3.10 LAND USE

3.10.1 Introduction

3.10.1.1 Definition of Resource

Land use classifications typically fall into two major categories: naturally occurring land cover and human-modified land use. Natural land cover includes areas of unaltered vegetation, rangeland, and other open or undeveloped areas. Human-modified land use classifications include residential, commercial, industrial, transportation, communications and utilities, agricultural, institutional, recreational, and other developed use areas. Land use is regulated by management plans, policies, regulations, and ordinances (i.e., zoning) that determine the type and extent of land use allowable in specific areas (both under natural land cover and human modified) and that also protect specially designated or environmentally sensitive areas. Examples of land use in an ocean environment include offshore activities such as shipping, military uses, commercial and recreational fishing, tourism, and other recreational activities. Types of offshore activities suitable for given areas are often addressed in local coastal management programs which have been established to comply with the Coastal Zone Management Act (CZMA) of 1972, as amended (16 C.F.R. § 1451 et seq.).

3.10.1.2 Regional Setting

The Point Mugu Sea Range has many unique marine and terrestrial features suitable to a wide variety of land uses. Military use of the Sea Range (e.g., weapons testing and evaluation) takes advantage of the Sea Range's rare combination of physical features: curvature of the SCB, high elevations along the mainland coast (Laguna Peak) and offshore (San Nicolas Island and northern Channel Islands) for radar and telemetry use, and the remote location of San Nicolas Island to support Navy activities relatively far away from areas that are heavily used by the general public. The Sea Range also has features important to commercial land use: productive fishing grounds for commercial fishing and sport fishing enterprises and a central location serving as an important transportation link for ocean and aircraft traffic between southern California and areas to the north and west of California. Finally, the Sea Range has many important elements beneficial to recreational land use: relatively mild climate and water temperatures for year-round recreational boating, marine mammal migration routes conducive to sight-seeing excursions, and proximity of the Channel Islands for recreational enjoyment. In general, most recreational and commercial activities occur within relatively close proximity of shorelines (either near the mainland or the islands). Navy activities occur in the open ocean areas as well as at support locations such as NAS Point Mugu and San Nicolas Island.

3.10.1.3 Region of Influence

The following discussion focuses on land use policies and zoning regulations established by regulating authorities, including the National Park Service (NPS), National Oceanic and Atmospheric Administration (NOAA), Department of the Navy, Ventura County, and City of Oxnard. For the purposes of this EIS/OEIS, the land use region of influence (ROI) includes: the Sea Range; the boundaries of NAS Point Mugu, Ventura County, and neighboring areas; and San Nicolas, San Miguel, Santa Rosa, and Santa Cruz islands.

3.10.2 Point Mugu Sea Range

3.10.2.1 Overview

Located in the Pacific Ocean approximately 50 miles (80 km) northwest of Los Angeles, the Point Mugu Sea Range is a heavily instrumented military operations and testing area operated by the Navy. The Sea Range is used for controlled air-, surface-, and subsurface-launched missile test operations; aircraft tests; and fleet exercises involving aircraft, surface ships, submarines, and various targets. Navy-owned San Nicolas Island plays an important role in supporting the NAWCWPNS mission.

3.10.2.2 Military Activities

A - Airspace Use

Areas of concentrated and regular military training tend to be located away from heavily used offshore areas to ensure public safety. Areas most frequently used for aircraft operations and missile activities are Range Areas 4A/B and 5A/B (refer to Figures 3.0-19 and 3.0-20, respectively). These range areas are part of the Outer Sea Range; they are located west (i.e., seaward) of the imaginary line between San Nicolas and San Miguel islands. (This line is approximately 45 NM [83 km] southwest of NAS Point Mugu.) A more detailed discussion of military airspace use is presented in Section 3.11, Traffic (refer to Section 3.11.2.1-B).

B - Ocean Use

The Sea Range is also used by Navy vessels for ocean-related activities. Common types of vessels on the Sea Range include range support boats, larger ships (cruisers, destroyers, and aircraft carriers), and surface targets. A more detailed discussion of military vessel activity is presented in Section 3.11, Traffic (refer to Section 3.11.2.1-A).

3.10.2.3 Commercial Activities

Non-military activities can occur in all areas within the Sea Range. When Navy activities require exclusive use of an area, NAWCWPNS issues Notices to Airmen (NOTAMs) and Notices to Mariners (NOTMARs) 24 hours in advance requesting non-participants to remain clear of the area. Despite these procedures, non-participants occasionally enter areas of operations. In these cases, NP-3D aircraft or Navy vessels contact these vessels directly on the radio to ensure that areas are clear prior to commencing planned operations. A more detailed discussion of safety procedures on the Sea Range is presented in Section 3.14, Public Safety.

A - Shipping

Maritime traffic routes are typically established by the U.S. Coast Guard (USCG). The major purpose of these routes (often referred to as *shipping lanes*) is to allow access to and from major ports for large commercial marine vessels while allowing an adequate separation scheme for other types of offshore activities. A detailed source of information for commercial ship traffic volumes is the Navy-maintained Historical Temporal Shipping (HITS) database as updated in 1992 and 1993 (U.S. Navy 1993). The HITS data provide ship densities tabulated by geographic location and time of year. The shipping densities represent the average number of ships per 1,000 NM^2 (3,430 km^2) centered at a specific sampling point. The vessel categories included are supertankers, merchant vessels, tankers, and large tankers. The fishing vessel traffic, a minor component, was not considered in this analysis. Although

some high-traffic areas (e.g., the area between Point Mugu and Anacapa Island) are not included in the database, the geographic study area includes most of the Sea Range.

A major shipping lane transits the Santa Barbara Channel and passes through a portion of the Sea Range east of the channel (Figure 3.10-1). This route is the most heavily traveled traffic lane used by commercial cargo vessels in the waters off southern California. Between three and eight transits per day require range safety consideration (NAWCWPNS Point Mugu 1996m). The Traffic Separation Scheme (TSS) established by the USCG is aligned just north of, and roughly parallel with, the northern Channel Islands. The TSS is used by commercial vessels traveling between northern Pacific (e.g., Seattle, San Francisco, and Vancouver) and southern California ports, as well as by traffic destined for remote ports such as Panama Canal or Asia. The majority of oil tankers passing through the area voluntarily travel 50 NM (93 km) offshore (USCG 1997). However, those tankers heading south to the Port of Los Angeles use a route which lies further landward. The USCG issues a NOTMAR which notifies passing vessels of the presence of military activities in the area. A more detailed description of commercial shipping is presented in Section 3.11, Traffic (refer to Section 3.11.2.1-B).

B - Commercial Fisheries

Commercial fishing, diving, and trapping occur at various locations off the coast of southern California, including portions of the Sea Range and the Channel Islands, which constitutes an extremely productive commercial fishing area. The nearshore waters along the coast from Ventura to Santa Barbara and the waters just off the Channel Islands contain giant kelp beds which provide habitats for numerous species. The majority of fish are caught within these areas. Fishery seasons are established and regulated by the CDFG. A detailed description of fish species is presented in Section 3.6, Fish and Sea Turtles; the economic elements of commercial fishing are discussed in Section 3.12, Socioeconomics.

The commercial harvest of kelp and other marine vegetation near the coastline is becoming a more established industry in southern California. Live fish trapping (e.g., rockfish, sheephead, and sea bass) occurs primarily in the shallower waters near the coastlines of the Channel Islands. Hook and line fisheries are not allowed within the state waters of California (3 NM [5.6 km]) offshore; the main species caught in hook and line fisheries is rockfish. Lobsters are fished in coastal waters since they are typically most abundant in rocky areas with kelp in depths of 100 feet (30 m) or less. The waters off the majority of the Channel Islands are conducive to this habitat since they generally have an offshore shelf which extends gradually into deeper waters. Commercial drift gill netting for pelagic shark and swordfish occurs in the open waters throughout portions of the Sea Range and Channel Islands. This fishery, however, is only a small portion of the total industry in southern California.

Specific fisheries in the nearshore and offshore waters of San Nicolas Island are discussed in greater detail later in this section (see Section 3.10.4.2).

C - Oil and Gas Production

Federal leasing of offshore lands for oil and gas production began in 1963, following 10 years of state leasing of offshore areas. Numerous oil platforms and exploratory drilling rigs are located within the Santa Barbara Channel between Oxnard and Gaviota, both in state waters (out to 3 NM [5.6 km]) and federal waters (beyond 3 NM [5.6 km]). Several of these rigs and platforms (including associated onshore facilities) are in the process of being decommissioned.

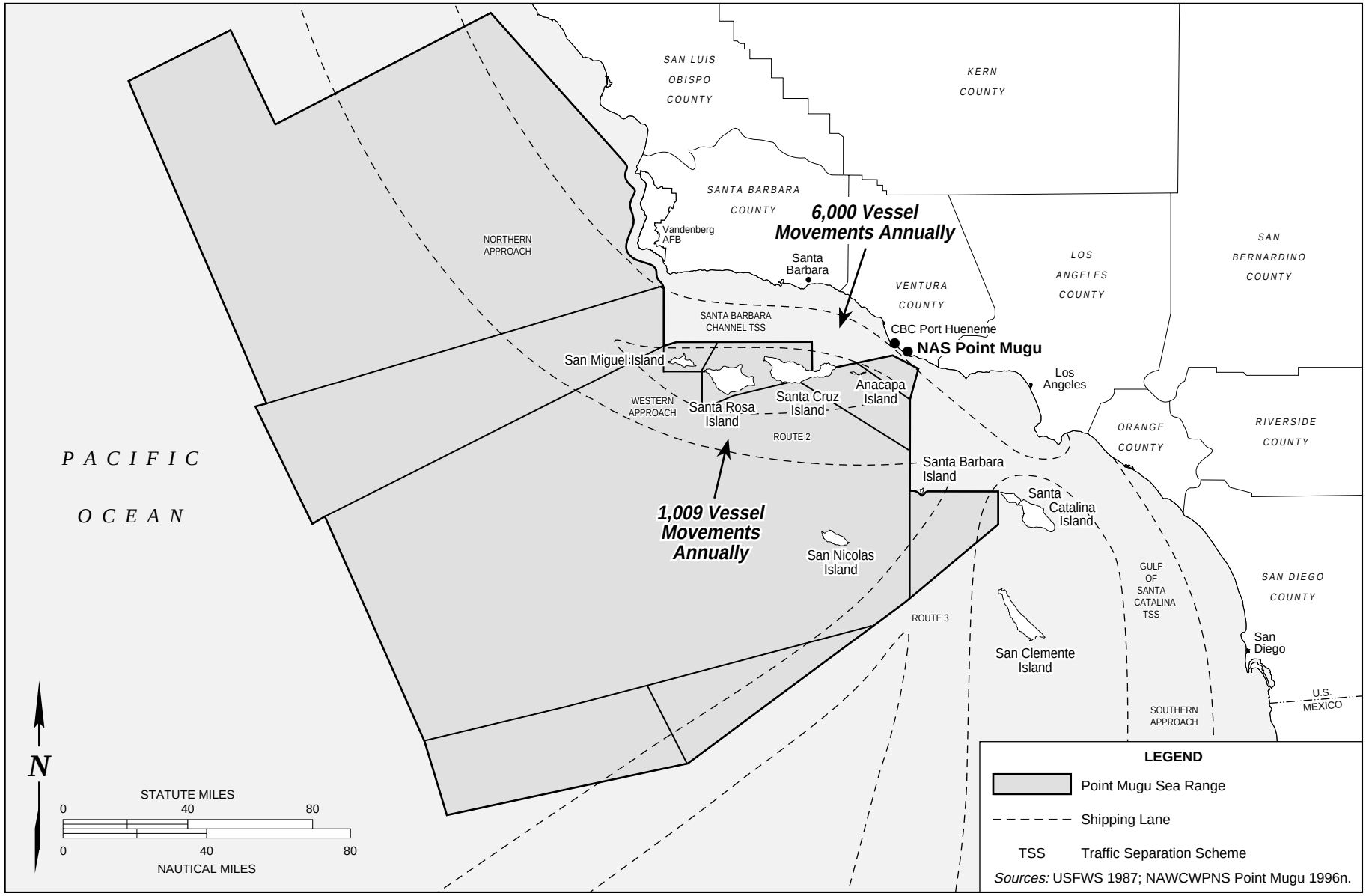


Figure 3.10-1
Annual Shipping Traffic within the Point Mugu Sea Range

3.10.2.4 Recreational Activities

Recreational activities occur primarily in nearshore areas of the Sea Range, particularly along the mainland and around the Channel Islands. Examples of common offshore recreational activities include sport fishing, sailing, boating, and swimming. In addition, the coastal and offshore marine environments are ideal locations for tourism. Tourist-related activities include sightseeing, whale watching, sport fishing, pleasure boating, and diving.

Recreational fishing involves hook-and-line fishing from piers and docks, jetties and breakwaters, beaches and banks, private or rental boats, and commercial passenger fishing vessels. Recreational fishing also includes activities such as spear and net fishing. Recreational fisheries in southern California access both nearshore and offshore areas, targeting both bottom fish and mid-water fish species.

Southern California is a leading recreational fishing area along the west coast. Weather and sea conditions allow for year-round fishing activity. The coastlines around the Channel Islands are popular sport fishing areas; although the majority of kelp beds are within 1 NM (2 km) of shore, some fishing areas extend as far as 5 NM (9 km) from shore and include lingcod grounds to the west of San Miguel Island, broadbill swordfish and marlin in waters south of Santa Cruz Island, and kelp beds off the coast of San Nicolas Island. Commercial passenger fishing vessels frequently offer 1-day sport fishing excursions either from the Ventura or Santa Barbara harbor. Types of fish landed on commercial passenger fishing vessels include kelp bass, mackerel, sheephead, halfmoon, and whitefish.

Recreational activities in the Sea Range other than rod and reel fishing include scuba diving for spiny lobster, scallop, and abalone and spear fishing for rockfish, sheephead, and swordfish. These activities also occur primarily in shallow waters near the coastline.

Offshore recreational activities are generally allowed off all the islands, including San Nicolas Island, during periods of limited military activity. Restrictions are enacted to clear the appropriate range areas of non-participants before military operations are conducted.

3.10.2.5 Channel Islands National Park and National Marine Sanctuary

A - Boundaries

The four islands comprising the northern chain of the Channel Islands together with Santa Barbara Island form the 250,000 acre (101,180 ha) CINP. Park boundaries extend 1 NM (1.9 km) beyond the coast of each island (including rocks and islets). The NPS has management responsibility for Anacapa, Santa Barbara, Santa Rosa, and San Miguel islands, as well as management responsibility for a portion of Santa Cruz Island. However, over 30 other local, state, and federal agencies also have jurisdiction for lands, resources, or activities which impact the park. Several of the principal agencies include the Navy and local, state, and Native American agencies (NPS 1991). NOAA has jurisdiction over the CINMS which was established in 1980 to protect significant marine resources off the Channel Islands. The CINMS extends from the high water mark to 6 NM (11.1 km) offshore of Anacapa, Santa Cruz, Santa Rosa, San Miguel, and Santa Barbara islands.

B - Management

In order to provide an orderly plan of management, the islands within the CINP are zoned into separate management areas. Zoning classifications are based on NPS policies and guidelines, as well as the intent

of the park, to ensure that areas are managed based on the inherent nature of their resources and on their best use. Offshore areas of the CINP are classified into a Special Use Zone, which is briefly described below.

The Special Use Zone includes lands and waters within the park boundary not owned or managed by NPS (i.e., sites managed by NPS but reserved by the USCG for navigational aids). Portions of the waters and submerged lands from the mean high-tide line to 1 NM off the islands have been designated by the State of California as ecological reserves. Two areas around Anacapa Island and one area around Santa Cruz Island are designated ecological reserves. Within these areas, recreational and commercial fish takes are not allowed. Owned by California but lying within the park boundary, submerged lands and marine resources are under the jurisdiction of the state. The State Lands Commission has primary responsibility for managing this area, although various other agencies, such as the CDFG, have responsibility for specific resources. The waters surrounding the islands have been given the designation of Areas of Special Biological Significance in recognition of the high quality of the marine ecosystems and to ensure their protection. Further, the entire water area within the park boundary is also included within the CINMS. The sanctuary's regulations, which primarily address development and related activities, are enforced by the NPS.

Recreational activities include diving, snorkeling, sailing, and wildlife observation, particularly of marine mammals. An increasing number of visitors kayak in park waters, school groups use the resources of the park extensively, and numerous visitors hike the islands. Heaviest visitation is during the summer; however, winter visitation may also be high on the water because of whale-watching programs (NPS 1991).

The waters of the CINMS are heavily trafficked. An aerial survey of the sanctuary initiated by the NPS in 1981-1982 revealed that 78 percent of observed boats were within the boundaries of the CINP (NPS 1991). Less than one-third of the vessels in the sanctuary were engaged in commercial fishing or diving; almost two-thirds were recreational boats; and the remaining minimal percentage of vessels were freighters, tankers, Navy vessels, tugs, barges, kelp harvesters, tour boats, or patrol boats. The survey also revealed that nearly half of the observed boating activity occurred in waters off Santa Cruz Island.

3.10.3 Point Mugu

3.10.3.1 Overview

A - Coastal Zone Management

The California Coastal Commission (CCC) maintains jurisdiction over the coastal zone, which runs through NAS Point Mugu and the City of Port Hueneme (from the mean high-tide line to 3,000 feet [914 m] inland) and extends out to 3 NM (5.6 km) offshore. Coastal states are provided the authority to evaluate projects conducted, funded, or permitted by the federal government through the federal CZMA of 1972, as amended (16 C.F.R. § 1451 et seq.). Under the CZMA and California Coastal Act (CCA), any federal project or activity affecting the coastal zone must be consistent to the maximum extent practicable with the provisions of federally approved state coastal plans. The CCC enforces the regulations and guidelines of the CCA. In addition, Ventura County may review and comment in an advisory capacity to the CCC on federal activities that may affect the coastal zone, including changes in use of Mugu Lagoon (Ventura County 1994). The U.S. Army Corps of Engineers (USACE) is responsible for protection and development of water resources including navigation, flood control, energy production, water supply, and recreation. Therefore, the two major drainages to Point Mugu

(Calleguas Creek and Revolon Slough) are under USACE jurisdiction. In addition, USACE has jurisdiction of Mugu Lagoon and adjacent wetlands.

B - Air Installation Compatible Use Zones (AICUZ) Program

The DoD has established the AICUZ program to address noise, safety, and land use issues. The purpose of the AICUZ program is to prevent incompatible development in high noise exposure areas, to minimize public exposure to potential health and safety hazards associated with aircraft operations, and to protect the operational capability of the air installation. The AICUZ program establishes guidelines for noise levels and accident potential zones (APZs) and provides recommendations for land use planning and policies that affect military installations and surrounding communities.

The AICUZ program identifies land uses that would be compatible with certain noise levels, accident potential, and flight clearance requirements associated with military airfield operations. Community noise equivalent levels (CNELs), shown as noise contour lines on AICUZ maps (refer to Figure 3.3-2), help define land uses that are compatible with certain noise levels. Specific AICUZ issues at NAS Point Mugu are discussed later in this section. Additional considerations associated with AICUZ program noise contours are discussed in Section 3.3, Noise, and Section 3.14, Public Safety.

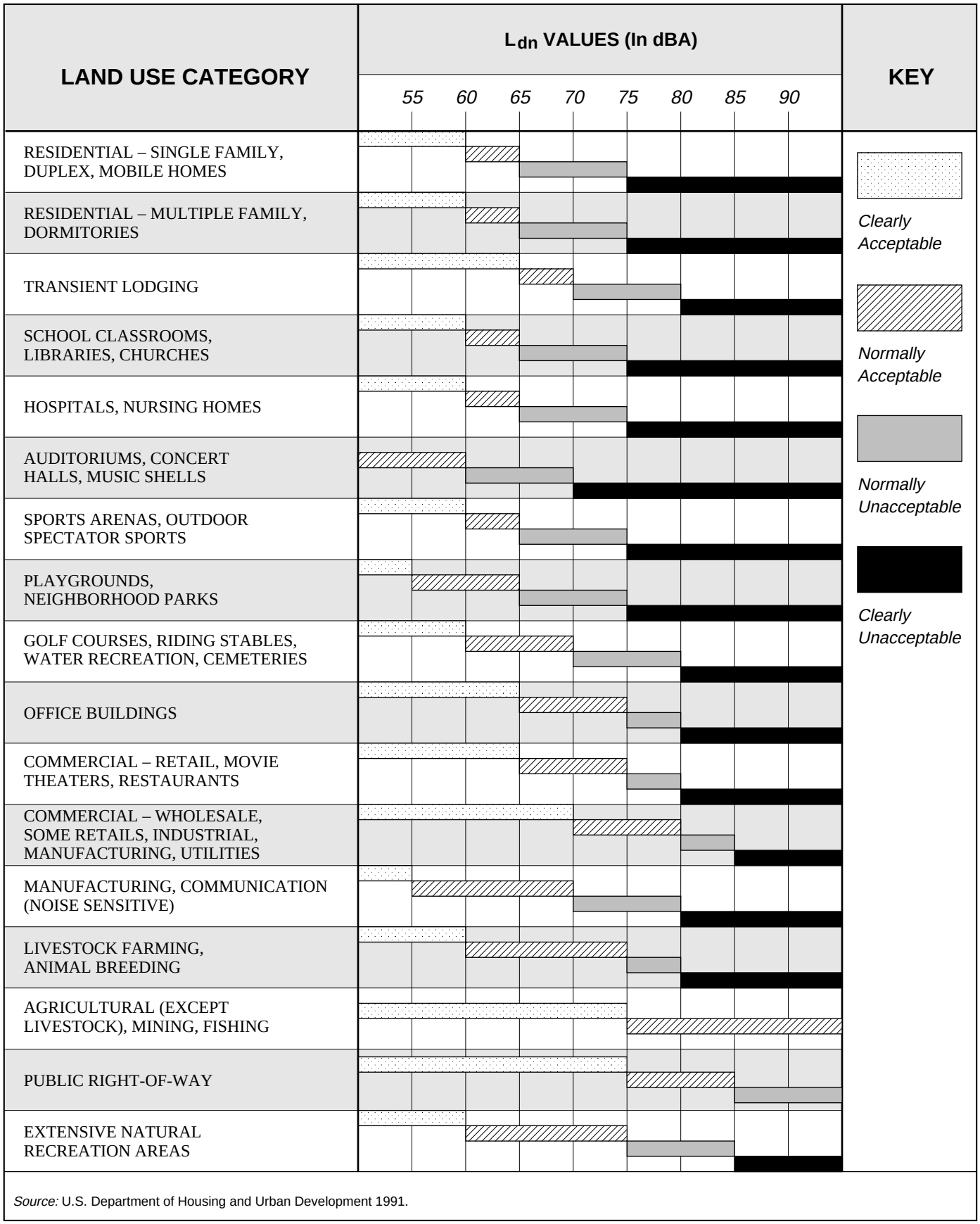
The U.S. Department of Housing and Urban Development (HUD) uses land use guidelines established by the Federal Interagency Committee on Noise (FICON) to determine acceptable levels of noise exposure for various land use categories (Figure 3.10-2). Land use activities most sensitive to ambient noise are residential, public services, commercial, and cultural and recreation. Residential land use is unacceptable in areas experiencing noise levels at or above 75 dB and is discouraged in areas exposed to noise levels between 65 and 75 dB (refer to Section 3.3, Noise, and Appendix D, Overview of Airborne and Underwater Acoustics).

Another land use compatibility issue associated with airfield operations is the proximity of structures to *imaginary surfaces*. An *imaginary surface* is the slope or angle at which an aircraft departs or arrives from an airfield. Imaginary surfaces are another way to describe clearances for air navigation. Federal Aviation Regulations specify a series of height restrictions based on imaginary surfaces surrounding an airport to prevent conflicts with aircraft approach and departure paths.

3.10.3.2 Regional Location and Land Use

A - Regional Location

NAS Point Mugu is located on the coast in Ventura County. Situated within an unincorporated area, the base is located near the cities of Camarillo, Oxnard, Port Hueneme, and Ventura. Predominant land use activities occurring in the area currently consist of row-crop agricultural production to the north and west and recreation (e.g., fishing, surfing, swimming, hiking, and camping) to the south and west in the Santa Barbara Channel and Santa Monica Mountains National Recreation Area in the east (Figure 3.10-3). Ventura County contains nine incorporated cities (San Buenaventura [Ventura], Santa Paula, Port Hueneme, Thousand Oaks, Simi Valley, Moorpark, Ojai, Fillmore, and Oxnard) which maintain their own planning policies; growth in the remaining unincorporated county areas is guided by Ventura County policies.



Source: U.S. Department of Housing and Urban Development 1991.

Figure 3.10-2
Recommended Land Use for L_{dn}-Based Noise Values

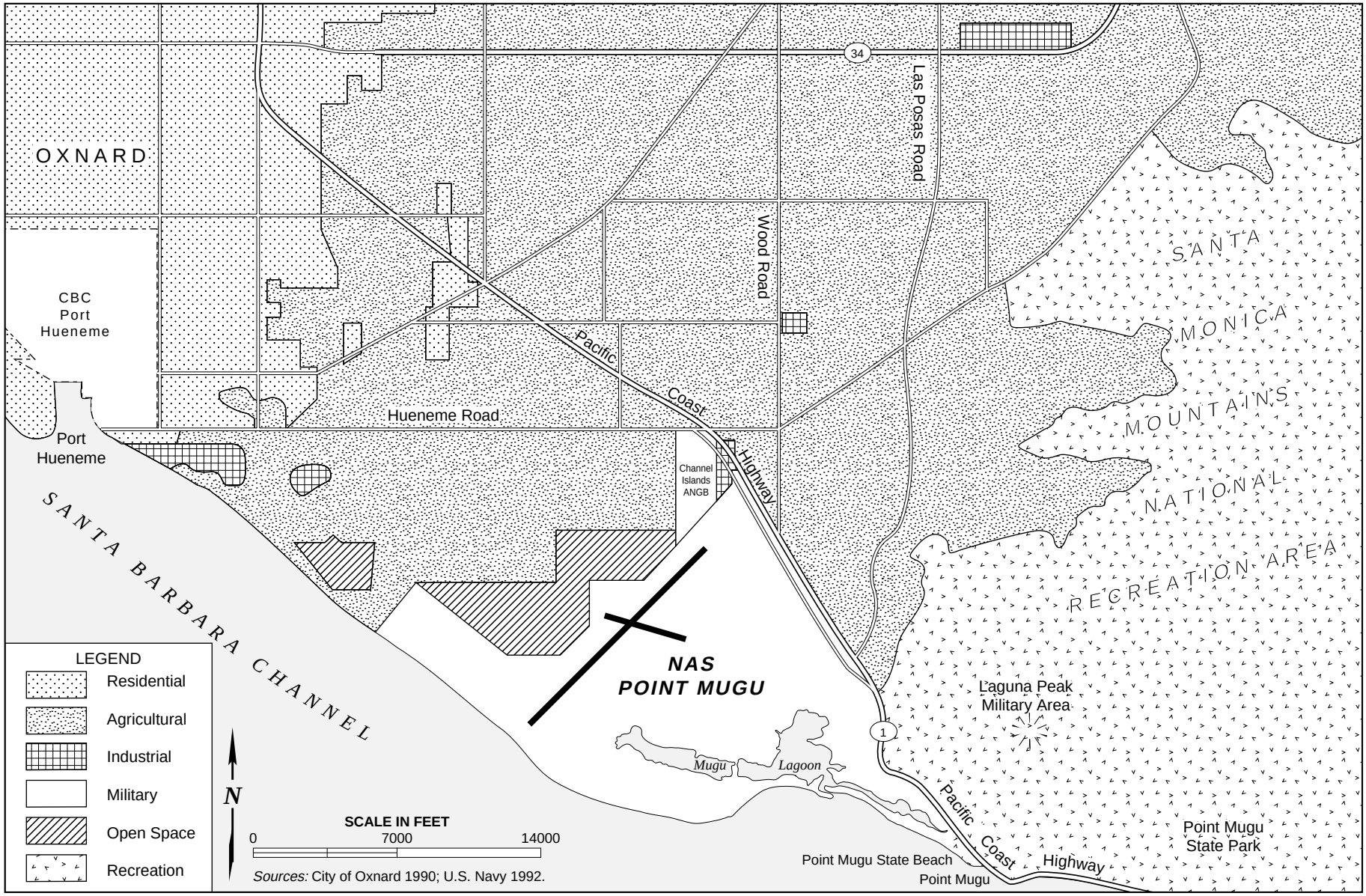


Figure 3.10-3
Existing Land Use Designations in the Vicinity of NAS Point Mugu

B - Local Land Use

General

The communities located nearest to NAS Point Mugu include Oxnard, approximately 6 miles (10 km) to the northwest, and Camarillo, 8 miles (13 km) to the northeast; the sphere of influence (SOI) for Oxnard abuts the western border of NAS Point Mugu. The SOI is defined as the "probable ultimate city boundary" and is required by County Government Code Section 56425. The majority of the area adjacent to the base is unincorporated and under the jurisdiction of Ventura County. The land east of the main base includes a portion of the Santa Monica Mountains National Recreation Area and is managed by the NPS. Point Mugu State Park and Beach are also located east of the main base.

In general, areas to the east, northeast, and north of Point Mugu are zoned for agricultural use. Land use in these areas also includes rural residential development and industrial facilities associated with agricultural operations. Agricultural preserve contracts and greenbelt agreements have been established with Ventura County to prevent urban expansion in this portion of the county (Ventura County 1994). The Ormond Beach area located west of the base is zoned for industrial use and includes open space and industrial land use. The area directly west of the main base, encompassing approximately 800 acres (324 ha), includes the Ventura County Game Reserve and the Point Mugu Game Reserve, two private clubs which support duck hunting. Large expanses of area to the east and northeast are designated as recreational and open space in the Santa Monica Mountains National Recreation Area and Point Mugu State Park. This area, contained within the Santa Monica Mountains, was classified as a special overlay zone due to its significant environmentally sensitive habitat areas (Ventura County 1994). Eastern Mugu Lagoon is incorporated as part of the Santa Monica Mountains National Recreation Area. The nearest major concentrations of residential and commercial land use are located approximately 2 miles (3 km) to the north.

Channel Islands ANGB

Channel Islands Air National Guard Base (ANGB) comprises 206 acres (83 ha) on the northwest portion of NAS Point Mugu. It can be generalized into the following land use categories: aircraft operations, maintenance, support (security and supply functions), administrative headquarters, and open space.

City of Oxnard

The City of Oxnard and its SOI comprises 19,360 acres (7,835 ha), approximately 61 percent of which are developed (City of Oxnard 1989). The SOI extends to the Santa Clara River to the north, Walnut Avenue/Beardsley Wash to the east, the Pacific Ocean to the west, and NAS Point Mugu and Channel Islands ANGB to the south. Land use policy in the city is structured to preserve and maintain the city's three primary resource areas: beaches and coastline, inland resource areas, and agricultural areas. Most of the city's undeveloped land is dedicated to agricultural production.

Regional Land Use Incompatibilities

No offbase structures currently penetrate imaginary surfaces (see discussion in Section 3.10.3.3-B). The cities of Oxnard, Port Hueneme, Camarillo, and Ventura, as well as the Oxnard and Camarillo airports, are located below the outer horizontal surface (U.S. Navy 1992). However, as a result of noise- and safety-related issues, approximately 163 acres (66 ha) surrounding the NAS Point Mugu airfield complex have been identified by the AICUZ program as developed with incompatible land use (Figure 3.10-4).

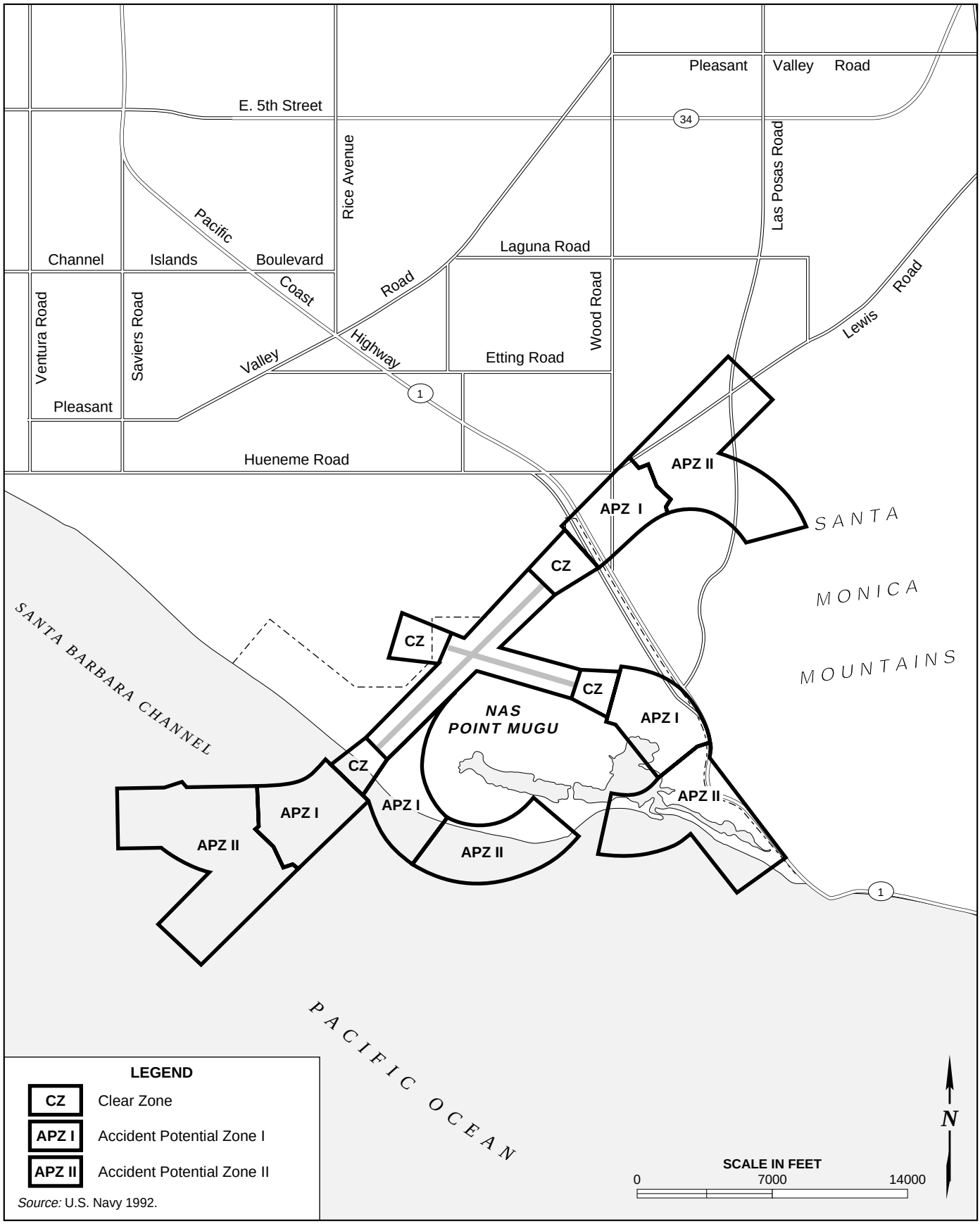


Figure 3.10-4
Accident Potential Zones at NAS Point Mugu

The majority of incompatible land use occurs within APZs and areas that the base does not own in their entirety. In addition to existing issues, certain planned commercial and industrial development east and north of the base was determined to be potentially incompatible (U.S. Navy 1992). Specifically, the following incompatibilities were identified:

- Nine acres (4 ha) of rural residential units within the 75 dB contour of the base and 49 acres (20 ha) of residences are located within the 65-75 CNEL noise contour (U.S. Navy 1992). These residences have not been sound attenuated and are therefore considered incompatible with airfield operations.
- The Clear Zone (CZ) at the north end of the Navy's primary runway includes 64 acres (26 ha) of the Ventura County Game Reserve. Since a wildlife preserve is not considered to be open space or agricultural land, this area is considered incompatible with airfield operations.
- A mobile home park is located on 3.8 acres (1.5 ha) within APZ I, west of the Navy's airfield complex. This area, which is located between Channel Islands ANGB and NAS Point Mugu, is zoned for industrial use. In general, residences are not permitted within this zone.

Future Development

Agricultural preserve contracts, coastal zone management issues, and floodplain regulations associated with Ventura County zoning are limits for proposed future development in the vicinity of NAS Point Mugu. Floodplains along Calleguas Creek and steep slopes of the Santa Monica Mountains present additional constraints. As a result, these lands are expected to remain within their present land use designations. Residential and commercial development are expected to occur in other portions of Ventura County, primarily in the northern coastal area and along major roads (U.S. Navy 1992).

3.10.3.3 Onbase Land Use

A - General Land Use

Many onbase and offbase land use issues have been addressed in the *Master Plan* (Western Division 1986). Figure 3.10-5 shows existing land use at NAS Point Mugu. NAS Point Mugu comprises approximately 4,490 acres (1,817 ha) of which approximately 1,990 acres (805 ha) have been developed; the remainder remains largely in its natural state. Land use at NAS Point Mugu is dominated by natural and operational constraints that require preservation of open space.

Included in the undeveloped area is over 1,500 acres (607 ha) of designated wetlands, 200 acres (81 ha) of beach dunes, and 270 acres (109 ha) of grasslands. In addition, a large portion of the base is located within the coastal zone, which has boundaries from the mean high-tide line to 3,000 feet (914 m) inland. Although federal lands are excluded from enforcement by the CCC or Ventura County (Ventura County 1994), much of the open land at NAS Point Mugu is environmentally constrained (i.e., development or activities are limited by the presence of sensitive environmental resources). These areas include the Mugu Lagoon and portions of the Calleguas Creek floodplain (see Figure 3.10-5). Development is also limited by the existence of airfield safety clearance zones.

Onbase land use has been grouped into ten categories (U.S. Navy 1992): Aircraft Operations, Aircraft Maintenance, Base Support, Test and Evaluation (T&E), Administration, Community Support, Housing, Training, Ordnance, and Open Space (see Figure 3.10-5). Approximately 890 acres (360 ha) are used for administration, operations, and training; 240 acres (97 ha) are used for military housing and recreation. Laguna Peak is located in the Santa Monica Mountains adjacent to the eastern corner of NAS Point

Figure 3.10-5
Onbase Land Use at NAS Point Mugu

Mugu and borders Point Mugu State Park. NAWCWPNS Point Mugu owns the 44-acre (18-ha) area atop Laguna Peak, at an elevation of 1,457 feet (444 m), and has developed instrumentation and communications facilities there. The four main buildings contain range communications transmission and reception equipment, ultra high frequency (UHF) command control/destruct, target control transmitters, a microwave relay system, a surface surveillance radar, and two telemetry antenna systems.

B - AICUZ Program

As described earlier (see Section 3.10.3.1-B), recommendations regarding land use compatibility in the immediate vicinity of NAS Point Mugu are established by the NAS Point Mugu AICUZ Program (U.S. Navy 1992). The following is a list of AICUZ incompatibilities identified on and in the vicinity of NAS Point Mugu:

- A 4-acre (2-ha) portion of the Capehart 2 Housing Complex in the northern portion of NAS Point Mugu is within the 75 CNEL noise contour. In addition, various housing, administration facilities, and personnel support facilities are within the 65 CNEL noise contour. Because relocating these facilities would be impractical, the NAS Point Mugu AICUZ recommends insulating the buildings to attenuate noise impacts (U.S. Navy 1992).
- There are also three existing land use incompatibilities with APZs at NAS Point Mugu. A 3-acre (1-ha) portion of the family housing area extends within APZ I associated with Runway 27. The gate and sentry house for Gate 3 also are within Runway 27's APZ I. Finally, a recreational lodge is within Runway 27's APZ II. Onbase buildings along both sides of Runway 09/27 penetrate the imaginary surfaces, and operate under airfield safety waivers (Western Division 1986). NAS Point Mugu currently holds six waivers for onbase obstructions that are necessary for safe navigation. The foothills of the Santa Monica Mountains penetrate the imaginary surfaces to the northeast of the station, thereby creating flight hazards and prohibiting straight-in approaches to Runway 27 and straight-out departures from Runway 09.

C - Aircraft Support Facilities

Aircraft operations and test, evaluation, and training constitute a major land use of the base. This category consists of airfield runways, taxiways, parking aprons, and associated buffer space. Runway 03/21 and the associated buffer space comprise the northwestern boundary of the base and Runway 09/27 runs east-west through the center of the base (see Figure 3.10-5). Most T&E facilities are located in the central portion of the site. Training is confined to separate areas along the coast.

Aircraft maintenance facilities are found mainly in the vicinity of aircraft operations. The storage of ordnance at NAS Point Mugu is primarily confined to an area along the coast in the far western portion of the base, although one area is adjacent to Runway 03/21 (see Figure 3.10-5). Ordnance storage and handling is discussed in detail in Section 3.14, Public Safety.

D - Community Services

Open space areas constitute a large portion of NAS Point Mugu. Much of the land used for community services is environmentally or operationally constrained and occurs in the eastern portion of the base. Community service land use includes police and fire facilities, post office, gate and sentry buildings, general mess and commissary buildings, childcare, chapel, and recreation facilities. Most of these uses are found in the northern portion of the base (see Figure 3.10-5). Housing facilities at NAS Point Mugu include both bachelor and family housing. The majority of housing facilities is located in the northeast

portion of the base. Base support and administration are the remaining land uses identified at NAS Point Mugu. These land uses make up a relatively small proportion of land and are dispersed throughout the developed portions of the base.

E - Recreation

Recreational facilities at NAS Point Mugu are located primarily on Mugu Road. These facilities include a library, baseball fields, gym/workout center, BMX bike track, skateboard park, picnic pavilion, swimming pool, theater, community center, park, auto hobby shop, bowling center, golf course, and four restaurants. In addition, a beach area and recreational vehicle park are located at the coast near Mugu Lagoon. Recreational facilities onbase are open to DoD employees, base contractors, and active duty, retired, or reserve personnel.

F - Public Access

NAS Point Mugu is designated a classified, or secure, base; therefore, public admittance is generally not allowed. Members of the public are allowed onbase during certain occasions (e.g., air shows and bird-watching tours) and for community relations tours. The base is open to DoD employees, base contractors, and active duty, retired, or reserve personnel. For safety purposes, onshore and offshore areas are cleared during target and missile launch activities from the Building 55 Launch Complex (refer to Section 3.14.3.4).

G - Coastal Zone Management Issues

In general, the inland boundary of the coastal zone extends approximately 3,000 feet (914 m) from the mean high-tide line. This boundary can vary due to significant marine habitat areas, recreation areas, or urban areas. The coastal zone boundary extends more than 3,000 feet (914 m) inland on NAS Point Mugu for the purpose of protecting the unique wildlife habitat of Mugu Lagoon (Ventura County 1994). However, NAS Point Mugu is a federal property, and as such, is an enclave within the coastal zone not subject to CCC permit authority. Rather, federal activities occurring at NAS Point Mugu that may affect coastal zone resources are evaluated for consistency with state coastal management programs to the maximum extent practicable.

3.10.4 San Nicolas Island

3.10.4.1 Military Uses

Located approximately 57 NM (105 km) southwest of Point Mugu, San Nicolas Island is owned and operated by the Navy as a major element of the Sea Range. Although San Nicolas Island is part of Ventura County, all development on the island is associated with the military and associated land use classification is either considered military-support or open space. The island has one minor population center, Nicktown, which is located on the north side of the island. No permanent residences are established on the island; however, approximately 200 people live as part-time residents at Nicktown.

Instrumentation at the island includes four metric radars, three small and three large telemetry antennas with a receive/transmit station, a frequency monitoring station, a Multilateral Operations Control System (MOCS) with two Ground Interrogation Stations and three Ground Reference Stations, photo-optical tracking instrumentation, range communications capabilities, microwave transmission facilities, missile launching stands and bunkers, three surveillance radars, meteorological measurement systems, target control facilities, and a marine environment test site.

The San Nicolas Island Outlying Landing Field (OLF) consists of a single 10,000-foot (3,050 m) long, 200-foot (61-m) wide concrete and asphalt runway aligned northwest to southeast. It is located on the mesa in the southeastern portion of the island. Adjoining the airfield are a control tower, hangars, ground control approach capabilities, and two fire stations: one at the airport and one near the main military complex. Additional facilities include extensive range, support, and fuel storage facilities; machine/repair shops and storage buildings; and ordnance and launching facilities.

There are 156 buildings located on San Nicolas Island with facilities to transport, house, and support personnel and related materials. Infrastructure includes water wells, a desalination plant, water distribution and sewage systems, and a power plant and power distribution system (NAWCWPNS Point Mugu 1994). The island has a total of 47 miles (7.6 km) of roads, of which 21.6 miles (34.8 km) are paved. As mentioned previously, the only residential area on San Nicolas Island is Nicktown, located in the center of the north side of the island. A total of 7 barracks are available, containing 255 rooms with a capacity for 417 people. Additional facilities include a dining facility, a Naval Exchange, a four-lane bowling alley, gymnasium, hobby shop, and racquetball/tennis court.

Large items are barged to the island at Daytona Beach from the Navy's deep-water harbor at Port Hueneme, California. The barge landing area enables sea transport of material and equipment to and from the island. Barge landings at Daytona Beach occur about once every 2 weeks, on average.

3.10.4.2 Other Uses

A - Commercial Fishing

Common Nearshore Fisheries

Most types of inshore fisheries common in southern California can occur in the nearshore waters of San Nicolas Island (Ventura County Commercial Fisherman's Association 1997). Occasional fisheries occurring near the island include drift sea bass fishing, live fish trapping, hook and line bottom fishing (rock cod), hook-and-line trolling (halibut and sea bass), open water trolling (albacore and swordfish), squid purse seining, and crab trapping. However, primary nearshore fisheries at the island are urchins and lobster (abalone fisheries are currently closed). These fisheries occur in less than 120 feet (37 m) of water around the island; fall and winter are the heaviest seasons for these fisheries (see Section 3.12, Socioeconomics, for specific fishing periods).

Commercial Catch Statistics

For the purposes of this analysis, catch data for the waters surrounding San Nicolas Island (M3), San Miguel Island (W-289N), and Santa Cruz Island (W-412, 3E, and Anacapa) were assessed for quantity and type of species. The most recent years available for catch data are 1994 and 1995; these years were used to represent average totals. It should be noted, however, that fisheries can vary widely each year in terms of species and number in a given area.

Table 3.10-1 summarizes average annual commercial fish and invertebrate catch totals near the Channel Islands for the years of 1994 and 1995. In the waters surrounding San Nicolas Island, Pacific sardine was the primary fishery in the region, followed by Pacific bonito, Pacific mackerel, and jack mackerel. Other productive fisheries included California sheephead, red rockfish, and other rockfish. These are primarily

Table 3.10-1. Average Annual Commercial Catch Totals near the Channel Islands (with Range Area)

Catch Type	Average Landings for 1994 and 1995 (pounds)				
	San Nicolas Island M3	Santa Cruz Island (South) 3E	Santa Cruz Island (North) W-412	Santa Cruz Island (East) Anacapa	San Miguel Island W-289N
Fish	312,173	980,276	224,762	115,485	87,429
Invertebrates*	2,106,536	22,868,926	9,090,641	926,994	2,714,029
TOTAL	**2,418,709**	**23,849,202**	**9,315,403**	**1,042,479**	**2,801,458**

*Average annual catch 1994/1995 only – 80 percent of catch reported by origin.
Source: CDFG 1996a.

offshore fisheries. In the waters surrounding San Nicolas Island, red sea urchin was the primary invertebrate catch, followed by squid and California spiny lobster. Purple sea urchin and spot prawns were other productive fisheries.

Clearance Procedures at San Nicolas Island

As described earlier in Section 3.10.2.3, NAWCWPNS issues NOTAMs and NOTMARs 24 hours in advance of Navy activities that require exclusive use of an area. In addition, a special phone number has been set up by NAWCPWNS Point Mugu to allow commercial fishermen to be informed in advance of military activities at San Nicolas Island (Ventura County Commercial Fisherman's Association 1997). Despite these procedures, non-participants (e.g., commercial fishing vessels) occasionally are present in offshore areas of the island prior to scheduled operations. In these cases, a helicopter or Navy vessel contacts non-participants directly by radio to ensure that the area is clear prior to commencing a scheduled operation. In some cases, only one of the three areas (A, B, and C) surrounding the island must be clear. However, there are certain situations that require two or all three areas to be clear during a scheduled operation. The number of closures per year can fluctuate substantially. There are occasional periods of several months or more with no closures, while several closures can sometimes occur in a 2 to 3 week period (Ventura County Commercial Fisherman's Association 1997).

B - Public Access

San Nicolas Island is primarily used by the Navy but is also used by other government agency research divisions and government contractors. However, since the island is the site of weapons testing and highly sensitive radar equipment, unauthorized public access onshore is prohibited. Civilian access to the island is closely monitored and granted for approved military-related and research purposes only. The island is principally accessible by air for personnel and most types of equipment and supplies.

C - Coastal Zone Management Issues

The CZMA and CCA protect land within the coastal zone by limiting development within the zone. As discussed earlier in Section 3.10.3.1-A, the CCC enforces the regulations and guidelines of the CCA, which includes policy guidelines on public access and recreation, marine resources, land resources, and development of coastal lands. Although federal lands such as San Nicolas Island are technically excluded from state coastal zones, federal agencies strive to be as consistent as practicable with federally approved state coastal zone management plans.

3.10.5 Other Channel Islands

Sea Range facilities are located on San Miguel, Santa Rosa, and Santa Cruz islands (refer to Section 3.0.1.3). These sites consist of instrumentation and ancillary facilities used to support Sea Range operations. None of the facilities are permanently manned. Under CZMA and CCA, any federal project or activity affecting the coastal zone must be consistent to the maximum extent practicable with the provisions of federally approved state coastal plans.