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#### STAFF REPORT AND RECOMMENDATION

#### **ON CONSISTENCY DETERMINATION**

Consistency Determination No.	CD-21-97
Staff:	MPD-SF
File Date:	2/26/97
45th Day:	4/12/97
60th Day:	4/27/97
Commission Meeting:	4/8/97

#### **FEDERAL AGENCY**:

U.S. Navy

DEVELOPMENT LOCATION:

Laguna Road causeway, Naval Air Weapons Station, Point Mugu, Ventura County (Exhibits 1-3)

#### DEVELOPMENT DESCRIPTION:

Installation of riprap to protect the existing causeway that crosses Mugu Lagoon (Exhibits 4-8)

#### **SUBSTANTIVE FILE DOCUMENTS:**

1. Negative Determination ND-13-95, Navy, Mugu Lagoon Revetment, Radar Calibration Facility shoreline, Naval Air Weapons Station, Point Mugu.

#### **EXECUTIVE SUMMARY**

The Navy has submitted a consistency determination for the installation of riprap to protect the existing causeway that was built in the late 1940s to support Laguna Road where it crosses Mugu Lagoon, at the Point Mugu Naval Air Weapons Station. The riprap is needed because erosion is threatening the causeway, which is the primary transportation access link and utility corridor link between the main portion of the Naval Air Weapons Station and the beach area of the Station. The project consists of placing riprap on both sides of the causeway. The length of riprap would be 75 ft. on the east side of the causeway, and 105 ft.

on the west side. The slope of the riprap sides would be 1:1. Total acreage of ground covered would be 0.06 acres. The total volume of the rock riprap would be 567 cu. yds.

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The Coastal Act (Section 30235) allows shoreline structures when they are necessary to protect existing structures and where they have been designed to eliminate or mitigate adverse impacts on local shoreline sand supply. The proposed riprap is needed to protect the existing Laguna Road causeway from erosion, and it will not have any effects on shoreline sand supply. The project is therefore consistent with the shoreline structures policy (Section 30235) of the Coastal Act.

The project involves fill of coastal waters and could, if not properly designed and constructed, adversely affect marine resources and environmentally sensitive habitat. The project: (1) is an allowable use under the Coastal Act; (2) is the least damaging feasible alternative way to protect the causeway, and; (3) with the measures incorporated into the project to minimize adverse habitat impacts, including avoiding construction within sensitive areas and timing construction activities to avoid sensitive species, will not result in adverse habitat impacts to a degree warranting imposition of any additional mitigation requirements. Therefore, the project is consistent with the wetlands, coastal waters, marine resources, and habitat policies (Sections 30230, 30233 and 30240) of the Coastal Act.

As stated above, the project will not affect downcoast sand supply. The project will not otherwise cause access and recreation impacts and is located in an area necessarily off limits to the public due to military security needs. Therefore, the project is consistent with the public access and recreation policies (Sections 30210-30212) of the Coastal Act.

#### STAFF SUMMARY AND RECOMMENDATION:

I. <u>Project Description</u>. The Navy proposes to install riprap to protect the existing causeway that crosses Mugu Lagoon, at the Point Mugu Naval Air Weapons Station (Exhibits 1-3). The riprap is needed because erosion is threatening the causeway, which is the primary transportation access link and vital utility corridor link between the main portion of the Naval Air Weapons Station and the beach area of the Station. The project consists of placing rock riprap on both sides of the causeway (Exhibits 4-8). The length of riprap would be 75 ft. on the east side of the causeway (Exhibit 5), and 105 ft. on the west side (Exhibit 6). The slope of the riprap sides would be 1:1. Total acreage of ground covered would be 0.06 acres. The total volume of the rock riprap would be 567 cu. yds. No construction equipment would operate from within the lagoon; the rocks would be placed alongside the road from equipment operating from Laguna Road (i.e., from on top of the existing causeway).

**II.** <u>Status of Local Coastal Program</u>. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission has certified the LCP and incorporated it into the CCMP, the LCP can provide guidance in applying Chapter 3 policies

in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Ventura County LCP has been certified by the Commission but has not been incorporated into the CCMP.

**III.** <u>Federal Agency's Consistency Determination</u>. The Navy has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

#### IV. Staff Recommendation:

The staff recommends that the Commission adopt the following resolution:

#### **Concurrence**

The Commission hereby **concurs** with the consistency determination made by the Navy for the proposed project, finding that the project is consistent to the maximum extent practicable with the California Coastal Management Program.

#### V. Findings and Declarations:

The Commission finds and declares as follows:

A. Shoreline Structures. Section 30235 of the Coastal Act provides:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

This section allows shoreline structures to be authorized if they are necessary to protect coastal-dependent uses or existing structures, and where they have been designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Within the meaning of the phrase "existing structures" for this analysis, the Commission notes that the Coastal Act definition of "structure" (Section 30106) includes roads.

The Commission must first determine if the project is required to serve coastal-dependent uses or to protect an existing structures, thereby making it an allowable use under Section 30235. The proposed riprap meets this test because it is needed both: (1) to serve vital military functions located within the beach area of the Naval Air Weapons Station, some of which functions are coastal dependent because they need to be located along the shoreline;

as well as (2) to protect the existing Laguna Road causeway, which is the primary access link and utility corridor link between the main portion of the Naval Air Weapons Station and the beach area of the Station. The existing causeway, which was constructed in the late 1940s, has significantly eroded compared to its historic footprint (Exhibit 9), and if the project is not built further erosion will threaten the integrity of the causeway. The Commission therefore finds the project is an allowable use under Section 30235. ç

The second test of Section 30235 is whether the project has been designed to eliminate or mitigate any adverse impacts on local shoreline sand supply. Shoreline erosion at Point Mugu is a very significant problem noted in past Commission reviews of a number of shoreline structures proposed at the Naval Air Weapons Station, erosion which is exacerbated by the continuing advancement of the offshore Mugu Submarine Canyon towards shore. Nevertheless, in this case, the proposed rock protection is not located along the open ocean where it could affect shoreline sand supply. Also, since it will be placed adjacent to an existing sheet pile wall currently protecting Laguna Road, the proposed riprap will not deprive the coast from any measurable source of sand. The Commission therefore finds that the project will not affect shoreline sand supply and is consistent with all the tests of Section 30235 of the Coastal Act.

#### B. Wetlands/Sensitive Habitat/Marine Resources.

1. Coastal Act Policies. Section 30230 of the Coastal Act provides:

Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Use of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for longterm commercial, recreational, scientific, and educational purposes.

#### Section 30233 provides:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the l9 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

#### Section 30240 provides:

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(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

> (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

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2. <u>Mugu Lagoon Resources.</u> The Coastal Act clearly recognizes that wetlands, estuaries, and adjacent habitat are important resources. Coastal wetlands provide spawning, nursery, and foraging areas for many species of marine fish. More than 50 species are known to utilize this habitat, many of which are important to the sport and commercial fishing industries. Coastal wetlands are also essential wintering habitats for many species of migratory shore birds and water fowl that use these habitat areas for resting places during their annual migrations. Finally, these coastal wetlands are also important because they provide habitat for many endangered species.

Outside of San Francisco Bay, Mugu Lagoon ranks among the largest wetland systems in California. It provides one of the few surviving examples of the diverse and highly productive salt marsh lagoon ecosystems that once flourished in many areas along the southern California coastline. Over 250 species of plants are present and more than 300 species of birds use the area at least seasonally. The lagoon and tidal channels support a diverse benthic invertebrate fauna and at least 39 species of fish. The uplands provide habitat for over 40 mammalian species, as well as several reptiles and a number of federally-and state-listed threatened and endangered bird species, including: the California Brown pelican, the light footed clapper rail, the California least tern, the Western snowy plover, and the Belding's savannah sparrow. (An additional description of the habitat values at Mugu Lagoon can be found in Exhibits 10 & 11.) Thus, the Commission has historically considered Mugu Lagoon, its sloughs and wetlands, and some of the adjacent upland, to constitute environmentally sensitive habitat and be subject to protection under Sections 30230, 30233 and 30240 of the Coastal Act.

The Commission has also historically determined that adverse effects on wetlands on federal lands, such as at Point Mugu, constitute adverse impacts on coastal zone resources. The endangered species observed in the area are experiencing declining numbers throughout the state due to human impacts and habitat loss. Suitable habitat niches in the coastal zone may already be occupied or able to optimally support only a limited population of these species. Loss or disturbance of habitat will further reduce the species' ability to successfully survive. By virtue of its being on the Pacific Flyway, Mugu Lagoon is therefore critical habitat for migrating coastal species, and species which spend much if not most of their lives in the coastal zone.

Historically, coastal estuaries and wetlands have been destroyed or disturbed by many human activities, including: dredging for ports and marinas; diking to remove from tidal influence; filling for the creation of new land for development; disposing of domestic sewage and industrial waste, and removing freshwater inflows. The wetland acreage in California's coastal zone has been reduced by approximately 90 percent from its historic amount. Of the

original 197,000 acres of marshes, mudflat, bays, lagoons, sloughs, and estuaries in California (excluding San Francisco Bay), the natural productivity and open space values of 52 percent have been totally destroyed by dredging and filling. Of California's remaining estuaries and coastal wetlands, 62 percent have been subjected to severe damage and 19 percent have received moderate damage. Less than 10 percent of California's original coastal estuaries and wetlands remain relatively undisturbed.

Of California's remaining coastal wetlands, southern California wetlands have been the most severely degraded. However, southern California's coastal wetlands still support numerous birds, including endangered, migratory, and resident species. Several of the bird species that use southern California coastal wetlands are now threatened because of the massive losses of wetland habitat. Approximately 75 percent of the estuaries and coastal wetlands in southern California have been destroyed or severely altered by man since 1900. Two-thirds of the twenty-eight sizable estuaries existing in southern California at the turn of the century have been dredged or filled.

**3.** <u>Commission Analysis.</u> The proposed project consist of placement of 0.06 acres of rock riprap within an intertidal area, which means that the project includes fill of wetland, estuarine, or open coastal waters. Section 30233(a) of the Coastal Act subjects such projects to a three-part test, which requires that the project must: (1) represent an allowable use for fill of coastal waters; (2) be the least damaging feasible alternative; and (3) provide adequate mitigation for habitat losses. Under additional tests contained in the above-referenced Coastal Act policies, the project must also avoid degrading the functional capacity of the adjacent Mugu Lagoon, and assure protection of marine resources and other environmentally sensitive habitat resources.

Based on a 1994 U.S. Army Corps of Engineers (Corps) wetlands delineation, the Navy states that the proposed project is not within Corps-defined wetlands (Exhibit 8). In addition, Corps personnel visited the site and states the mudflat/ area adjacent to the causeway is not particularly sensitive, in part because it was created by artificial fill placed across the Lagoon when the causeway was originally built (see Exhibit 9). Nevertheless, most of the provisions of Section 30233 apply to all coastal waters, including wetland, estuarine, or open water habitat. Moreover the project is clearly within an intertidal area (Exhibits 4 & 7), and the Commission notes that based on U.S. Fish and Wildlife historic mapping for this area, the project site consists of estuarine and/or open water habitat. The project is therefore subject to the above-referenced three-part test for fill of coastal waters.

The first of these tests is the allowable use test. Shoreline structures are not specifically mentioned among the eight allowable uses under Section 30233. However, as explained in the previous section of this report, Section 30235 of the Coastal Act specifically authorizes shoreline structures, where they are necessary to protect existing structures, and where the other tests of Section 30235 are also met. As explained on pages 3-4 above, roads are considered structures for this analysis. Under the well-established rule of statutory

interpretation that the specific prevails over the general (see Civil code Section 3534), authorization of shoreline protective devices under Section 30235 takes precedence over the Section 30233 allowable use restrictions on the "fill of open coastal waters" category of development.

Moving to the second (alternatives) test of Section 30233(a), the Navy states that the riprap proposed "has been designed to minimize impact to Mugu Lagoon" and is the "minimum width necessary to protect the causeway." The Commission agrees: the Navy has limited the area of the riprap to unvegetated mudflats, has reduced the riprap to areas outside historically-defined wetland habitat, and, as discussed in the following paragraph, has taken efforts to further minimize the project's effects on surrounding wetland and sensitive habitat. The Commission finds that the project represents the least environmentally feasible alternative for protecting the causeway.

Regarding the third (mitigation) test of Section 30233(a), the Navy has incorporated measures to protect wetlands, coastal waters, and environmentally sensitive wildlife habitat in the project area. For example, the Navy has committed to keeping construction equipment out of the lagoon. The rocks will be placed at the site from the roadbed above. In addition, the Navy will only perform construction activities when the tide is low, to further minimize turbidity impacts. The Navy also points out that the rock placement will provide habitat opportunities in the spaces between the rocks, and that the rocks will slightly reduce turbidity by covering sediments that could otherwise be transported into the lagoon by erosive wave action. The project will be scheduled to avoid the breeding season for least terns and clapper rails, as the Navy has committed to constructing the project outside the sensitive April 1-Sept. 15 season.

The project will also avoid effects on marine mammals which sometimes enter the lagoon, because they do not haul out at the causeway. To further protect sensitive species, the Navy has committed to maintaining an environmental monitor on-site during construction to assure marine mammals and sensitive bird species will not be adversely affected. With the above measures, the proposed construction activities will not degrade water quality or disturb sensitive wildlife resources at Mugu Lagoon. The Commission therefore finds that the project meets the mitigation test of Section 30233(a), as well as other habitat protection provisions of Sections 30230 and 30240. Finally, pursuant to Section 30233(c), the Commission also finds the project will not adversely affect the functional capacity of Mugu Lagoon, as it will have only insignificant effects on water circulation, and, as pointed out by the Navy, it may even slightly decrease sedimentation into the lagoon from the existing causeway fill.

In conclusion, the Commission finds that project is an allowable use under the Coastal Act, is the least damaging feasible alternative way to protect the causeway, and, with the measures discussed above proposed to minimize impacts, will not result in adverse habitat impacts to a degree warranting imposition of mitigation requirements. Therefore, the

Commission concludes that the project is consistent with the marine resources, wetlands/estuarine/coastal waters, and habitat policies (Sections 30230, 30233 and 30240) of the Coastal Act.

C. <u>Public Access and Recreation</u>. Sections 30210-30212 of the Coastal Act provide for the maximization of public access and recreational opportunities, with certain exceptions for, among other things, military security needs and public safety. In reviewing Defense Department consistency determinations for activities on bases that are off limits to the public for military security reasons, the Commission typically attempts to substantiate claims of military security access restrictions, as well as analyze whether proposed projects generate burdens on public access.

The Naval Air Weapons Station at Pt. Mugu is a "secure military area" (access to the base is restricted to authorized personnel). The Commission has historically determined that projects at this base that do not generate access burdens do not entail the need for public access provisions, given the Navy's legitimate, high security classified defense-related activities throughout most portions of this base.

Moreover, for this particular riprap project, the mudflat being covered by riprap is too small, and the location of the riprap in an internal area of Mugu Lagoon is too far removed from the lagoon mouth to consider that the project could have any effect on sand supply at ocean beaches outside the mouth of Mugu Lagoon. Thus, while the coastal area outside the lagoon mouth experiences serious shoreline erosion, this project will not exacerbate such erosion.

The Commission therefore concludes that the proposed project would not generate burdens on public access and recreation, and would be consistent with the public access and recreation policies (Sections 30210-30212) of the Coastal Act.

**D.** Related Commission Action. In concurring with Negative Determination ND-13-95, the Executive Director concurred with a proposal by the Navy to install rock riprap protection at the Radar Calibration Facility shoreline, also located at the Naval Air Weapons Station at Mugu Lagoon, and also located within an intertidal area adjacent to wetland habitat. In that project, as is the case with the subject project, the riprap was to be placed within an intertidal area with relatively little habitat value, and, after consulting with the U.S. Fish and Wildlife Service, the Commission staff agreed with the Navy that the project would not involve any loss of biological productivity, and that no further mitigation was required under Coastal Act policies for the fill of intertidal areas. At the same time the Commission staff urged the Navy to submit consistency determinations (rather than negative determinations) for any future projects at the base involving placement of shoreline protective devices in intertidal areas.



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**Figure 1: Existing Conditions January 1966.** Based on the contour lines, the slopes of the causeway were gentle and covered a large area. The proposed project will not repair to the original condition, but will have a steeper slope and will cover a much smaller area.

Scale: 1 inch = 200 feet













Figure 8: West Side of Causeway, South View. Rock would be added beginning at the edge of the existing sheet pile.



EXHIBIT NO. 7 APPLICATION NO. CD-21-97

Figure 9: West Side, North View.



# Figure 10: East Side, North View.

EXHIBIT 7 (control)

<b>Figure 4: 1994 Jurisdictional Wetland Delineation Map.</b> The proposed repair is not within the 1994 jurisdictional wetland map. If the repair brought the causeway to its original design, it would extend into the wetlands as mapped. However, the proposed project will avoid the 1994 delineation.	North	16.5KV 3-4/0- 4.16KV 4-1/0-E
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Figure 3: Existing Conditions February 1949 (East). The road conditions on the east side of  $\cdot$  the road show a more gentle slope of 6:1. The slope work is well within the original design. Therefore, the project effectively reduces area of the causeway structure from its original design.

Scale: 1 inch = 5.3 feet



FOR USE STA. 6430 T SCALE

Figure 2: Existing Conditions February 1949 (West). The existing road conditions show a 4:1 slope on the west side of the road. The design distance from the road shoulder to the bottom of the slope is approximately 30 feet. The repair will only extend 20 feet from the shoulder. Because the area behind the sheet pile does not need repair the repair extends only 13 feet outward.

Scale: 1 inch = 5.3 feet

## CALIFORNIA COASTAL COMMISSION





#### **EXHIBIT 10**

#### HABITAT RESOURCES AT MUGU LAGOON

The Naval Air Weapons Station (NAWS) encompasses approximately 4,575 acres and contains Mugu Lagoon with its associated wetland communities. These wetlands are a diverse and highly productive ecosystem of a type that was once more common along the coast of California. Development of the NAWS has altered the original wetlands through dredge-and-fill activities that resulted in deepening the central portion of the lagoon to provide fill for construction of military facilities. About 1,400 acres of the original 3,100 acres of wetlands have been lost (MacDonald, 1976). Of the remaining area, about 310 acres are in the lagoon and tidal channels, 290 acres are barrier beach and sand spit, and 1,134 acres are salt marsh and sand or mud flats.

Despite these historic habitat losses, outside of San Francisco Bay, Mugu Lagoon ranks among the largest wetland systems in California. It located within the Pacific Flyway and supports one of the greatest concentrations of water-associated birds found between Morro Bay and Anaheim Bay. It also provides one of the few surviving examples of the diverse and highly productive salt marsh lagoon ecosystems that once flourished in many areas along the southern California coastline.

Over 250 species of plants are present and more than 300 species of birds use the area at least seasonally. The greatest numbers of birds are present between September and April, with over 10,000 birds estimated to overwinter at the lagoon (MacDonald, 1976). The size of the habitat, relative protection from human disturbance, and high productivity of the ecosystem all contribute to the avifaunal abundance and diversity. Common waterfowl include northern pintail (Anas acute), northern shoveler (Anas clypeata), teal (Anas spp.), mallards (Anas platyhynchos), and American widgeons (Anas americana). Shorebirds, such as willets (Catoptrophorus semipalmatus) and godwits (Limosa fedoa), are particularly abundant during winter. They use the beach, wetlands, and landscaped areas on the NAWS. Loons (Gavia spp.), grebes (Podiceps spp. and Aechmophorus occidental is), pelicans (Pelicanus spp.), cormorants (Phalacrocorax spp.), and mergansers (Mergus spp.) commonly forage on fish in open waters of the lagoon, whereas herons (Ardea herodias and Nycticorax nycticorax) and egrets (Casmerodius albus and Egretta thula) wade in shallow waters in search of prey. American coots (Fulica americana) are extremely abundant during the winter migratory season; gulls (Larus spp.) and terns (Sterna spp.) are also present.



Exhibit 10 Page 2

The lagoon and tidal channels also support a diverse benthic invertebrate fauna and at least 39 species of fish. The uplands provide habitat for over 40 mammalian species, as well as several reptiles.

Finally, the Lagoon and vicinity harbor a number of threatened and endangered bird species, including: the California Brown pelican (Pelicanus occidentalis californicus), the light footed clapper rail (Rallus longirostrus levipes), the California least tern (Sterna albifrons), the Western snowy plover (Charadrius alexandrinus nivosus), and the Belding's savannah sparrow (Passerculus sandwichensis beldingi). Endangered plant species include the salt marsh bird's beak (Cordylanthus maritimus ssp. maritimus).

Exhibit 11 contains a list of the species in the NAWS area that are federally- or statelisted as threatened or endangered, along with several species that are candidates for federal listing.

Exhibit 10 (cont'a)

### TABLE 3-1. RARE, THREATENED, AND ENDANGERED SPECIES IN THE VICINITY OF MUGU LAGOON

Species	199   Status'		Distribution in Project Area
	Federal	State	
California least tern (Sterna antillarum brownii)	E	E-	Summer resident April through September; breeds on PMTC; forages in shallow waters of lagoon and along coast.
*Lignt-footed clapper rail (Railus longirostris levipes)	E	E	Resident in selt marsh on PMTC; six pairs nested in 1990 (Ledig, 1990).
Peregrine faicon (Falco peregrinus)	E	E	Winter/summer visitor.
Brown pelican <i>(Pelicanus occidentalis)</i>	E	E	Forages and roosts on or adjacent to PMTC; peak numbers present in summer and fail; breads on off-shore channel islands.
<sup>*</sup> Belding's savannah sparrow <i> Passerculus sandwichensis beldingi</i> )	C2	Ē	Resident in pickleweed marsh on PMTC, especially in central basin and western arm of lagoon.
Western snowy plover <i>(Cheredrius alexandrinus nivosus)</i>	C2	-	Summer resident and winter visitor; breeds on barrier beach; forages on beach and tidal flats of Mugu Lagoon.
Ferruginous hawk <i>(Buteo regalis)</i>	C2	-	Transient winter visitor.
Long-billed curlew (Numenius americanus)	C2	•	Winter visitor to marshes, beaches, and grassland.
White-faced ibis <i>(Plegadis chihi)</i>	C2	SSC	Resident
Elegant tern <i>(Sterna elegans)</i>	C2	•	Winter visitor, spring and fail transient; forages in lagoon and near shore; roosts on sand flats at low tide.
Large-billed savannah sparrow (Passerculus sandwichensis rostratus)	C2	-	Winter visitor.
Tricolorad blackbird <i>(Agelaius</i> <i>tricolor)</i>	C2	-	Nests in freshwater marshes; forages in fields and pestures, grassiands, and lawns.
Southern harvest mouse (Reithrodontomys megalotis limicola)	C2	SSC	Resident in upper marsh and adjacent upland scrub (Onuf, 1987).
Globose dune beetle (Coelus globosus)	C2	-	No information for PMTC; habitat is in foredunes.
California brackishwater snail (Tryonia imitator)	C2	-	Historically in brackish lagoons and estuaries from Sonoma to San Diego County (URS, 1986); in western and of western arm of Mugu Lagoon (Onuf, 1987).
Southwestern pond turtie (Clemmys mermorate pellida)	C2	S	Inhabits fresh to brackish channels on PMTC, including western arm of lagoon west of runway 3/21.
Saltmarsh bird's beak (Cordylanthus maritimus ssp. maritimus)	E	E	Several localities in salt marsh south and west of Mugu Lagoon; considerable decline in population over last 8 years.

E = endengered; T = threatened; C2 = candidate for federal listing, category 2; SSC = species of speciel canoarn; S = servitive Source: Keaney, 1991, unless otherwise noted.

Only rare, threatened, and endergered species potentially impacted by the Proposed Action.

2 Note: status not convolut

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EXHIBIT NO.

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APPLICATION NO.

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