRESSES section) telephone 916/979-2725, facsimile 916/979-2723.

**SUPPLEMENTARY INFORMATION:****Background***Previous Federal Actions*

On March 24, 1988, the Service received a petition from Dr. J.P. Myers of the National Audubon Society to list the Pacific coast population of the western snowy plover as a threatened species under the Act. On November 14, 1988, the Service published a 90-day petition finding (53 FR 45788) that substantial information had been

presented indicating the requested action may be warranted. At that time, the Service acknowledged that questions pertaining to the demarcation of the subspecies and significance of interchange between coastal and interior stocks of the subspecies remained to be answered. Public comments were requested on the status of the coastal population of the western snowy plover. A status review of the entire subspecies had been in progress since the Service's December 30, 1982, Vertebrate Notice of Review (47 FR 58454). In that notice, as in subsequent notices of review (September 18, 1985 (50 FR 37958); January 6, 1989 (54 FR 554)), the western snowy plover was included as a category 2 candidate. Category 2 encompasses species for which information now in possession of the Service indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. The public comment period on the petition was closed on July 11, 1989 (54 FR 26811, June 26, 1989).

In September 1989, the Service completed a status report on the western snowy plover. Based on the best scientific and commercial data available, including comments submitted during the status review, the Service made a 12-month petition finding on June 25, 1990, that the petitioned action was warranted but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act.

On January 14, 1992 (57 FR 1443), the Service published a proposal to list the coastal population of the western snowy plover as a threatened species. After a review of the best scientific and commercial available and all comments received in response to the proposed rule, the Service published a final rule to list the coastal population of the western snowy plover as a threatened species on March 5, 1993 (58 FR 12864), and thereby activated the protections applicable to listed species. The Service did not propose to designate critical habitat for the snowy plover within the proposed or final listing rulemaking because the Service found that critical habitat was not then determinable. The Service now has the information needed for a critical habitat proposal.

*Ecological Considerations*

The western snowy plover, which is one of twelve subspecies of the snowy plover (Rittinghaus 1961 in Jacobs 1986), is a small, pale colored shorebird with dark patches on either side of the

upper breast. The species was first described in 1758 by Linnaeus (American Ornithologists' Union 1957). For a complete discussion of the ecology and life history of this subspecies, see the Service's March 5, 1993, final rule listing the coastal population of the western snowy plover as a threatened species (58 FR 12864).

The Pacific coast population of the western snowy plover breeds in loose colonies primarily on coastal beaches from southern Washington to southern Baja California, Mexico. On the Pacific coast, larger concentrations of breeding birds occur in the south than in the north, suggesting that the center of the plovers' coastal distribution lies closer to the southern boundary of California (Page and Stenzel 1981). In Baja California, Mexico, snowy plovers are distributed across 28 sites, with concentrations at six coastal lakes (Dra. Graciela De La Graza Garcia, Director General of Conservation Ecology and Natural Resources, United States of Mexico, *in litt.*, 1992). Other less common nesting habitat includes salt pans, coastal dredged spoil disposal sites, dry salt ponds, and salt pond levees and islands (Widrig 1980, Wilson 1980, Page and Stenzel 1981). Sand spits, dune-backed beaches, unvegetated beach strands, open areas around estuaries, and beaches at river mouths are the preferred coastal habitats for nesting (Stenzel *et al.* 1981, Wilson 1980).

Based on the most recent surveys, a total of 28 snowy plover breeding sites or areas currently occur on the Pacific Coast of the United States. Two sites occur in southern Washington—one at Leadbetter Point, in Willapa Bay (Widrig 1980), and the other at Damon Point, in Grays Harbor (Anthony 1985). In Oregon, nesting birds were recorded in 6 locations in 1990 with 3 sites (Bayocean Spit, North Spit Coos Bay and spoils, and Bandon State Park-Floras Lake) supporting 81 percent of the total coastal nesting population (Oregon Department of Fish and Wildlife, unpubl. data, 1991). A total of 20 plover breeding areas currently occur in coastal California (Page *et al.* 1991). Eight areas support 78 percent of the California coastal breeding population: San Francisco Bay, Monterey Bay, Morro Bay, the Callendar-Mussel Rock Dunes area, the Point Sal to Point Conception area, the Oxnard lowland, Santa Rosa Island, and San Nicolas Island (Page *et al.* 1991).

The coastal population of the western snowy plover consists of both resident and migratory birds. Some birds winter in the same areas used for breeding (Warriner *et al.* 1986, Wilson-Jacobs,

pers. comm. in Page *et al.* 1986). Other birds migrate either north or south to wintering areas (Warriner *et al.* 1986). Plovers occasionally winter in southern coastal Washington (Brittall *et al.* 1976). The recent discovery of snowy plovers wintering near Cape Shoalwater in Pacific County, Washington, represents the northernmost record of wintering snowy plovers on the Pacific coast (Scott Richardson, Washington Department of Wildlife, pers. comm., 1994). From 43 to 81 plovers wintered on the Oregon coast between 1982–1990, primarily on 3 beach segments (Oregon Department of Fish and Wildlife 1994). The majority of birds, however, winter south of Bodega Bay, California (Page *et al.* 1986). Wintering plovers occur in widely scattered locations on both coasts of Baja California and significant numbers have been observed on the mainland coast of Mexico at least as far south as San Blas, Nayarit (Page *et al.* 1986). Many interior birds west of the Rocky Mountains winter on the Pacific coast (Page *et al.* 1986, Stern *et al.* 1988). Birds winter in habitats similar to those used during the nesting season.

Widely varying nest success (percentage of nests hatching at least one egg) and reproductive success (number of young fledged per female, pair, or nest) are reported in the literature. Nest success ranges from 0 to 80 percent for coastal snowy plovers (Widrig 1980, Wilson 1980, Saul 1982, Wilson-Jacobs and Dorsey 1985, Wickham unpubl. data in Jacobs 1986, Warriner *et al.* 1986). Instances of low nest success have been attributed to a variety of factors, including predation, human disturbance, and inclement weather conditions. Reproductive success ranges from 0.05 to 2.40 young fledged per female, pair or nest (Page *et al.* 1977, Widrig 1980, Wilson 1980, Saul 1982, Warriner *et al.* 1986, Page 1988). Page *et al.* (1977) estimated that snowy plovers must fledge 0.8 young per female to maintain a stable population. Reproductive success falls far short of this threshold at many nesting sites (Widrig 1980, Wilson 1980, Warriner *et al.* 1986, Page 1988, Page 1990).

#### Management Considerations

Historic records indicate that nesting western snowy plovers were once more widely distributed in coastal California, Oregon, and Washington than they are currently. In coastal California, snowy plovers bred at 53 locations prior to 1970 (Page and Stenzel 1981). Since that time, no evidence of breeding birds has been found at 33 of these 53 sites, representing a 62 percent decline in

breeding sites (Page and Stenzel 1981). The greatest losses of breeding habitat were in southern California, within the central portion of the snowy plover's coastal breeding range. In Oregon, snowy plovers historically nested at 29 locations on the coast (Charles Bruce, Oregon Department of Fish and Wildlife, pers. comm., 1991). In 1990 only 6 nesting colonies remained, representing a 79 percent decline in active breeding sites. In Washington, snowy plovers formerly nested in at least 5 sites on the coast (Eric Cummins, pers. comm., 1991). Today only 2 colony sites remain active, representing, at minimum, a 60 percent decline in breeding sites.

In addition to loss of nesting sites, the plover breeding population in California, Oregon, and Washington has declined 17 percent between 1977 and 1989 (Page *et al.* 1991). Declines in the breeding population have been specifically documented in Oregon and California. Breeding season surveys along the Oregon coast from 1978 to 1993 show that the number of adult snowy plovers has declined significantly at an average annual rate of about 7 percent (Oregon Department of Fish and Wildlife 1994). The number of adults has declined from a high of 142 adults in 1981 to a low of 30 adults in 1992 (Oregon Department of Fish and Wildlife 1994; Randy Fisher, Oregon Department of Fish and Wildlife, *in litt.*, 1992). If the current trend continues, breeding snowy plovers could disappear from coastal Oregon by 1999. In 1981, the coastal California breeding population of snowy plovers was estimated to be 1,565 adults (Page and Stenzel 1981). In 1989, surveys revealed 1,386 plovers (Page *et al.* 1991), an 11 percent decline in the breeding population. The population decline in California may be greater than indicated; the 1989 survey results are considered more reliable than the earlier estimates, which may have underestimated the overall population size (Gary Page, pers. comm., 1991).

Although there are no historic data for Washington, it is doubtful that the snowy plover breeding population in Washington was ever very large (Brittall *et al.* 1976). However, loss of nesting sites in this state probably has resulted in a reduction in their overall population size. In recent years, fewer than 30 birds have nested on the southern coast of Washington (James Atkinson, pers. comm. 1990; Eric Cummins, pers. comm., 1991). In 1991, only one successful brood was detected in the State (Tom Juelson, Washington Department of Wildlife, *in litt.*, 1992).

Survey data also indicate a decline in wintering snowy plovers, particularly in southern California. The number of snowy plovers observed during Christmas Bird Counts from 1962 to 1984 significantly decreased in southern California despite an increase in observer participation in the counts (Page *et al.* 1986). This observed decline was not accompanied by a significant loss of wintering habitat over the same time period (Page *et al.* 1986).

The most important form of habitat loss to coastal breeding snowy plovers has been encroachment of European beachgrass (*Ammophila arenaria*). This non-native plant was introduced to the west coast around 1898 to stabilize dunes (Wiedemann 1987). Since then it has spread up and down the coast and now is found from British Columbia to southern California (Ventura County). European beachgrass is currently a major dune plant at about 50 percent of California breeding sites and all of those in Oregon and Washington (J.P. Myers, National Audubon Society, *in litt.*, 1988). Stabilizing sand dunes with European beachgrass has reduced the amount of unvegetated area above the tideline, decreased the width of the beach, and increased its slope. These changes have reduced the amount of potential snowy plover nesting habitat on many beaches and may hamper brood movements. The beachgrass community also provides habitat for snowy plover predators that historically would have been largely precluded by the lack of cover in the dune community. Cost effective methods to control or eradicate European beachgrass have not yet been found.

In the habitat remaining for snowy plover nesting, human activity (e.g., walking, jogging, running pets, horseback riding, off-road vehicle use, and beach raking) is a key factor in the ongoing decline in snowy plover coastal breeding sites and breeding populations in California, Oregon, and Washington. The nesting season of the western snowy plover (mid-March to mid-September) coincides with the season of greatest human use on beaches of the west coast (Memorial Day through Labor Day). Human activities detrimental to nesting snowy plovers include unintentional disturbance and trampling of eggs and chicks by people and unleashed pets (Stenzel *et al.* 1981, Warriner *et al.* 1986, P. Persons, *in litt.*, 1992), off-road vehicle use (Widrig 1980, Stenzel *et al.* 1981, Anthony 1985, Warriner *et al.* 1986, Page 1988, Philip Persons, *in litt.*, 1992); horseback riding (Woolington 1985, Page 1988, Philip Persons, *in litt.*, 1992); and beach raking (Stenzel *et al.* 1981). Page *et al.* (1977)

found that snowy plovers were disturbed more than twice as often by such human activities than all other natural causes combined.

In the few instances where human intrusion into snowy plover nesting areas has been precluded either through area closures or by natural events, nesting success has improved. The average number of young fledged per nesting pair increased from 0.75 to 2.00 after the nesting site at Leadbetter Point, Washington was closed to human activities (Saul 1982). Similarly, vehicle closure on a portion of Pismo Beach, California, led to an eight-fold increase in the nesting plover population (W. David Shuford, Point Reyes Bird Observatory, *in litt.*, 1989). After beach access was virtually eliminated by the 1989 earthquake, fledging success increased 16 percent at Moss Landing Beach, California (Page 1990).

Predation by mammalian and avian predators is a major concern at a number of nesting sites. Western snowy plover eggs, chicks, and adults are taken by a variety of avian and mammalian predators. These losses, particularly to avian predators, are exacerbated by human disturbances. Of the many predators, American crows (*Corvus brachyrhynchos*), ravens (*C. corax*), and red fox (*Vulpes*) have had a significantly adverse effect on reproductive success at several colony sites (Wilson-Jacobs and Meslow 1984, Page 1988, John and Jane Warriner, Point Reyes Bird Observatory, *in litt.*, 1989, Page 1990, Stern *et al.* 1991). Accumulation of trash at beaches attracts these as well as other predators (Stern *et al.* 1990, Hogan 1991).

At most active breeding sites few measures have been implemented specifically to protect snowy plovers. Artificial measures have been used at several nesting sites to improve snowy plover nesting success. In 1991, the California Department of Parks and Recreation and the Service conducted plover nest enclosure studies on National Wildlife Refuge and State property in the Monterey area. Hatching success of plover nests in enclosures was 81 percent as compared to 28 percent for unprotected nests (Richard G. Rayburn, California Department of Parks and Recreation, *in litt.*, 1992, Elaine Harding-Smith, U.S. Fish and Wildlife Service, pers. comm., 1992). Use of nest enclosures at Coos Bay North Spit resulted in up to 88 percent nesting success, compared to as low as 9 percent success for unprotected nests (Stern *et al.* 1991, Randy Fisher, *in litt.*, 1992). Nest enclosures continue to be used at the above sites. The Service recently finalized a predator

management plan for Salinas River National Wildlife Refuge, which proposes management measures to reduce red fox populations on the Refuge (Parker and Takekawa 1993).

In a few areas in California, including the Marine Corps Base at Camp Pendleton, plovers have benefitted somewhat from protective measures taken for the endangered California least tern (*Sterna antillarum browni*). At Vandenberg Air Force Base in southern California, beaches are closed to all foot and vehicular traffic during the least tern nesting season (Donna Brewer, U.S. Fish and Wildlife Service, pers. comm., 1991). Dogs and cattle have been restricted from some beaches at Point Reyes National Seashore (Gary Page, pers. comm., 1991), and some beaches on Federal land in Oregon have been closed to vehicles to protect plovers and other wildlife (Charles Bruce, pers. comm., 1991). Leadbetter Point in Washington (Fish and Wildlife Service), a 5-acre spoil disposal site in Coos Bay (Bureau of Land Management), and a 25-acre spoil disposal site in Coos Bay (Corps of Engineers) are the only nesting sites where human access has been restricted in the past specifically for plover nesting. In 1993, at Oregon Dunes National Recreation Area, the Forest Service used temporary fencing and signing to direct beach visitors away from snowy plover nesting areas. At Coos Bay, Oregon, the Corps of Engineers is proposing two projects to create or improve plover nesting habitat using dredged spoils.

#### *Relationship to Recovery*

Section 2(c)(1) of the Act declares that "all Federal departments and agencies shall seek to conserve endangered and threatened species and shall utilize their authorities in furtherance of the purposes of this Act." Section 3(3) of the Act defines conservation as the use of all methods and procedures needed to recover an endangered or threatened species to the point at which it no longer needs to be listed under the Act. The Act mandates the conservation of listed species through different mechanisms, such as section 7 (requiring Federal agencies to further the purposes of the Act by carrying out conservation programs and insuring that Federal actions will not likely jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat); section 9 (prohibition of taking of listed species); section 10 (wildlife research permits, and other permits based on conservation plans); section 6 (cooperative

agreements and Federal grants); section 5 (land acquisition); and research.

A recovery plan under section 4(f) of the Act is the "umbrella" that eventually guides all of these activities and promotes species' conservation and eventual delisting. Recovery plans provide guidance, which may include population goals and identification of areas in need of protection or special management, so that the species' status may improve to where it may be removed from the list of endangered and threatened wildlife and plants. Recovery plans usually include management recommendations for areas proposed or designated as critical habitat.

The Service considers the conservation of a species in a designation of critical habitat. The designation of critical habitat will not, in itself, result in the recovery of the species, but is one of several measures available to contribute to conservation of the species. Critical habitat helps focus conservation activities by identifying areas that contain essential habitat features (primary constituent elements) that require special management. The protection given critical habitat under section 7 also immediately increases the protection given to these primary constituent elements and essential areas and preserves options for the long-term conservation of the species. The protection of these areas may also shorten the time needed to achieve recovery. Designation of critical habitat also heightens the awareness of the public and agencies of species conservation needs.

Designating critical habitat does not create a management plan, establish numerical population goals, or prescribe specific management actions, and it has no direct effect on areas not designated. Specific management recommendations for critical habitat are addressed in recovery plans, management plans, and section 7 consultations. Areas outside of critical habitat also may have an important role in conservation of a listed species. A designation of critical habitat may be reevaluated and revised at any time that new information indicates changes are warranted. In considering whether to designate critical habitat, the Service will evaluate whether land management plans, recovery plans, or other conservation strategies have been developed and fully implemented that may reduce the need for the additional protection provided by a critical habitat designation.

## Critical Habitat

### Definition

Critical habitat, as defined by section 3 of the Act (16 U.S.C. 1532) means (i) the specific areas within the geographical area occupied by a species at the time it is listed on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon determination that such areas are essential for the conservation of the species. The term "conservation" as defined in section 3(3) of the Act, means "to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." 16 U.S.C. 1532(3). Critical habitat, then, is to include biologically suitable areas necessary to recovery of the species. Critical habitat may be proposed for species that are already listed as threatened or endangered. Section 3 further states that in most cases the entire range of a species should not be encompassed within critical habitat.

### Primary Constituent Elements

The Act requires critical habitat designations to be based on the best scientific data available 16 U.S.C. 1533(a)(2). In determining what areas are critical habitat, the Service considers those physical and biological attributes that are essential to the conservation of the species and that may require special management considerations or protection. Such requirements include, but are not limited to, the following (1) Space for individual and population growth, and normal behavior; (2) food, water, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally (5) habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species (50 CFR 424.12).

In considering the designation of critical habitat, the Service focuses on the primary physical or biological constituent elements of the area that are essential to the conservation of the species (50 CFR 424.12). Primary constituent elements may include, but are not limited to, roost sites, nesting grounds, spawning sites, feeding sites,

seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types (50 CFR 424.12).

The proposed designation of critical habitat for the coastal population of the western snowy plover is based on the following physical and biological features and primary constituent elements:

- \* Space for individual and population growth.
- \* Food, water, air, light, minerals, and other nutritional or physiological requirements.
- \* Roost sites.
- \* Sites for breeding, reproduction, and rearing of offspring.
- \* Habitats (nesting grounds and feeding sites) that are protected from disturbance and are representative of the historic geographical and ecological distribution of the species.

For all areas of critical habitat proposed for the plover, these physical and biological features and primary constituent elements are provided or will be provided by intertidal beaches (between mean low water and mean high tide), associated dune systems, and river estuaries. Important components of the beach/dune/estuarine ecosystem include surf-cast kelp, sparsely vegetated foredunes, interdunal flats, spits, washover areas, blowouts, intertidal flats, salt flats, and flat rocky outcrops. Several of these components (sparse vegetation, salt flats) are mimicked in artificial habitat types used less commonly by snowy plovers (i.e., dredge spoil sites and salt ponds and adjoining levees). Functional suitability of areas containing the features listed above is also contingent upon isolation from human disturbance and predation. These attributes are considered essential to the conservation of the coastal population of the western snowy plover.

The primary constituent elements of snowy plover nesting, foraging, and roosting habitat could occur on virtually every beach along the Pacific coast. Therefore, biologically based criteria were developed as a basis for further identifying critical habitat areas and related recovery objectives. The key components of site importance as it relates to recovery of the species were existing nesting capacity, wintering capacity, and geographic location. Those sites in Washington, Oregon, and California that currently support the majority of breeding and wintering western snowy plovers were initially selected for critical habitat designation. Several additional sites in California were selected for designation to avoid a large gap in the geographic distribution of breeding or wintering birds.

Important nesting and wintering sites were identified from Page and Stenzel (1981), Page *et al.* (1986), Page *et al.* (1991), Washington Department of Wildlife (1993), and Oregon Department of Fish and Wildlife (1994); and through personal communications with professionals in the field.

### Proposed Critical Habitat Designation

The Service has identified 28 critical habitat areas totalling approximately 20,000 acres and about 210 miles of coastline, or about 10 percent of the coastline of California, Oregon, and Washington. Of the 28 areas, 19 critical habitat areas are proposed in California, 7 in Oregon, and 2 in Washington. Within the last decade, these sites provided habitat for about 65 percent of nesting and 60 percent of wintering western snowy plovers in California; 95 percent of nesting and 95 percent of wintering plovers in Oregon; and 100 percent of nesting and about 90 percent of wintering plovers in Washington. Protection and special management of these sites are essential to recovery of the coastal population of the western snowy plover and will form the cornerstone of a recovery plan.

In California, approximately 25 percent of proposed critical habitat occurs on Federal lands. About 50 percent of critical habitat proposed on non-Federal lands is State-owned, with the California Department of Parks and Recreation being the primary land manager. In Oregon about 45 percent of proposed critical habitat areas occurs on Federal land with the remainder controlled primarily by State agencies. Of the two sites proposed in the State of Washington, one is State property, and the second includes State lands adjacent to Willapa National Wildlife Refuge.

The Service excluded from proposed critical habitat designation, lands that already provide adequate protection for the western snowy plover. These sites include lands that provide plover nesting and wintering habitat within three National Wildlife Refuge complexes—Willapa National Wildlife Refuge in Washington, and Salinas National Wildlife Refuge and the Southern California Coastal Complex in California. Programs currently exist on these refuges to protect snowy plovers. Also excluded are lands owned and/or managed by the National Park Service. Important plover nesting areas on National Park Service lands (such as Santa Rosa Island) are relatively inaccessible by the public. Any recreational use impacts or other identifiable impacts on breeding and wintering birds or their habitat would

be covered through the section 7 consultation process. Also excluded are key nesting areas on Camp Pendleton in San Diego County, California. A programmatic consultation currently underway between the Service and the Department of the Navy will address any adverse effects to nesting plovers and their habitat. For the above sites, therefore, designation of critical habitat would provide no additional benefit to the species. Prior to making a final decision on this proposal the Service will continue to consider whether existing management provides adequate protection for nesting and wintering western snowy plovers. For example, we are working with the Resources Agency of California to identify California State Park lands in this proposal that are currently providing adequate protection for these birds. The Service may exclude adequately protected sites from designation.

The Service also excluded from proposed critical habitat sites that would significantly conflict with the survival and recovery objectives of other listed species. Significant conflicts were identified between the habitat needs of snowy plovers and biological objectives for the California clapper rail (*Rallus longirostris obsoletus*), light-footed clapper rail (*Rallus longirostris levipes*), and salt marsh harvest mouse (*Reithrodontomys raviventris*). The two rails and mouse are federally listed endangered species.

The California clapper rail and salt marsh harvest mouse inhabit estuarine marshes of San Francisco Bay. Over 90 percent of historic tidal marsh habitat in the Bay has been lost, primarily through the development of commercial salt ponds (Josselyn 1983). Western snowy plovers have taken advantage of this artificial salt pond habitat, primarily in south San Francisco Bay, and nest on levees or islands within active salt ponds or in abandoned dry salt ponds. This artificial habitat supports the largest subpopulation of snowy plovers within its range (Page *et al.* 1991). This same habitat, with the exception of two salt pond sites used by nesting snowy plovers, however, is identified in the recovery plan for the California clapper rail and salt marsh harvest mouse for restoration to historic tidal marsh (U.S. Fish and Wildlife Service 1984; Peter Sorensen, Fish and Wildlife Service, pers. comm., 1994).

The light-footed clapper rail inhabits coastal tidal marshes from Santa Barbara County south to Baja California, Mexico. Over two-thirds of historic tidal marsh habitat has been lost (Speth 1971) primarily to urban development, flood control, and oil development. Several

sites in Ventura, Orange, and San Diego Counties provide nesting and/or wintering habitat for snowy plovers, but also provide high quality clapper rail habitat or represent high priority tidal marsh restoration sites in the light-footed clapper rail recovery plan (U.S. Fish and Wildlife Service 1985). These sites are Bolsa Chica, Agua Hedionda Lagoon, Batiquitos Lagoon, San Elijo Lagoon, San Dieguito Lagoon, Los Penasquitos Lagoon, the San Diego River mouth, and the marshes of south San Diego Bay. Because the light-footed clapper rail is endangered and the habitat needs of this species differ significantly from those of the western snowy plover, the Service is excluding these sites from critical habitat designation.

Overall, this proposal focuses the primary recovery objectives for the western snowy plover on coastal beach and dune habitats, which represent a significant proportion of natural nesting and wintering habitat of the coastal population of the western snowy plover. These natural habitats, therefore, are considered essential to conservation of this threatened species. Protection of these sites as well as plover habitat on Fish and Wildlife Service, National Park Service, and Navy lands at Camp Pendleton will provide added protection for about 76 percent of nesting and 65 percent of wintering plovers rangewide. Sites excluded from critical habitat designation for the various reasons given above should not be considered as unnecessary to conservation of the species. The recovery plan for the coastal population of the western snowy plover will address the value of these areas to species' recovery. At the present time, these excluded sites support about 20 percent of the coastal population of the western snowy plover and during the recovery process may provide birds to supplement populations in essential breeding and wintering areas. If focusing recovery on the 28 proposed critical habitat areas proves unattainable, additional sites may be proposed as critical habitat in the future to aid in recovery of the species.

At this time, conservation of the Pacific coast population of the western snowy plover requires sufficient management efforts at all sites proposed as critical habitat. However, new information that may be grounds for review of this determination includes, but is not limited to, data showing that the species is more or less vulnerable than currently thought, a change in the species' status due to catastrophic events such as disease or weather, or

evidence that continuing efforts to conserve the species are insufficient.

Many of the proposed critical habitat areas include large expanses of beach. For proposed sites that support nesting snowy plovers, nesting colonies may occupy only a small portion of the proposed critical habitat area. The larger critical habitat area is needed, however, because foraging occurs throughout the intertidal and foredune portions of the beach. Designation of larger critical habitat areas also will allow for natural shifting of plover nesting colonies as a result of vegetational changes and weather related events that reconfigure suitable nesting habitat.

Regulations governing designation of critical habitat (50 CFR 424.12(h)) state that critical habitat shall not be designated within foreign countries. Although the Pacific coast population of the western snowy plover's breeding and wintering range extends into Mexico, no critical habitat is proposed outside United States jurisdiction.

#### *Effects of Critical Habitat Designation*

Section 4(b)(8) of the Act requires, for any proposed or final regulation that designates critical habitat, a brief description and evaluation of those activities (public or private) that may adversely modify such habitat or may be affected by such designation. Regulations found at 50 CFR 402.02 define destruction or adverse modification of critical habitat as a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical, that is, its primary constituent elements.

An activity will not adversely modify an area within designated critical habitat that does not contain any constituent elements. For example, existing areas such as parking lots, paved roads, and various kinds of structures within the proposed critical habitat boundaries clearly would not furnish habitat or biological features for western snowy plovers. Furthermore, some activities would not be restricted by critical habitat designation because they would have no significant adverse effect on the primary constituent elements.

Activities that may adversely modify critical habitat are subject to regulation under section 7(a) of the Act if they are carried out, authorized, or funded by a Federal agency. The purpose of consultations between the Service and

other Federal agencies is to ensure that activities are carried out in a manner that is not likely to jeopardize the continued existence of listed species or adversely modify or destroy its critical habitat. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act and 50 CFR 402.10 of the regulations, require Federal agencies to confer informally with the Service on any action that is likely to result in destruction or adverse modification of proposed critical habitat.

Activities areas that could adversely affect proposed critical habitat of the coastal population of the western snowy plover fall into seven general categories:

(1) projects or management activities that cause, induce, or increase human-associated disturbance on beaches, including operation of off-road vehicles on the beach and beach cleaning. These activities may reduce the functional suitability of nesting, foraging, and roosting areas. Activities that may adversely modify critical habitat areas that support wintering birds (September 15–February 29) include beach cleaning that removes surfcast kelp and driftwood, dogs off leash, off-road vehicle driven at night, and falcon flying. Activities within posted fenced or otherwise protected nesting areas (March 1–September 14) that may adversely modify critical habitat areas include camping, off-road vehicle use (day or night), walking, jogging, clam digging, pets on or off leash, livestock grazing, sunbathing, picnicking, horseback riding, hang gliding, kite flying, model airplane flying, beach cleaning, and falcon flying in or over active nesting areas. With very few exceptions, the nesting area is a small fraction of the entire beach. Thus, no more than 5 to 15 percent of the vast majority of the units would be removed from these kinds of public uses during the breeding season. The Service would work with landowners to develop signs or fencing or other means to protect these small nesting areas. Furthermore, western snowy plovers occupy the soft sandy portions of the upper beach or foredunes, and people tend to prefer lower beach or sand that is regularly washed by the tides. On a case by case basis, the few restrictions could be removed after the plovers had finished breeding or left wintering grounds.

(2) actions that would promote unnatural rates or sources of predation. For example, producing human-generated litter that attracts predators, or designing enclosures that promote perching by avian predators may adversely modify critical habitat by reducing its functional suitability to support nesting snowy plovers.

(3) actions that would promote the invasion of non-native vegetation.

(4) activities associated with maintenance and operation of salt ponds. Activities that may adversely modify or destroy critical habitat when conducted during the snowy plover nesting season include flooding inactive salt ponds; raising the water level in active salt ponds; grading, resurfacing,

riprapping, or placing dredged spoils on levees; and driving maintenance vehicles on levees. However, levee maintenance activities also may benefit snowy plovers by providing vegetation-free habitat for nesting. The Service would work with landowners to avoid harmful activities during the breeding season.

(5) dredge spoil disposal activities that may adversely modify critical habitat when conducted during the nesting season include deposition of spoil material, laying of pipes to transport the material, and use of machinery to spread the material. However, dredge spoil disposal sites also may benefit snowy plovers by providing nesting habitat free of European beachgrass. The Service would work with landowners to avoid harmful activities during the breeding season.

(6) shoreline erosion control projects and activities that may alter the topography of the beach. Activities that may adversely modify or destroy nesting, foraging, and roosting habitat include beach nourishment (sand deposition, spreading of sand with machinery); construction of breakwaters and jetties (interruption of sand deposition); dune stabilization using native and non-native vegetation or fencing (decreased beach width, increased beach slope, reduction in blowouts and other preferred nesting habitat); beach leveling (increased tidal reach, removal of sparse vegetation used by chicks for shelter, destruction of rackline feeding habitat). Beach nourishment projects, however, also may have the potential to benefit nesting or wintering plover habitat on some sites experiencing serious erosion. The Service would work with landowners to avoid harmful activities when the birds are present.

(7) contamination events. Contamination through oil spills or chemical releases may adversely modify critical habitat by contaminating snowy plovers and/or their food sources.

Federal agencies that may be required to consult with the Service on one or more of these activities include the Forest Service, Bureau of Land Management, Federal Aviation Administration, and the Departments of the Army (including the Corps of Engineers), Navy, and Air Force.

In addition several other species that are listed under the Act occur in the same general areas as western snowy plovers. These species share the coastal beach/dune/estuarine ecosystem with snowy plovers. All of these species occurred historically in association with western snowy plovers in this Pacific coast ecosystem, and thus, the habitat requirements of these species do not significantly conflict with those of the snowy plover. Therefore, any plans prepared for sites designated as critical habitat for the snowy plover should be considered ecosystem management plans that accommodate needs of other listed or proposed species that also occur on the site. In doing so, these proposed snowy plover critical habitat

areas more aptly represent critical habitat for a multitude of species inhabiting the coastal beach/dune/estuarine ecosystem. Federal agencies proposing management actions for other listed species may affect critical habitat for the western snowy plover and be required to initiate formal consultation under section 7 of the Act. Conversely, proposed management actions for the benefit of the plover or its habitat may affect other listed species. The Service will work with other Federal agencies to develop ecosystem plans that provide for the needs of all listed species.

When the Service issues an opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, the Service also provides reasonable and prudent alternatives to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid resulting in the destruction or adverse modification of 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.

#### *Consideration of Economic and Other Factors*

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of designating any particular area as critical habitat. For example, beneficial impacts of critical habitat designation may include (1) a clear notification to Federal agencies and the public of the existence and importance of critical habitat, (2) voluntary increased protection of snowy plovers on some private lands, (3) stimulation of additional attention to the requirements of section 9 of the Act by private, municipal, county, and state landowners, (4) additional protection for other listed and non-listed species that occur in areas designated as critical habitat for the snowy plover, and (5) preservation of the beach-dune-estuarine ecosystem. Section 4(b)(2) authorizes the Service to exclude any area from critical habitat designation if the Service determines the benefits of excluding the area outweigh the benefits of including it, except that the Service

may not exclude an area if the Service determines that doing so would result in extinction of the species. Pursuant to 50 CFR 424.19, the Service will consider the economic and other relevant impacts of designating of critical habitat for the coastal population of the western snowy plover.

#### *Economic Analysis*

The economic analysis is designed to provide information to assist in making determinations about areas which may be excluded from critical habitat. It is conducted by examining how a designation of critical habitat for the snowy plover would be expected to affect the use of Federal lands as well as non-Federal activities authorized or funded by Federal agencies. Activities on private or state-owned lands that do not involve Federal permits, funding or other Federal actions would not be restricted by a designation of critical habitat.

The economic analysis distinguishes between economic effects caused by the listing of the snowy plover as threatened and those that would be caused by the proposed designation of critical habitat. Furthermore, if a proposed action would otherwise have been limited or prohibited by another statute or regulation, such as the Clean Water Act, those economic effects would not be attributable to either listing or critical habitat designation under the Endangered Species Act.

Economic effects are the costs or benefits to society of precluding or limiting specific land uses in areas being considered for designation as critical habitat. Economic effects are categorized as either efficiency or distributional. Economic efficiency effects are those consequences of critical habitat designation that cause changes in national income. Economic distribution effects pertain to regional changes that may have offsetting effects elsewhere in the national economy. Efficiency effects are used primarily to determine whether an action is economically sound and whether expected benefits exceed costs. Distributional effects are used to evaluate regional and local economic impacts.

#### *Consultation Under Section 7 of the Endangered Species Act*

Section 7 of the Act (16 USC 1536), requires Federal agencies to insure that activities they fund, authorize, or carry out are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat. Jeopardy is defined at 50 CFR 402.02 as any

action reasonably expected to reduce appreciably the likelihood of both the survival and recovery of the species in the wild by reducing its reproduction, numbers, or distribution. Destruction or adverse modification of critical habitat is defined at 50 CFR 402.02 as any direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of the species.

Under section 7, a Federal agency must consult with the Service if it determines that an action may affect a listed species or its critical habitat. During consultation, the Service reviews the agency's proposed action and prepares a biological opinion as to whether that action is likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat.

In cases where species are listed without critical habitat, the Service determines only whether the proposed action is likely to jeopardize the continued existence of the species. In cases where critical habitat has been designated, the Service also determines whether the proposed action is likely to destroy or adversely modify critical habitat. The additional requirement for Federal agencies to avoid destruction and adverse modification of critical habitat may result in incremental restrictions on agency actions beyond those required to avoid jeopardy or for other statutory or regulatory purposes.

The incremental restrictions arising from section 7 consultations on destruction or adverse modification are the only way that designating critical habitat produces an economic impact. To isolate that incremental impact, total economic effects of limitations on a proposed action within critical habitat must be apportioned between a species listing (jeopardy, take prohibitions, etc.) and critical habitat designation (destruction or adverse modifications).

If the action is found to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat, the Service is required to provide, to the extent possible, reasonable and prudent alternatives to the proposed action. By definition, reasonable and prudent alternatives allow the proposed action to go forward while removing the conditions that jeopardize the species or destroy or adversely modify its critical habitat. For the snowy plover, the Service believes that reasonable and prudent alternatives developed as part of consultation will allow most activities to continue, subject to some limitations. Such alternatives might include fencing or seasonal closure of certain areas to

human uses, as well as changes in beach erosion control or dredging plans.

Determination of whether an action will result in jeopardy and/or adverse modification is dependent upon a number of factors, such as the type of project, its size, location, and duration. In many cases, sufficient management actions will permit agencies to avoid adverse modification with little or no effect on their activities. The Service believes that, in the case of the snowy plover, the large majority of economic impacts as a result of section 7 consultation will occur as a result of listing, through the application of the jeopardy standard and incidental take prohibitions.

#### *Framework of Analysis*

The economic analysis examines the costs and benefits of precluding or limiting specific land uses within areas designated as critical habitat. It is cast in a "with" critical habitat versus a "without" critical habitat framework and seeks to measure the net change in the various categories of benefits and costs when the critical habitat designation is imposed on the existing baseline.

#### *National and Regional Effects*

The economic effects of critical habitat designation consist of those affecting national income and those that are important on a local or regional level.

National economic (efficiency) costs represent changes in national income (the total value of goods and services). They are measured as changes in consumer surplus and producer surplus (economic rent). Economic efficiency analysis seeks to maximize national income from a given resource base. Gains and losses in recreation values, increased costs imposed on management agencies or development projects, loss of earnings by displaced labor or capital assets, and changes in revenue from user fees (beach user fees, etc.) are typical national economic costs of critical habitat designation. The economic cost of designating critical habitat includes any additional costs that would be imposed, regardless of whether they are incurred by a Federal agency, a state agency or the private sector so long as they stem from a section 7 consultation regarding destruction or adverse modification of the habitat proposed to be designated.

Regional economic (distributional) impacts represent transfers between people, groups, or geographic regions, with no net effect on the national total. Distributional impacts relate to equity and fairness considerations and deal

primarily with how income and wealth are divided among regions and groups. Changes in employment, household income and local or state tax revenues are frequently used to portray regional effects.

#### *A Net-Cost With and Without Approach*

Designation of critical habitat will often result in both economic gains and losses. Careful application of a with and without analytical framework will help to distinguish between the two. For example, with critical habitat recreation such as bird watching may be preserved that otherwise would have been lost because of a development project or continued habitat loss. The national economic value of the preserved recreation and the regional jobs and household income it produces are gains, or benefits, of designation. Without critical habitat, an area may have been used for developed recreational purposes, but critical habitat designation would prohibit those uses. The values and jobs associated with that now precluded use become a loss (benefit foregone) due to critical habitat designation. It is the net effect of these changes in both the national and regional accounts that is important. Describing what probably would have happened to an area of potential critical habitat in both the with and without scenarios, both currently and in the future, is an important part of the analysis. The availability of data limits quantification of the net effects in many instances.

#### *Baseline for Analysis*

As noted earlier, the economic effects of critical habitat designation are incremental to those already created by the Clean Water Act and other statutes, and by listing the snowy plover as threatened. Actions taken for those other purposes establish the baseline for this analysis. It is the marginal increase in species protection provided by designation of critical habitat and the marginal change in costs, regional impacts, and benefits that the designation produces that are relevant to this analysis.

#### *Data Requirements*

The Service has notified Federal agencies having jurisdiction over the areas being proposed as critical and asked them to estimate the effect of designation on their activities. Each agency was sent detailed maps and legal descriptions of the proposed areas and asked to identify areas for which they were responsible. They were then asked to provide detailed descriptions of

activities on those areas that may be affected by critical habitat designation, in three situations:

*Without Listing:* Activities that would have been taking place in the proposed area if there had been no listing of the snowy plover as threatened.

*With Listing:* Activities that would be taking place once any existing or anticipated restrictions to avoid jeopardy decisions in section 7 consultations were put in place. This level of activity becomes the baseline for evaluation of the incremental effect of critical habitat designation.

*With Critical Habitat:* Activities expected to take place once any anticipated restrictions to avoid adverse modification decisions in section 7 consultations were put in place. The difference between this level and the With-Listing level is the impact attributable to designating critical habitat.

Land management agencies were asked to quantify their responses as much as possible in terms of days of beach use, cattle grazing, etc., and to estimate any change in their operational costs as a result of listing and of designating critical habitat. Other Federal agencies that may be affected by critical habitat through their regulatory or funding roles were also sent maps and legal descriptions of the proposed critical habitat and were asked if any of the areas were involved in pending or anticipated permit or funding actions. Responses to those requests will form the empirical basis of the economic analysis. The Service is also seeking information about such possible actions during the public comment period.

#### *The Exclusion Process*

This section summarizes the procedure that will be followed prior to a final rule in determining whether or not to exclude an area (or areas) from designation as critical habitat for the western snowy plover. The criteria used to help reach a determination and the steps followed are described below.

Section 3(5)(A) of the Endangered Species Act of 1973 (Act), as amended, generally defines critical habitat as:

(i) The specific areas within the geographical area occupied by the species, at the time it is listed \* \* \* on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.

Section 3 further states that in most cases critical habitat will not encompass the entire range of the species. The Act also directs the Secretary to consider economic and other relevant impacts in

the designation of critical habitat. Section 4(b)(2) states:

The Secretary shall designate critical habitat, and make revisions thereto \* \* \* on the basis of the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any 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 and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

Exclusion of an area as critical habitat would only eliminate the protection provided by the destruction or adverse modification standard of section 7; it would not alleviate the need to comply with other requirements of the Act in that area, such as section 7 consultation on jeopardy and section 9 prohibitions on take. These requirements would apply regardless of whether or not critical habitat is designated for a particular area.

The authority to make determinations under section 4(b)(2) of the Act has been delegated to the Director of the Fish and Wildlife Service. Implementation of section 4(b)(2) requires three determinations: (1) The conservation benefits to the species of including an area as critical habitat, (2) the economic and other costs of including an area, and (3) the cumulative effects of exclusions on the probability of species extinction. If the exclusion of an area or areas from critical habitat would result in species extinction, then exclusion of the critical habitat area(s) would not be authorized under the Act.

The process used to evaluate critical habitat areas to determine whether the benefits of exclusion outweigh the benefits of inclusion as critical habitat can be summarized in several sequential steps:

*Step 1* Identify areas that meet the definition of critical habitat in section 3(5) of the Act.

*Step 2* Conduct an economic analysis to determine the anticipated economic consequences of designating areas as critical habitat.

*Step 3* Identify the applicable economic, biological, and other information that need to be considered to determine whether to retain, exclude, or modify areas as critical habitat.

For the western snowy plover, the Service is proposing specific critical habitat areas that the Service believes are essential to the plovers' conservation. The biological value and

roles of each area in providing conservation benefits to the snowy plover have been identified in preparing the proposal. An economic analysis will be completed which estimates the potential economic effects of proposing critical habitat. The steps followed by the Service in designating critical habitat and in assessing the potential economic effects associated with a designation of the proposed areas will be fully described in the final rule and in the economic analysis report.

#### Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible in the conservation of endangered or threatened species and the protection of critical habitat. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Reasons why any habitat (either existing or additional areas) should or should not be determined to be critical habitat as provided by section 4 of the Act;

(2) Current or planned activities and their possible impacts on proposed critical habitat areas;

(3) Any foreseeable economic and other impacts resulting from the proposed designation of critical habitat;

(4) Economic values associated with benefits of designating critical habitat for the coastal population of the western snowy plover; and

(5) Information the Service might use, under section 4(b)(2) of the Act, in determining whether the benefits of excluding an area from critical habitat outweigh the benefits of specifying the area as critical habitat.

Any final decision on this proposal will take into consideration the comments and any additional information received by the Service during the 60-day comment period following publication of this proposed rule. The final decision on designation of critical habitat also will include any exclusion determinations.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of this proposal in the **Federal Register**. Such requests must be made in writing and should be sent to the Field Supervisor, Sacramento Field Office (see **ADDRESSES** section).

#### National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment and/or an Environmental Impact Statement, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

#### Executive Order 12866 and Regulatory Flexibility Act

This rule was reviewed by the Office of Management and Budget under Executive Order 12866. Based on the information discussed in this rule concerning public projects and private activities within critical habitat areas, there are no significant economic impacts resulting from the critical habitat designation. There are a limited number of actions on private land that have Federal involvement through funds or permits that may be affected by critical habitat designation. Also, no direct costs, enforcement costs, information collection, or recordkeeping requirements are imposed on small entities by this designation. Further, the rule contains no recordkeeping requirements as defined by the Paperwork Reduction Act of 1990. This rule does not require a Federalism assessment under Executive Order 12612 because it would not have any significant federalism effects as described in the order.

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- Author: The primary author of this proposed rule is Karen J. Miller, U.S. Fish and Wildlife Service, Sacramento Field Office, 2800 Cottage Way, Room E-1803, Sacramento, California 95825-1846 (916/979-2725).

### List of Subjects in 50 CFR Part 17

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

### Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter

I, title 50 of the Code of Federal Regulations, as set forth below:

### PART 17—[AMENDED]

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

**Authority:** 16 USC 1361-1407; 16 USC 1531-1544; 16 USC 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

#### § 17.11 [Amended]

2. It is proposed to amend § 17.11(h) by revising the "critical habitat" entry for "Plover, western snowy", under BIRDS, to read 17.95(b).

3. It is proposed to amend § 17.95(b) by adding, in the same alphabetical order as the species occurs in § 17.11(h), critical habitat of the Pacific coast population of the western snowy plover (*Charadrius alexandrinus nivosus*) to read as follows.

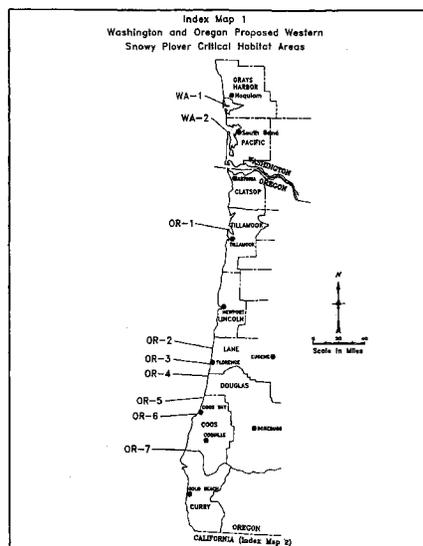
#### § 17.95 Critical habitat—fish and wildlife.

\* \* \* \* \*

(b) \* \* \*

\* \* \* \* \*

Western Snowy Plover (*Charadrius alexandrinus nivosus*)



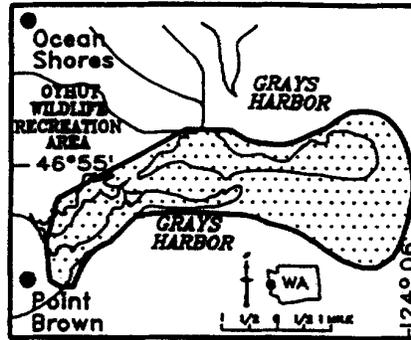
Washington. Areas of land and water as follows:

#### WA-1. Damon Point, Grays Harbor County (Index Map 1)

Beginning at 46°55'55" N, 124°09'07" W, thence northwesterly following the property

line of the Oyhut Wildlife Recreation Area to 46°55'58" N, 124°09'14" W, thence northwesterly to 46°56'12" N, 124°09'16" W, thence northeasterly to 46°56'27" N, 124°09'11" W, thence northeasterly to 46°56'52" N, 124°08'02" W, thence east to MLW, thence southeasterly, southerly, and

southwesterly following MLW around Damon Point to a point directly east of the point of beginning, thence west to the point of beginning. (Point Brown and Westport USGS 7.5" Quads 1983)



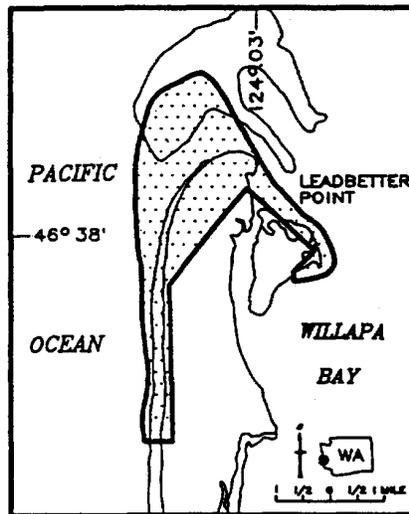
WA-1 DAMON POINT

**WA-2. Leadbetter Point, Pacific County (Index Map 1)**

Beginning at 46°36'22" N, 124°03'51" W, thence northeasterly to 46°37'38" N, 124°03'55" W, thence northeasterly to

46°38'30" N, 124°03'01" W, thence southeasterly to 46°37'58" N, 124°02'05" W, thence southwesterly to 46°37'48" N, 124°02'20" W, thence south to MLW, thence northeasterly around the north end of

Leadbetter Point, thence southerly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. Excludes all U.S. Fish and Wildlife Service property. (North Cove and Oysterville USGS 7.5" Quads 1984)



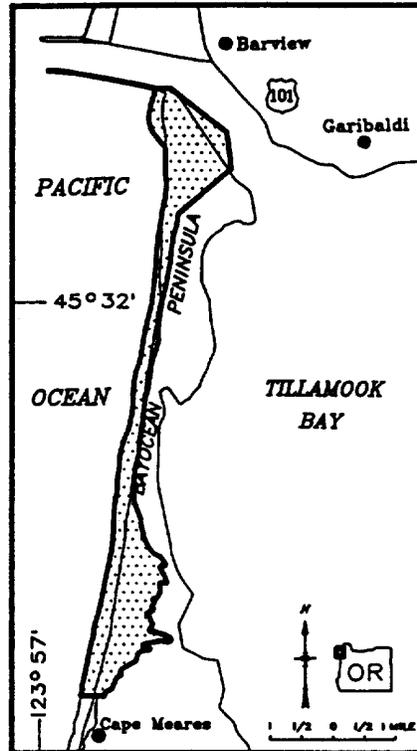
WA-2 LEADBETTER POINT

Oregon. Areas of land and water as follows:  
**OR-1. Bayocean Spit, Tillamook County (Index Map 1)**

Beginning at 45°33'57" N, 123°56'50" W, thence north to MLW, thence southeasterly following MLW to 45°33'42" N, 123°56'21" W,

thence southerly to 45°33'28" N, 123°56'18" W, thence southwesterly to 45°33'12" N, 123°56'45" W, thence southerly following the easterly edge of the sand depicted on the topographic map as a dashed line to 45°32'28" N, 123°56'34" W, thence southerly to 45°32'23" N, 123°56'56" W,

thence southerly following the easterly edge of the sand depicted on the topographic map as a dashed line to 45°30'21" N, 123°57'21" W, thence west to MLW, thence northerly following MLW to the toe of the South Jetty, thence directly west to the point of beginning. (Garibaldi USGS 7.5" Quad 1985)



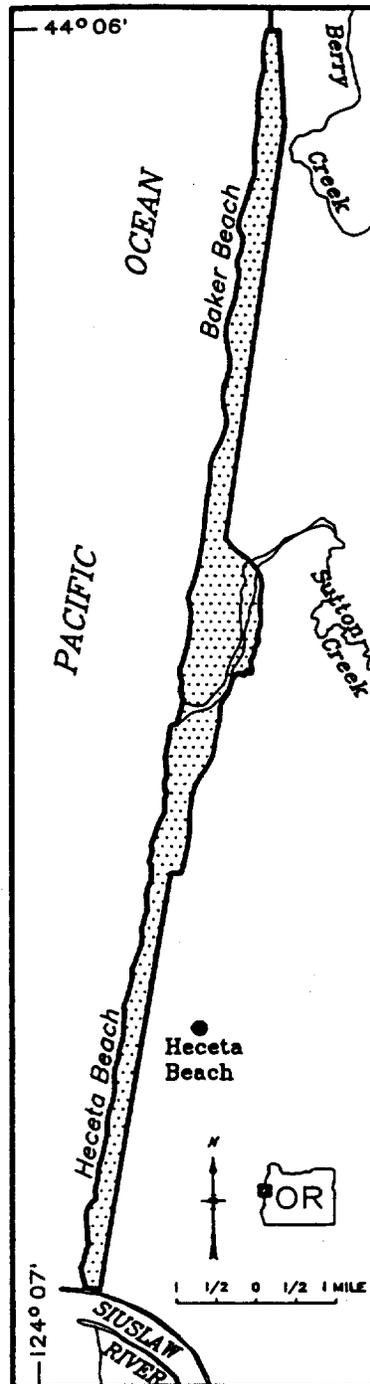
OR-1 BAYOCEAN SPIT

**OR-2. Heceta Head to Siuslaw River, Lane County (Index Map 1)**

Beginning at 44°06'15"N, 124°07'20"W, thence southerly to 44°05'51"N, 124°07'18"W, thence southerly to 44°05'15"N, 124°07'26"W, thence southerly

to 44°04'10"N, 124°07'35"W, thence southeasterly to 44°04'03"N, 124°07'23"W, thence southerly following the east edge of the sand depicted on the topographic map as a dashed line to 44°02'50"N, 124°07'53"W, thence westerly to 44°02'50"N, 124°07'57"W,

thence southerly to 44°01'08"N, 124°08'19"W, thence westerly following the northerly toe of the North Jetty to MLW, thence northerly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Mercer Lake USGS 7.5" Quad 1984)



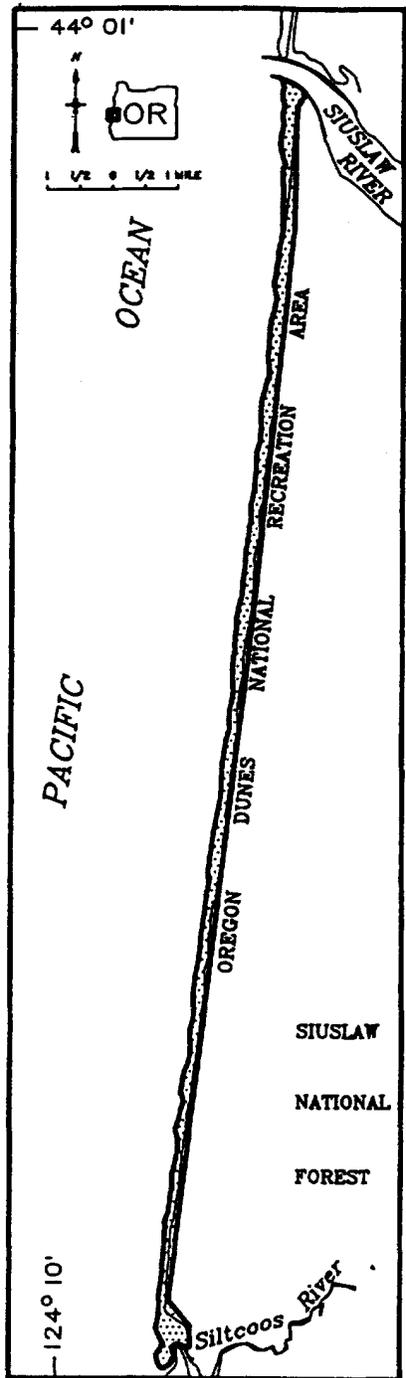
OR-2 HECETA HEAD  
TO SIUSLAW RIVER

**OR-3. Siuslaw River to Siltcoos River, Lane County (Index Map 1)**

Beginning at 44°00'59"N, 124°08'15"W, thence easterly following the toe of the South Jetty to 44°00'54"N, 124°08'01"W, thence southwesterly to 44°00'49"N, 124°08'06"W,

thence southerly to 44°00'00"N, 124°08'06"W, thence southerly following 25 ft. east of road to 43°57'23"N, 124°08'27"W, thence southerly to 43°52'55"N, 124°09'10"W, thence southeasterly to 43°52'46"N, 124°08'58"W, thence southerly to 43°52'38"N, 124°08'58"W, thence west to

MLW, thence southerly and westerly following MLW around the southern end of the spit, thence northerly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Mercer Lake, Goose Pasture, and Tahkenitch Creek USGS 7.5" Quads 1984)



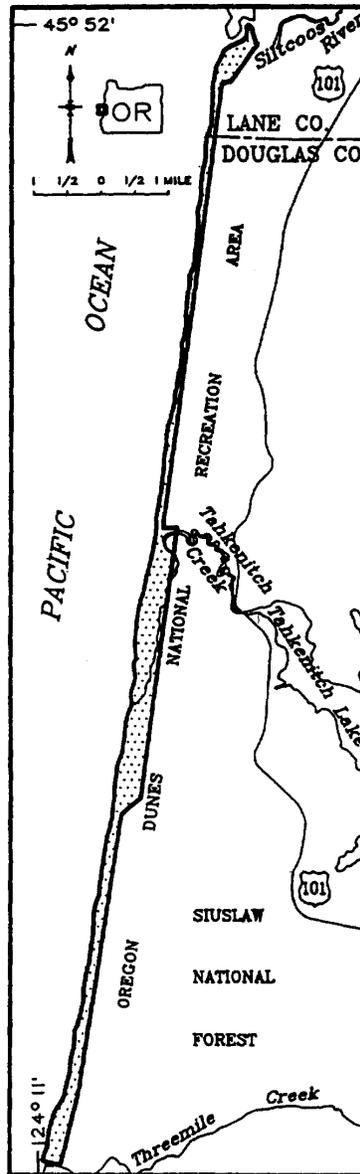
OR-3 SIUSLAW RIVER TO SILTCOOS RIVER

**OR-4. Siltcoos River to Threemile Creek, Lane and Douglas County (Index Map 1)**

Beginning at 43°52'29"N, 124°08'55"W, thence southwesterly to 43°52'13"N, 124°09'11"W, thence westerly to 43°52'12"N, 124°09'18"W, thence southerly to

43°49'02"N, 124°09'52"W, thence east to 43°49'02"N, 124°09'43"W, thence southerly to 43°47'08"N, 124°10'04"W, thence southwesterly to 43°47'00"N, 124°10'16"W, thence southerly to 43°45'00"N, 124°10'42"W, thence west to MLW, thence

northerly following MLW to a point directly north of the point of beginning, thence south to the point of beginning. (Goose Pasture and Tahkenitch Creek USGS 7.5" Quad 1984)



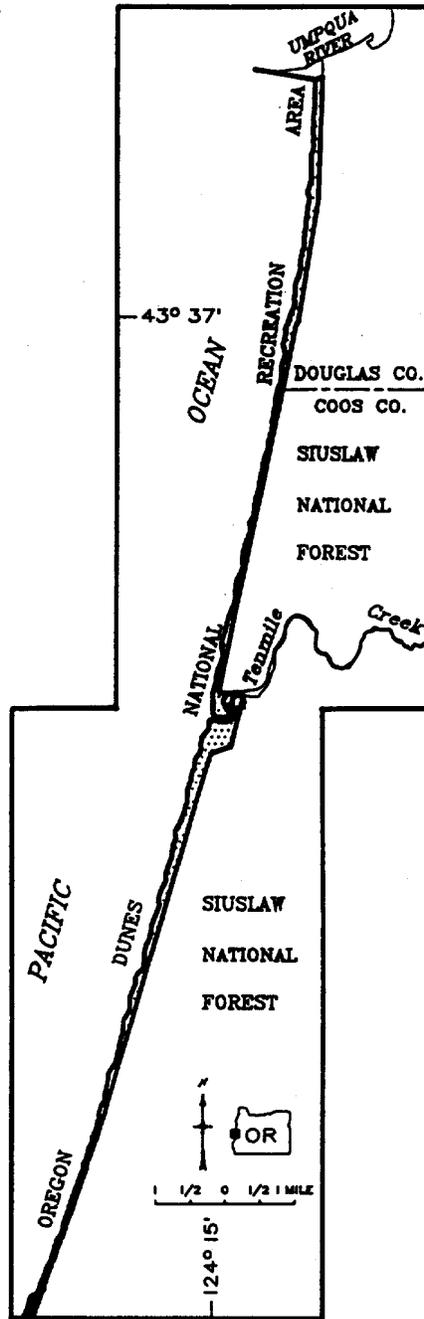
OR-4 SILTCOOS RIVER  
TO THREEMILE CREEK

**OR-5. Umpqua River to Horsfall Beach,  
Douglas and Coos County (Index Map 1)**

Beginning at 43°3951 N, 124°1225 W,  
thence southerly to 43°3936 N, 124°1225 W,  
thence southerly to 43°3840 N, 124°1229 W,  
thence southerly following 25 ft. east of road  
to 43°3730 N, 124°1246 W, thence

southwesterly to 43°3439 N, 124°1334 W,  
thence southwesterly to 43°3400 N, 124°1346  
W, thence easterly to 43°3358 N, 124°1326  
W, thence southwesterly to 43°3329 N,  
124°1337 W, thence westerly to 43° 3326 N,  
124°1353 W, thence southwesterly following  
20 ft. contour to 43°3000 N, 124°1516 W,

thence southwesterly to 43°2708 N, 124°1636  
W, thence west to MLW, thence northeasterly  
following MLW to the southern toe of South  
Jetty, thence northeast to the point of  
beginning. (Winchester Bay and Lakeside  
USGS 7.5 Quads 1985, and Empire USGS  
7.5" Quad 1970)



**OR-5 UMPQUA RIVER  
TO HORSFALL BEACH**

**OR-6. Horsfall Beach to Coos Bay, Coos County (Index Map 1)**

**Unit 1**

Beginning at 43°2708 N, 124°1636 W, thence southwesterly following 20 ft. contour to 43°2534 N, 124°1727 W, thence southwesterly following 20 ft. contour to 43°2223 N, 124°1925 W, thence east to MLW, thence southerly and westerly following MLW around the southern tip of the north spit, thence northeasterly following MLW to a point directly west of the point of

beginning, thence east to the point of beginning. (Empire and Charleston USGS 7.5" Quads 1970)

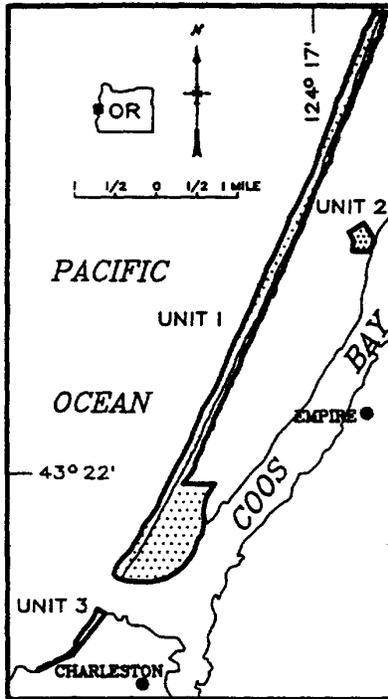
**Unit 2**

Beginning at 43°2502 N, 124°1612 W, thence southeasterly to 43°2451 N, 124°1618 W, thence east to MLW, thence southerly following MLW to a point directly east of 43°2444 N, 124°1618 W, thence west to said point, thence westerly to 43°2444 N, 124°1701 W, thence northeasterly to 43°24 57 N, 124°1700 W, thence northwesterly to 43°2454 N, 124°1704 W, thence northeasterly

to the point of beginning. (Empire USGS 7.5" Quad 1970)

**Unit 3**

Beginning at 43°2105 N, 124°2026 W, thence southwesterly to 43°2039 N, 124°2054 W, thence southwesterly to 43°2121 N, 124°2121 W, thence north to MLW, thence northeasterly following MLW to the southern toe of the South Jetty, thence easterly following the toe of the South Jetty to the point of beginning. (Charleston USGS 7.5" Quad 1970)



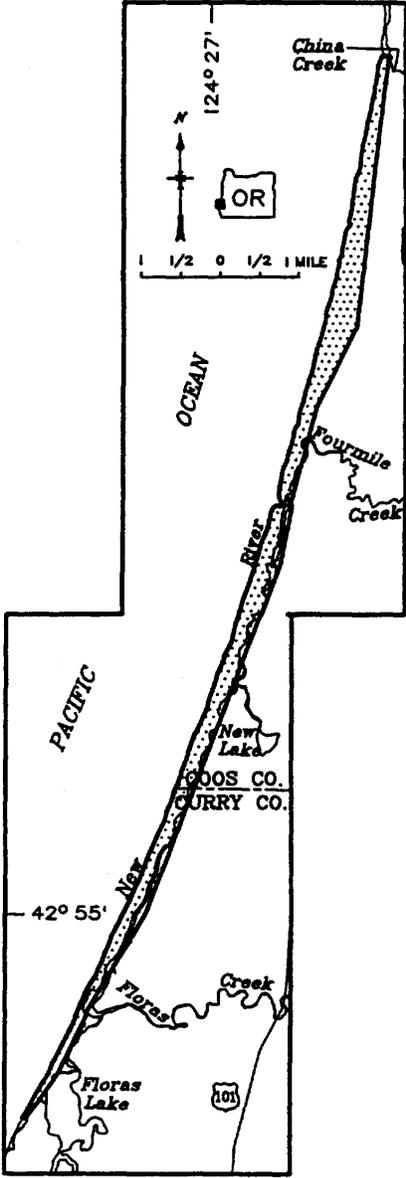
OR-6 HORSFALL BEACH  
TO COOS BAY UNITS 1-3

**OR-7. Bandon Park to Floras Lake, Coos and Curry Counties (Index Map 1)**

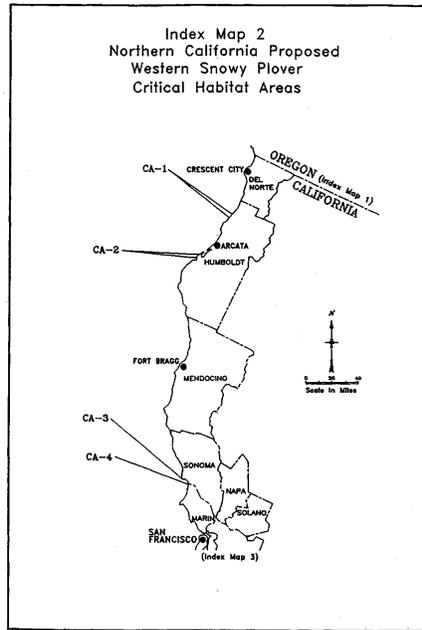
Beginning at 43°04'14"N, 124°26'01"W, thence southerly to 43°03'22"N, 124°26'10"W, thence southerly to 43°02'42"N, 124°26'16"W, thence southerly to 43°01'42"N, 124°26'26"W, thence

southwesterly to 43°00'56"N, 124°26'58"W, thence southwesterly to 43°00'00"N, 124°27'17"W, thence southerly to 42°59'27"N, 124°27'25"W, thence southwesterly to 42°57'16"N, 124°28'24"W, thence southwesterly to 42°55'52"N, 124°29'09"W, thence southwesterly to 42°54'48"N, 124°30'00"W, thence

southwesterly to 42°54'10"N, 124°30'22"W, thence southwesterly to 42°53'42"N, 124°30'49"W, thence west to MLW, thence northeasterly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Floras Lake and Langlois USGS 7.5" Quads 1986, and Bandon USGS 7.5" Quad 1970)



OR-7 BANDON TO FLORAS LAKE



California. Areas of land and water as follows:

**CA-1. Humboldt Coast Lagoon Beaches, Humboldt County (Index Map 2)**

*Unit 1—Stone Lagoon*

Beginning at 41°15'33"N, 124°05'54"W, thence south and east following the west side

of the access road to Dry Lagoon State Park to 41°15'29"N, 124°05'49"W, thence southwesterly following the high water line of Stone Lagoon to 41°14'42"N, 124°06'08"W, thence southwesterly to 41°14'40"N, 124°06'10"W, thence southwesterly following the 40-foot contour line to 41°14'14"N, 124°06'21"W, thence west to

MLW, thence northeasterly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Orick and Rodgers Peak USGS 7.5" Quads 1966)

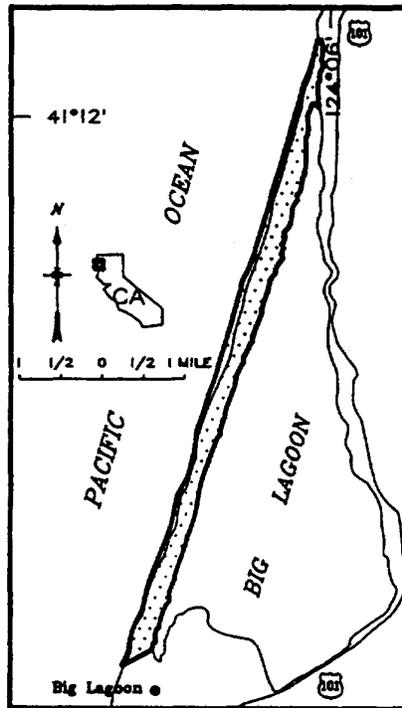
E:\GRAPHICS\EP02MR95.011

*Unit 2—Big Lagoon*

Beginning at 41°13'00"N, 124°06'39"W, thence southerly following the 40-foot contour line to 41°12'47"N, 124°06'40"W, thence southerly following the Big Lagoon State Park property line to 41°12'39"N,

124°06'40"W, thence northwesterly and southwesterly following the high water line of Big Lagoon to 41°09'54"N, 124°07'49"W, thence southwesterly following the Big Lagoon State Park property line to 41°09'49"N, 124°08'00"W, thence west to

MLW, thence northeasterly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Rodgers Peak USGS 7.5" Quad 1966 and Trinidad USGS 7.5" Quad 1978)



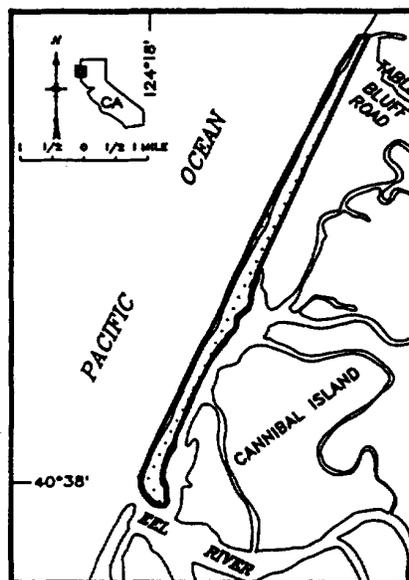
CA-1 HUMBOLDT COAST  
LAGOON BEACHES  
UNIT 2- BIG LAGOON

**CA-2. Eel River Beaches, Humboldt County (Index Map 2)**

*Unit 1—Eel River North*

Beginning at 40°41'51"N, 124°16'27"W, thence southwesterly to 40°40'11"N,

124°17'30"W, thence south to MLW, thence southerly following MLW around the south end of the split, thence north following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Cannibal Island USGS 7.5" Quad 1972)



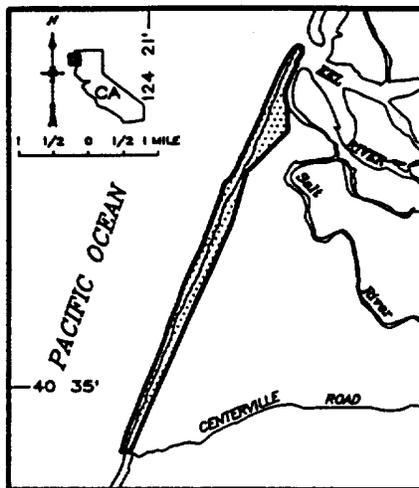
CA-2 EEL RIVER BEACHES  
UNIT 1- EEL RIVER NORTH

*Unit 2—Eel River South*

Beginning at 40°34'29"N, 124°21'01"W, thence west to MLW, thence northeasterly following MLW to a point directly west of 40°38'28"N, 124°18'42"W, thence east to said

point, thence east to MHW of the left bank of the Eel and Salt Rivers, thence southwesterly following MHW of the left bank of the Salt River to 40°37'54"N, 124°18'52"W, thence southerly to 40°37'38"N, 124°18'53"W, thence

southwesterly to 40°37'14"N, 124°19'25"W, thence southwesterly to 40°36'44"N, 124°19'36"W, thence southwesterly to 40°34'29"N, 124°20'56"W, thence westerly to the point of beginning. (Cannibal Island and Ferndale USGS 7.5" Quads 1972)



**CA-2 EEL RIVER BEACHES  
UNIT 2- EEL RIVER SOUTH**

**CA-3. Bodega Bay, Sonoma County (Index Map 2)**

*Unit 1—Bodega Harbor*

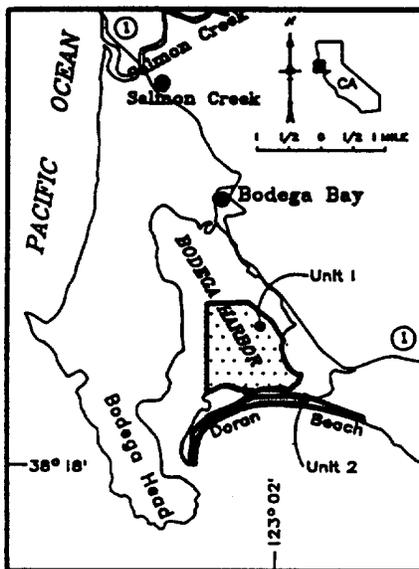
Beginning at 38°18'51"N, 123°03'02"W, at MHW on Doran Spit, thence north to 38°19'30"N, 123°03'02"W, thence east to 38°19'30"N, 123°02'38"W, thence southeasterly to 38°19'22"N, 123°02'26"W, thence southerly to 38°19'13"N,

123°02'20"W, on the MHW line of Bodega Harbor, thence southerly and westerly following MHW to the point of beginning. (Bodega Head USGS 7.5" Quad 1972)

*Unit 2—Doran Beach*

Beginning at 38°18'22" N, 123°03'09"W, at the west end of the North Jetty, thence east to MLW, thence northerly and easterly following MLW to a point directly south of

38°18'44"N, 123°01'36"W, thence north to said point, thence northwesterly to 38°18'52"N, 123°02'07"W, thence westerly to 38°18'51"N, 123°02'34"W, thence southwesterly to 38°18'42"N, 123°03'01"W, thence southwesterly to 38°18'34"N, 123°03'08"W, thence southerly to the point of beginning. (Bodega Head USGS 7.5" Quad 1972)



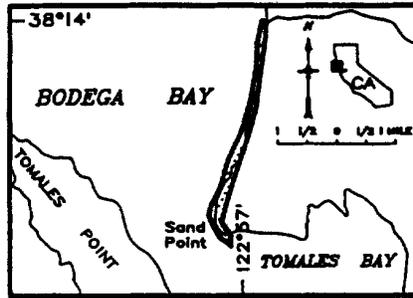
**CA-3 BODEGA BAY  
UNITS 1- 2**

**CA-4. Dillon Beach, Marin County (Index Map 2)**

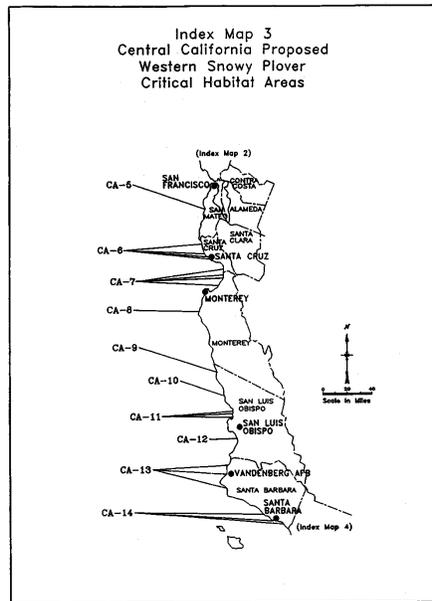
Beginning at 38°14'57"N, 122°57'58"W, thence southerly to 38°14'31"N,

122°58'01"W, thence southwesterly to 38°13'57"N, 122°58'15"W, thence southeasterly to 38°13'21"N, 122°58'12"W, thence south to MLW, thence northwesterly

and northerly to a point directly west of the point of beginning, thence east to the point of beginning. (Tomales USGS 7.5" Quad 1971)



CA-4 DILLON BEACH

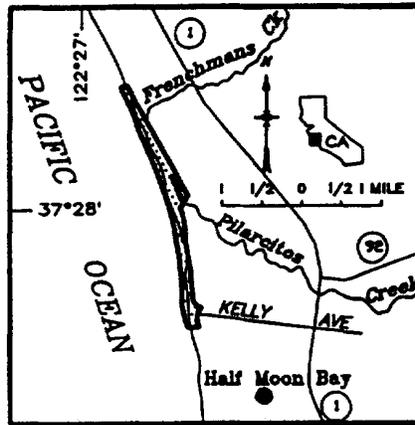


**CA-5. Half Moon Bay Beaches, San Mateo County (Index Map 3)**

Beginning at 37°28'57"N, 122°27'06"W, thence southeasterly to 37°28'26"N,

122°26'45"W, thence southwesterly to 37°28'24"N, 122°26'47"W, thence southerly following the 20-foot contour line to 37°27'49"N, 122°26'40"W, thence west to

MLW, thence northwesterly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Half Moon Bay USGS 7.5" Quad 1973)



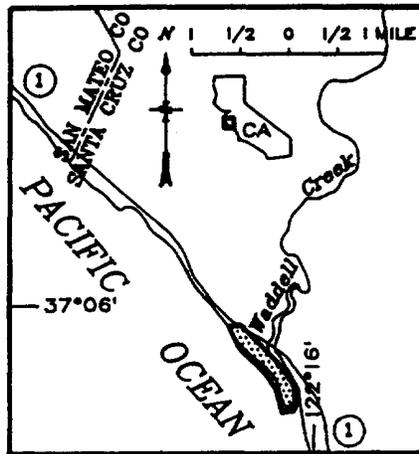
CA-5 HALF MOON BAY BEACHES

**CA-6. Santa Cruz Coast Beaches, Santa Cruz County (Index Map 3)**

*Unit 1—Waddell Creek Beach*

Beginning at 37°05'35"N, 122°16'32"W, thence west to MLW, thence northwesterly

following MLW to a point west of 37°05'52"N, 122°16'32"W, thence east to said point, thence southeasterly to MHW line of Waddell Creek 37°05'41"N, 122°16'34"W, thence south to point of beginning. (Ano Nuevo USGS 7.5" Quad 1968)



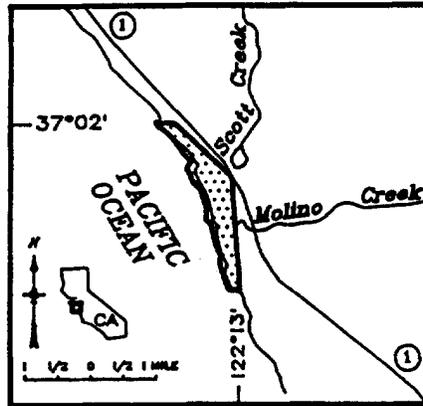
CA-6 SANTA CRUZ COAST BEACHES  
UNIT 1- WADDELL CREEK BEACH

*Unit 2—Scott Creek Beach*

Beginning at 37°02'33"N, 122°13'53"W, located at northwest end of beach, thence southeasterly to 37°02'22"N, 122°13'36"W,

located west of Highway 1 and excluding the existing Highway 1 ROW, thence south to 37°01'58"N, 122°13'34"W, located at south end of beach on 60 foot contour line, thence

west to MLW, thence northwesterly following MLW to a point directly west of point of beginning, thence east to point of beginning. (Davenport USGS 7.5" Quad 1968)



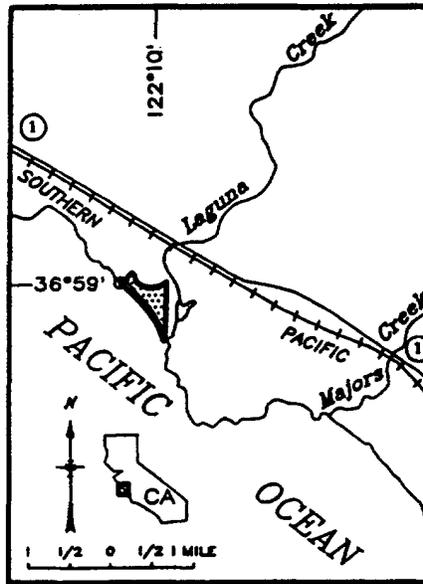
CA-6 SANTA CRUZ COAST BEACHES  
UNIT 2- SCOTT CREEK BEACH

*Unit 3—Laguna Creek Beach*

Beginning at 36°59'04"N, 122°09'26"W, located at northwest end of beach on 20 foot

contour line, thence east following 20 foot contour line to 36°59'03"N, 122°09'14"W, located at Laguna Creek at a point 800 feet south of Highway 1, thence south to MLW,

thence northwesterly following MLW to a point directly south of point of beginning, thence north to point of beginning. (Santa Cruz USGS 7.5" Quad 1981)



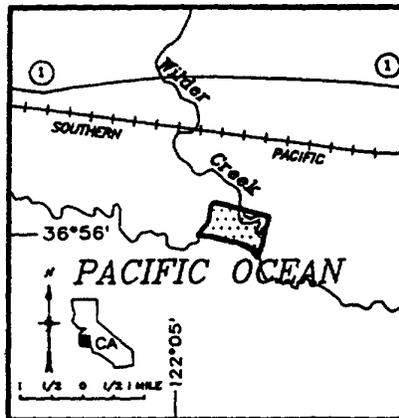
CA-6 SANTA CRUZ COAST BEACHES  
UNIT 3- LAGUNA CREEK BEACH

*Unit 4—Wilder Creek Beach*

Beginning at 36°57'17"N, 122°04'43"W, located at northwest end of upper beach on 40 foot contour line, thence southwesterly to

36°57'16"N, 122°04'29"W, located at northeast end of upper beach east of 40 foot contour line, thence south to MLW, thence northwesterly following MLW to 40 foot

contour line at west end of beach, thence north following 40 foot contour line to point of beginning. (Santa Cruz USGS 7.5" Quad 1981)



CA-6 SANTA CRUZ COAST BEACHES  
UNIT 4- WILDER CREEK BEACH

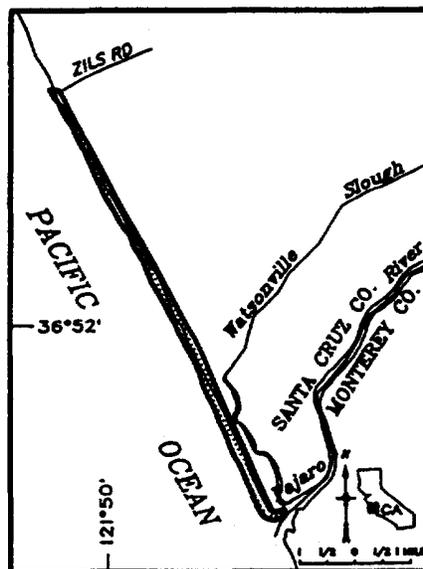
**CA-7. Monterey Bay Beaches, Santa Cruz and Monterey Counties (Index Map 3)**

*Unit 1—Sunset Beach*

Beginning at 36°54'38"N, 121°50'50"W, located west of Zils Road, thence

southeasterly to 36°51'25"N, 121°48'13"W, thence east along north bank of Pajaro River to 36°51'27"N, 121°48'30"W, located south of mouth of Watson Slough, thence south to MLW, thence southerly following MLW around south end of beach, thence

northwesterly following MLW to a point west of point of beginning, thence east to point of beginning. (Watsonville West and Moss Landing USGS 7.5" Quad 1980)



CA-7 MONTEREY BAY BEACHES  
UNIT 1- SUNSET BEACH

*Unit 2—Mudowski Beach*

Beginning at 36°49'25" N, 121°48'21" W, thence southerly to 36°50'58" N, 121°48'15" W, located north of the 10 foot contour line and west of Jensen Road, thence southwesterly to 36°51'11" N, 121°48'20" W, thence southeasterly to 36°50'43" N, 121°47'15" W, located east of seawall, thence south to MLW, thence southwesterly following MLW around south end of beach, thence northwesterly following MLW to north end of beach, thence northeasterly following MLW around north end of beach to

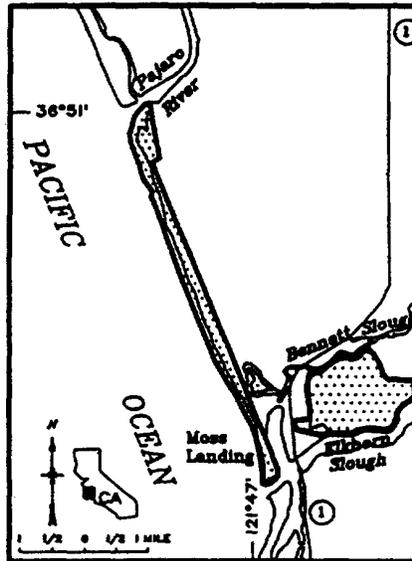
a point north of point of beginning, thence south to point of beginning. (Moss Landing USGS 7.5" Quad 1980)

*Unit 3—Elkhorn Slough Mud Flat/Salt Pond*

Beginning at north bank of Elkhorn Slough 36°48'49" N, 121°46'12" W, thence west following south perimeter of mud flat and salt pond to 36°48'50" N, 121°47'02" W, which excludes the existing Highway 1 ROW, thence north following west perimeter of the salt pond, thence east following northern perimeter of salt pond to west

perimeter of mud flat, thence north following west perimeter of mud flat to 36°49'14" N, 121°46'55" W, located on south shore of Bennett Slough, thence northeasterly following south bank of Bennett Slough to 36°49'24" N, 121°46'22" W, located at the northern most point of mud flat, thence southeasterly following the east perimeter of the mud flat to 36°49'12" N, 121°46'12" W, thence easterly following the perimeter of the mud flat to 36°49'59" N, 121°45'59" W, thence south following east perimeter of mud flat to 36°49'04" N, 121°45'58" W, thence

southwesterly along northern shore of Elkhorn Slough to point of beginning. (Moss Landing USGS 7.5" Quad 1980)



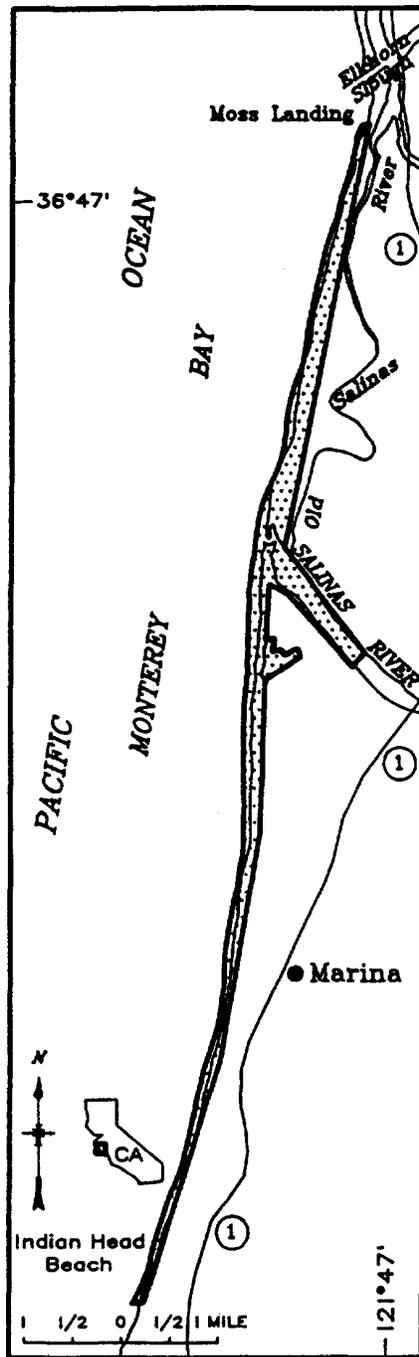
**CA-7 MONTEREY BAY BEACHES  
UNIT 2- MUDOWSKI BEACH  
UNIT 3- ELKHORN SLOUGH  
MUDFLAT/SALTPOND**

*Unit 4—Salinas River Beach*

Beginning at 36°48'01" N, 121°47'18" W, located south of boat launch, thence southerly to 36°46'31" N, 121°47'40" W, thence southerly to 36°45'00" N, 121°48'04" W, located on north bank of Salinas River, thence southeasterly following north bank of Salinas River to 36°44'16" N, 121°47'20" W, thence southwesterly across Salinas River to

36°44'10" N, 121°47'28" W, located on south bank, thence northwesterly following south bank of Salinas River to 36°44'41" N, 121°48'02" W, thence westerly to 36°44'49" N, 121°48'12" W, thence south to 36°44'54" N, 121°48'12" W, located at northern most point of a large pond, thence southeasterly following north shore of pond to 36°44'44" N, 121°47'53" W, thence southwesterly to 36°44'34" N, 121°48'13" W, thence southerly

to 36°42'59" N, 121°48'17" W, thence southerly to 36°41'45" N, 121°48'49" W, thence southerly to 36°39'45" N, 121°49'17" W, thence west to MLW, thence northerly following MLW to a point west of point of beginning, thence east to point of beginning. Excludes all U.S. Fish and Wildlife Service property. (Moss Landing USGS 7.5" Quad 1980 and Marina USGS 7.5" Quad 1983)



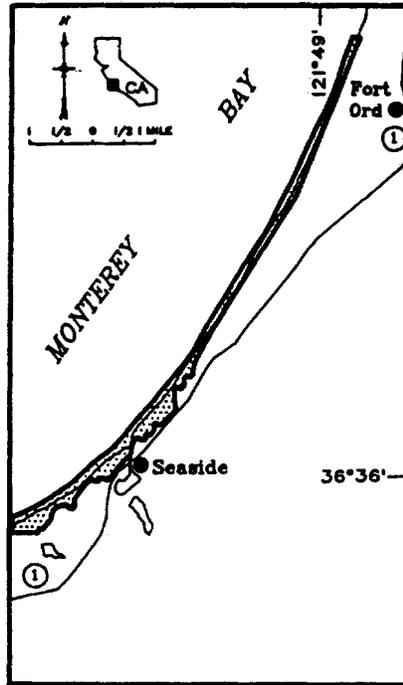
CA-7 MONTEREY BAY BEACHES  
UNIT 4- SALINAS RIVER BEACH

*Unit 5—Fort Ord/Seaside Beaches*

Beginning at 36°39'44"N, 121°49'17"W, located west of beach parking lot, thence southerly following upper beach where it meets toe of bluffs to 36°38'33"N, 121°49'54"W, thence southerly following

upper beach where it meets toe of bluffs to 36°36'58"N, 121°51'00"W, thence continue southwesterly following upper portion of beach where it meets toe of bluffs and sand dunes to 36°36'06"N, 121°52'15"W, thence west to 36°36'06"N, 121°52'30"W, thence

north to MLW, thence northeasterly following MLW to a point west of point of beginning, thence east to point of beginning. (Marina USGS 7.5" Quad 1983 and Seaside USGS 7.5" Quad 1968)



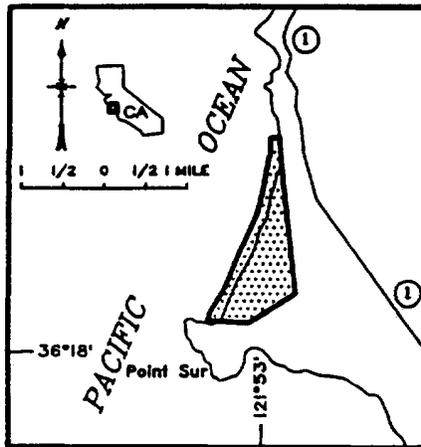
**CA-7 MONTEREY BAY BEACHES  
UNIT 5- FORT ORD/SEASIDE BEACHES**

**CA-8. Point Sur Beach, Monterey County (Index Map 3)**

Beginning at 36°19'11"N, 121°53'39"W, located at north end of beach, thence south

to 36°18'31"N, 121°53'32"W, located north of Lighthouse Road, thence southwesterly following a line north of Lighthouse Road to 36°18'37"N, 121°53'46"W, thence west to

MLW, thence northeasterly following MLW to a point west of point of beginning, thence east to point of beginning. (Point Sur USGS 7.5" Quad 1983)



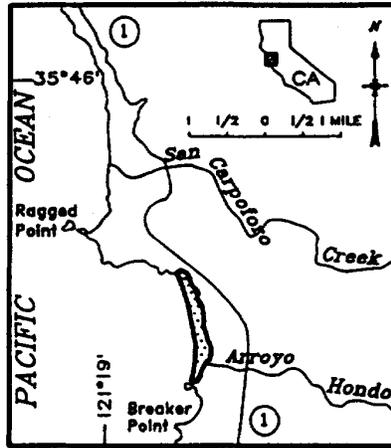
**CA-8 POINT SUR BEACH**

**CA-9. Arroyo Hondo Creek Beach, San Luis Obispo County (Index Map 3)**

Beginning at 35°45'23"N, 121°19'02"W, thence southerly following the 20-foot

contour line to 35°45'00"N, 121°18'52"W, thence southeasterly to 35°44'54"N, 121°18'55"W, thence west to MLW, thence northerly following MLW to a point directly

west of the point of beginning, thence east to the point of beginning. (Burro Mountain USGS 7.5" Quad 1972 and Piedras Blancas USGS 7.5" Quad 1959)



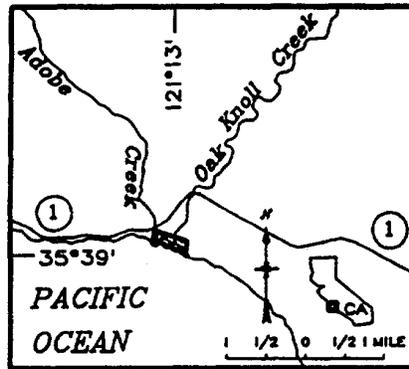
CA-9 ARROYO HONDO CREEK BEACH

**CA-10. Arroyo Laguna Creek Beach, San Luis Obispo County (Index Map 3)**

Beginning at 35°39'08"N, 121°13'15"W, located south of Highway 1 and excluding

the existing Highway 1 ROW, thence southeasterly to 35°39'05"N, 121°13'17"W, thence south to MLW, thence westerly following MLW to a point south of point of

beginning, thence north to point of beginning. (San Simeon USGS 7.5" Quad 1958)



CA-10 ARROYO LAGUNA CREEK BEACH

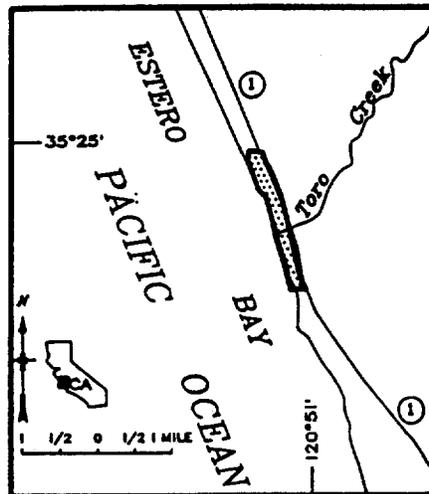
**CA-11. Morro Bay Beaches, San Luis Obispo County (Index Map 3)**

Unit 1—Toro Creek

Beginning at 35°24'57" N, 120°52'27" W, located west of Highway 1 and excluding the

existing Highway 1 ROW, thence southerly along a line west of Highway 1, excluding the existing Highway 1 ROW, to 35°24'30"N, 120°52'14"W, thence west to MLW, thence northwesterly following MLW to a point west of point of beginning, thence east to point of

beginning. (Morro Bay North USGS 7.5" Quad 1965)



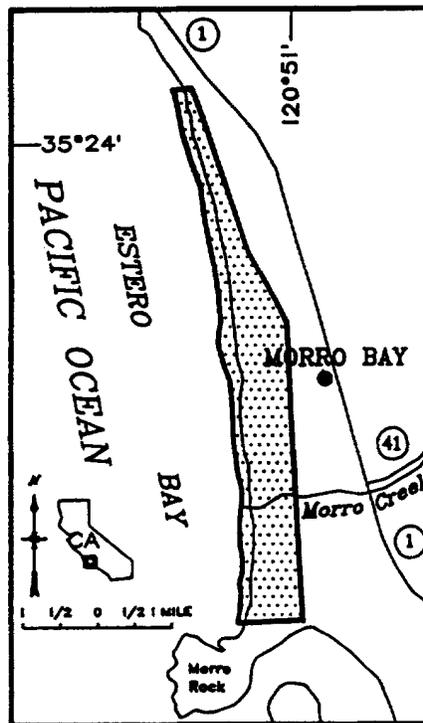
CA-11 MORRO BAY BEACHES  
UNIT 1- TORO CREEK BEACH

*Unit 2—Atascadero Beach*

Beginning at 35°24'13"N, 120°52'02"W, located west of Beachcomber Drive, thence southeasterly along upper beach to

35°23'38"N, 120°51'48"W, located west of Sandalwood Avenue, thence south to 35°23'24"N, 120°51'39"W, thence south to 35°22'22"N, 120°51'31"W, located at the

southwest end of powerplant, thence west to MLW, thence northerly following MLW to a point west of point of beginning, thence east to point of beginning. (Morro Bay North and Morro Bay South USGS 7.5" Quads 1965)



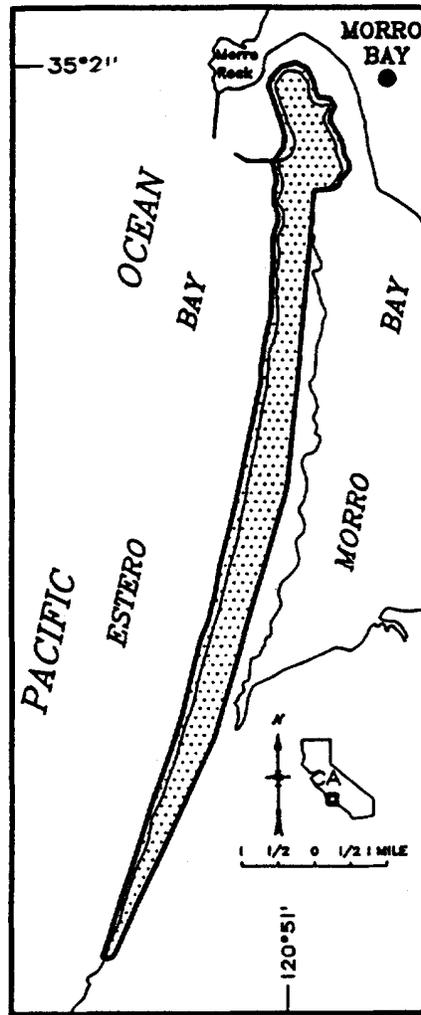
CA-11 MORRO BAY BEACHES  
UNIT 2- ATASCADERO BEACH

*Unit 3—Morro Bay Beach*

Beginning at 35°17'28"N, 120°52'46"W, located at south end of beach, thence west to MLW, thence northeasterly following MLW to breakwater, thence from breakwater

following MLW clockwise around northern end of peninsula to a point east of 35°21'28"N, 120°51'28"W, thence west to said point, thence southwesterly to 35°19'54"N, 120°51'38"W, thence

southwesterly to 35°18'38"N, 120°52'06"W, thence southwesterly to point of beginning. (Morro Bay South USGS 7.5" Quad 1978)



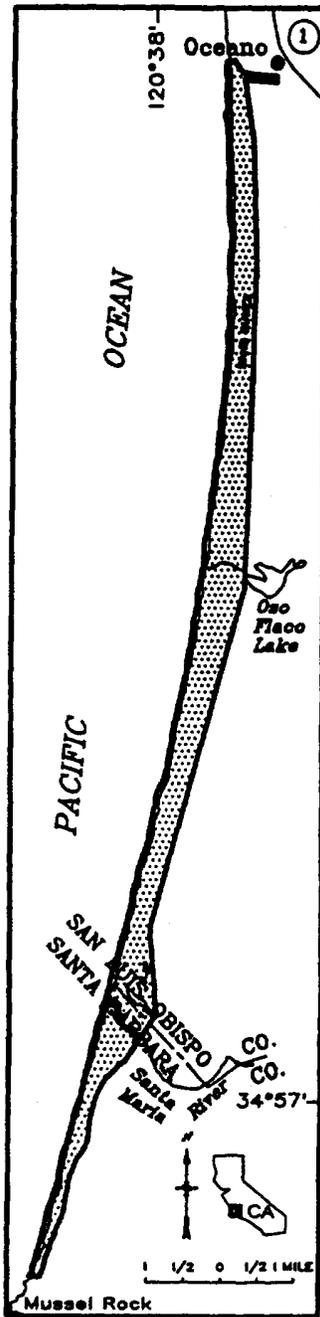
CA-11 MORRO BAY BEACHES  
UNIT 3- MORRO BAY BEACH

**CA-12. Pismo Beach/Nipomo Dunes, San Luis Obispo and Santa Barbara Counties (Index Map 3)**

Beginning at 34°53'02"N, 120°39'40"W, located northeast of Mussel Point, thence west to MLW, thence northerly following MLW to a point west of 35°06'06"N, 120°37'45"W, thence east to said point, thence southeasterly to 35°06'01"N, 120°37'40"W, located on north bank of Arroyo Grande Creek, thence easterly

following north bank of Arroyo Grande Creek to 35°05'58"N, 120°37'19"W, thence southerly across Arroyo Grande Creek to 35°05'56"N, 120°37'18"W, thence westerly to 35°05'58"N, 120°37'38"W, thence southeasterly to 35°05'27"N, 120°37'32"W, thence southerly to 35°04'27"N, 120°37'30"W, thence southwesterly to 35°02'32"N, 120°37'35"W, thence south to 35°01'42"N, 120°37'35"W, thence southwesterly to 34°58'53"N, 120°39'02"W, thence southeasterly across Guadalupe oil

field to 34°58'10"N, 120°38'27"W, located at east end of a pond north of Santa Maria River, thence southwesterly to a point on 40-foot contour line 34°57'45"N, 120°38'59"W, located south of the Santa Maria River, thence southwesterly along the 40-foot contour line to point of beginning. (Oceano USGS 7.5" Quad 1979 and Point Sal USGS 7.5" Quad 1974)



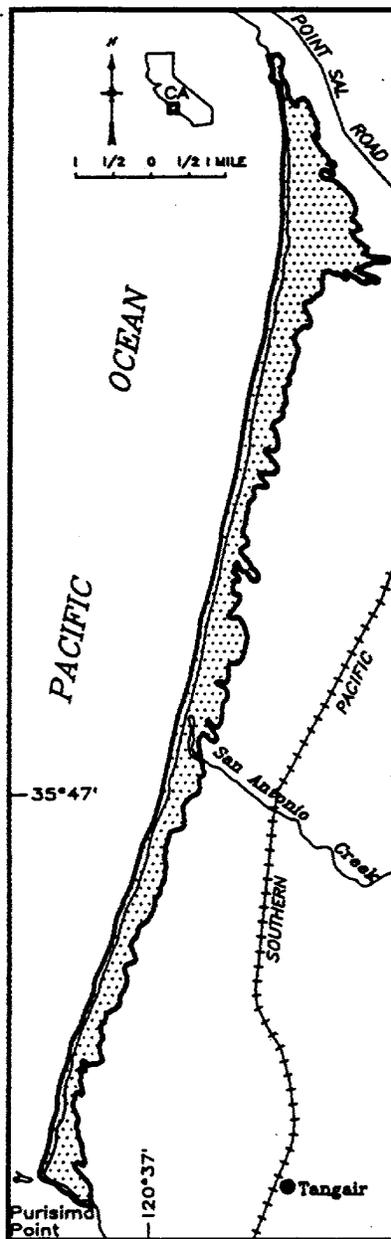
CA-12 PISMO BEACH/NIPOMO DUNES

**CA-13. Point Sal to Point Conception Beaches, Santa Barbara County (Index Map 3)**

*Unit 1—Vandenberg Beach*

Beginning at 35°51'41"N, 120°36'36"W, located on 40-foot contour line, thence southerly along 40-foot contour line to

34°45'22"N, 120°37'50"W, located southeast of Purisma Point, thence south to MLW, thence northwesterly following MLW around Purisma Point, thence north following MLW to a point west of point of beginning, thence east to point of beginning. (Casmalia USGS 7.5" Quad 1982)



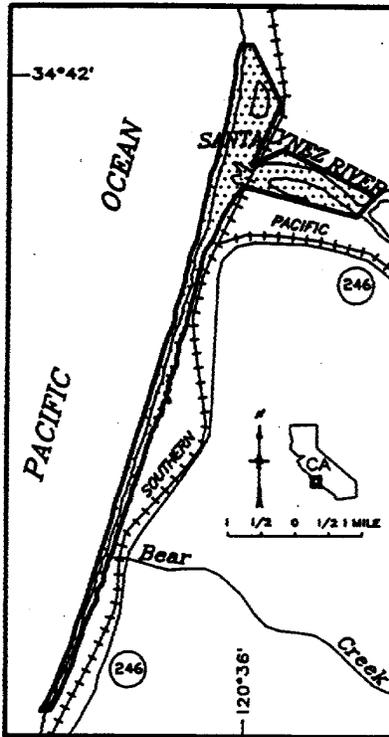
CA-13 POINT SAL TO POINT CONCEPTION  
UNIT 1- VANDENBERG BEACH

*Unit 2—Santa Ynez River Mouth/Ocean Beach*

Beginning at 34°42'16"N, 120°35'54"W, located west of beach access road, thence southeasterly to 34°41'56"N, 120°35'45"W, located west of railroad tracks, thence southwesterly to 34°41'35"N, 120°35'55"W, located on north bank of Santa Ynez River,

thence northeasterly to 34°41'41"N, 120°35'43"W, thence southeasterly along north bank of Santa Ynez River to 34°41'24"N, 120°35'05"W, located at end of Gravel Pit Road, thence southwesterly to 34°41'18"N, 120°35'13"W, located on south bank of Santa Ynez River, thence west across railroad tracks to 34°41'27"N, 120°35'58"W, located on 40-foot contour line, thence

southwesterly along 40-foot contour line to 34°37'28"N, 120°37'16"W, located 400 feet west of railroad tracks, thence west to MLW, thence northeasterly following MLW to a point west of point of beginning, thence east to point of beginning. (Surf USGS 7.5" Quad 1974)



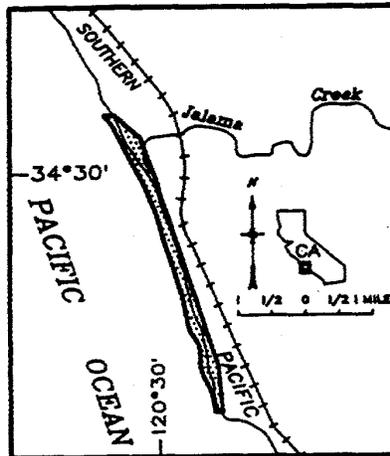
CA-13 POINT SAL TO POINT CONCEPTION  
UNIT 2- SANTA YNEZ RIVER MOUTH/  
OCEAN BEACH

*Unit 3—Jalama Beach*

Beginning at 34° 30' 48" N, 120° 30' 12" W, thence southeasterly to 34° 30' 44" N, 120° 30' 04" W, located at northern end of Jalama Beach Lagoon, thence southeasterly to

34° 30' 23" N, 120° 29' 55" W, thence southeasterly to 34° 29' 53" N, 120° 29' 44" W, thence southeasterly to 34° 29' 43" N, 120° 29' 42" W, thence west to MLW, thence northwesterly following MLW to a point west

of point of beginning, thence east to point of beginning. (Tranquillon Mountain USGS 7.5" Quad 1959, Lompoc Hills USGS 7.5" Quad 1971, and Point Conception USGS 7.5" Quad 1974)



CA-13 POINT SAL  
TO POINT CONCEPTION  
UNIT 3- JALAMA BEACH

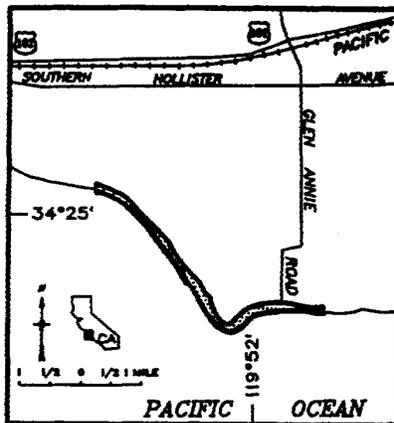
**CA-14. Santa Barbara Coast Beaches, Santa Barbara County (Index Map 3)**

*Unit 1—Devereaux Beach*

Beginning at 34° 25' 13" N, 119° 53' 31" W, located on 20 foot contour line, thence

southeasterly following 20-foot contour line, thence northeasterly around Coal Oil Point to 34° 24' 33" N, 119° 51' 57" W, located on 20 foot contour line, thence south to MLW, thence westerly following MLW, southwesterly around Coal Oil Point, thence

northwesterly to a point south of point of beginning, thence north to point of beginning. (Dos Pueblos Canyon and Goleta USGS 7.5" 3 Quad 1988)



**CA-14 SANTA BARBARA COAST BEACHES  
UNIT 1- DEVEREAUX BEACH**

*Unit 2—Point Castillo/ Santa Barbara Harbor Beach*

**Point Castillo**

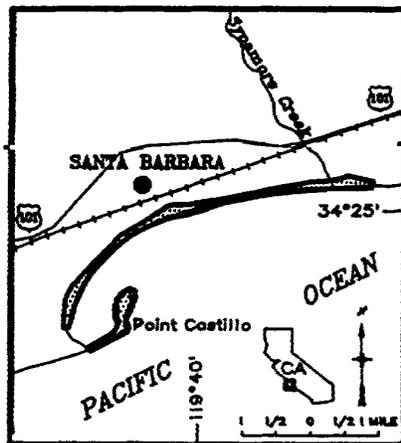
Beginning (breakwater and sandspit) at 34°24'17" N, 119°41'13" W, located at Beacon, thence south to MLW, thence southwesterly following MLW on outside of breakwater to Point Castillo, thence northeasterly following MLW inside of breakwater to southwest end of sandspit,

thence circle sandspit clockwise following MLW to a point south of point of beginning, thence north to point of beginning. (Santa Barbara USGS 7.5" Quad 1967)

**Santa Barbara Harbor Beach**

Beginning at 34°24'16" N, 119°41'37" W, located at southwest end of beach, thence northeasterly following a line south of Cabrillo Blvd. to 34°22'09" N, 119°38'22" W, located on west side of Stearns Wharf, thence

northeasterly to 34°24'54" N, 119°40'52" W, thence easterly following a line just south of Cabrillo Blvd. to 34°25'03" N, 119°39'50" W, thence southeasterly to 34°25'00" N, 119°38'01" W, thence south to MLW, thence southwesterly following MLW to a point east of point of beginning, thence west to point of beginning. (Santa Barbara USGS 7.5" Quad 1967)

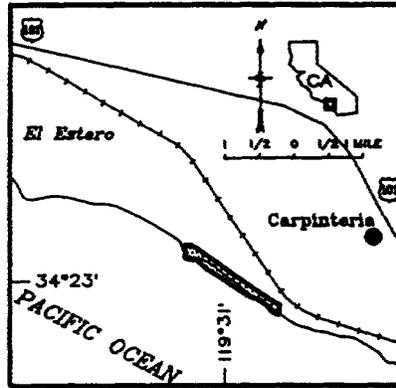


**CA-14 SANTA BARBARA COAST BEACH  
UNIT 2- POINT CASTILLO/  
SANTA BARBARA HARBOR BEACH**

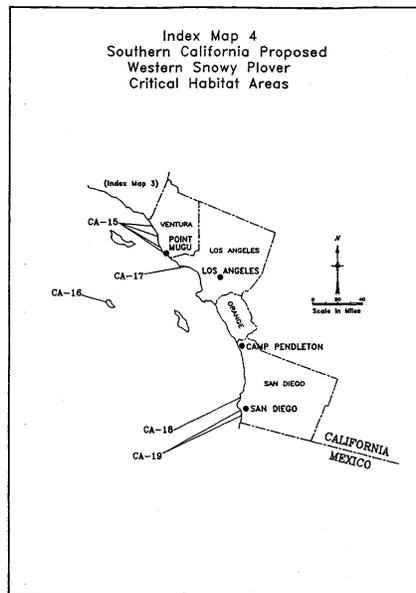
*Unit 3—Carpinteria Beach*

Beginning at 34°23'38" N, 119°31'26" W, located at end of Linden St. on northwest end of beach, thence southeasterly to 34°23'22" N, 119°31'02" W, located at southeast end of

the beach, thence south to MLW, thence northwesterly following MLW to a point south of point of beginning, thence north to point of beginning. (Carpinteria USGS 7.5" Quad 1988)



CA-14 SANTA BARBARA COAST BEACHES  
UNIT 3- CARPINTERIA BEACH



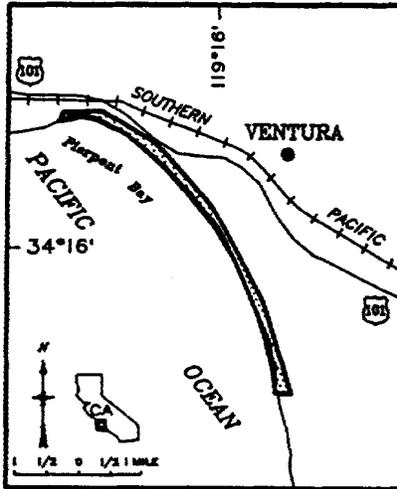
**CA-15. Oxnard Lowlands, Ventura County (Index Map 4)**

*Unit 1—San Buena/Ventura Beach*

Beginning 34°16'33" N, 119°17'38" W, which is located at northwest end of beach,

thence east to 34°16'51" N, 119°17'24" W, thence southeasterly to 34°16'40" N, 119°17'03" W, thence southeasterly to 34°16'15" N, 119°16'33" W, thence southeasterly to 34°15'40" N, 119°16'16" W, thence southeasterly to 34°15'02" N,

119°15'52" W, thence west to MLW, thence northwesterly following MLW to a point south of point of beginning, thence north to point of beginning. (Ventura USGS 7.5" Quad 1967)



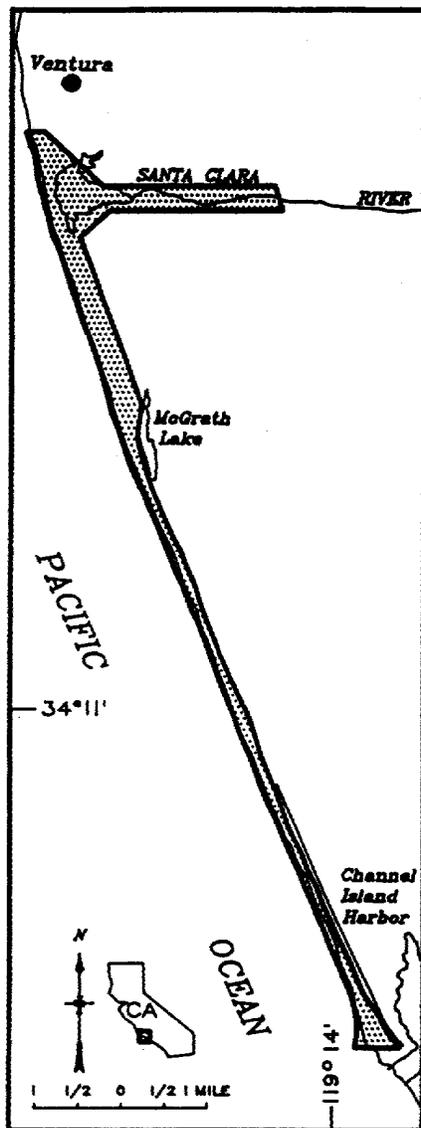
CA-15 OXNARD LOWLANDS  
UNIT 1- SAN BUENA/VENTURA BEACH

*Unit 2—Mandalay Beach/Santa Clara River Mouth*

Beginning at 34°14'28" N, 119°16'12" W, located at the north end of beach, thence southeasterly to 34°14'10" N, 119°15'30" W, located on north bank of Santa Clara River, thence east to 34°14'09" N, 119°15'57" W,

thence south to 34°14'09" N, 119°13'57" W, thence west following south bank of Santa Clara River to 34°14'01" N, 119°15'30" W, thence southwest to 34°13'53" N, 119°15'40" W, located on 15-foot contour line, thence southeasterly to 34°12'58" N, 119°15'15" W, located on north end of

McGrath Lake, thence southeasterly following 15-foot contour line to 34°09'30" N, 119°13'28" W, located on north side of boat ramp, thence west to MLW, thence northwesterly following MLW to a point west of point of beginning, thence east to point of beginning. (Oxnard USGS 7.5" Quad 1967)



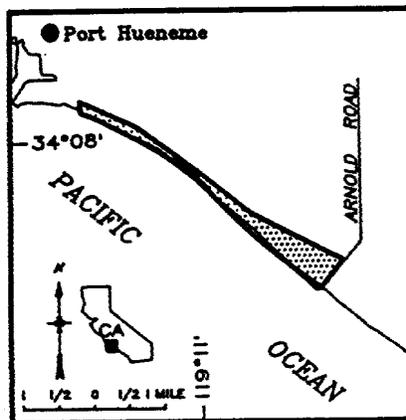
CA-15 OXNARD LOWLANDS  
UNIT 2- MANDALAY BEACH/  
SANTA CLARA RIVER MOUTH

*Unit 3—Ormond Beach*

Beginning at 34°08'40" N, 119°11'58" W, located east of road to jetty, thence southeasterly to 34°08'49" N, 119°11'58" W, thence southeasterly to 34°07'48" N,

119°10'15" W, located at northwest end of wetlands, thence southeasterly to 34°07'22" N, 119°09'19" W, located on west side of Arnold Road, thence southwest along Arnold Road to 34°07'10" N, 119°09'32" W, located

at end of Arnold Road, thence west to MLW, thence northwesterly following MLW to a point south of point of beginning, thence north to point of beginning. (Oxnard and Point Mugu USGS 7.5" Quads 1967)



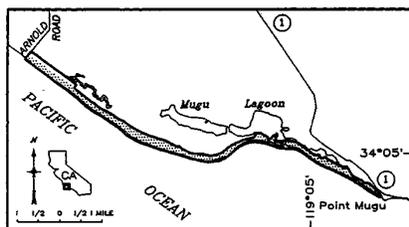
CA-15 OXNARD LOWLANDS  
UNIT 3- ORMOND BEACH

#### Unit 4—Mugu Lagoon Beach

Beginning at 34°07'15" N, 119°09'28" W, thence southeasterly to 34°06'45" N, 119°08'44" W, thence southwesterly to 34°06'42" N, 119°08'47" W, thence southeasterly to 34°06'31" N, 119°08'32" W, thence southeasterly to 34°06'20" N,

119°08'10" W, thence southeasterly following 10-foot contour line to 34°06'03" N, 119°05'44" W, thence east following the HWL of Mugu Lagoon and crossing the mouth of said lagoon to 34°05'34" N, 119°04'13" W, thence southeasterly to 34°05'28" N, 119°04'08" W, located on 10 foot contour line, thence southeasterly

following 10 foot contour line to 34°05'10" N, 119°03'38" W, located on west side of Point Mugu, thence west to MLW, thence northwesterly following MLW, but excluding the mouth of Mugu Lagoon, to a point south of point of beginning, thence north to point of beginning. (Point Mugu USGS 7.5" Quad 1967)



CA-15 OXNARD LOWLANDS  
UNIT 4- MUGU LAGOON BEACH

#### CA-16. San Nicolas Island Beaches, Ventura County (Index Map 4)

##### Unit SN-1

Beginning at 33°14'02" N, 119°26'12" W, thence east to MLW, thence southeasterly and southwesterly following MLW around east end of Island to a point east of 33°13'27" N, 119°26'11" W, thence west to said point, thence north following 25-foot contour line to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-2

Beginning at 33°12'59" N, 119°28'33" W, located south of Island Road, thence easterly to 33°12'57" N, 119°27'59" W, thence easterly to 33°13'02" N, 119°27'17" W, thence easterly to 33°13'10" N, 119°26'55" W, thence south to MLW, thence west following MLW to a point south of point of beginning, thence north to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-3

Beginning at 33°13'12" N, 119°29'36" W, located south of Island Road, thence easterly to 33°13' 11" N, 119°29'09" W, thence

easterly to 33°13'02" N, 119°28'39" W, thence south to MLW, thence west following MLW to a point south of point of beginning, thence north to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-4

Beginning at 33°13'18" N, 119° 30' 05" W, thence southeasterly to 33°13' 10" N, 119°29'48" W, thence west to MLW, thence northwesterly to a point south of point of beginning, thence north to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-5

Beginning at 33°13'24" N, 119°30'25" W, thence southeasterly to 33°13'17" N, 119°30'09" W, thence south to MLW, thence northwesterly following MLW to a point south of point of beginning, thence north to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-6

Beginning at 33°13'47" N, 119°31'12" W, thence southeasterly to 33°13' 36" N, 119°0'55" W, thence south to MLW, thence

northwesterly following MLW to a point south of point of beginning, thence north to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-7

Beginning at 33°14'10" N, 119°32'49" W, thence southeasterly to 33°14'07" N, 119°32'41" W, thence southeasterly to 33°14'00" N, 119°32'38" W, thence south to MLW, thence northwesterly following MLW to a point south of point of beginning, thence north to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-8

Beach within circle with a radius of 250 feet with center at 33°14'40" N, 119°33'29" W. (San Nicolas Island USGS 7.5" Quad 1956)

##### Unit SN-9

Beginning at 33°16'22" N, 119°33'11" W, thence southwesterly to 33°16'17" N, 119°33'22" W, thence southwesterly to 33°16'13" N, 119°33'43" W, thence north to MLW, thence northeasterly following MLW to a point north of point of beginning, thence

south to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

*Unit SN-10*

Beginning at 33°17'01" N, 119°31'58" W, thence southwesterly to 33°16'51" N, 119°32'08" W, thence southwesterly to 33°16'47" N, 119°32'21" W, thence north to MLW, thence northeasterly following MLW to a point west of point of beginning, thence east to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)

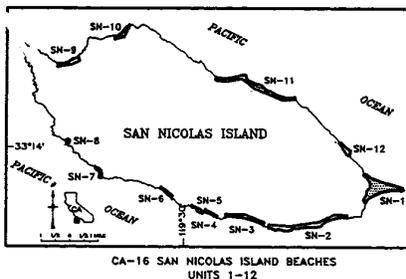
*Unit SN-11*

Beginning at 33°15'31" N, 119°27'52" W, thence westerly to 33°15'32" N, 119°28'11" W, thence westerly to 33°15'46" N, 119°28'55" W, thence northwesterly to 33°15'59" N, 119°29'10" W, thence southwesterly to 33°15'54" N, 119°29'34" W, thence northwesterly to 33°15'58" N, 119°29'52" W, thence north to MLW, thence easterly following MLW to a point north of point of beginning, thence south to point of

beginning. (San Nicolas Island USGS 7.5" Quad 1956)

*Unit SN-12*

Beginning at 33°14'25" N, 119°26'35" W, thence northwesterly to 33°14'40" N, 119°26'49" W, thence east to MLW, thence southeasterly following MLW to a point east of point of beginning, thence west to point of beginning. (San Nicolas Island USGS 7.5" Quad 1956)



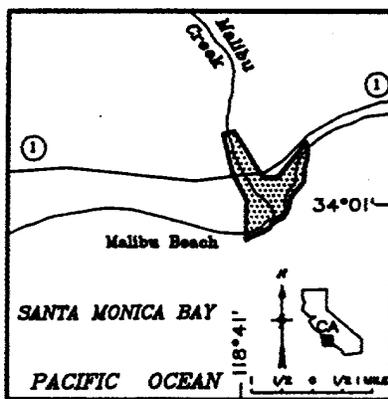
CA-16 SAN NICOLAS ISLAND BEACHES  
UNITS 1-12

**CA-17. Malibu Lagoon, Los Angeles County (Index Map 4)**

Beginning at 34°01'58" N, 118°40'53" W, thence northwesterly crossing Highway 1, and excluding Highway 1 and the existing ROW north and south of Highway 1, to

34°02'04" N, 118°40'56" W, thence northwesterly to 34°02'13" N, 118°40'59" W, thence northeasterly to 34°02'14" N, 118°40'56" W, thence southeasterly to 34°02'03" N, 118°40'47" W, thence east to 34°02'03" N, 118°40'44" W, thence

northeasterly to 34°02'12" N, 118°40'37" W, thence south to MLW, thence southerly and westerly following MLW to a point directly south of the point of beginning, thence north to the point of beginning. (Malibu Beach USGS 7.5" Quad 1981)



CA-17 MALIBU LAGOON

**CA-18. Mission Beach and Bay, San Diego County (Index Map 4)**

*Unit 1—Fiesta Island*

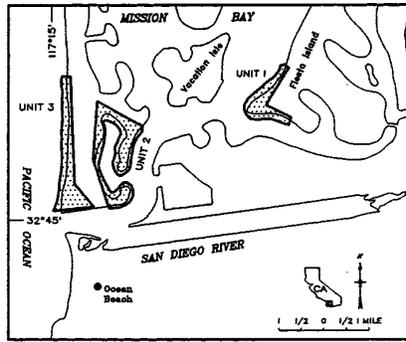
Beginning at 32°46'07" N, 117°14'34" W, thence south to MLW, thence southerly and northerly following MLW to a point directly south of 32°45'34" N, 117°14'50" W, thence north to said point, thence northwesterly to 32°45'52" N, 117°14'58" W, thence northeasterly to 32°46'16" N, 117°14'55" W, thence southeasterly to the point of beginning. (La Jolla USGS 7.5" Quad 1975)

*Unit 2—Mariner's Basin*

Beginning at 32°46'31" N, 117°13'25" W, thence southeasterly to 32°46'30" N, 117°13'23" W, thence southwesterly to 32°46'15" N, 117°13'34" W, thence southeasterly to 32°46'10" N, 117°13'23" W, thence south to MLW, thence westerly and northerly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (La Jolla USGS 7.5" Quad 1975)

*Unit 3—Mission Beach*

Beginning at 32°46'26" N, 117°15'08" W, thence southerly to 32°46'02" N, 117°15'06" W, thence southerly to 32°45'43" N, 117°15'05" W, thence southeasterly to 32°45'34" N, 117°14'57" W, which is on the north jetty to Mission Bay, thence westerly following the north side of the jetty to MLW, thence northerly following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (La Jolla USGS 7.5" Quad 1975)



CA-18 MISSION BEACH AND BAY UNITS 1-3

**CA-19. South San Diego Coast Beaches, San Diego County (Index Map 4)**

*Unit 1—Silver Strand/Delta Beach*

Beginning at 32°40'08" N, 117°09'54" W, thence northeasterly to 32°40'40" N, 117°09'13" W, thence east to MLW, thence southwesterly following MLW to a point directly north of 32°39'27" N, 117°09'10" W, thence south to said point, thence northeasterly to 32°39'30" N, 117°08'57" W, thence southeasterly to 32°39'16" N,

117°08'48" W, thence southwesterly to 32°39'11" N, 117°09'00" W, thence southeasterly following the east side of the San Diego and Arizona Eastern Railroad tracks to 32°38'34" N, 117°08'40" W, thence northeasterly to 32°38'39" N, 117°08'36" W, thence east to MLW, thence southerly following MLW to a point directly east of 32°38'12" N, 117°08'26" W, thence west to said point, thence southwesterly to 32°38'11" N, 117°08'31" W, thence southeasterly to

32°37'20" N, 117°08'10" W, thence southeasterly following the west side of Silver Strand Boulevard to 32°36'43" N, 117°08'02" W, thence southeasterly to 32°36'32" N, 117°07'55" W, thence southerly to 32°35'09" N, 117°07'51" W, thence west to MLW, thence north following MLW to a point directly west of the point of beginning, thence east to the point of beginning. (Point Loma and Imperial Beach, Calif.—Baja Calif. Norte USGS 7.5" Quads 1975)



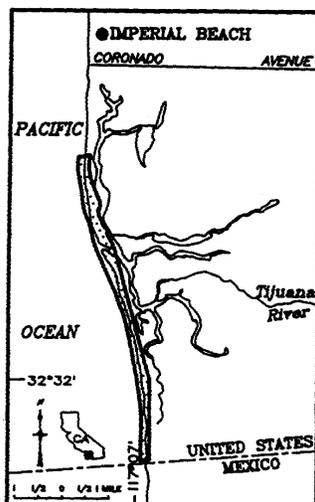
CA-19 SOUTH SAN DIEGO COAST BEACHES UNIT 1—SILVER STRAND/DELTA BEACH

*Unit 2—Tijuana River Beach*

Beginning at 32°34'01" N, 117°07'53" W, thence southerly following the unimproved road to 32°33'44" N, 117°07'49" W, thence east to the HWL of Oneonta Slough, thence south following the HWL of said slough to 32°33'26

N, 117°07'40" W, which is at the mouth of Tijuana River, thence southeasterly crossing said river to 32°32'36" N, 117°07'24" W, thence south to 32°32'04" N, 117°07'24" W, thence west to MLW, thence northerly following MLW, but excluding the mouth of Tijuana River, to

a point directly west of the point of beginning, thence east to the point of the beginning. Excludes all U.S. Fish and Wildlife Service property. (Imperial Beach, Calif.—Baja Calif. Norte USGS 7.5" Quad 1975)



CA-19 SOUTH SAN DIEGO COAST BEACHES  
UNIT 2- TIJUANA RIVER BEACH

Primary Constituent Elements: Beaches, dunes, and estuaries that provide habitat, or with rehabilitation, could provide habitat for nesting, roosting, foraging, and migration.

Dated: February 1, 1995.

**George T. Frampton, Jr.,**

*Assistant Secretary for Fish and Wildlife and Parks.*

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