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**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
For
U.S. COAST GUARD AIR STATION POINT MUGU
At
NAVAL BASE VENTURA COUNTY, CALIFORNIA**

FEBRUARY 2022



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Abstract

Designation: Supplemental Environmental Assessment

Title of Proposed Action: U.S. Coast Guard Air Station Point Mugu

Project Location: Naval Base Ventura County

Lead Agency for the EA: Department of the Navy

Cooperating Agency: U.S. Coast Guard

Affected Region: Ventura County, California

Action Proponent: Naval Base Ventura County

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Date: February 2022

The U.S. Department of the Navy, a Command of the U.S. Navy (hereinafter, jointly referred to as the Navy), along with the U.S. Coast Guard as a cooperating agency has prepared this Supplemental Environmental Assessment in accordance with the National Environmental Policy Act, as implemented by the Council on Environmental Quality Regulations and Navy regulations for implementing the National Environmental Policy Act. The Proposed Action would construct eight new elements to the new U.S. Coast Guard Air Station at Naval Base Ventura County Point Mugu analyzed in the 2018 Environmental Assessment. The Proposed Action analyzed in the 2018 Environmental Assessment was the construction of a new Air Station in the northern portion of the Air Station site, which would be comprised of two buildings (hangar and an administration/berthing building), a parking apron, taxiway, parking lots, and access roads. The eight additional elements analyzed in this Supplemental Environmental Assessment include a lift station and sewer storage, fire foam containment and oil-water separator, security perimeter fence, new traffic delivery lane, rerouted water line, rerouted telecommunications line (Options 1 or 2), relocation of hangar and administration/berthing buildings analyzed in 2018 EA, and stormwater bioretention basins. Construction of the new elements analyzed in this Supplemental Environmental Assessment would take approximately three to four months and is expected to be operational prior to September 2023. This Supplemental Environmental Assessment evaluates the potential environmental impacts associated with one action alternative, the Proposed Action Alternative, and the No Action Alternative to the following resource areas: air quality, water resources, geological resources, cultural resources, biological resources, noise, infrastructure, public health and safety, and hazardous materials and wastes.

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EXECUTIVE SUMMARY

ES.1 Proposed Action

The Proposed Action would include additions and/or revisions to ground facilities and infrastructure necessary to support the new U.S. Coast Guard (USCG) Air Station at Naval Base Ventura County (NBVC), including eight specific project elements that either were not identified in the 2018 Environmental Assessment (EA) or have been substantially modified since publication of the associated Finding of No Significant Impact (FONSI). As discussed in the 2018 EA, the new Air Station would occupy up to 10 acres of land adjacent to runway 3/21 and would consist of a new hangar building, support facilities, and a taxiway. The new elements described in Section 2.4 of this Supplemental Environmental Assessment (SEA) would expand the Proposed Action footprint by approximately 5 acres for a total of 15 acres of permanent impact area. There would also be an additional 18 acres of temporary impacts for offsite improvements associated with utility work area and construction laydown, for a total of approximately 33 acres of disturbance. As discussed in the 2018 EA, at least 83 permanent personnel would be operating out of the new Air Station. The new proposed elements would not result in an increase in personnel.

ES.2 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to establish a new permanent USCG Air Station at NBVC Point Mugu. The USCG temporarily operates a Forward Operating Base (FOB) at Hangar 355 and other facilities at NBVC Point Mugu. The FOB was established as a temporary facility in 2016 in response to the planned relocation of Air Station Los Angeles due to the expiration of USCG's lease for property and a hangar at Los Angeles International Airport. The FOB was intended to be an interim facility until the new Air Station is constructed. The Proposed Action is needed to support the USCG's mission of 24/7 emergency response, search and rescue, drug and migrant interdiction, law enforcement, and marine and waterways conservation and protection in their Los Angeles Area of Responsibility, which stretches from Dana Point to Morro Bay and includes the Channel Islands.

The SEA is required because the 2018 EA was prepared at a time when available information was insufficient to determine the optimum siting of ground facilities and associated infrastructure associated with the new Air Station. Additional information is now available, so that details of proposed infrastructure (including project footprint) can now be identified. Therefore, this SEA focuses on revisions to ground facilities and infrastructure necessary to support the new USCG Air Station at NBVC that either were not identified in the 2018 EA or have been substantially modified since publication of the FONSI. No changes to the flight operations at the USCG Air Station are proposed. The SEA is necessary to analyze the Proposed Action in its current form, including all changes since the 2018 EA and FONSI.

ES.3 Alternatives Considered

Alternatives were developed for analysis based upon the following reasonable alternative screening factors: compatibility with existing air operations at NBVC Point Mugu; availability of space for development of new air station facilities, such as hangar building(s), apron space, and support facilities to accommodate the aircraft and personnel; proximity to existing airfield facilities necessary to carry out USCG missions; and avoid significant impacts to sensitive natural resources. The Navy is considering one action alternative that meets the purpose of and need for the Proposed Action and a No Action

Alternative. Alternative 1 (Proposed Action Alternative) would construct eight additional elements to the new Air Station analyzed in the 2018 EA. The new elements included as part of the Proposed Action Alternative include a lift station and sewer storage, fire foam containment and oil-water separator, security perimeter fence, new traffic delivery lane, rerouted water line, rerouted telecommunications line (Options 1 or 2), relocation of hangar and administration/berthing buildings analyzed in the 2018 EA, and stormwater bioretention basins.

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. The No Action Alternative would allow the construction and operation of a new Air Station in accordance with the 2018 EA and approved FONSI. The No Action Alternative would not meet the purpose and need for the Proposed Action; however, as required by the National Environmental Policy Act (NEPA), the No Action Alternative is carried forward for analysis in this EA. The No Action Alternative will be used to analyze the consequences of not undertaking the Proposed Action, not simply conclude no impact, and will serve to establish a comparative baseline for analysis.

ES.4 Summary of Environmental Resources Evaluated in the SEA

Council on Environmental Quality regulations, NEPA, and Navy instructions for implementing the NEPA, specify that an EA should address those resource areas potentially subject to impacts. In addition, the level of analysis should be commensurate with the anticipated level of environmental impact.

The following resource areas have been addressed in this SEA: air quality, water resources, geological resources, cultural resources, biological resources, noise, infrastructure, public health and safety, and hazardous materials and waste. While the 2018 EA analyzed additional resource areas including land use, socioeconomics, and environmental justice, the eight additional elements to the Air Station analyzed in this EA would not result in impacts associated with those resource areas. Because potential impacts were negligible or nonexistent, the following resources were not evaluated in this SEA: land use, visual resources, airspace, transportation, socioeconomics, and environmental justice. The introduction to Chapter 3 contains a brief discussion of each of these resource areas and an explanation of why impacts were considered negligible or nonexistent.

ES.5 Summary of Potential Environmental Consequences of the Action Alternatives and Major Mitigating Actions

Table ES-1 provides a tabular summary of the potential impacts to the resources associated with the Proposed Action and No Action Alternative.

ES.6 Public Involvement

The Navy circulated the Draft SEA for public review from February 14, 2022 to February 28, 2022.

**Table ES-1
Summary of Potential Impacts to Resource Areas**

Resource Area	No Action Alternative	Alternative 1
Air Quality	The No Action Alternative would result in emissions of air pollutants during both construction and operations. Emissions would be below <i>de minimis</i> levels. Therefore, implementation of the No Action Alternative would not result in an adverse effect related to air quality.	Alternative 1 would result in emissions of air pollutants during both construction and operations. Emissions would be below <i>de minimis</i> levels. Therefore, implementation of Alternative 1 would not result in an adverse effect related to air quality.
Water Resources	The No Action Alternative would not result in significant impacts related to groundwater, water quality or surface water bodies, floodplains, and shorelines. The No Action Alternative would impact a total of approximately 0.45 acre of jurisdictional wetlands. All potential impacts to wetlands would be mitigated by the USCG at a location determined in consultation with the U.S. Army Corps of Engineers.	Alternative 1 would not result in significant impacts related to groundwater, water quality or surface water bodies, floodplains, and shorelines. Alternative 1 would impact approximately 0.34 acre of additional jurisdictional wetlands, for a total of 0.79 acre when combined with impacts (0.45 acre) identified as part of the 2018 EA. All potential impacts to wetlands would be mitigated by the USCG at a location determined in consultation with the U.S. Army Corps of Engineers.
Geological Resources	The No Action Alternative would not result in significant impacts related to soils and erosion, topography, exposure of people or structures to seismic risk, and coastal sediments at the shoreline with implementation of geotechnical Best Management Practices.	Alternative 1 would not result in significant impacts related to soils and erosion, topography, exposure of people or structures to seismic risk, and coastal sediments at the shoreline with implementation of geotechnical Best Management Practices.
Cultural Resources	There are no known archaeological resources, architectural resources, or traditional cultural properties located within the Air Station's area of potential effect for the No Action Alternative. Thus, the No Action Alternative would not result in significant impacts to cultural resources.	There are no known archaeological resources, architectural resources, or traditional cultural properties located within the Air Station's area of potential effect for Alternative 1. Alternative 1 would not result in significant impacts to cultural resources.
Biological Resources	Under the No Action Alternative, 0.45 acre of sensitive wetland vegetation would be impacted, requiring compensatory mitigation. No significant impacts to terrestrial wildlife, marine species, migratory birds, and threatened and endangered species would occur with implementation of identified avoidance and minimization measures.	Alternative 1 would impact approximately 0.34 acre of additional sensitive wetland vegetation, for a total of 0.79 acre when combined with impacts (0.45 acre) identified as part of the 2018 EA, that would require compensatory mitigation. No significant impacts to terrestrial wildlife, marine species, migratory birds, and threatened and endangered species would occur with implementation of identified avoidance and minimization measures.

Resource Area	No Action Alternative	Alternative 1
Noise	Under the No Action Alternative, the construction of the new Air Station would result in temporary generation of noise associated with construction equipment. Operational noise of the Air Station would result in minimal noise increases on base and at surrounding areas (less than one decibel [community noise equivalent level]); however, there are no significant impacts associated with construction or operations noise.	Construction of Alternative 1 would result in temporary generation of noise associated with construction equipment. Operation of the eight additional elements of the Air Station would not result in a discernable noise increase on base and at surrounding areas. There are no significant impacts associated with construction or operations noise under Alternative 1.
Infrastructure	The No Action Alternative would not result in significant impacts related to construction of new facilities and additional utilities (water supply, wastewater, stormwater, solid waste disposal/management, and energy supply).	Alternative 1 would not result in significant impacts related to construction of new facilities and additional utilities (water supply, wastewater, stormwater, solid waste disposal/management, and energy supply).
Public Health and Safety	The No Action Alternative would not substantially increase the risk of aircraft hazards or result in increased environmental health risks or safety risks to children. No significant public health and safety impacts would occur.	Alternative 1 would not substantially increase the risk of aircraft hazards or result in increased environmental health risks or safety risks to children. No significant public health and safety impacts would occur.
Hazardous Materials and Wastes	The No Action Alternative would not result in adverse effects on existing hazardous materials and waste sites or substantially increase the exposure of people to hazardous materials and wastes with implementation of identified avoidance and minimization measures.	Alternative 1 would not result in adverse effects on existing hazardous materials and waste sites or substantially increase the exposure of people to hazardous materials and wastes with implementation of identified avoidance and minimization measures.

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Acronyms and Abbreviations

AFFF	Aqueous Film-Forming Foam
AICUZ	Air Installations Compatibility Use Zones
APE	Area of Potential Effects
APZ	Accident Potential Zone
ASLA	Air Station Los Angeles
ATFP	Antiterrorism Force Protection
BASH	Bird/Wildlife Aircraft Strike Hazard
BMPs	Best Management Practices
BO	Biological Opinion
CAA	Clean Air Act
CBUAS	Carrier-based Unmanned Air System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CWA	Clean Water Act
CZMA	Coastal Zone Management Act of 1972
dB	decibel
dba	A-weighted decibel
DNL	Day-Night Average Sound Level
DOD	Department of Defense
EA	Environmental Assessment
EFH	essential fish habitat
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FOB	Forward Operating Base

FOCUS	Fiber Optic Communications Undersea System
FONSH	Finding of No Significant Harm
FONSI	Finding of No Significant Impact
GHG	greenhouse gas
HAPs	Hazardous Air Pollutants
HDPE	high density polyethylene
HEF	high expansion foam
INRMP	Integrated Natural Resources Management Plan
IRP	Installation Restoration Program
LAWA	Los Angeles World Airports
LAX	Los Angeles International Airport
Leq	equivalent sound level
Lmax	maximum sound level
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MSATs	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NMFS	National Marine Fisheries Service
Navy	Command of the U.S. Navy
NBVC	Naval Base Ventura County
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NIPTS	Noise Induced Permanent Threshold Shift
NO ₂	nitrogen dioxide
NO _x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OEA	Overseas Environmental Assessment
OEIS	Overseas Environmental Impact Statement
OPNAVINST	Office of the Chief of Naval Operations Instruction
OSHA	Occupational Safety and Health Administration
Pb	lead

PFAS	per-and polyfluoroalkyl substances
PFOA	perfluorooctanoic
PHWA	Point Hueneme Water Agency
PM ₁₀	particulate matter less than or equal to 10 microns in diameter
PM _{2.5}	particulate matter less than or equal to 2.5 microns in diameter
PMSR	Point Mugu Sea Range
ROI	region of influence
SEA	Supplemental Environmental Assessment
SEL	Sound Exposure Level
SO ₂	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
TCP	Traditional Cultural Properties
UAS	unmanned aircraft system
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound

1 Purpose of and Need for the Proposed Action

1.1 Introduction

The Final Environmental Assessment (EA) prepared for U.S. Coast Guard Station at Point Mugu (hereinafter referred to as “2018 EA”) analyzed the Department of the Navy’s proposal to license, construct, and support the operation of a new U.S. Coast Guard (USCG) Air Station at Naval Base Ventura County (NBVC) Point Mugu (Figure 1-1). A Finding of No Significant Impact (FONSI) was signed on 18 June 2018 that documented the selection of Alternative 1 (Selected Alternative). Since the FONSI was signed in 2018, the USCG has identified necessary revisions to the Selected Alternative to provide facilities and infrastructure to support a new Air Station at NBVC. This Supplemental Environmental Assessment (SEA) documents those changes to the 2018 FONSI Selected Alternative and analyzes the associated environmental consequences in accordance with Council on Environmental Quality (CEQ) regulations at 40 Code of Federal Regulations Section 1502.9. The revisions to the 2018 FONSI Selected Alternative are the Proposed Action analyzed in this SEA.

This SEA focuses exclusively on revisions to ground facilities and infrastructure necessary to support the new USCG Air Station at NBVC, including eight specific project elements that either were not identified in the 2018 EA or have been substantially modified since publication of the FONSI. These project elements are described in Section 2. As a supplement to the 2018 EA, this SEA incorporates that original analysis by reference where appropriate to avoid unnecessary duplication of information.

The Command of the U.S. Navy (Navy) has prepared this SEA in accordance with the National Environmental Policy Act (NEPA), as implemented by the CEQ Regulations and Navy regulations for implementing NEPA. The USCG is a cooperating agency in the preparation of this document and has participated to ensure this document meets the requirements of USCG Commandant Instruction 5090.1.

1.2 Background

The USCG Air Station Los Angeles (ASLA) was based at Los Angeles International Airport (LAX) from 1962 to 2016. The unit began as an aviation detachment in August 1962, with one HO-4S helicopter from Air Station San Diego. ASLA was commissioned in November 1962 with two HO-4S helicopters, nine officers, and twenty enlisted personnel. In May 1963, the unit switched to three HH-52A “Sea Guard” helicopters, which remained in service until November 1987. At that time, the Air Station transitioned to the HH-65A “Dolphin” helicopters. Approximately 20 officers and 60 enlisted and civilian personnel staffed ASLA. The Air Station’s operating area includes the coastal areas extending from the vicinity of Dana Point to the vicinity of Morro Bay, California and includes the Channel Islands.

In 1962, ASLA operated from a 30,000-square foot space within Hangar B-3 at LAX. Hangar B-3 was a 200,000-square foot hangar owned by the Federal Aviation Administration (FAA) on land leased from the airport. At the end of the lease in 1986, the FAA was to either demolish the hangar or relinquish the building to the airport. The FAA, however, chose not to demolish the hangar because it had no relocation option. Instead, it sought a five-year lease extension to give it time to relocate or cease operations there. Once the FAA was out of the hangar, the airport would convert the hangar for commercial air cargo. The airport deemed this new use to be incompatible with the USCG mission and would not allow it to continue to share the space. However, the airport desired the USCG search and rescue to remain at LAX, so it proposed that the USCG relocate to a nearby empty hangar owned by Trans World Airlines.



Source: Aerial Photo (Esri, 2018)

Location Map

Figure 1-1

In 1986, ASLA relocated to the Trans World Airlines hangar building that encompassed 50,205 gross square feet and included a hangar deck, administration, operations, training, maintenance, storage, and support spaces. ASLA facilities in this portion of LAX were located on a 3.7-acre site at LAX with the hangar building, aircraft parking ramp, and a parking lot. ASLA operated at these facilities under a long-term lease agreement for a period of 25 years that terminated on 30 September 2011. In 2004, the USCG began discussions with Los Angeles World Airports (LAWA), the parent agency of LAX, for ASLA to remain at LAX under another long-term lease agreement once its lease expired in 2011. LAWA declined USCG's request on the basis that (1) ASLA's mission would be incompatible with future flight operations in that portion of LAX; and (2) no suitable space would be available elsewhere at the airport. Instead, LAWA granted a five-year extension of the lease, requiring that USCG move ASLA from LAX by September 30, 2016.

During the lease extension period, USCG began the process of identifying suitable relocation sites for ASLA. Both military and civilian airfields were considered, but only airfields that met ASLA's fundamental mission requirements were reviewed for suitability, which included the ability to support ASLA's 24/7 operations, an operating location within the Area of Responsibility, and existing hangar space or land to build a new hangar. Several compatible sites for relocation were identified, including Long Beach Airport, NBVC Point Mugu, Camarillo Airport, Oxnard Airport, Channel Islands Air National Guard Station, and Los Alamitos Army Airfield. It was determined that the most viable option was to relocate to NBVC Point Mugu; however, relocating ASLA to NBVC Point Mugu would require construction of a new facility. Due to time and budget constraints, it was not feasible to relocate to a new Air Station at NBVC Point Mugu by the end of the lease extension on September 30, 2016.

As a bridging strategy to provide uninterrupted air station missions, the USCG established a Forward Operating Base (FOB) at NBVC Point Mugu in May 2016 as a temporary facility until a new Air Station is constructed. The Navy and USCG executed a real estate use agreement in November 2015 for the establishment of USCG HH-65 helicopter aviation FOB operations, which include at least two HH-65 helicopters and 21 personnel. A third aircraft may occasionally be assigned for short periods when one of the others is being maintained. Air operations at the FOB include two to three sorties (i.e., flights) per day, for a yearly total of approximately 2,100 flight hours in approximately 1,300 sorties. Facilities associated with the FOB include space within Building PM-6 and Hangar 355 (see Figure 1-2). Within Building PM-6, exclusive use of 11,567 square feet of berthing space is provided. Space within Hangar 355 consists of exclusive use of approximately 3,880 square feet of administrative space, 3,438 square feet of shop space, and 3,480 square feet of hangar space, as well as non-exclusive use of an additional 3,480 square feet of hangar space when the space is available and does not interfere with Navy operations. Associated roads, airfield, runways, taxiways, aircraft wash rack, water, sewer, drainage, electrical power, communication facilities/lines, and signal lines are also used by the FOB. The original terms of the real estate agreement allowed the FOB to operate as a temporary facility within Hangar 355 and in Building PM-6 between November 2015 and August 2021. The USCG and Navy have agreed to extend the FOB use agreement to August 31, 2023.



Existing USCG Forward Operating Base Facilities

Figure 1-2

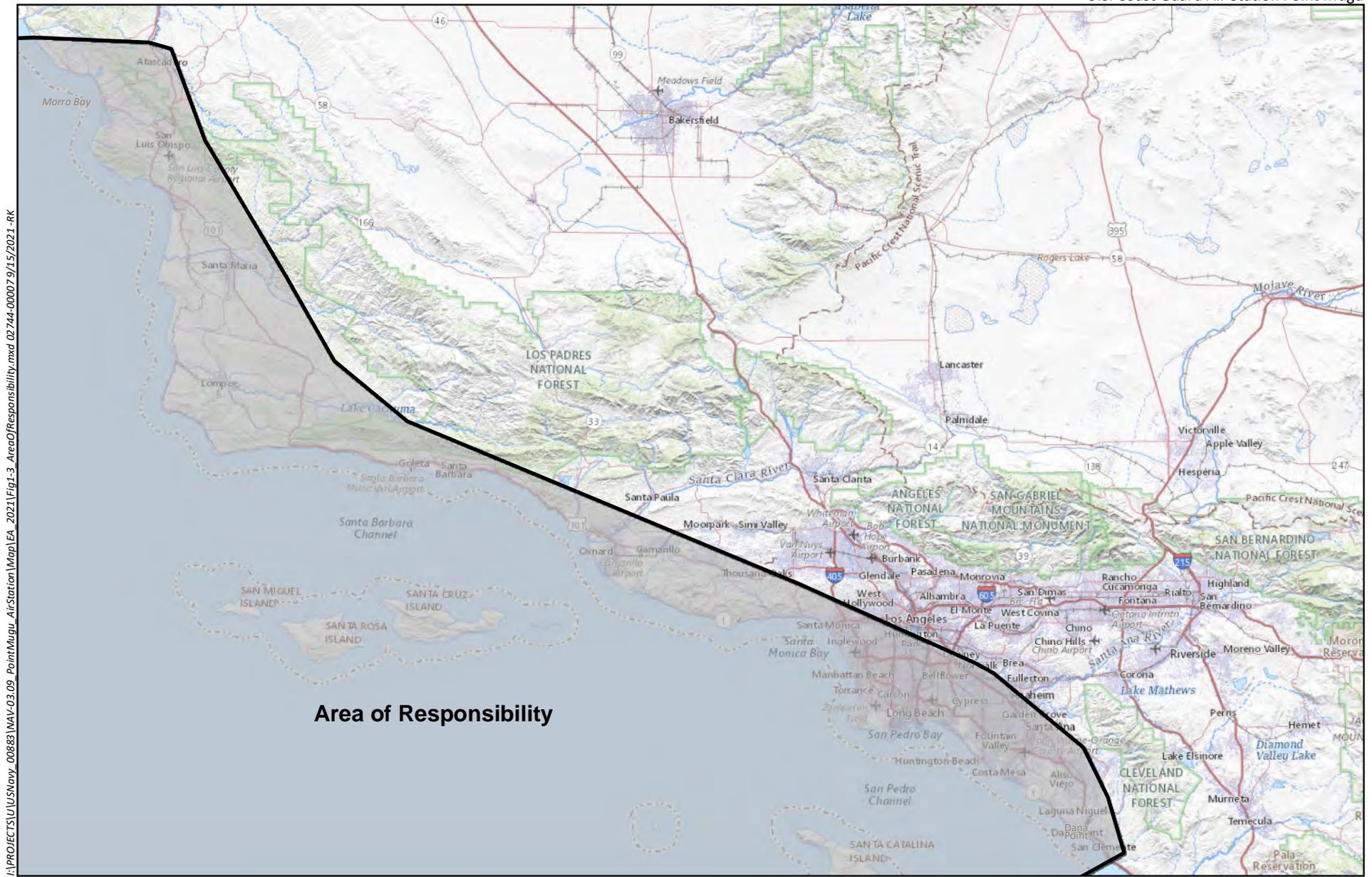
1.3 Location

Previous realignment actions conducted in 2000 resulted in the consolidation of NBVC Point Mugu, NBVC Port Hueneme, and San Nicolas Island into NBVC. The Proposed Action would occur at NBVC Point Mugu one component of NBVC, which is composed of 4,500 acres of land, including support facilities and infrastructure (refer to Figure 1-1). NBVC Point Mugu is situated along the coast of Ventura County, California, approximately 5 miles south of the City of Oxnard and 55 miles west of the City of Los Angeles.

1.4 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to establish a new permanent USCG Air Station at NBVC Point Mugu. The USCG temporarily operates an FOB Hangar 355 and other facilities at NBVC Point Mugu. The FOB was established as a temporary facility in 2016 in response to the planned relocation of ASLA due to the expiration of USCG's lease for property and a hangar at LAX. The FOB was intended to be an interim facility until the new Air Station is constructed. The Proposed Action is needed to support the USCG's mission of 24/7 emergency response, search and rescue, drug and migrant interdiction, law enforcement, and marine and waterways conservation and protection in their Los Angeles Area of Responsibility, which stretches from Dana Point to Morro Bay and includes the Channel Islands (see Figure 1-3).

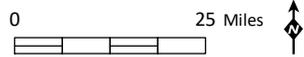
The SEA is required because the 2018 EA was prepared at a time when available information was insufficient to determine the optimum siting of ground facilities and associated infrastructure of the new Air Station. Additional information is now available, so that details of proposed infrastructure (including project footprint) can now be identified. Therefore, this SEA focuses on revisions to ground facilities and infrastructure necessary to support the new USCG Air Station at NBVC that either were not identified in the 2018 EA or have been substantially modified since publication of the FONSI. The SEA is necessary to analyze the Proposed Action in its current form, including all changes since the 2018 EA and FONSI.



Area of Responsibility

Source: Basemap (Esri)

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USCG Los Angeles Area of Responsibility

Figure 1-3

1.5 Key Documents

Key documents are sources of information incorporated into this SEA. Documents are key because of similar actions, analyses, or impacts that may apply to this Proposed Action. CEQ guidance encourages incorporating documents by reference. Documents incorporated by reference in part or in whole include:

- *Final Environmental Assessment for U.S. Coast Guard Air Station Point Mugu at Naval Base Ventura County, California*; May 2018. This EA was prepared for construction and operation of a new USCG Air Station at NBVC Point Mugu. This SEA is a supplement to the 2018 EA. Refer to Section 1.2, *Background*.
- Categorical Exclusion for the Establishment of United States Coast Guard (USCG) HH-65 Helicopter Aviation Forward Operating Base (FOB) at Naval Base Ventura County (NBVC), Point Mugu; 28 August 2015. The Categorical Exclusion was prepared for the temporary establishment of the FOB at Point Mugu's Hangar 355. Refer to Section 1.2, *Background*.
- *Air Installations Compatibility Use Zones Study for Naval Base Ventura County Point Mugu*; December 2015. The Air Installations Compatibility Use Zones (AICUZ) Study addresses past and expected changes in mission and aircraft and projected operational levels for 2015 through 2020 and provides prospective (year 2020) aircraft operations, noise contours, and accident potential zones, identifies areas of incompatible land use, and recommends actions to encourage compatible land use. The AICUZ Study includes both Navy and USCG operations.

1.6 Relevant Laws and Regulations

The Navy has prepared this SEA based upon federal and state laws, statutes, regulations, and policies pertinent to the implementation of the Proposed Action, including the following:

- National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] sections 4321–4370h), which requires an environmental analysis for major federal actions that have the potential to significantly impact the quality of the human environment
- Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations parts 1500–1508)
- Navy regulations for implementing NEPA (32 Code of Federal Regulations part 775), which provides Navy policy for implementing Council on Environmental Quality regulations and NEPA
- USCG Commandant Instruction 5090.1
- Department of Homeland Security Instruction Manual 023-01-001-01, Revision 1
- Clean Air Act (42 U.S.C. section 7401 et seq.)
- Clean Water Act (33 U.S.C. section 1251 et seq.)
- Rivers and Harbors Act (33 U.S.C. section 407)
- Endangered Species Act (16 U.S.C. section 1531 et seq.)

- Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (16 U.S.C. section 1801 et seq.)
- Marine Mammal Protection Act (16 U.S.C. section 1361 et seq.)
- Coastal Zone Management Act (16 U.S.C. section 1451 et seq.)
- National Historic Preservation Act (54 U.S.C. section 306108 et seq.)
- Migratory Bird Treaty Act (16 U.S.C. section 703–712)
- Emergency Planning and Community Right-to-Know Act (42 U.S.C. sections 11001–11050)
- Executive Order (EO) 11988, Floodplain Management
- EO 12088, Federal Compliance with Pollution Control Standards
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
- EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management
- EO 13175, Consultation and Coordination with Indian Tribal Governments
- EO 13693, Planning for Federal Sustainability in the Next Decade

A description of the Proposed Action’s consistency with these laws, policies, and regulations, as well as the names of regulatory agencies responsible for their implementation, is presented in Chapter 5 (Table 5-1).

1.7 Public and Agency Participation and Intergovernmental Coordination

Regulations from the CEQ direct agencies to involve the public in preparing and implementing their NEPA procedures.

The Navy prepared a Draft SEA to inform the public of the Proposed Action and to allow the opportunity for public review and comment. The Draft SEA review period began with a public notice published in the *Ventura County Star* indicating the availability of the Draft SEA and the locations where public review copies were available. The Draft SEA was also available on the Navy Region Southwest website (www.cnic.navy.mil/navysouthwestprojects).

The Navy published a Notice of Availability of the Draft SEA for two consecutive days in the *Ventura County Star* on the dates of February 12–13, 2022; in the *VC Reporter*, a weekly publication, on February 17 and 24, 2022; and in *Vida Newspaper*, an English/Spanish weekly publication, on February 17 and 24, 2022. The notice described the Proposed Action, solicited public comments on the Draft SEA, provided dates of the 15-day public comment period, and announced that a copy of the SEA would be available for review at the Ray D. Prueter and Camarillo Public Libraries and posted on the Navy Region Southwest website. This Draft SEA is available for a 15-day public review period beginning on February 14, 2022 and ending on February 28, 2022.

As part of the 2018 EA, a Coastal Consistency Negative Determination was prepared and submitted to the California Coastal Commission. The California Coastal Commission Negative Determination remains valid because the elements proposed as part of the SEA would not result in significant discharges of non-point source pollution; no net loss of wetlands would occur; the action would avoid adverse effects on coastal marine and terrestrial resources; and the impact of fill associated with the action would be mitigated.

The Navy determined that the 2018 Proposed Action (as analyzed in the 2018 EA) would result in a Finding of *No Historic Properties Affected* and the State Historic Preservation Officer concurred with this Finding of Effect. As part of this SEA, per the 2015 Programmatic Agreement, the Navy has determined the SEA would result in a finding of *No Historic Properties Affected*.

As part of the 2018 EA, an informal essential fish habitat (EFH) consultation between the Navy and the National Marine Fisheries Service (NMFS) was conducted. NMFS determined that an adverse effect on EFH would not be substantial because tidal flow would not be reduced, wetlands loss would be mitigated, and conservation measures would be implemented to minimize and offset impacts to EFH. NMFS's determination remains valid because no direct impact to coastal or aquatic habitats as a result of the proposed construction activities would occur and environmental protection measures to control runoff would be implemented as part of the SEA.

In addition, the Navy has coordinated with the U.S. Army Corps of Engineers and the California Regional Water Quality Control Board regarding impacts to wetlands and identification of potential mitigation sites.

Documentation regarding coordination with these public agencies is provided in Appendix C to this SEA.

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2 Proposed Action and Alternatives

2.1 Scope of Environmental Analysis

This Supplemental Environmental Assessment (SEA) includes an analysis of potential environmental impacts associated with one action alternative and the No Action Alternative. The environmental resource areas analyzed in this SEA include air quality, water resources, geological resources, cultural resources, biological resources, noise, infrastructure, public health and safety, and hazardous materials and waste. While the 2018 EA analyzed additional resource areas including land use, socioeconomics, and environmental justice, the eight additional elements to the Air Station analyzed in this EA would not result in impacts associated with those resource areas. These resource areas and three additional resource areas were considered but were not carried forward for detailed analysis in this SEA because there would be no impacts (or only negligible impacts) on these resources from implementation of the alternatives. The introduction to Chapter 3 contains brief descriptions of these resource areas, their relationship to the action alternatives, and the basis for eliminating them from detailed analysis.

2.2 Proposed Action

The Proposed Action would include additions and/or revisions to ground facilities and infrastructure necessary to support the new United States Coast Guard (USCG) Air Station at Naval Base Ventura County (NBVC or Base), including eight specific project elements that either were not identified in the 2018 Environmental Assessment (EA) or have been substantially modified since publication of the associated Finding of No Significant Impact. As discussed in the 2018 EA, the new Air Station would occupy up to 10 acres of land adjacent to runway 3/21 and would consist of a new hangar building, support facilities, and a taxiway. The new elements described in Section 2.4 of this SEA would expand the Proposed Action footprint by approximately 5 acres for a total of 15 acres of permanent impact area. There would also be an additional 18 acres of temporary impact for offsite improvements associated with utility work area and construction laydown, for a total of 33 acres of disturbance. As discussed in the 2018 EA, at least 83 permanent personnel would be operating out of the new Air Station. These new elements would not result in an increase in personnel.

2.3 Screening Factors

The National Environmental Policy Act (NEPA) implementing regulations provide guidance on the consideration of alternatives to a federally proposed action and require rigorous exploration and objective evaluation of reasonable alternatives. Only those alternatives determined to be reasonable and to meet the purpose and need require detailed analysis.

Potential alternatives that meet the purpose and need were evaluated against the following screening factors:

- Compatibility with existing air operations at NBVC Point Mugu.
- Availability of space for development of new air station facilities, such as hangar building(s), apron space, and support facilities to accommodate the aircraft and personnel.
- Proximity to existing airfield facilities necessary to carry out USCG missions
- Avoid significant impacts to sensitive natural resources.

Various alternatives were evaluated against the screening factors. An approximately 77-acre area of land was identified at NBVC Point Mugu for the siting of the new Air Station (Air Station site). The Air Station site is located in the northern portion of NBVC Point Mugu adjacent to the northern end of runway 3/21 on vacant land that was previously utilized as a golf course. The site is generally bound by 3rd Street on the north, F Avenue on the east, 7th Street on the south, and runway 3/21 on the west (Figure 2-1). Two drainages that are part of the Oxnard Drainage Ditch system traverse the Air Station site generally in a northeast – southwest direction. The footprint of the new Air Station evaluated in this SEA would encompass approximately 15 acres of land, including the 10 acres evaluated in the 2018 EA, within this larger siting area.

The alternatives considered include:

- Proposed Action Alternative
- No Action Alternative

2.4 Alternatives Carried Forward for Analysis

Based on the reasonable alternative screening factors and meeting the purpose and need for the Proposed Action, one action alternative was identified and will be analyzed within this SEA. The Proposed Action Alternative is the preferred alternative.

2.4.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action for this SEA (discussed in detail in subsection 2.4.2) would not occur. The No Action Alternative would however allow the construction and operation of a New Air Station in accordance with the 2018 EA and approved Finding of No Significant Impact for Alternative 1 (Figure 2-2). The No Action Alternative would not meet the purpose and need for the Proposed Action; however, as required by NEPA, the No Action Alternative is carried forward for analysis in this EA. The No Action Alternative will be used to analyze the consequences of not undertaking the Proposed Action, not simply conclude no impact, and will serve to establish a comparative baseline for analysis.

2.4.2 Proposed Action Alternative

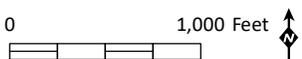
Under the Proposed Action Alternative, eight additional elements would be added to the new Air Station analyzed in the 2018 EA. As discussed in the 2018 EA, the Air Station would be constructed in the northern portion of the Air Station site and would be comprised of two buildings (hangar and an administration/berthing building), a parking apron, taxiway, parking lots, and access roads. A new hangar building encompassing approximately 44,000 square feet would be constructed south of 3rd Street near its terminus at Perimeter Road and on the west side of a drainage channel that traverses the site. Vehicular access to the hangar would be provided from 3rd Street via construction of a new access road extending from the terminus of 3rd Street.

-  Naval Base Ventura County, Point Mugu
-  Proposed Air Station Site



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Source: Aerial Photo (Esri, 2018)



Site Location

Figure 2-1



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Source: Aerial Photo (Esri, 2018)

No Project Alternative

Figure 2-2

The new elements included as part of the Proposed Action in this SEA are shown on Figure 2-3 and include:

- Lift station and sewer storage
- Fire foam containment and oil-water separator
- Security perimeter fence
- New traffic delivery lane
- Reroute water line
- Reroute telecommunications line (two options)
- Relocate hangar and administration/berthing buildings
- Stormwater bioretention basins

The lift station and sewer storage system would be located on an approximately 1,875 square foot site located north of 3rd Street and east of Perimeter Drive (Figure 2-3). The lift station and sewer storage would be located outside of the USCG Use Agreement Boundary on Navy property. The sewer lift station would be underground with approximately five foot fill on top. The underground storage would include two 60-inch diameter reinforced high density polyethylene pipes approximately 40 feet long. The lift station wet well would be approximately 14.5 feet below ground surface. As discussed in the 2018 EA, the sewer service would be provided by a new 4-inch force main that would extend from an existing sewer utility access hole south of F Street to the proposed lift station. As part of this SEA, the gravity lines from the facilities to the lift station are to be considered as part of the Proposed Action. The majority of the gravity lines are 6-inch diameter and would utilize the same trench as analyzed in the 2018 EA. A portion of this sewer line would be 12-inch diameter in order to properly accommodate fire foam deluge events. As part of this SEA, this portion of the sewer line would be increased to 6 inches diameter however, the trench size would remain the same. A portion of the sewer line near 3rd Street may require horizontal directional drilling to avoid impacts to wetlands. Backup power would be provided by a temporary mobile generator.

The proposed USCG hangar analyzed in the 2018 EA would utilize wet pipe sprinklers and High Expansion Foam (HEF) fire suppression systems in order to meet applicable fire code requirements. The underground fire foam containment and oil-water separator would occupy approximately 1,250 square feet directly adjacent to the proposed hangar. HEF systems do not contain per- and polyfluoroalkyl substances and perfluorooctanoic commonly used in Aqueous Film-Forming Foam. Although not specifically required, secondary containment would be included for the HEF system. Containment would consist of a dual pipe storage system arrangement capable of holding 12,000 gallons.

Security perimeter fence would be located along the eastern and southern perimeter of the hangar and administration berthing building (Figure 2-3). It would be an approximately 750 feet long and an approximately eight-foot-high chain link/wire mesh fence.

A traffic delivery lane would be added between the administration/berthing building and hangar and the proposed security fencing (Figure 2-3). This paved road would be approximately 32 feet wide and 180 feet long.



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Source: Aerial Photo (Esri, 2018)



Proposed Action Alternative

Figure 2-3

The 2018 EA included proposed water lines ranging from 6 inches to 12 inches (Figure 2-2). As part of this SEA, an additional waterline would be added to meet fire flow requirements for the Proposed Action. The new water line would be approximately 2,500 linear feet and would traverse some undeveloped areas of the Base and tie in with the Base's existing water system at F Avenue (Figure 2-3). A portion of the water line crossing for the route to the existing water main may require horizontal directional drilling to avoid impacts to wetlands.

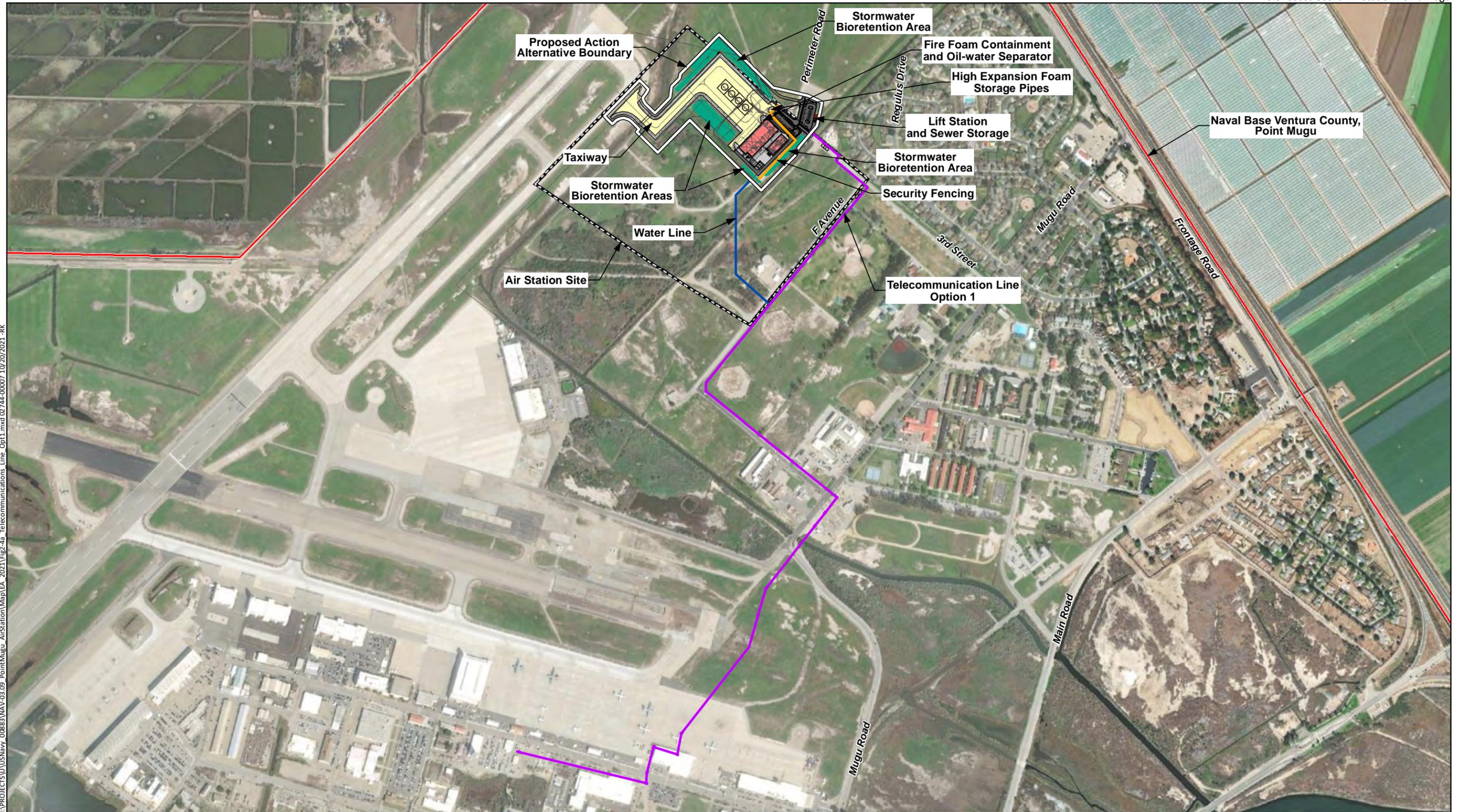
As shown in Figure 2-3, there are two options for the telecommunications system alignment. The first option would be located within 3rd Street, F Avenue, 9th Street, and Mugu Road ending at Building 33 (Figure 2-4a). Option 1 would be approximately 8,650 linear feet. Approximately 3,500 feet of the telecommunications system would require horizontal directional drilling along portions of 3rd Avenue, F Street, and 9th Street. The second option would run along the west side of the new Air Station and aircraft parking apron and then along the southern edge of Taxiway B and would tie in at an existing vault (Figure 2-4b). Option 2 would be approximately 5,600 linear feet. Portions of the alignment for Option 2 near the taxiway and along path may require horizontal directional to avoid potential impacts to wetlands and salt panne area.

The hangar and administration/berthing buildings analyzed as part of the 2018 EA would be relocated within the existing impact footprint as part of this Proposed Action (Figure 2-3). The two buildings would retain approximately the same square footage but would be relocated approximately 250 feet southeast of the location analyzed in the 2018 EA (Figure 2-2).

In order to maintain proper stormwater control, four stormwater bioretention basins would be located on the perimeters of the new Air Station (Figure 2-3). The depth of the bioretention basins would be approximately 42 inches (comprised of 24 inches of drainage soil, 12 inches of gravel crushed stone and 6 inches of tilled soil). Any excavated soil not reused on site would be disposed of in accordance with local, state, and federal regulations/requirements. The four bioretention basins would be located outside of the USCG Use Agreement Boundary on Navy property. Stormwater is a utility and as such these proposed bioretention basins would feed into the existing Base stormwater network of wetlands and drainage areas. As the Navy continues to manage the surrounding wetland/stormwater areas in accordance the *Hydrology Study for the Airfield and Community Support Area Flood Prevention Plan and Project Development at Naval Base Ventura County* (Michael Baker 2017), the Navy would require full access to the bioretention basins. Furthermore, if future development occurs in the North Runway area, the bioretention basins may need to be modified or expanded to accommodate future stormwater requirements for these future projects.

Mitigation for impacts to 0.45 acre of wetlands due to construction of the new taxiway (previously addressed in the 2018 EA) and mitigation for an additional impact of 0.34 acre of wetlands associated with the new elements addressed in this SEA (refer to Section 3.5, *Biological Resources*, for additional information), for a total of 0.79 acre of wetland impacts, would occur at a location and ratio determined in consultation with the U.S. Army Corps of Engineers. It is possible that mitigation would occur at an on-base location, but the location would be determined during the permit process.

Construction of the new elements analyzed in this SEA would take approximately three to four months and is expected to be operational prior to September 2023. Construction staging is anticipated to occur on vacant land adjacent to the development footprint.



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Source: Aerial Photo (Esri, 2018)



Telecommunication Line Option 1

Figure 2-4a



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Source: Aerial Photo (Esri, 2018)



Telecommunication Line Option 2

Figure 2-4b

Once constructed, existing USCG operations at the FOB in Hangar 355 and Building PM-6 would move to the new Air Station facilities. USCG operations at the new Air Station would be 24/7 and would include the use of at least four HH-65 or HH-60 helicopters. Air operations, previously analyzed in the 2018 SEA, would involve two or three sorties per day, for a yearly total of approximately 2,100 flight hours in approximately 1,300 sorties. No changes to USCG flight operations and no changes to permanent personnel needed to staff the Air Station are associated with the Proposed Action. At least 83 permanent personnel would be operating out of the new Air Station. Helicopter operations would include takeoff and landings from runway 3/21, as well as pre-flight and maintenance run-ups that would occur on the parking apron.

The Navy issued a real estate Use Agreement for use of Navy real property to USCG for the establishment of the Air Station at NBVC Point Mugu on April 30, 2020. The terms of the use agreement include an initial period of 10 years with four renewable 10-year options. The new elements analyzed in this SEA would not require an update to real estate use agreement since the areas outside of the lease area would continue to be on Navy property.

In October 2006, the Department of Defense (DOD) issued Instruction number 2000.16, *DoD Antiterrorism Standards*, requiring all DOD Components to adopt and adhere to common criteria and minimum construction standards to mitigate antiterrorism vulnerabilities and terrorist threats. The intent of these building standards is to integrate greater resistance to a terrorist attack into all inhabited buildings. That philosophy affects the general practice of designing inhabited buildings. Although the USCG is not a DOD entity, USCG is subject to Antiterrorism Force Protection (ATFP) requirements because the USCG Air Station would be located on DOD property, pursuant to Unified Facilities Criteria 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings* (Section 1-8.6). ATFP standards consist of restrictions for onsite planning, including standoff distances, building separation, unobstructed space, drive-up and drop-off areas, access roads, and parking; structural design; structural isolation; and electrical and mechanical design. ATFP standards will be incorporated into the design of the new buildings, where applicable.

Construction projects would incorporate Leadership in Energy and Environmental Design, commonly referred to as LEED, and sustainable development concepts to achieve optimum resource efficiency, sustainability, and energy conservation.

2.5 Alternatives Considered but not Carried Forward for Detailed Analysis

The following alternatives were considered, but not carried forward for detailed analysis in this SEA as they did not meet the purpose and need for the project and satisfy the reasonable alternative screening factors presented in Section 2.3.

2.5.1 New Air Station at Refurbished Hangar 351 at NBVC Point Mugu

Under this alternative, a new Air Station would be established at Hangar 351 at NBVC Point Mugu. This alternative would relocate the existing use in the west side of the hangar to a renovated facility, refurbish the west side of the hangar, and construct a two-story 22,000-square foot addition to the rear (south side) of the hangar.

This alternative was considered but is not being carried forward for detailed analysis in the SEA because the hangar is less than the required space needed to fulfill USCG missions, is in poor condition requiring

substantial capital costs to refurbish and is too small to support expansion to accommodate future USCG initiatives and missions.

2.5.2 Relocate to Abbey Company Hangar at Long Beach Airport

Under this alternative, a new Air Station would be established at an existing hangar at Long Beach Airport. The Abbey Company Hangar is a one-story concrete and metal airplane hangar with 43,574 square feet of hangar deck. The hangar is near the end of runways 25, 30, and 34 and fronts a small heliport, Long Beach Heliport South. This alternative would involve entering into a long-term lease agreement with the airport and modifying the interior of the hangar to USCG specifications to operate an Air Station.

This alternative was considered but is not being carried forward for detailed analysis in the SEA because the cost of the long-term lease over 25 years and the cost to construct a new Air Station at a DOD base is nearly the same. Additionally, there is very limited room for expansion at the Long Beach Airport to support future USCG initiatives and missions.

2.5.3 New Air Station at Nearby Municipal Airport

Under this alternative, a new USCG-owned hangar would be constructed on leased land at a nearby municipal airport, including at either Oxnard or Camarillo Airport. This alternative was considered but is not being carried forward for detailed analysis in the SEA because there are potential mission constraints at a municipal airport in that neither Oxnard or Camarillo Airports have the required crash/fire rescue support needed for a 24/7 air station, and USCG flight operations may be impacted by noise or flight restrictions. These airports also have no room for expansion to accommodate future USCG initiatives and missions. Additionally, both airports are located further away from the coast than NBVC Point Mugu and would result in longer response times to carry out USCG missions.

2.5.4 New Air Station at NBVC Point Mugu without Taxiway

Under this alternative, a new Air Station would be constructed at NBVC in the same location as the Proposed Action and with the same facilities as the Proposed Action, except a taxiway connecting the aircraft parking apron to runway 3/21 would not be constructed. This alternative was considered but is not being carried forward for detailed analysis in the SEA because USCG helicopters cannot vertically take off from the apron; they must use the runway for the following reasons: (1) the USCG needs access to the runway to take off in instrument meteorological conditions in accordance with Federal Aviation Regulations for obstacle and terrain clearance; vertical takeoffs have not been approved to meet these regulations; (2) all course rules established between the USCG and air traffic control are from the runways; and (3) takeoffs from the runway allows for a land back option for aircraft during a critical phase of flight.

2.6 Best Management Practices Included in Proposed Action

This section presents an overview of the best management practices (BMPs) that are incorporated into the Proposed Action in this document. BMPs are existing policies, practices, and measures that the Navy would adopt to reduce the environmental impacts of designated activities, functions, or processes. Although BMPs mitigate potential impacts by avoiding, minimizing, or reducing/eliminating impacts, BMPs are distinguished from potential mitigation measures because BMPs are (1) existing requirements

for the Proposed Action; (2) ongoing, regularly occurring practices; or (3) not unique to this Proposed Action. In other words, the BMPs identified in this document are inherently part of the Proposed Action and are not potential mitigation measures proposed as a function of the NEPA environmental review process for the Proposed Action. Table 2-1 includes a list of BMPs. Mitigation measures are discussed separately in Chapter 3.

**Table 2-1
Best Management Practices**

BMP	Description	Impacts Reduced/Avoided
Compliance with regulatory and industry geotechnical standards and site-specific geotechnical investigation	The Proposed Action would comply with applicable regulatory and industry standards, as well as recommendations from site-specific geotechnical investigations. BMPs would potentially include the removal/compaction or replacement of unsuitable materials (e.g., compressible or expansive soils) with properly engineered fill; use of appropriate slope design (e.g., grade limitations); drainage; use of appropriate foundation/footing pavement dimensions and reinforcing; provision of positive surface drainage and/or use of sub drains; incorporation of projected ground acceleration and International Building Code/California Building Code seismic parameters into the project design (e.g., seismic zone, subsurface profile types, seismic and near-source coefficients for acceleration and velocity, and seismic source); removal/replacement of unsuitable surficial materials; and slope stabilization if applicable.	Geology (soil compression/settlement; manufactured slope stability/retaining wall design; foundation/footing, building pad, and pavement design; fill composition/ placement methodology; soil instability, shallow groundwater/drainage; and seismic issues from ground shaking and liquefaction)
Storm Water Pollution Prevention Plans	The Proposed Action would conform with applicable National Pollutant Discharge Elimination System requirements including implementation of one or more Storm Water Pollution Prevention Plans and associated BMPs. BMPs may include erosion control blankets, soil stabilizers, temporary seeding, silt fencing, hay bales, sandbags, and storm drain inlet protection devices. All materials must be weed free and seed materials must be pre-approved by the NBVC Environmental Natural Resource Manager.	Soils (erosion and off-site sediment transport); Water Resources (water quality)

BMP	Description	Impacts Reduced/Avoided
Low Impact Development	The Proposed Action would conform with applicable requirements related to Low Impact Development design and control of runoff rates/amounts. This may include site-specific measures such as the use of bioretention or infiltration facilities, diverting flow from impervious areas to vegetated/landscaped sites, use of pervious pavement and drainage facilities (e.g., swales/channels) in applicable areas, and storm flow capture/reuse (e.g., via rain barrels).	Water Resources (surface water and water quality)
Hazardous Materials and Wastes Management Plan	The construction contractor would implement a Hazardous Materials and Wastes Management Plan to ensure appropriate procedures are in place to address handling, storage, and disposal of hazardous materials and wastes during construction.	Public Health and Safety (Hazardous Waste)
Health and Safety Plan	The construction contractor would implement a Health and Safety Plan to ensure appropriate safety measures are implemented during construction.	Public Health and Safety (Safety)

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3 Affected Environment and Environmental Consequences

This chapter presents a description of the environmental resources and baseline conditions that could be affected from implementing any of the alternatives and an analysis of the potential direct and indirect effects of each alternative.

All potentially relevant environmental resource areas were initially considered for analysis in this Supplemental Environmental Assessment (SEA). In compliance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ), and Department of Navy guidelines, the discussion of the affected environment (i.e., existing conditions) focuses only on those resource areas potentially subject to impacts. Additionally, the level of detail used in describing a resource is commensurate with the anticipated level of potential environmental impact.

This section includes air quality, water resources, geological resources, cultural resources, biological resources, noise, infrastructure, public health and safety, and hazardous materials and wastes.

The potential impacts to the following resource areas are considered to be negligible or non-existent so they were not analyzed in detail in this SEA:

Land Use: The action alternative would not result in changes to land use or the introduction of new land uses at the Air Station. The additional elements are utility and infrastructure components that would be constructed at the new Air Station. The new Air Station site is located on vacant land that was previously part of a golf course that is no longer in use. The site is located adjacent to an existing runway. Similar facilities (i.e., hangars and aircraft operations, including a U.S. Coast Guard Forward Operating Base) already occur within the installation. The new Air Station is already approved at the Air Station site, and the addition of the eight elements analyzed in this SEA would not alter the land use of the site.

Nearby land uses include the Santa Rosa military housing community, located approximately 800 feet southeast of the new Air Station site. The additional elements included in the action alternative would not result in discernable changes at the new Air Station site for this nearby land use. As discussed in Section 3.6, *Noise*, the action alternative would not result in changes or increases associated with noise compatibility at the Santa Rosa military housing community. In terms of safety, the Santa Rosa community is not located within an Accident Potential Zone associated with runway 3/21 (NAVFAC SW 2015a). No changes to USCG flight operations are associated with the Proposed Action, and thus, no change to the existing Accidental Potential Zones or the associated aircraft hazards risks would occur.

The action alternative would not preclude the viability of existing land use activities or the continued use of the area (both on and off installation), and would be compatible with adjacent land uses. Agricultural uses, recreational areas (game preserves), and open space (Point Mugu State Park and the Santa Monica Mountains National Recreation Area) predominantly surround Naval Base Ventura County (NBVC or Base or installation) Point Mugu. The additional elements to the new Air Station would not alter operational activities in such a manner that would affect surrounding land uses. While the action alternative would include temporary construction activities outside of the previously identified Air Station site, these activities would be short-term and would occur directly adjacent to the site or along existing roadways. Additionally, several of the proposed elements would be constructed outside of the previously identified Air Station site, including the lift station and sewer storage, stormwater bioretention bases, and telecommunications line Options 1 and 2.

The Command of the U.S. Navy (Navy) has determined that the action alternative would not affect coastal resources or uses. As part of the 2018 EA, a Coastal Consistency Negative Determination was prepared and submitted to the California Coastal Commission, which resulted in a Negative Determination (Appendix C) because the 2018 Proposed Action would not result in significant discharges of non-point source pollution; no net loss of wetlands would occur; the action would avoid adverse effects on coastal marine and terrestrial resources; and the impact of fill associated with the action would be mitigated. The California Coastal Commission Negative Determination remains valid because the elements proposed as part of the SEA would not result in significant discharges of non-point source pollution; no net loss of wetlands would occur; the action would avoid adverse effects on coastal marine and terrestrial resources; and the impact of fill associated with the action would be mitigated.

Visual Resources: The action alternative would construct eight additional elements to the new Air Station. These elements consist of utility and infrastructure components, several of which would be underground. The Air Station site is adjacent to an existing runway and in close proximity to existing buildings and aviation-related facilities. The new elements would be constructed within or adjacent to the Air Station site. The introduction of the eight components to the new Air Station would be visually compatible with the aviation-related infrastructure already present in the existing visual environment within the context of the immediate setting and NBVC Point Mugu as a whole. The new elements would be consistent with the Installation Appearance Standards contained in the NBVC Installation Development Plan (NAVFAC SW 2017). The lift station and sewer storage, fire foam containment and oil-water separator, rerouted water line, and rerouted telecommunications line (Options 1 or 2) would be underground and would not be visible following completion of construction. The remaining elements—the 8-foot-high, chain-link security perimeter fence; paved traffic delivery lane; relocated hanger and administration/berthing buildings; and stormwater bioretention basins—would be aboveground and visible but would be compatible with the visual appearance of the new Air Station. Therefore, potential impacts to visual resources would be negligible.

Airspace: NBVC Point Mugu Class D Airspace¹ encompasses an area within an approximate 4.5-mile radius of the center of the airfield that extends upward to 3,000 feet above mean sea level. The Class D airspace around NBVC Point Mugu is truncated on the north by the airspace for the Camarillo Airport and on the west by the airspace for the Oxnard Airport. Use of Class D airspace requires the use of two-way communication with Air Traffic Control, which must be established prior to entering Class D airspace. The typical pattern altitude at the airfield is 1,200 feet above mean sea level; however, flights operating within Class D airspace may be routed at higher or lower altitudes, when necessary for takeoff or landing, anywhere within the airspace radius. Special use airspace R-2519 overlays a portion of NBVC Point Mugu. Restricted Areas are designated where operations are hazardous to non-participating aircraft and contain airspace within which the flight of aircraft is subject to restrictions. Construction activities associated with the action alternative would be conducted adjacent to, and in the vicinity of, the airfield at NBVC Point Mugu; however, they would not occur directly on the runway, nor would they significantly increase or alter existing airspace operations or affect the existing capacity of the airspace. The action alternative would not involve the creation or modification of any special-use airspace or military operations areas. USCG flight operations associated with the new Air Station would be conducted in existing controlled airspace at NBVC Point Mugu. The action alternative does not include

¹ The controlled airspace under the jurisdiction of an airfield's control tower and immediately adjacent to the runways is defined by the Federal Aviation Administration as Class D airspace.

alterations to USCG flight operations at the new Air Station. Flight operations would remain as analyzed in the 2018 EA. Therefore, potential impacts on airspace management would be negligible.

Transportation: NBVC Point Mugu includes two access gates. The North Mugu Road Gate, located at the intersection of Naval Air Road and North Mugu Road, is the primary access point and provides access to the installation through the family housing and community support area. Trucks and ordnance are not allowed through this gate. The Las Posas Gate accommodates traffic through Las Posas Road. All trucks and ordnance must enter and exit the installation through this gate. The action alternative would construct eight additional elements to the new Air Station. These elements would not result in an increase in personnel at NBVC Point Mugu and would not increase daily traffic that would adversely affect roadways on NBVC Point Mugu or in the vicinity. While there may be minor increase in truck traffic associated with the transport of construction materials for the eight additional elements, this would be short-term and temporary. In addition, no new access gates or entry control points to NBVC Point Mugu would be required. Access to the new Air Station would utilize existing installation access gates, and existing roadways. A new delivery lane would be constructed between the administration/berthing building and hangar. It would be 180 feet long and would provide access only to the new Air Station and related facilities; the delivery lane would not provide access to other areas or facilities within NBVC Point Mugu. Therefore, potential impacts related to transportation would be negligible.

Socioeconomics: The action alternative would not result in additional personnel being stationed at NBVC Point Mugu beyond that identified for the new Air Station in the 2018 EA. The 2018 EA identified at least 83 permanent additional personnel would be stationed at NBVC Point Mugu for the new Air Station, with an estimated population increase of up to 282 people (83 personnel and 199 family members) for NBVC Point Mugu and the surrounding areas. The proposed eight additional elements would not result in the need for more personnel at the Air Station, and as such, no change to estimated population increases associated with the new Air Station would occur as a result of the action alternative.

Contractors associated with the proposed construction activities would be provided by civilian contracting firms, drawing employees from a labor pool from the surrounding region. For construction projects of this duration and magnitude, the workforce is generally composed of workers that would commute to job sites rather than relocate their households. As such, construction activities are not anticipated to result in either an in-migration or relocation of employees to satisfy the need for temporary construction-related employment. Therefore, no increase in population would be expected from temporary workers relocating to the immediate area.

As discussed in the 2018 EA, the new Air Station would represent an approximately 0.5 percent increase in the total personnel population of NBVC Point Mugu and an approximately 0.02 percent increase in the current workforce in Ventura County (which was 403,000 in 2018). Construction activities, as discussed in the 2018 EA, would create a temporary regional increase in employment, which would result in beneficial effects on the construction industry due to increases in payroll, taxes, and the indirect purchase of goods and services. The action alternative would not result in changes to the employment characteristics associated with the new Air Station that was identified in the 2018 EA.

The action alternative does not propose changes to the estimated personnel that would be stationed at NBVC Point Mugu for the new Air Station, and thus, the estimated school and housing impacts identified in the 2018 EA would not change as a result of the eight additional elements to the new Air Station. The maximum number of school-aged children that would move to Ventura County is estimated to be

approximately 116. Most of the additional school-aged children would attend one of the schools in the Ocean View School District (kindergarten through 8th grade) or in the Oxnard Union School District (9th through 12th grade), representing a minor increase of approximately 0.58 percent of the current public school enrollment for the Ventura County school districts for which NBVC Point Mugu is expected to affect. The additional 83 personnel that would be stationed at NBVC Point Mugu as a result of the new Air Station would have the choice to obtain non-Navy housing off-installation or Navy housing on-installation. As identified in the 2018 EA, the additional demand for 83 housing units in Ventura County would represent approximately one percent of the approximately 10,687 available vacant housing units in the county, based on 2010 data. Increases in housing demand would result in the reduction of current vacant housing stock and, subsequently, increases in property tax revenue and could increase the value of homes. However, no adverse effects on housing were identified in the 2018 EA, and the action alternative would not result in changes to this conclusion.

Environmental Justice: The action alternative would occur within and adjacent to the new Air Station site analyzed in the 2018 EA. As discussed in the 2018 EA, the proposed construction of the new Air Station would occur entirely within the fence line of NBVC Point Mugu. On-base operations therefore would not result in disproportionate impacts to minority and low-income populations. While the new Air Station site would be located entirely on NBVC Point Mugu land, USCG helicopter flight patterns associated with the new Air Station (as analyzed in the 2018 EA) would extend beyond the installation boundaries and over neighboring areas. The action alternative would not result in changes to the USCG helicopter flight patterns, quantities, or frequencies identified in the 2018 EA and therefore, as identified in the 2018 EA, would not result in disproportionate effects to minority or low-income populations. As discussed in other sections of this SEA (such as 3.1, *Air Quality* and 3.6, *Noise*), the action alternative would not result in adverse environmental effects to the surrounding community. Accordingly, no adverse Environmental Justice effects would occur as a result of implementation of the action alternative. Implementation of the action alternative would not cause disproportionately high and adverse human health or environmental effects on any minority or low-income populations.

3.1 Air Quality

This discussion of air quality includes criteria pollutants, standards, sources, permitting, and greenhouse gases (GHGs). Air quality in a given location is defined by the concentration of various pollutants in the atmosphere. A region's air quality is influenced by many factors, including the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions.

Most air pollutants originate from human-made sources, including mobile sources (e.g., cars, trucks, buses) and stationary sources (e.g., factories, refineries, power plants), as well as indoor sources (e.g., some building materials and cleaning solvents). Air pollutants are also released from natural sources such as volcanic eruptions and forest fires.

3.1.1 Regulatory Setting

3.1.1.1 Criteria Pollutants and National Ambient Air Quality Standards

The principal pollutants defining the air quality, called "criteria pollutants," include carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone, suspended particulate matter less than or equal to 10 microns in diameter (PM₁₀), fine particulate matter less than or equal to 2.5 microns in

diameter (PM_{2.5}), and lead (Pb). CO, SO₂, Pb, and some particulates are emitted directly into the atmosphere from emissions sources. Ozone, NO₂, and some particulates are formed through atmospheric chemical reactions that are influenced by weather, ultraviolet light, and other atmospheric processes.

Under the Clean Air Act (CAA), the U.S. Environmental Protection Agency (USEPA) has established National Ambient Air Quality Standards (NAAQS) (40 Code of Federal Regulations [CFR] part 50) for these pollutants. NAAQS are classified as primary or secondary. Primary standards protect against adverse health effects; secondary standards protect against welfare effects, such as damage to farm crops and vegetation and damage to buildings. Some pollutants have long-term and short-term standards. Short-term standards are designed to protect against acute, or short-term, health effects, while long-term standards were established to protect against chronic health effects.

Areas that are and have historically been in compliance with the NAAQS are designated as attainment areas. Areas that violate a federal air quality standard are designated as nonattainment areas. Areas that have transitioned from nonattainment to attainment are designated as maintenance areas and are required to adhere to maintenance plans to ensure continued attainment.

The CAA requires states to develop a general plan to attain and maintain the NAAQS in all areas of the country and a specific plan to attain the standards for each area designated nonattainment for a NAAQS. These plans, known as State Implementation Plans (SIPs), are developed by state and local air quality management agencies, and submitted to USEPA for approval.

In addition to the NAAQS for criteria pollutants, national standards exist for hazardous air pollutants (HAPs), which are regulated under Section 112(b) of the 1990 CAA Amendments. The National Emission Standards for Hazardous Air Pollutants regulate HAP emissions from stationary sources (40 CFR part 61).

3.1.1.2 Mobile Sources

HAPs emitted from mobile sources are called Mobile Source Air Toxics (MSATs). MSATs are compounds emitted from highway vehicles and non-road equipment that are known or suspected to cause cancer or other serious health and environmental effects. In 2001, USEPA issued its first MSAT Rule, which identified 201 compounds as being HAPs that require regulation. A subset of six of the MSAT compounds was identified as having the greatest influence on health and included benzene, butadiene, formaldehyde, acrolein, acetaldehyde, and diesel particulate matter. More recently, USEPA issued a second MSAT Rule in February 2007, which generally supported the findings in the first rule and provided additional recommendations of compounds having the greatest impact on health. The rule also identified several engine emission certification standards that must be implemented (40 CFR parts 59, 80, 85, and 86; Federal Register Volume 72, No. 37, pp. 8427–8570, 2007). Unlike the criteria pollutants, there are no NAAQS for benzene and other HAPs. The primary control methodologies for these pollutants for mobile sources involves reducing their content in fuel and altering the engine operating characteristics to reduce the volume of pollutant generated during combustion.

3.1.1.3 General Conformity

The USEPA General Conformity Rule applies to federal actions occurring in nonattainment or maintenance areas when the total direct and indirect emissions of nonattainment pollutants (or their precursors) exceed specified thresholds. The emissions thresholds that trigger requirements for a conformity analysis are called *de minimis* levels. *De minimis* levels (in tons per year) vary by pollutant

and also depend on the severity of the nonattainment status for the air quality management area in question.

A conformity applicability analysis is the first step of a conformity evaluation and assesses if a federal action must be supported by a conformity determination. This is typically done by quantifying applicable direct and indirect emissions that are projected to result due to implementation of the federal action. Indirect emissions are those emissions caused by the federal action and originating in the region of interest, but which can occur at a later time or in a different location from the action itself and are reasonably foreseeable. The federal agency can control and will maintain control over the indirect action due to a continuing program responsibility of the federal agency. Reasonably foreseeable emissions are projected future direct and indirect emissions that are identified at the time the conformity evaluation is performed. The location of such emissions is known and the emissions are quantifiable, as described and documented by the federal agency based on its own information and after reviewing any information presented to the federal agency. If the results of the applicability analysis indicate that the total emissions would not exceed the *de minimis* emissions thresholds, then the conformity evaluation process is completed. *De minimis* threshold emissions are presented in Table 3-1.

Table 3-1
General Conformity *de minimis* Levels

Pollutant	Area Type	Tons per Year
Ozone (VOC or NO _x)	Serious nonattainment	50
	Severe nonattainment	25
	Extreme nonattainment	10
	Other areas outside an ozone transport region	100
Ozone (NO _x)	Marginal and moderate nonattainment inside an ozone transport region	100
	Maintenance	100
Ozone (VOC)	Marginal and moderate nonattainment inside an ozone transport region	50
	Maintenance within an ozone transport region	50
	Maintenance outside an ozone transport region	100
Carbon monoxide, SO ₂ and NO ₂	All nonattainment & maintenance	100
PM ₁₀	Serious nonattainment	70
	Moderate nonattainment and maintenance	100
PM _{2.5} Direct emissions, SO ₂ , NO _x (unless determined not to be a significant precursor), VOC or ammonia (if determined to be significant precursors)	All nonattainment and maintenance	100
Lead (Pb)	All nonattainment and maintenance	25

3.1.1.4 Greenhouse Gases

GHGs are gas emissions that trap heat in the atmosphere. These emissions occur from natural processes and human activities. Scientific evidence indicates a trend of increasing global temperature over the past century due to an increase in GHG emissions from human activities. The climate change associated with this global warming is predicted to produce negative economic and social consequences across the globe.

Revised draft guidance from CEQ, dated December 18, 2014, recommends that agencies consider both the potential effects of a proposed action on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed action. The guidance also emphasizes that agency analyses should be commensurate with projected GHG emissions and climate impacts, and should employ appropriate quantitative or qualitative analytical methods to ensure useful information is available to inform the public and the decision-making process in distinguishing between alternatives and mitigations. It recommends that agencies consider 25,000 metric tons of carbon dioxide equivalent (CO₂e) emissions on an annual basis as a reference point below which a quantitative analysis of greenhouse gas is not recommended unless it is easily accomplished based on available tools and data.

USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule on September 22, 2009. GHGs covered under the Final Mandatory Reporting of Greenhouse Gases Rule are carbon dioxide (CO₂), methane, nitrogen oxide (NO_x), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and other fluorinated gases including nitrogen trifluoride and hydrofluorinated ethers. Each GHG is assigned a global warming potential. The global warming potential is the ability of a gas or aerosol to trap heat in the atmosphere. The global warming potential rating system is standardized to CO₂, which has a value of one. The equivalent CO₂ rate is calculated by multiplying the emissions of each GHG by its global warming potential and adding the results together to produce a single, combined emissions rate representing all GHGs. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of mobile sources and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions as CO₂e are required to submit annual reports to USEPA.

In an effort to reduce energy consumption, reduce GHGs, reduce dependence on petroleum, and increase the use of renewable energy resources the Navy has implemented a number of renewable energy projects. The Navy has established Fiscal Year 2020 GHG emissions reduction targets of 34 percent from a Fiscal Year 2008 baseline for direct GHG emissions and 13.5 percent for indirect emissions. Examples of Navy-wide GHG reduction projects include energy efficient construction, thermal and photovoltaic solar systems, geothermal power plants, and the generation of electricity with wind energy. The Navy continues to promote and install new renewable energy projects.

3.1.2 Affected Environment

The 2018 EA provides a description of the affected environment for air quality at NBVC Point Mugu and the South Central Coast Air Basin. The discussions of the affected environment for air quality is the same as identified in the 2018 EA and is not repeated here.

3.1.3 Environmental Consequences

Effects on air quality are based on estimated direct and indirect emissions associated with the action alternatives. The region of influence (ROI) for assessing air quality impacts is the air basin in which the project is located, the South Central Coast Air Basin.

Estimated emissions from a proposed federal action are typically compared with the relevant national and state standards to assess the potential for increases in pollutant concentrations.

3.1.3.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, construction and operational emissions generated by Alternative 1 (the new Air Station) would be below the General Conformity *de minimis* thresholds, including for ozone precursors (NO_x and VOCs) for which NBVC Point Mugu has been classified by the USEPA as a serious nonattainment area. A Record of Non-Applicability was prepared and included in the 2018 EA and the No Action Alternative (Alternative 1 of the 2018 EA) would not result in significant impacts to air quality.

Implementation of the No Action Alternative would contribute directly to emissions of GHGs from the combustion of fossil fuels. Construction activities would generate approximately 685 tons (622 metric tons) of CO_{2e} during the highest year of emissions (2019; the construction schedule for the 2018 EA assumed the start of construction in 2018 for a period of three years, with the highest level of construction emissions occurring in 2019). Once the Air Station is operational, routine activities would generate approximately 789 tons (716 metric tons) of CO_{2e} each year. These estimated annual GHG emissions fall below the CEQ threshold of 25,000 metric tons per year. Therefore, impacts from GHGs from construction and operational activities of the No Action Alternative would be less than significant.

3.1.3.2 Alternative 1 Potential Impacts

Alternative 1 would result in emissions of air pollutants during construction. The eight additional elements that would be constructed as Alternative 1 do not include sources of significant operational emissions.

General Conformity

Criteria pollutant emissions would occur from project construction. Operational emissions associated with Alternative 1 would be minimal. Construction emissions would include emissions associated with off-road and on-road construction equipment and worker vehicles. Construction of the eight additional elements for Alternative 1 would take approximately three to four months and is expected to be operational prior to September 2023. Table 3-2 shows the estimated construction emissions of criteria pollutants generated under Alternative 1 for the year 2023, with the maximum yearly emissions compared to the *de minimis* thresholds. Emissions calculation spreadsheets are included in Appendix A.

Table 3-2
Estimated Construction Emissions (tons per year) and
Comparison to General Conformity Under Alternative 1

Year	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2023	0.07	0.61	0.62	<0.01	0.11	0.07
2018 EA Maximum Annual Emissions	0.94	3.57	2.99	0.01	0.37	0.21
Maximum Combined Emissions	1.01	4.18	3.61	0.01	0.48	0.28
General Conformity <i>de minimis</i> Threshold	50*	50*	N/A**	N/A	100	100
Exceed <i>de minimis</i> ?	No	No	N/A**	N/A	No	No

*Threshold for area in serious non-attainment

**As shown in Table 3-1, General Conformity *de minimis* levels for CO are only provided for nonattainment and maintenance areas.

As shown in Table 3-2, construction emissions generated by Alternative 1 would be well below the General Conformity *de minimis* thresholds, including for ozone precursors (NO_x and VOCs) for which NBVC Point Mugu has been classified by the USEPA as a serious nonattainment area. Maximum combined construction emissions, as shown in Table 3-2, include emissions associated with the Proposed Action and emissions associated with the 2018 EA Proposed Action. As shown, the Proposed Action would increase overall construction emissions associated with the new Air Station as compared to those identified in the 2018 EA; however, construction emissions generated by Alternative 1 would be a portion of the overall combined construction emissions and would be well below the General Conformity *de minimis* thresholds. Additionally, operational emissions associated with the Proposed Action would be limited to those associated with powering the sewer storage and lift station and the gate on the security perimeter fence. The lift station and the gate on the security perimeter fence would consume electricity, which would not generate criteria pollutants. The operation and testing of the emergency generator associated with the lift station would generate emissions of criteria pollutants; however, emissions would be minimal as the generator would only be used in emergencies and testing would be limited to a few minutes per month. As such, operational emissions would be minimal and would be well below the General Conformity *de minimis* thresholds, including for ozone precursors (NO_x and VOCs) for which NBVC Point Mugu has been classified by the USEPA as a serious nonattainment area. Therefore, a Record of Non-Applicability has been prepared and is included in Appendix B.

Implementation of Alternative 1 would result in emissions of air pollutants during construction. As shown in Table 3-2, emissions would be below *de minimis* levels. Therefore, implementation of Alternative 1 would not result in significant impacts to air quality.

Greenhouse Gases

Implementation of Alternative 1 would contribute directly to emissions of GHGs from the combustion of fossil fuels. Construction activities would generate approximately 109 tons (99 metric tons) of CO_{2e}. As discussed previously, the eight additional elements that would be constructed as Alternative 1 do not include sources of significant operational emissions. Estimated annual GHG emissions fall below the CEQ threshold of 25,000 metric tons per year. Therefore, impacts from GHGs from construction and operational activities of Alternative 1 would be less than significant.

3.2 Water Resources

This discussion of water resources includes groundwater, surface water, marine waters, wetlands, floodplains, and shorelines. The definitions of these water resource issues, as used in this SEA, are provided below. This section also discusses the physical characteristics of marine waters, wetlands, etc.; wildlife and vegetation are addressed in Section 3.5, *Biological Resources*. Bathymetry and marine sediments are discussed in the *Geological Resources* section (Section 3.3).

Groundwater is water that flows or seeps downward and saturates soil or rock, supplying springs and wells. Groundwater is used for water consumption, agricultural irrigation, and industrial applications. Groundwater properties are often described in terms of depth to aquifer, aquifer or well capacity, water quality, and surrounding geologic composition. Sole source aquifer designation provides limited protection of groundwater resources which serve as drinking water supplies.

Surface water resources generally consist of wetlands, lakes, rivers, and streams. Surface water is important for its contributions to the economic, ecological, recreational, and human health of a community or locale. A Total Maximum Daily Load is the maximum amount of a substance that can be assimilated by a water body without causing impairment. A water body can be deemed impaired if water quality analyses conclude that exceedances of water quality standards occur.

Marine waters would typically include estuaries, waters seaward of the historic height of tidal influence, and offshore high salinity waters. Marine water quality would be described as the chemical and physical composition of the water as affected by natural conditions and human activities. Additionally, marine waters may include an area within a National Marine Sanctuary requiring an action proponent to avoid adverse water quality impacts in order to prevent damage to resources within the sanctuary.

Wetlands are jointly defined by USEPA and the U.S. Army Corps of Engineers (USACE) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Wetlands generally include “swamps, marshes, bogs and similar areas.”

Floodplains are areas of low-level ground present along rivers, stream channels, large wetlands, or coastal waters. Floodplain ecosystem functions include natural moderation of floods, flood storage and conveyance, groundwater recharge, and nutrient cycling. Floodplains also help to maintain water quality and are often home to a diverse array of plants and animals. In their natural vegetated state, floodplains slow the rate at which the incoming overland flow reaches the main water body. Floodplain boundaries are most often defined in terms of frequency of inundation, that is, the 100-year and 500-year flood. Floodplain delineation maps are produced by the Federal Emergency Management Agency and provide a basis for comparing the locale of the Proposed Action to the floodplains.

Shorelines can be located along marine (oceans), brackish (estuaries), or fresh (lakes) bodies of water. Physical dynamics of shorelines include tidal influences, channel movement and hydrological systems, flooding or storm surge areas, erosion and sedimentation, water quality and temperature, presence of nutrients and pathogens, and sites with potential for protection or restoration. Shoreline ecosystems are vital habitat for multiple life states of many fish, birds, reptiles, amphibians, and invertebrates. Different shore zones provide different kinds and levels of habitat, and when aggregated, can significantly influence life. Organic matter that is washed onto the shore, or “wrack,” is an important

component of shoreline ecosystems, providing habitat for invertebrates, soil and organic matter, and nutrients to both the upland terrestrial communities and aquatic ecosystems.

3.2.1 Regulatory Setting

The Safe Drinking Water Act is the federal law that protects public drinking water supplies throughout the nation. Under the Safe Drinking Water Act, The USEPA sets standards for drinking water quality. Groundwater quality and quantity are regulated under several statutes and regulations, including the Safe Drinking Water Act.

The Clean Water Act (CWA) establishes federal limits, through the National Pollutant Discharge Elimination System (NPDES) program, on the amounts of specific pollutants that can be discharged into surface waters to restore and maintain the chemical, physical, and biological integrity of the water. The NPDES program regulates the discharge of point (i.e., end of pipe) and nonpoint sources (i.e., stormwater) of water pollution.

The California NPDES stormwater program *requires construction site operators engaged in clearing, grading, and excavating activities that disturb one acre or more to obtain coverage under an NPDES Construction General Permit for stormwater discharges.* Construction or demolition that necessitates an individual permit also requires preparation of a Notice of Intent to discharge stormwater and a Stormwater Pollution Prevention Plan (SWPPP) that is implemented during construction. As part of the 2010 Final Rule for the CWA, titled *Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category*, activities covered by this permit must implement non-numeric erosion and sediment controls and pollution prevention measures.

Wetlands are currently regulated by the USACE under Section 404 of the CWA as a subset of all “Waters of the United States.” Waters of the United States are defined as (1) traditional navigable waters, (2) wetlands adjacent to navigable waters, (3) nonnavigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow perennially or have continuous flow at least seasonally (e.g., typically 3 months), and (4) wetlands that directly abut such tributaries under Section 404 of the CWA, as amended, and are regulated by USEPA and the USACE. The CWA requires that California establish a Section 303(d) list to identify impaired waters and establish TMDLs for the sources causing the impairment.

Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredge or fill into wetlands and other Waters of the United States. Any discharge of dredge or fill into Waters of the United States requires a permit from the USACE.

Section 401 of the CWA specifies that states must certify that any activity subject to a permit issued by a federal agency, such as the USACE, meets all state water quality standards. In California, the State Water Resources Control Board and the applicable Regional Water Quality Control Board (RWQCB) are responsible for taking certification actions for activities subject to any permit issued by the USACE pursuant to Section 404.

Section 438 of the Energy Independence and Security Act establishes stormwater design requirements for development and redevelopment projects. Under these requirements, federal facility projects larger than 5,000 square feet must “maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.”

Section 10 of the Rivers and Harbors Act provides for USACE permit requirements for any in-water construction. USACE and some states require a permit for any in-water construction. Permits are required for construction of piers, wharfs, bulkheads, pilings, marinas, docks, ramps, floats, moorings, and like structures; construction of wires and cables over the water, and pipes, cables, or tunnels under the water; dredging and excavation; any obstruction or alteration of navigable waters; depositing fill and dredged material; filling of wetlands adjacent or contiguous to waters of the U.S.; construction of riprap, revetments, groins, breakwaters, and levees; and transportation of dredged material for dumping into ocean waters.

The National Wild and Scenic Rivers System was created by Congress in 1968 to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

The Coastal Zone Management Act of 1972 (CZMA) provides assistance to states, in cooperation with federal and local agencies, for developing land and water use programs in coastal zones. Actions occurring within the coastal zone commonly have several resource areas that may be relevant to the CZMA.

Executive Order (EO) 11990, *Protection of Wetlands*, requires that federal agencies adopt a policy to avoid, to the extent possible, long- and short-term adverse impacts associated with destruction and modification of wetlands and to avoid the direct and indirect support of new construction in wetlands whenever there is a practicable alternative.

EO 11988, *Floodplain Management*, requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development unless it is the only practicable alternative. Flood potential of a site is usually determined by the 100-year floodplain, which is defined as the area that has a one percent chance of inundation by a flood event in a given year.

EO 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, amends EO 11988 and establishes the Federal Flood Risk Management Standard to improve the nation's resilience to current and future flood risks, which are anticipated to increase over time due to the effects of climate change and other threats.

3.2.2 Affected Environment

The 2018 EA provides a description of the affected environment for each of the categories under water quality resources at NBVC Point Mugu. The discussions of the affected environment for groundwater, surface water, marine waters, wetlands, floodplains, and shorelines are the same as identified in the 2018 EA and are not repeated here. Mapped wetlands at NBVC Point Mugu are depicted in Figure 3-1. The discussion of bathymetry is included in the *Geological Resources* section (Section 3.3).



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0 2,300 Feet

NBVC Point Mugu Wetlands

Figure 3-1

3.2.3 Environmental Consequences

In this SEA, the analysis of water resources looks at the potential impacts on groundwater, surface water, wetlands, floodplains, and shorelines. Groundwater analysis focuses on the potential for impacts to the quality, quantity, and accessibility of the water. The analysis of surface water quality considers the potential for impacts that may change the water quality, including both improvements and degradation of current water quality. The impact assessment of wetlands considers the potential for impacts that may change the local hydrology, soils, or vegetation that support a wetland. The analysis of floodplains considers if any new construction is proposed within a floodplain or may impede the functions of floodplains in conveying floodwaters. The analysis of shorelines considers if the Proposed Action will affect shoreline ecological functions such as channel movement and hydrological systems, flooding or storm surge areas, areas of erosion and sedimentation, water quality and temperature, presence of nutrients and pathogens, and sites with the potential for protection or restoration.

3.2.3.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, the construction and operation of a new Air Station would not result in significant impacts to groundwater, surface water, floodplains, and shorelines. The No Action Alternative would impact a total of approximately 0.45 acre of jurisdictional wetlands; however, all potential impacts to wetlands would be mitigated by the USCG at a location determined in consultation with the USACE. Therefore, no significant impacts to water resources would occur with implementation of the No Action Alternative.

3.2.3.2 Alternative 1 Potential Impacts

The study area for the analysis of effects to water resources associated with the Alternative 1 encompasses the Oxnard Plain watershed.

Groundwater

Alternative 1 would be constructed within and adjacent to the new Air Station site analyzed in the 2018 EA. Construction of the eight additional elements would include additional ground disturbance beyond that identified in the 2018 EA, but soils in the project area have been previously disturbed. The new Air Station site is located on a former golf course, is relatively flat, and contains no piped stormwater collection system. As such, Alternative 1 includes the construction of an on-site stormwater drainage collection system, including four bioretention basins. The USCG is subject to the new stormwater design requirements of Section 438 of the Energy Independence and Security Act (see Section 3.2.1) that require predevelopment site hydrology to be maintained or restored to the maximum extent technically feasible with respect to temperature, rate, volume, and duration of flow. The onsite stormwater drainage collection system is designed to convey runoff from a 25-year, 24-hour return frequency storm event that will maintain, to the extent technically feasible, the pre-development hydrology of the property (Waller, Todd & Sadler 2021). As such, Alternative 1 would not be expected to alter the natural drainage flow, as pre-construction hydrologic connectivity would be maintained through the use of the onsite stormwater drainage collection system.

The Proposed Action would not involve direct use of groundwater (e.g., through increased withdrawals). While several elements of Alternative 1 would be underground, implementation of Alternative 1 would result in a minor increase in impervious areas (up to approximately 0.13 acre). The lift station and sewer storage, rerouted water line, rerouted telecommunications line (Options 1 or 2), and the fire foam containment and oil-water separator would be underground, and would not contribute to increased impervious areas. The hangar and administration/berthing buildings have been relocated, but are still within the 2018 EA impact area and would not contribute to increased impervious areas not previously identified in the 2018 EA. Additionally, the perimeter fencing would have a negligible effect on impervious areas. The proposed traffic delivery lane, which would be 32 feet wide and 180 feet long, would result in an increase in impervious areas by approximately 5,760 square feet (or 0.13 acre), which would be considered a negligible addition in comparison to the 10 acres of new impervious areas added as a result of the new Air Station. The stormwater bioretention basins would not contribute to increased impervious areas associated with the implementation of Alternative 1. The minimal increase in impervious area associated with Alternative 1 would result in a localized reduction in infiltration capacity within the Proposed Action site; however, this increase is considered negligible compared to the total developed areas of NBVC Point Mugu. Approximately 2,000 acres of the base are developed, and the 2018 EA for the new Air Station indicated that an additional 10 acres would be added as a result of the new Air Station. The additional 0.13 acre of developed impervious area that would occur as a result of Alternative 1 represents less than one one-hundredth of a percent increase within the entire installation of NBVC Point Mugu. Based on the incremental change associated with the Proposed Action to the total base-wide impervious area, no significant net reduction of infiltration and recharge capacity is anticipated.

The Proposed Action includes elements that would be placed underground, including the lift station and sewer storage, fire foam containment and oil-water separator, rerouted water line, and rerouted telecommunications line (Options 1 or 2). The lift station wet well would be at a depth of approximately 14.5 feet. Underground storage for the lift station consists of two 60-inch diameter reinforced high density polyethylene (HDPE) pipes. The storage tanks would hold effluent while the lift station pumps effluent into the Base sewer systems. The underground fire foam containment and oil-water separator do not contain per- and polyfluoroalkyl (PFAS) substances and perfluorooctanoic (PFOA) commonly used in Aqueous Film-Forming Foam (AFFF). Although not specifically required, secondary containment would be included for the high expansion foam system, consisting of a dual pipe storage system arrangement capable of holding 12,000 gallons. The Semi-Perched Aquifer is located at depths of 2 to 20 feet below ground surface and underground components of Alternative 1 may encroach into the Semi-Perched Aquifer. As discussed in the 2018 EA affected environment, the water in the Semi-Perched Aquifer is generally of poor quality and is not a source for domestic or agricultural use (Navy 2002). The Oxnard Aquifer is located at depths of 125 to 175 feet below ground surface, and as such, underground components of the Proposed Action would not reach the Oxnard Aquifer. While the Proposed Action includes underground components located at depths that could encounter the Semi-Perched Aquifer, underground components would not discharge or release to groundwater and include secondary containment. A NPDES Dewatering Permit would be obtained and NBVC Dewatering procedures would be followed for any dewatering required during construction of underground components. Contaminants identified during dewatering, including, but not limited to PFAS and PFOA would be handled in compliance with federal, state, and local requirements for disposal. Based on these conditions and the conformance requirements described above for surface water quality, Alternative 1 would not result in significant impacts related to groundwater hydrology or quality.

Although fuel or other chemicals could be spilled during construction activities, implementation of the construction Best Management Practices (BMPs; e.g., hazardous materials and wastes management plan) and immediate cleanup of any spills would prevent any infiltration into groundwater resources. Alternative 1 does not change the amount of personnel associated with the new Air Station, and as such, would not increase long-term demand for potable water. Alternative 1 includes a new water line to meet fire flow requirements for the Proposed Action. This increased water flow would not be expected to exceed the existing capacity of the regional water supply. Therefore, no significant impacts on groundwater would be expected from implementation of Alternative 1.

Surface Water

During construction activities, runoff from site improvements could result in a slight increase in turbidity. Potential impacts from an increase in turbidity would be minimized with implementation of BMPs (e.g., wetting of soils, silt fencing, and detention basins) and adherence to erosion and stormwater management practices, as determined by the Navy and USCG, to contain soil and runoff. Construction activities associated with Alternative 1 are not anticipated to degrade the water quality or affect beneficial uses of surface water or groundwater resources.

The USCG would be required to obtain permit coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; NPDES Permit No. CAS000002) for the proposed construction activities prior to implementation of the Proposed Action. The Construction General Permit is issued by the California State Water Resources Control Board and is an NPDES general permit for discharges from construction activities. The USCG would select, install, and maintain effective erosion- and sediment-control measures as identified and as necessary to comply with the Construction General Permit. In addition, under the Construction General Permit, the USCG would develop a SWPPP for the proposed construction activities prior to implementation of Alternative 1. The SWPPP would describe and ensure implementation of practices that would reduce pollutants in stormwater discharges associated with construction activities in the project area and ensure compliance with the terms of the Construction General Permit. The plan would prevent sedimentation and the introduction of pollutants to Calleguas Creek, Mugu Lagoon, and the Pacific Ocean and would prevent violations of applicable regulations and standards. Additionally, the USCG would be required to obtain a Water Quality Permit (per Section 401 of the CWA) and a wetland permit (per Section 404 of the CWA) prior to constructing the new Air Station (including the eight additional elements proposed under Alternative 1).

Upon completion of construction activities, there would be a minor increase in impervious surface area at NBVC Point Mugu. As discussed above under groundwater, the eight additional elements to the new Air Station would result in an increase of approximately 0.13 acre of impervious areas within NBVC Point Mugu. As identified in the 2018 EA, development of the Air Station would result in an approximately 10-acre increase in impervious areas. With the additional elements included for Alternative 1, the development at the Air Station would result in a total increase of 10.13 acres of impervious areas. Additionally, the Proposed Action would include the construction of four stormwater bioretention basins to maintain proper stormwater control. These bioretention basins would feed into the existing Base stormwater network of wetlands and drainage areas. The USCG is subject to the new stormwater design requirements of Section 438 of the Energy Independence and Security Act (see Section 3.2.1) that require predevelopment site hydrology to be maintained or restored to the maximum extent technically feasible with respect to temperature, rate, volume, and duration of flow. Additionally, the USCG is subject to the Construction General Permit post-construction requirements. Upon completion of the

Proposed Action, hydrologic conditions of the areas not developed with impermeable surfaces would be restored to mimic predevelopment site hydrology. Furthermore, revegetation would occur in the project areas not developed with impermeable surfaces. Stormwater runoff, as a result of increased impervious surface area, would be managed in accordance with the installation's SWPPP for industrial activities, as required by the NPDES General Permit Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (Industrial General Permit) (NPDES Permit No. CAS000001).

Construction equipment consisting of vehicles and machinery would be stored in the Air Station site project area and within the additional 18 acres of temporary impacts associated with off-site improvements for utility work area and construction laydown. Fuels, hydraulic fluids, oils, and lubricants would also be stored in the project area and temporary utility work and construction laydown areas during construction activities to support contractor vehicles and machinery. No other hazardous materials are anticipated to be stored in the project area or temporary utility and work construction laydown areas. Construction contractors would follow appropriate BMPs to protect against potential petroleum or hazardous material spills. Proper housekeeping, maintenance of equipment, and containment of fuels and other potentially hazardous materials would be conducted to minimize the potential for a release of fluids into groundwater or surface waters. If a spill or leak were to occur, Navy standard operating procedures, procedures identified in Chief of Naval Operations Instruction (OPNAVINST) 5090.1D, and BMPs identified in the installation's SWPPP for industrial activities and Spill Prevention, Control, and Countermeasures Plan would be implemented to contain the spill and minimize the potential for, and extent of, associated contamination. Additional measures to minimize the potential for adverse impacts might be required, as set forth during the Section 401 and 404 of the CWA permitting process. Therefore, no significant impacts on water quality or surface water bodies would be expected from implementation of Alternative 1.

Wetlands

The 2018 EA identified that the new hangar building and associated facilities would impact approximately 0.45 acre of jurisdictional wetlands. As part of the Proposed Action analyzed in this SEA, it is anticipated that construction of the eight additional elements for the new Air Station under Alternative 1 would impact an additional approximately 0.34 acre of jurisdictional wetlands for a total of 0.79 acre when combined with the impacts (0.45 acre) identified as part of the 2018 EA (Figure 3-2). A portion of the proposed water line crossing for the route to the existing water main and a portion of the sewer line near 3rd Street may require horizontal directional drilling to avoid impacts to wetlands. Jurisdictional wetland impacts associated with an open cut crossing for the sewer line were analyzed in the 2018 EA and are included in the total jurisdictional wetlands impact identified in the 2018 EA. Jurisdictional wetland impact totals for Alternative 1 include impacts associated with open cut construction of the proposed water line crossing. Open cut construction methods would result in jurisdictional wetlands impacts and are included in the jurisdictional impacts total of 0.79 acre. Construction of the sewer line and water line crossings may occur via horizontal directional drilling to avoid identified jurisdictional impacts. With the telecommunications line Option 1, approximately 3,500 feet of the telecommunications system would require horizontal directional drilling along portions of 3rd Avenue, F Street, and 9th Street. Horizontal directional drilling may occur with telecommunications line Option 2, near the taxiway to avoid potential impacts to wetlands. The Navy has coordinated with the USACE and California RWQCB regarding impacts to wetlands and identification of potential mitigation sites. The necessary permits (i.e., Section 404 and 401 of the CWA) would be obtained during

ongoing coordination with USACE and California RWQCB, as appropriate, prior to commencement of construction activities. All potential impacts to wetlands and waters of the United States would be mitigated by the USCG at a location to be determined during the permitting process. It is possible that wetlands mitigation would occur at an on-base location. Details regarding the specific impacts expected on wetlands, the wetland types that would be impacted, the required mitigation measure ratio for impacts on wetlands, and mitigation location would be determined during the Section 404 and 401 CWA permitting process (refer to Section 3.5, *Biological Resources*).

-  Naval Base Ventura County, Point Mugu
-  2018 Air Station Site
-  Permanent Impacts
-  Temporary Impacts
-  Temporary Impacts - Water Line
-  Temporary Impacts - Option 1
-  Temporary Impacts - Option 2
-  Wetlands
-  2018 Impacted Wetland (0.45 ac)
- 2021 Impacted Wetlands**
-  Permanent Impacts (0.773 ac)
-  Temporary Impacts - Water Line (0.016 ac)
-  Temporary Impacts - Option 2 (0.117 ac)



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Source: Aerial Photo (Esri, 2018)



Alternative 1 Wetland Impacts

Figure 3-2

Floodplains

The site of the proposed elements for the new Air Station within NBVC Point Mugu is located within the 100-year flood zone of Calleguas Creek. Poor drainage and runoff characteristics of soils present at NBVC Point Mugu contribute flooding issues during rain events. The proposed stormwater bioretention basins proposed for Alternative 1 would serve to maintain proper stormwater control for the new Air Station site. The proposed bioretention basins would feed into the existing Base stormwater network of wetlands and drainage areas. Potential flood hazard impacts would be minimized or avoided with implementation of BMPs and the installation's Integrated Natural Resources Management Plan (INRMP). Alternative 1 would be consistent with the regulations outlined in EO 11988, *Floodplain Management*. Floodproofing and other flood-protection measures would be applied to the proposed facilities, as deemed appropriate. Therefore, no significant flood hazard impacts would occur.

Shorelines

The proposed elements for the new Air Station are located in the northern portion of NBVC Point Mugu, which is not adjacent to the ocean, Mugu Lagoon, or any other shoreline area. Accordingly, no significant impacts to shorelines would occur.

3.3 Geological Resources

This discussion of geological resources includes topography, geology, and soils of a given area. For projects involving in-water demolition or construction, this may also include bathymetry and marine sediments. Topography is typically described with respect to the elevation, slope, and surface features found within a given area. The geology of an area may include bedrock materials, mineral deposits, and fossil remains. The principal geological factors influencing the stability of structures are soil stability and seismic properties. Soil refers to unconsolidated earthen materials overlying bedrock or other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility determine the ability for the ground to support structures and facilities. Soils are typically described in terms of their type, slope, physical characteristics, and relative compatibility or limitations with regard to particular construction activities and types of land use.

Bathymetry is described in terms of the topography of the sea floor or river bottoms where the Proposed Action would occur. Marine sediments are the solid fragments of organic and inorganic matter created from weathering rock transported by water, wind, and ice (glaciers) and deposited at the bottom of bodies of water. Components of sediment range in size from boulders, cobble, and gravel to sand (particles 0.05 to 2.0 millimeters [mm] in diameter), silt (0.002 to 0.05 mm), and clay (less than or equal to 0.002 mm). Sediment deposited on the continental shelf is delivered mostly by rivers but also by local and regional currents and wind. Most sediment in nearshore areas and on the continental shelf is aluminum silicate derived from rocks on land that is deposited at rates of greater than ten centimeters per 1,000 years. Sediment may also be produced locally as nonliving particulate organic material ("detritus") that travels to the bottom. Some areas of the deep ocean contain an accumulation of the shells of marine microbes composed of silicon and calcium carbonate, termed biogenic ooze. Through the downward movement of organic and inorganic particles in the water column, substances that are otherwise scarce in the water column (e.g., metals) are concentrated in bottom sediment.

3.3.1 Regulatory Setting

Consideration of geologic resources extends to prime or unique farmlands. The Farmland Protection Policy Act was enacted in 1981 in order to minimize the loss of prime farmland and unique farmlands as a result of federal actions. The implementing procedures of the Farmland Protection Policy Act require federal agencies to evaluate the adverse effects of their activities on farmland, which includes prime and unique farmland and farmland of statewide and local importance, and to consider alternative actions that could avoid adverse effects.

3.3.2 Affected Environment

The 2018 EA provides a description of the affected environment for each of the categories under geological resources at NBVC Point Mugu, including topography, geology, soils, bathymetry, and marine sediments. The affected environment for geological resources is the same as identified in the 2018 EA and is not repeated here.

3.3.3 Environmental Consequences

Geological resources are analyzed in terms of drainage, erosion, prime farmland, land subsidence, beach stability and erosion, and seismic activity. The analysis of topography and soils focuses on the area of soils that would be disturbed, the potential for erosion of soils from construction areas, and the potential for eroded soils to become pollutants in downstream surface water during storm events. The analysis also examines potential impacts related to seismic events. BMPs are identified to minimize soil impacts and prevent or control pollutant releases into stormwater. The potentially affected environment for geological resources is limited to lands that would be disturbed by any proposed facility development or demolition.

3.3.3.1 No Action Alternative

Under the No Action Alternative, the Proposed Action would not occur and the new Air Station would be constructed as identified in the 2018 EA. As discussed in the 2018 EA, construction of the new Air Station would not result in significant impacts related to soils and erosion, topography, exposure of people or structures to seismic risk, and coastal sediments at the shoreline with implementation of geotechnical BMPs and compliance with the requirements of NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Construction Permit #CAS000002), Water Quality Order 2009-009-DWQ.

3.3.3.2 Alternative 1 Potential Impacts

The study area encompasses the proposed construction and ground disturbance areas related to Alternative 1.

Soils and Erosion

Construction of the eight additional elements to the new Air Station would occur in previously disturbed and developed areas, as the area was formerly used as a golf course. Although the proposed elements would require earthwork and associated soil movement, including the undergrounding of several components and the excavation of the stormwater bioretention basins, it is not anticipated that Alternative 1 would require large-scale grading. The construction of the lift station and sewer storage,

fire foam containment and oil-water separator, security perimeter fence, new traffic delivery lane, rerouted water line, rerouted telecommunications line, relocated hangar and administration/berthing buildings, and the stormwater bioretention basins would not result in the potential for large-scale erosion, primarily because the site is relatively flat. Additionally, two drainages that are part of the Oxnard Drainage Ditch system traverse the Air Station site generally in a northeast-southwest direction: one generally runs parallel to runway 3/21, and the other bisects the Air Station site. Because project construction would disturb more than one acre of land, it would be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Construction Permit #CAS000002), Water Quality Order 2009-009-DWQ. The construction contractor would prepare a SWPPP before project implementation. The SWPPP would include an Erosion Control Plan that identifies the appropriate measures (e.g., silt fences, siltation basins, gravel bags) necessary to stabilize the soil in denuded or graded areas during construction of Alternative 1. As required by the RWQCB, standard erosion control measures as identified in the Erosion Control Plan and SWPPP (e.g., sandbags, silt fencing, earthen berms, and temporary sedimentation basins) would reduce potential impacts resulting from erosion during construction activities. No post-construction erosion effects would occur because site runoff would be collected and conveyed within the proposed stormwater bioretention facilities sized to accommodate Alternative 1 such that substantial erosion within the two drainages and other areas within the site drainage pattern would not occur. Therefore, implementation of Alternative 1 would not have an adverse effect with regard to soils and erosion.

Topography

Implementation of Alternative 1 would result in minor changes to the topography of the site. As discussed above, the construction of the lift station and sewer storage, fire foam containment and oil-water separator, security perimeter fence, new traffic delivery lane, rerouted water line, rerouted telecommunications line, relocated hangar and administration/berthing buildings, and the stormwater bioretention basins would result in earthwork, but would not result in major alterations to the topography of the area, as the site is relatively flat. Therefore, implementation of Alternative 1 would not result in significant impacts to the area's topography.

Seismicity

Alternative 1 would not affect the seismicity of the area. However, the ground acceleration associated with anticipated earthquakes on nearby faults would potentially affect the eight additional elements to the new Air Station proposed for Alternative 1. Proximity to active faults could result in damage to the proposed utility and infrastructure components in the event of an earthquake. Incorporation of design measures and standard engineering practices would reduce the potential adverse effects associated with damage to the proposed utility and infrastructure components. Alternative 1 does not propose construction of buildings or habitable structures; although it does propose a minor relocation of the hangar and administration/berthing buildings at the site. This minor relocation of the hangar and administration/berthing buildings would not alter the seismic risk posed to the structures. As discussed in the 2018 EA, incorporation of structural design measures into the new hangar and support structures and facilities would reduce the potential adverse effects associated with exposure of people or structures to seismic risk. Thus, Alternative 1 would not result in potential adverse effects associated with the exposure of people or structures to seismic risk.

Marine Sediments

The new Air Station site is not located adjacent to the ocean, Mugu Lagoon, or any other shoreline area. Therefore, Alternative 1 would not result in significant impacts on marine sediments at the shoreline.

3.4 Cultural Resources

This discussion of cultural resources includes prehistoric and historic archaeological sites; historic buildings, structures, and districts; and physical entities and human-made or natural features important to a culture, a subculture, or a community for traditional, religious, or other reasons. Cultural resources can be divided into three major categories:

- Archaeological resources (prehistoric and historic) are locations where human activity measurably altered the earth or left deposits of physical remains.
- Architectural resources include standing buildings, structures, landscapes, and other built-environment resources of historic or aesthetic significance.
- Traditional cultural properties (TCPs) may include archaeological resources, structures, neighborhoods, prominent topographic features, habitat, plants, animals, and minerals that Native Americans or other groups consider essential for the preservation of traditional culture.

3.4.1 Regulatory Setting

Cultural resources are governed by other federal laws and regulations, including the National Historic Preservation Act (NHPA), Archaeological and Historic Preservation Act, American Indian Religious Freedom Act, Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990. Federal agencies' responsibility for protecting historic properties is defined primarily by sections 106 and 110 of the NHPA. Section 106 requires federal agencies to consider the effects of their undertakings on historic properties. Section 110 of the NHPA requires federal agencies to establish—in conjunction with the Secretary of the Interior—historic preservation programs for the identification, evaluation, and protection of historic properties. Cultural resources also may be covered by state, local, and territorial laws.

3.4.2 Affected Environment

The area of potential effects (APE) for cultural resources is the geographic area or areas within which an undertaking (project, activity, program, or practice) may cause changes in the character or use of any historic properties present. The APE is influenced by the scale and nature of the undertaking and may be different for various kinds of effects caused by the undertaking. For this Proposed Action, the APE for historic resources encompasses the area of ground disturbance for the proposed additional elements, and the APE for archaeological resources encompasses the area of ground disturbance of the proposed additional elements plus a 100-foot buffer.

Cultural resources listed in the National Register of Historic Places (NRHP) or eligible for listing in the NRHP are "historic properties" as defined by the NHPA. The list was established under the NHPA and is administered by the National Park Service on behalf of the Secretary of the Interior. The NRHP includes properties on public and private land. Properties can be determined eligible for listing in the NRHP by the Secretary of the Interior or by a federal agency official with concurrence from the applicable State

Historic Preservation Office. A NRHP-eligible property has the same protections as a property listed in the NRHP. The historical properties include archaeological and architectural resources.

The Integrated Cultural Resources Management Plan documents cultural resources and identifies processes for their management and protection at NBVC (NAVFAC SW 2018). The Navy has conducted inventories of cultural resources at NBVC Point Mugu to identify historical properties that are listed or potentially eligible for listing in the NRHP, and most of the non-developed and non-wetland acreage has been surveyed for prehistoric sites. The most recent investigations have resulted in the identification of 10 structures, 2 prehistoric archaeological sites (CA-VEN-187/256, and -1861), and 1 historic-era archaeological site determined eligible for the NRHP (Mikesell 1998; Schaefer and McCawley 1999; Statistical Research 2004; NAVFAC SW 2018). There are no formal TCPs within the APEs of the Proposed Action.

A Programmatic Agreement between the Commanding Officer NBVC and the California State Historic Preservation Officer was executed in November 2015 and outlines the stipulations for management of historic properties within the installation in accordance with Section 106 of the NHPA (Navy 2015a).

The 2018 EA provides a description of the affected environment for each of the categories under cultural resources at NBVC Point Mugu, including archaeological resources, architectural resources, and TCPs. The discussion of the affected environment for cultural resources is the same as identified in the 2018 EA and is not repeated here.

3.4.3 Environmental Consequences

Analysis of potential impacts to cultural resources considers both direct and indirect impacts. Direct impacts may be the result of physically altering, damaging, or destroying all or part of a resource, altering characteristics of the surrounding environment that contribute to the importance of the resource, introducing visual, atmospheric, or audible elements that are out of character for the period the resource represents (thereby altering the setting), or neglecting the resource to the extent that it deteriorates or is destroyed.

3.4.3.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, there are no known archaeological resources, architectural resources, or TCPs located within the Air Station's APEs. The construction and operation of a new Air Station would not result in significant impacts to archaeological resources, architectural resources, or TCPs. Therefore, no significant impacts to cultural resources would occur with implementation of the No Action Alternative.

3.4.3.2 Alternative 1 Potential Impacts

There are no known archaeological or historical resources located within the APE for the Air Station site and the adjacent areas included as part of Alternative 1. The site of Alternative 1 is located on the former Point Mugu golf course, which was constructed in the 1960s. Historically, the area of the golf course was used for agricultural purposes. In 1935, the NBVC Point Mugu area was surveyed, prior to the golf course being constructed, and no archaeological resources or sites were identified (Girod 2013).

In March 2013, subsurface testing for the presence of cultural resources was conducted within the area of Alternative 1 site in conjunction with the home basing of the MC-4C Triton Unmanned Aircraft System project. Results indicated the site is underlain by approximately 0.5 to 1.5 feet of fill material. Subsurface excavations were conducted at the Proposed Action site as part of the 2013 cultural resources survey, with depths ranging from 2 feet to 12 feet below ground surface (Girod 2013). No prehistoric or historic cultural resources were observed within the site at the time of the field testing and site conditions have not changed. The Proposed Action would result in the placement of several underground components, at depths up to 14.5 feet. Although these depths exceed the depths of fill and subsurface exploration conducted at the site, no resources have been encountered to date. Alternative 1 would be implemented in accordance with stipulations outlined in the 2015 Programmatic Agreement. In accordance with these stipulations, any subsurface work that occurs below three feet or outside of fill material would be monitored by an archaeologist. In the event that intact subsurface cultural deposits are discovered during construction activities, work would cease until an archaeologist could determine the significance of the encountered resource.

No architectural resources or TCPs are known to exist within the APEs for the proposed additional elements to the new Air Station. In addition, no facilities within the Proposed Action APEs are listed or eligible for listing on the NRHP.

In the event that intact subsurface cultural resources are discovered during construction, work would cease, the cultural resources would be evaluated for NRHP eligibility, and consultation would continue per 36 CFR § 800.13 and Stipulation 10.C of the 2015 Programmatic Agreement. The NBVC Point Mugu Cultural Resources Manager would follow the procedures outlined in the installation's Integrated Cultural Resources Management Plan and the 2015 Programmatic Agreement.

Therefore, implementation of Alternative 1 is not expected to result in significant impacts to cultural resources. The Navy determined that the 2018 Proposed Action (as analyzed in the 2018 EA) would result in a Finding of *No Historic Properties Affected* and the State Historic Preservation Officer concurred with this Finding of Effect (Appendix C). As part of this SEA, per the 2015 Programmatic Agreement, the Navy has determined the SEA would result in a finding of *No Historic Properties Affected*.

3.5 Biological Resources

Biological resources include living, native, or naturalized plant and animal species and the habitats within which they occur. Plant associations are referred to generally as vegetation, and animal species are referred to generally as wildlife. Habitat can be defined as the resources and conditions present in an area that support a plant or animal.

Within this SEA, biological resources are divided into four major categories: (1) terrestrial vegetation, (2) terrestrial wildlife, (3) marine vegetation, and (4) marine wildlife. Threatened, endangered, and other special status species are discussed in their respective categories.

3.5.1 Regulatory Setting

Special-status species, for the purposes of this assessment, are those species listed as threatened or endangered under the Endangered Species Act (ESA) and species afforded federal protection under the Marine Mammal Protection Act (MMPA) or the Migratory Bird Treaty Act (MBTA).

The purpose of the ESA is to conserve the ecosystems upon which threatened and endangered species depend and to conserve and recover listed species. Section 7 of the ESA requires action proponents to consult with the U.S. Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration Fisheries to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat. Critical habitat cannot be designated on any areas owned, controlled, or designated for use by the Department of Defense (DOD) where an INRMP has been developed that, as determined by the Department of Interior or Department of Commerce Secretary, provides a benefit to the species subject to critical habitat designation.

All marine mammals are protected under the provisions of the MMPA. The MMPA prohibits any person or vessel from “taking” marine mammals in the United States or the high seas without authorization. The MMPA defines “take” to mean “to harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal.”

Birds, both migratory and most native-resident bird species, are protected under the MBTA, and their conservation by federal agencies is mandated by EO 13186 (Migratory Bird Conservation). Under the MBTA, it is unlawful by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, [or] possess migratory birds or their nests or eggs at any time, unless permitted by regulation. The 2003 National Defense Authorization Act gave the Secretary of the Interior authority to prescribe regulations to exempt the Armed Forces from the incidental taking of migratory birds during authorized military readiness activities. The final rule authorizing the DOD to take migratory birds in such cases includes a requirement that the Armed Forces must confer with the USFWS to develop and implement appropriate conservation measures to minimize or mitigate adverse effects of the proposed action if the action will have a significant negative effect on the sustainability of a population of a migratory bird species.

Bald and golden eagles are protected by the Bald and Golden Eagle Protection Act. This act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

The Magnuson-Stevens Fishery Conservation and Management Act provides for the conservation and management of the fisheries. Under the Act, essential fish habitat (EFH) consists of the waters and substrate needed by fish to spawn, breed, feed, or grow to maturity.

The Biological Opinion (BO) and INRMP for NBVC Point Mugu provide guidance for the avoidance and impacts to biological resources on base. The BO provides measures to minimize impacts to sensitive species from ongoing activities at NBVC Point Mugu (Department of the Interior 2016). The INRMP serves as a long-term planning document to guide the management of natural resources while supporting the installation mission (NAVFAC SW 2013).

See Table 5-1 for the discussion regarding the Coastal Zone Management Act.

3.5.2 Affected Environment

The 2018 EA provides a description of the affected environment for each of the categories under biological resources at NBVC Point Mugu, including terrestrial/wetland/seagrass vegetation, terrestrial

wildlife, marine species, and threatened and endangered species. The discussion of the affected environment for biological resources is the same as identified in the 2018 EA and is not repeated here.

3.5.3 Environmental Consequences

This analysis focuses on wildlife or vegetation types that are important to the function of the ecosystem or are protected under federal or state law or statute.

3.5.3.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, the construction and operation of a new Air Station would impact 0.45 acre of sensitive wetland vegetation that would require compensatory mitigation. No significant impacts to terrestrial wildlife, marine species, migratory birds, and threatened and endangered species would occur with implementation of avoidance and minimization measures identified in the 2018 EA.

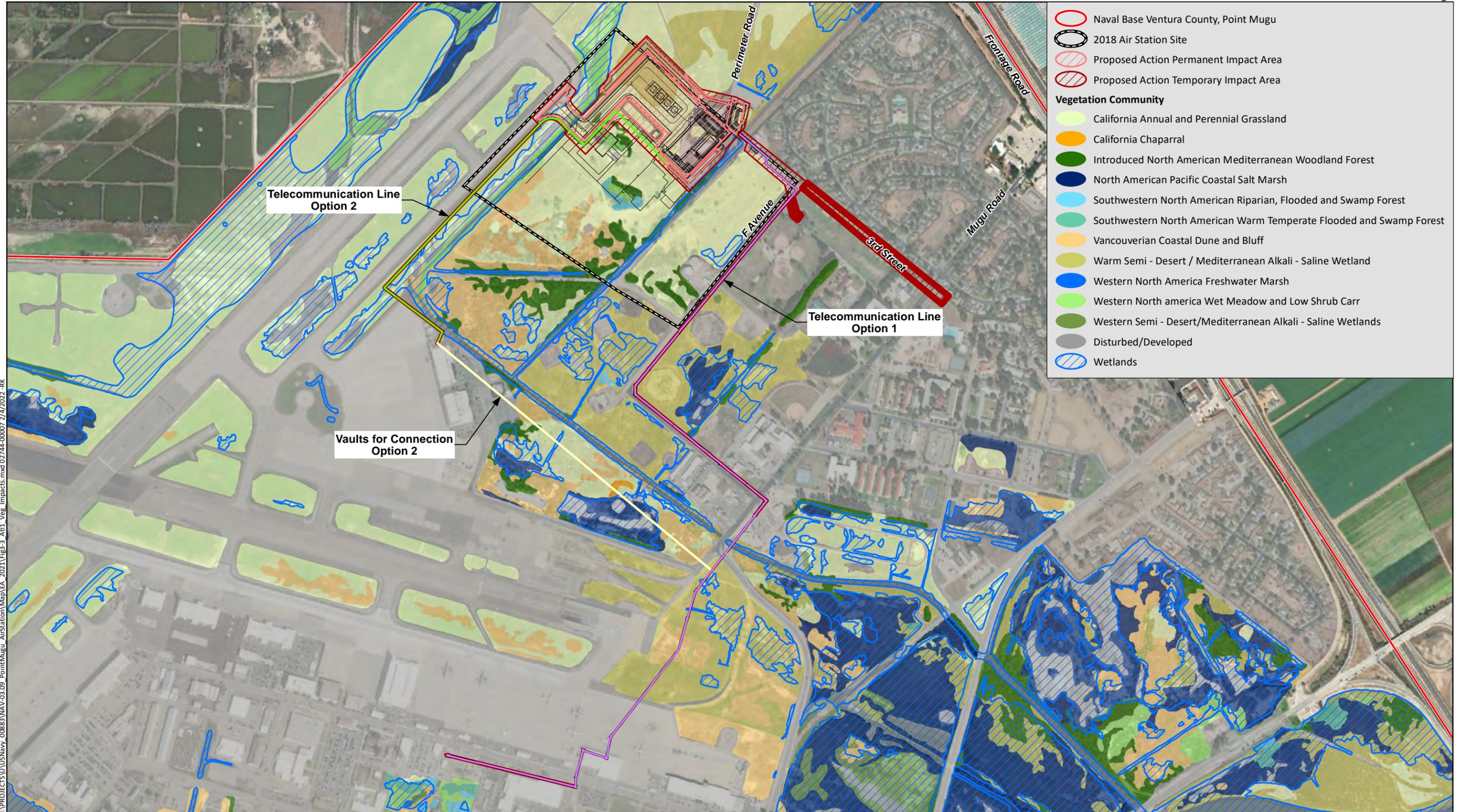
3.5.3.2 Alternative 1 Potential Impacts

The study area for the analysis of effects to biological resources associated with Alternative 1 encompasses the additional 5 acres of permanent impacts the Proposed Action would add to the Air Station site, and the additional approximately 18 acres of temporary disturbance associated with off-site improvements for utility work area and construction laydown. The project is located in a disturbed portion of NBVC Point Mugu that was previously a golf course. Impacts to vegetation (including wetland vegetation), terrestrial wildlife, marine species, migratory birds, and threatened and endangered species are discussed below. Impacts to jurisdictional wetlands and waters of the United States are discussed in Section 3.2.3.

Vegetation

The Proposed Action would expand the new Air Station site footprint by approximately 5 acres of land, resulting in permanent vegetation impacts to those areas. Additionally, the Proposed Action includes temporary vegetation impacts to approximately 18 acres of land. Vegetation that would be removed for construction of the eight additional elements includes: California annual and perennial grassland; introduced North American Mediterranean woodland forest; warm semi-desert/Mediterranean alkali-saline wetland; and western North America wet meadow and low shrub carr (Figure 3-3).

These terrestrial communities are generally not considered sensitive vegetation types. Grasslands on Base limited to the airfield and abandoned golf course are non-native and dominated by invasive grasses (Navy 2013). Some of the other vegetation types are associated with remnant landscaping and features (former fabricated ponds) from the former golf course. Upon completion of construction activities, revegetation would occur in the areas not developed with impermeable surfaces. Except where the vegetation communities coincide with mapped jurisdictional wetlands, impacts to these vegetation communities would not be significant.



- Naval Base Ventura County, Point Mugu
 - 2018 Air Station Site
 - Proposed Action Permanent Impact Area
 - Proposed Action Temporary Impact Area
- Vegetation Community**
- California Annual and Perennial Grassland
 - California Chaparral
 - Introduced North American Mediterranean Woodland Forest
 - North American Pacific Coastal Salt Marsh
 - Southwestern North American Riparian, Flooded and Swamp Forest
 - Southwestern North American Warm Temperate Flooded and Swamp Forest
 - Vancouverian Coastal Dune and Bluff
 - Warm Semi - Desert / Mediterranean Alkali - Saline Wetland
 - Western North America Freshwater Marsh
 - Western North America Wet Meadow and Low Shrub Carr
 - Western Semi - Desert/Mediterranean Alkali - Saline Wetlands
 - Disturbed/Developed
 - Wetlands

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Source: Aerial Photo (Esri, 2018)



Alternative 1 Vegetation and Wetland Impacts

Figure 3-3

The eight new elements associated with Alternative 1 would impact approximately 0.34 acre of additional wetlands for a total of 0.79 acre when combined with the impacts (0.45 acre) identified as part of the 2018 EA (refer to Figure 3-2). Impacts to these wetlands would be mitigated by the USCG at a location determined in consultation with the USACE. Details regarding the specific impacts expected on wetlands, the wetland types that would be impacted, and the required mitigation measure ratio for impacts on wetlands would be determined during the Section 404 and 401 CWA permitting process. Therefore, impacts to wetlands vegetation would be mitigated to less than significant.

Terrestrial Wildlife

Many of the wildlife areas at NBVC Point Mugu are associated with Mugu Lagoon. However, the Proposed Action site contains habitat that could potentially support resident and migratory birds (NAVFAC SW 2013). The Proposed Action site's grassland areas provide habitat for common mammals, bats, bobcats, and badgers. Sensitive species such as the western pond turtle have been observed within the Proposed Action area, and may potentially use the site for foraging and nesting. The removal of habitat for construction of the Proposed Action could potentially impact terrestrial wildlife. Impacts to nesting birds and sensitive wildlife species would be reduced to less than significant by clearing vegetation outside of the general avian nesting season (March through September) or conducting pre-construction nesting surveys. However, pre-construction nesting surveys can only occur in areas where vegetation is low, thin, and very sparse.

Noise generated during construction could create elevated noise levels that could result in short-term indirect impacts on wildlife. However, construction noise would be less than the noise associated with existing aircraft operations at NBVC Point Mugu, and impacts would be less than significant. As indicated in Section 3.6, *Noise*, the Proposed Action consists of utility and infrastructure components and does not include components that would be substantial generators of noise. The 2018 EA determined that operational noise from USCG helicopters associated with the new Air Station would not cause a noise increase that exceeds 1 decibel (dB) community noise equivalent level (CNEL) and the increase would not be expected to produce a noticeable change in average noise levels within the areas currently exposed to noise from aircraft operations. As Alternative 1 consists of utility and infrastructure improvements, which do not include new sources of substantial noise, the Proposed Action would not significantly impact wildlife using nearby habitat. Therefore, no significant impacts to wildlife from operations would occur with implementation of conservation measures.

Marine Species

None of the proposed construction activities under Alternative 1 would directly impact coastal or aquatic habitats that could be inhabited by fish, benthic species, or marine mammals protected under the MMPA. Furthermore, implementation of environmental protection measures to control stormwater runoff from project areas would prevent the degradation of water quality in the marine waters near the Proposed Action site. Construction of Alternative 1 would not be expected to impact EFH. As part of the 2018 EA, an informal EFH consultation between the Navy and the NMFS was conducted. In the 2018 EA and associated EFH informal consultation (Appendix C), NMFS determined that an adverse effect on EFH would not be substantial because tidal flow would not be reduced, wetlands loss would be mitigated, and conservation measures would be implemented to minimize and offset impacts to EFH. NMFS's determination remains valid because no direct impact to coastal or aquatic habitats as a result of the proposed construction activities would occur and environmental protection measures to control runoff would be implemented as part of the SEA.

Operations of the eight additional elements analyzed in this SEA would not involve operations in coastal areas. As discussed in the 2018 EA, the new Air Station would involve flight operations over the coastal areas, which were previously analyzed in the 2018 EA. The Proposed Action does not include components that would affect coastal areas or marine mammals.

Therefore, the Navy has determined that Alternative 1 would not result in the reasonably foreseeable “take” of a marine mammal species by harassment or injury or mortality, as defined under the MMPA. An application for takings under the MMPA is not required.

Migratory Birds

Migratory birds have been observed foraging, resting, and nesting within the area of the Proposed Action. Destruction of active bird nests, eggs, or nestlings from vegetation clearing, grubbing, or other site preparation and construction activities would result in a violation of the MBTA. Potential impacts on migratory birds from clearing vegetation for Alternative 1 could be avoided by conducting clearing and construction activities outside of the migratory bird nesting season (i.e., March through September). If an active nest (i.e., nest containing intact eggs, live hatchlings, or evidence of the presence of an adult) is encountered, the nest would be left in place until evidence shows the nest has been abandoned. The use of these or other measures, as determined necessary by the NBVC Point Mugu Natural Resources Manager, would ensure that no violation of the MBTA or EO 13186 would occur from implementing Alternative 1. Therefore, no significant impacts on migratory birds or violation of the MBTA would be expected from construction activities.

Noise created during construction activities could result in short-term, indirect impacts on migratory birds. However, this noise would be less than the noise associated with existing aircraft operations at NBVC Point Mugu. Given the current level of air traffic at NBVC Point Mugu, migratory birds using nearby habitat would be expected to have become habituated to noise. As indicated in Section 3.6, *Noise*, operational noise from the eight additional elements would not cause a detectable change in average noise levels within the areas currently exposed to noise from aircraft operations.

As discussed in the 2018 EA, the new Air Station facility would include helicopter flight operations and as such, a Bird/Wildlife Aircraft Strike Hazard (BASH) threat to the aircraft associated with the Air Station operations was identified in the 2018 EA. NBVC Point Mugu has prepared a BASH Management Plan to reduce the potential for collisions between aircraft and birds or other animals. The BASH Management Plan prescribes an ongoing process that involves the distribution of information and active and passive measures to control how birds use the critical areas around the airfield. Methods outlined in the plan to reduce BASH risks include habitat management (i.e., controlling grass height, eliminating bare areas, and removing dead vegetation to maintain the runway and adjacent areas in a manner least attractive to birds), bird dispersal (e.g., horns, sirens, and bird calls used to disperse birds from the airfield), and bird avoidance. The eight additional Air Station elements proposed under Alternative 1 would not alter flight operations associated with the new Air Station. However, the BASH Management Plan identifies stormwater management areas as periodic hazards. Such areas typically attract waterfowl, shorebirds, and waders during the winter due to the presence of standing water following a storm event (Navy 2012a). Alternative 1 would result in the placement of four stormwater bioretention basins at the new Air Station site. The bioretention basins would collect and convey stormwater out of the system in 24 hours, which is not expected to result in a ponding or BASH concern. NBVC Point Mugu would continue to manage BASH in accordance with the installation’s BASH Management Plan, which includes wildlife exclusion measures for open water features; therefore, no significant impact on safety from BASH would be expected.

Threatened and Endangered Species

The Alternative 1 footprint does not contain suitable habitat or foraging areas for the following threatened and endangered species: salt marsh bird's-beak, Ridgway rail, western snowy plover, California least tern, and tidewater gobies. Although the least Bell's vireo prefers dense riparian areas not found in the Alternative 1 site (NAVFAC SW 2013), the species has been recorded in the project vicinity in 2017, and sporadically at various sites within NBVC Point Mugu since 2009.

Temporary indirect impacts on threatened and endangered terrestrial species could occur from noise and habitat disturbances associated with construction activities. However, threatened and endangered terrestrial species on NBVC Point Mugu are already habituated to high levels of noise associated with aircraft operations. Increases in noise levels from construction activities to the ambient noise environment would be negligible and temporary. Construction would occur on previously disturbed land and areas containing patches of upland and wetland vegetation, but as stated earlier, the Proposed Action site does not contain habitat to support threatened and endangered species. Therefore, habitat removal would not negatively impact habitat use by any threatened or endangered species.

Construction activities would result in short-term impacts from disturbance to terrestrial wildlife, but would not further threaten the existence of any protected species. Additionally, installation personnel would continue to manage habitats according to the installation's INRMP, which is designed to protect and benefit threatened and endangered species.

Alternative 1 would not alter air operations at the new Air Station. Threatened and endangered terrestrial species on NBVC Point Mugu are already exposed to the ongoing air operations on NBVC Point Mugu. The eight additional elements proposed for the new Air Station under Alternative 1 would not result in changes to flight operations, and thus would not result in an increase in disturbance to these species due to flight patterns. As indicated in Section 3.6, *Noise*, there would be no significant change in noise associated with Alternative 1 compared with the conditions identified in the 2018 EA and ambient noise levels would not significantly increase. As such, no impacts to threatened and endangered species associated with increases in ambient noise would occur under Alternative 1.

The Proposed Action would not result in changes to proposed USCG operations associated with the new Air Station, and as such, would not alter flight operations over coastal areas. Impacts to federally listed species from flight operations associated with the Air Station, as identified in the 2018 EA, would be minimized through conservation measures in accordance with the BO for NBVC Point Mugu. The BO for NBVC Point Mugu includes measures to minimize impacts to listed species, such as keeping aircraft at or above 500 feet above ground level over listed species habitat (except for take-off and landing), and coordinating with Navy personnel regarding federally listed species nests found on airfields (Department of the Interior 2016). Coordination with NBVC Point Mugu Environmental Division when doing flight profile CGG01 and CGT10 from March 15 through August 15 would also occur to ensure no take to listed species or migratory birds. Alternative 1 would not result in changes to the impacts to federally listed species from flight operations identified in the 2018 EA.

The Navy has determined that with conservation measures in place, Alternative 1 would have no effect on threatened and endangered species, and no formal consultation between the Navy and USFWS would be required.

3.6 Noise

This discussion of noise includes the types or sources of noise and the associated sensitive receptors in the human environment. Noise in relation to biological resources and wildlife species is discussed in the Biological Resources section.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air or water, and are sensed by the human ear. Sound is all around us. The perception and evaluation of sound involves three basic physical characteristics:

- Intensity – the acoustic energy, which is expressed in terms of sound pressure, in decibels (dB)
- Frequency – the number of cycles per second the air vibrates, in Hertz
- Duration – the length of time the sound can be detected

Noise is defined as unwanted or annoying sound that interferes with or disrupts normal human activities. Although continuous and extended exposure to high noise levels (e.g., through occupational exposure) can cause hearing loss, the principal human response to noise is. The response of different individuals to similar noise events is diverse and is influenced by the type of noise, perceived importance of the noise, its appropriateness in the setting, time of day, type of activity during which the noise occurs, and sensitivity of the individual. While aircraft are not the only sources of noise in an urban or suburban environment, they are readily identified by their noise output and are given special attention in this EA.

3.6.1 Basics of Sound and A-Weighted Sound Level

The loudest sounds that can be detected comfortably by the human ear have intensities that are a trillion times higher than those of sounds that can barely be detected. This vast range means that using a linear scale to represent sound intensity is not feasible. The dB is a logarithmic unit used to represent the intensity of a sound, also referred to as the sound level. All sounds have a spectral content, which means their magnitude or level changes with frequency, where frequency is measured in cycles per second or Hertz. To mimic the human ear's non-linear sensitivity and perception of different frequencies of sound, the spectral content is weighted. For example, environmental noise measurements are usually on an "A-weighted" scale that filters out very low and very high frequencies in order to replicate human sensitivity. It is common to add the "A" to the measurement unit in order to identify that the measurement has been made with this filtering process (dBA). In this document, the dB unit refers to A-weighted sound levels. Table 3-3 provides a comparison of how the human ear perceives changes in loudness on the logarithmic scale.

Table 3-3
Subjective Responses to Changes in A-weighted Decibels

Change	Change in Perceived Loudness
3 dBA	Barely perceptible
5 dBA	Quite noticeable
10 dBA	Dramatic – twice or half as loud
20 dBA	Striking – fourfold change

Figure 3-4 (Cowan 1994) provides a chart of A-weighted sound levels from typical noise sources. Some noise sources (e.g., air conditioner, vacuum cleaner) are continuous sounds that maintain a constant sound level for some period of time. Other sources (e.g., automobile, heavy truck) are the maximum sound produced during an event like a vehicle pass-by. Other sounds (e.g., urban daytime, urban nighttime) are averages taken over extended periods of time. A variety of noise metrics have been developed to describe noise over different time periods, as discussed below.

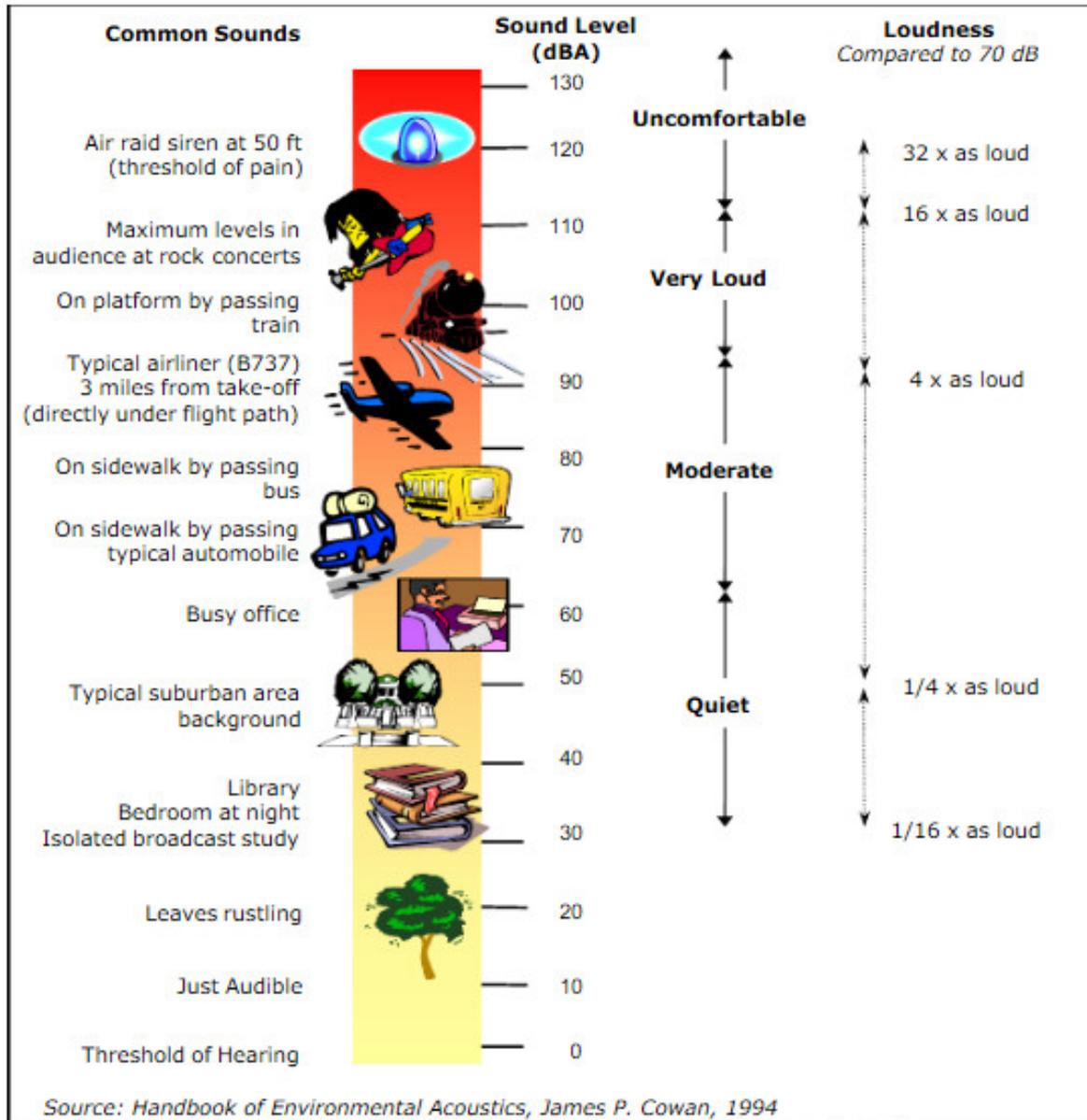


Figure 3-4 A-Weighted Sound Levels from Typical Sources

Noise levels from aircraft operations that exceed background noise levels at an airfield typically occur beneath main approach and departure corridors, in local air traffic patterns around the airfield, and in areas immediately adjacent to parking ramps and aircraft staging areas. As aircraft in flight gain altitude, their noise contributions drop to lower levels, often becoming indistinguishable from the background noise.

3.6.2 Noise Metrics

A metric is a system for measuring or quantifying a particular characteristic of a subject. Since noise is a complex physical phenomenon, different noise metrics help to quantify the noise environment. The noise metrics used in this SEA are described below. While the Day-Night Average Sound Level (DNL) and Community Noise Equivalent Level (CNEL) noise metrics are the most commonly used tools for analyzing noise generated at an airfield, the DOD has been developing additional metrics (and analysis techniques). These supplemental metrics and analysis tools provide more detailed noise exposure information for the decision process and improve the discussion regarding noise exposure. The DOD Noise Working Group product, *Improving Aviation Noise Planning, Analysis, and Public Communication with Supplemental Metrics* (DOD 2009b) was used to determine the appropriate metrics and analysis tools for this EA.

3.6.2.1 Day-Night Average Sound Level

The DNL metric is the energy-averaged sound level measured over a 24-hour period, with a 10 dB penalty assigned to noise events occurring between 10 p.m. and 7 a.m. (acoustic night). DNL values are average quantities, mathematically representing the continuous sound level that would be present if all of the variations in sound level that occur over a 24-hour period were averaged to have the same total sound energy. The DNL metric quantifies the total sound energy received and is therefore a cumulative measure, but it does not provide specific information on the number of noise events or the individual sound levels that occur during the 24-hour day. DNL is the standard noise metric used by the US Department of Housing and Urban Development, Federal Aviation Administration (FAA), USEPA, and DOD. Studies of community annoyance in response to numerous types of environmental noise show that DNL correlates well with impact assessments; there is a consistent relationship between DNL and the level of annoyance. Most people are exposed to sound levels of 50 to 55 DNL or higher on a daily basis.

Research has indicated that about 87 percent of the population is not highly annoyed by outdoor sound levels below 65 dB DNL (Federal Interagency Committee on Urban Noise 1980). Therefore, the 65 dB DNL noise contour is used to help determine compatibility of military aircraft operations with local land use, particularly for land use associated with airfields.

3.6.2.2 Community Noise Equivalent Level

CNEL is a noise metric adopted as a standard by the state of California. The CNEL metric is similar to the DNL metric and is also an energy-averaged sound level measurement. DNL and CNEL provide average noise levels taking into consideration and applying penalties for annoyance from intrusive events that occur during evening and nighttime hours. Both DNL and CNEL are measures of cumulative noise exposure over a 24-hour period, with adjustments to reflect the added intrusiveness of noise during certain times of the day. However, while DNL considers one adjustment period, CNEL reflects two adjustment periods. DNL includes a single adjustment period for night, in which each aircraft noise event at night (defined as 10 p.m. to 7 a.m.) is counted 10 times. CNEL adds a second adjustment period where each aircraft noise event in the evening (defined as 7 p.m. to 10 p.m.) is counted three times. The nighttime adjustment is equivalent to increasing the noise levels during that time interval by 10 dB. Similarly, the evening adjustment increases the noise levels by approximately 5 dB.

3.6.2.3 Equivalent Sound Level

A cumulative noise metric useful in describing noise is the Equivalent Sound Level (Leq). Leq is the continuous sound level that would be present if all of the variations in sound level occurring over a specified time period were smoothed out as to contain the same total sound energy. The same calculation for a daily average time period such as DNL or CNEL but without the penalties is a 24-hour equivalent sound level, abbreviated Leq(24). Other typical time periods for Leq are 1 hour and 8 hours.

3.6.2.4 Sound Exposure Level

The Sound Exposure Level (SEL) metric is a composite metric that represents both the intensity of a sound and its duration. Individual time-varying noise events (e.g., aircraft overflights) have two main characteristics: a sound level that changes throughout the event and a period of time during which the event is heard. SEL provides a measure of total sound energy of the entire acoustic event, but it does not directly represent the sound level heard at any given time. During an aircraft flyover, SEL captures the total sound energy from the beginning of the acoustic event to the point when the receiver no longer hears the sound. It then condenses that energy into a 1-second period of time and the metric represents the total sound exposure received. The SEL has proven to be a good metric to compare the relative exposure of transient sounds, such as aircraft overflights, and is the recommended metric for sleep disturbance analysis (DOD 2009b). In this EA, SEL is used in aircraft comparison and sleep disturbance analyses.

3.6.2.5 Maximum Sound Level

The highest A-weighted sound level measured during a single event where the sound level changes value with time (e.g., an aircraft overflight) is called the maximum A-weighted sound level or Lmax. During an aircraft overflight, the noise level starts at the ambient or background noise level, rises to the maximum level as the aircraft flies closest to the observer, and returns to the background level as the aircraft recedes into the distance. Lmax defines the maximum sound level occurring for a fraction of a second. For aircraft noise, the "fraction of a second" over which the maximum level is defined is generally 1/8 second (American National Standards Institute 1988). For sound from aircraft overflights, the SEL is usually greater than the Lmax because an individual overflight takes seconds and the Lmax occurs instantaneously. In this EA, Lmax is used in the analysis of aircraft comparison and speech interference.

3.6.2.6 Number of Events Above a Threshold Level

The "Number of Events Above a Threshold Level" metric provides the total number of noise events that exceed a selected noise level threshold during a specified period of time (DOD 2009b). Combined with the selected noise metric, Lmax or SEL, the Number of Events Above metric is symbolized as NAXXmetric (NA = number of events above, XX = dB level, metric = Lmax or SEL). For example, the Lmax and SEL Number of Events Above metrics are symbolized as NA75Lmax and NA75SEL, respectively, with 75 dB as the example dB level. In this EA, an Lmax threshold is selected to analyze speech interference and an SEL threshold is selected for analysis of sleep disturbance.

3.6.3 Noise Effects

An extensive amount of research has been conducted regarding noise effects including annoyance, speech interference, sleep disturbance, noise-induced hearing impairment, nonauditory health effects, performance effects, noise effects on children, effects on domestic animals and wildlife, property values, structures, terrain, and archaeological sites. These effects are summarized below.

3.6.3.1 Annoyance

As previously noted, the primary effect of aircraft noise on exposed communities is long-term annoyance, defined by USEPA as any negative subjective reaction on the part of an individual or group. The scientific community has adopted the use of long-term annoyance as a primary indicator of community response and there is a consistent relationship between DNL/CNEL and the level of community annoyance (Federal Interagency Committee on Noise 1992).

3.6.3.2 Potential Hearing Loss

People living in high noise environments for an extended period of time (40 years) can be at risk for hearing loss called Noise Induced Permanent Threshold Shift (NIPTS). The NIPTS defines a permanent change in hearing level, or threshold, caused by exposure to noise (USEPA 1982). According to USEPA (1974), changes in hearing level of less than 5 dB are generally not considered noticeable. There is no known evidence that an NIPTS of less than 5 dB is perceptible or has any practical significance for the individual affected. Furthermore, the variability in audiometric testing is generally assumed to be plus or minus 5 dB. The preponderance of available information on hearing loss risk is from the workplace with continuous exposure throughout the day for many years.

Based on a report by Ludlow and Sixsmith (1999), there were no major differences in audiometric test results between military personnel, who as children, had lived in or near installations where fast jet operations were based, and a similar group who had no such exposure as children. Hence, for the purposes of this EA, the limited data are considered applicable to the general population, including children, and are used to provide a conservative estimate of the risk of potential hearing loss.

DOD policy directive requires that hearing loss risk be estimated for the at-risk population, defined as the population exposed to DNL greater than or equal to 80 dB (DOD 2009a). To assess the potential for NIPTS, the Navy generally uses the 80 dB DNL noise contour (or in California 80 dB CNEL) as a threshold to identify the exposed population who may be at the most risk of possible hearing loss from aircraft noise (USEPA 1982; DOD 2009b). However, it should be recognized that characterizing noise exposure in terms of DNL and CNEL overestimates hearing loss risk but suffices when nighttime operations are 5 percent or less than the total operations. When nighttime operations are greater than 5 percent, $Leq(24)$ is recommended for calculating potential hearing loss since hearing loss is a physical phenomenon due to the sound level and independent of annoyance. Thus, the additional penalties applied by CNEL for evening and nighttime operations do not accurately portray the NIPTS. This SEA calculates potential hearing loss using $Leq(24)$ to get the accuracy necessary for the larger amount of nighttime and evening operations.

3.6.3.3 Speech Interference

Speech interference associated with aircraft noise is a primary cause of annoyance for communities. Speech interference can cause disruption of routine activities, such as enjoyment of radio or television programs, telephone use, or family conversation, giving rise to frustration or irritation. In extreme cases, speech interference may cause fatigue and vocal strain to individuals who try to communicate over the noise. In this EA, speech interference is measured by the number of daily indoor events (from 7 a.m. to 10 p.m.) that exceed 50 dB Lmax at selected locations. This metric also accounts for noise level reduction provided by buildings with windows open or closed.

3.6.3.4 Classroom Criteria and Noise Effects on Children

Research suggests that environments with sustained high background noise can have variable effects, including effects on learning and cognitive abilities and various noise-related physiological changes. Research on the impacts of aircraft noise, and noise in general, on the cognitive abilities of school-aged children has received more attention in recent years. Several studies suggest that aircraft noise can affect the academic performance of school children. Physiological effects in children exposed to aircraft noise and the potential for health effects have been the focus of limited investigation (DOD 2009b).

Analyses for school-aged children are similar to speech interference by using the indoor number of events exceeding 50 dB Lmax, but also has the added restriction of using an outdoor equivalent noise level of 60 dB Leq (9 hour). This represents a level that a person with normal hearing can clearly hear a speaker (teacher) speaking at a level of 50 dB indoors in a classroom setting.

3.6.3.5 Sleep Disturbance

The disturbance of sleep is a major concern for communities exposed to nighttime aircraft noise. In this EA, sleep disturbance uses the SEL noise metric and calculates the probability of awakening from single aircraft overflights. These are based upon the particular type of aircraft, flight profile, power setting, speed, and altitude relative to the receptor. The results are then presented as a percent probability of people awakening (USEPA 1974).

3.6.3.6 Workplace Noise

In 1972, the National Institute for Occupational Safety and Health (NIOSH) published a criteria document with a recommended exposure limit of 85 dBA as an 8-hour time-weighted average. This exposure limit was reevaluated in 1998 when NIOSH made recommendations that went beyond conserving hearing by focusing on the prevention of occupational hearing loss. Following the reevaluation using a new risk assessment technique, NIOSH published another criteria document in 1998, which reaffirmed the 85 dB recommended exposure limit (National Institute for Occupational Health and Safety 1998).

3.6.4 Nonauditory Health Effects

Studies have been conducted to examine the nonauditory health effects of aircraft noise exposure, focusing primarily on stress response, blood pressure, birth weight, mortality rates, and cardiovascular health. Exposure to noise levels higher than those normally produced by aircraft in the community can elevate blood pressure and also stress hormone levels. However, the response to such loud noise is typically short in duration: after the noise goes away, the physiological effects reverse and levels return

to normal. In the case of repeated exposure to aircraft noise, the connection is not as clear. The results of most cited studies are inconclusive, and it cannot be conclusively stated that a causal link exists between aircraft noise exposure and the various type of nonauditory health effects that were studied (DOD 2009b).

3.6.4.1 Noise Effects on Children

A review of the scientific literature indicated that there has not been a tremendous amount of research in the area of aircraft noise effects on children. The research reviewed does suggest that environments with sustained high background noise can have variable effects, including effects on learning and cognitive abilities and various noise-related physiological changes. Research on the impacts of aircraft noise, and noise in general, on the cognitive abilities of school-aged children has received more attention in recent years. Several studies suggest that aircraft noise can affect the academic performance of school children. Physiological effects in children exposed to aircraft noise and the potential for health effects have been the focus of limited investigation (DOD 2009b).

3.6.4.2 Noise Effects on the Elderly

Based upon a study by the Harvard School of Public Health, older people exposed to aircraft noise, especially at higher levels, may experience an increased risk of hospitalization for cardiovascular disease (BMJ 2013). This study concluded a statistically significant association between exposure to aircraft noise and risk of hospitalization for cardiovascular diseases among older people living near airports.

3.6.5 Noise Modeling

Computer modeling provides a tool to assess potential noise impacts. DNL/CNEL noise contours are generated by a computer model that draws from a library of actual aircraft noise measurements. Noise contours produced by the model allow a comparison of existing conditions and proposed changes or alternative actions, even when the aircraft studied are not currently operating from the installation. For these reasons, on-site noise monitoring is seldom used at military air installations, especially when the aircraft mix and operational tempo are not uniform.

The noise environment for this SEA was modeled using NOISEMAP. NOISEMAP analyzes all the operational data (types of aircraft, number of operations, flight tracks, altitude, speed of aircraft, engine power settings, and engine maintenance run-ups), environmental data (average humidity and temperature), and surface hardness and terrain. The result of the modeling is noise contours; lines connecting points of equal value (e.g., 65 dB CNEL and 70 dB CNEL). Noise zones cover an area between two noise contours and are usually shown in 5-dB increments (e.g., 65–69 dB CNEL, 70–74 dB CNEL, and 75–79 dB CNEL).

3.6.6 Regulatory Setting

Under the Noise Control Act of 1972, the Occupational Safety and Health Administration (OSHA) established workplace standards for noise. The minimum requirement states that constant noise exposure must not exceed 90 dBA over an 8-hour period. The highest allowable sound level to which workers can be constantly exposed is 115 dBA and exposure to this level must not exceed 15 minutes within an 8-hour period. The standards limit instantaneous exposure, such as impact noise, to 140 dBA.

If noise levels exceed these standards, employers are required to provide hearing protection equipment that will reduce sound levels to acceptable limits.

The joint instruction, OPNAVINST 11010.36C and Marine Corps Order 11010.16, *Air Installations Compatible Use Zones (AICUZ) Program*, provides guidance administering the AICUZ program which recommends land uses that are compatible with aircraft noise levels. Per OPNAVINST 11010.36C, NOISEMAP is to be used for developing noise contours and is the best noise modeling science available today for fixed-wing aircraft until the new Advanced Acoustic Model is approved for use.

3.6.7 Affected Environment

The 2018 EA provides a description of the affected environment for noise at NBVC Point Mugu, including a discussion of aircraft noise and the noise environment at NBVC Point Mugu. The discussion of the affected environment for noise is the same as identified in the 2018 EA and is not repeated here.

3.6.8 Environmental Consequences

Analysis of potential noise impacts includes estimating likely noise levels from the Proposed Action and determining potential effects to sensitive receptor sites.

3.6.8.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, construction of the No Action Alternative would result in temporary generation of noise associated with construction equipment, and operations of the Air Station would result in minimal noise increases on base and at surrounding areas (less than 1 dB CNEL). These effects would not be significant and there are no significant impacts associated with construction or operations noise under the No Action Alternative.

3.6.8.2 Alternative 1 Potential Impacts

Construction Activities

No significant impacts on off-installation populations would be expected from construction activities associated with Alternative 1. Construction activities can cause an increase in sound that is well above the ambient noise levels occurring in the vicinity of the construction activities. A variety of sounds are emitted from loaders, trucks, saws, and other work equipment. Table 3-4 lists noise levels associated with common types of construction equipment that are typically used during construction activities. Construction equipment usually exceeds the ambient sound levels by 20 to 25 dBA in an urban environment and up to 30 to 35 dBA in a quiet suburban area.

Table 3-4
Estimated Construction Equipment Noise Levels

Equipment	Estimated Noise Level (dB) at 50 Feet
Air compressor	81
Backhoe	80
Compactor	82
Concrete Saw	90
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Horizontal Directional Drill*	59
Jack Hammer	88
Loader	85
Pump	76
Pile-driver (Impact)	101
Pile-driver (Sonic)	96
Rock Drill	98
Scraper	89
Truck (heavy)	88
Welding Torch	74

Sources: Federal Highway Administration 2006; Vermeer 2021

*Horizontal Direction Drill estimated equipment noise level source is estimated based on manufacturer's specifications, cited noise level at operator's ear, and estimated at a distance of 50 feet.

To predict how construction activities would impact adjacent noise sensitive receptors, noise from expected types of construction equipment was estimated to determine the total impact of noise at a given distance, assuming an attenuation factor of 6 dBA per doubling of distance with direct line of site between the noise source and receiver (based on the Federal Highway Administration Roadway Construction Noise Model). Under Alternative 1, construction of the Air Station facilities would occur between 250 feet and 1,000 feet from nearby residences. The proposed USCG hangar would be located approximately 550 feet from the nearest military residences along Bullpup Circle. At this distance, construction noise levels associated with construction of the hangar building (which would likely require piledriving) are expected to be as high as approximately 80 dBA at the residences. Construction of the lift station would occur at approximately 250 feet from these nearby sensitive uses. At this distance, construction noise would be from the simultaneous use of a dozer, grader, and loader would measure up to approximately 72 dBA. Construction of proposed underground utilities within 3rd Street for the telecommunications line (Option 1) would occur as close as 100 feet from these homes. Trenching would be the loudest activity, which could require intermittent use of a jackhammer, with associated noise levels of 82 dBA. These noise levels do not account for intervening structures, such as fences/walls along the back yards of residential lots. Construction equipment is mobile and it is unlikely that they would all operate at the same time or location. Construction noise would be localized, short-term, and intermittent. In addition, this noise would last only for the duration of construction activities and would be isolated to typical working hours. Noise levels inside the nearby residences would be attenuated by

the structure of the houses themselves, by approximately 15 dBA depending on the housing construction (USEPA 1974).

Occupational noise exposure prevention procedures (i.e., hearing protection and monitoring) for contractors performing construction activities would continue to be required at NBVC Point Mugu in compliance with all applicable Navy occupational noise exposure regulations. As such, noise generated by construction activities under Alternative 1 would not be significant.

Operations Activities

As discussed in the 2018 EA, operational noise associated with the Air Station would result in an increase in overall noise levels on and around the base. The 2018 EA identified differences between the baseline and proposed noise contours only occurring within the 60 dB CNEL contour, with increases of less than 1 dB CNEL (Wyle 2017). The largest increase in the 60 dB CNEL contour (up to 700 feet) would occur northeast of the base boundary over farmland with very low population densities due to USCG helicopter departures and arrivals to and from the northeast. The 60 dB CNEL contour to the west of NBVC Point Mugu would increase by up to 100 feet due to USCG helicopter departures and arrivals to and from the coast to the west. The largest on-base increase would occur east of runway 3/21 due to a combination of USCG helicopter departures, arrivals, and touch-and-go operations. On-base housing near the Proposed Action site would experience a noise increase of up to 0.5 dB CNEL. As no changes would occur to proposed flight operations under Alternative 1, no changes to noise levels associated with flight operations identified in the 2018 EA would occur.

Operational noise for the proposed lift station is not anticipated to be audible at nearby residences as the lift station would be located entirely underground. Additionally, the lift station would not house a permanent generator or other above-ground equipment. Other components of Alternative 1, including the fire foam containment and oil-water separator, security perimeter fence, rerouted water line, rerouted telecommunications line, and stormwater bioretention basins would not generate operational noise. While minor noise associated with truck deliveries at the new traffic delivery lane would occur, in the context of the existing noise environment at the airfield, noise impacts from occasional truck deliveries would be negligible. Noise associated with activities at the hangar and administration/berthing buildings were analyzed as part of the noise environment in the 2018 EA and no significant noise impacts were identified in the 2018 EA.

Based on the above-described conditions, implementation of Alternative 1 would not result in significant impacts to the noise environment or the nearest sensitive receptors (the residences on Bullpup Circle).

3.7 Infrastructure

This section discusses infrastructure such as utilities (including drinking water production, storage, and distribution; wastewater collection treatment and disposal; stormwater management, solid waste management, energy production, transmission, and distribution; and communications), and facilities (including airfields, buildings, ranges, training and testing areas, wharves, piers, housing, etc.).

3.7.1 Regulatory Setting

EO 13693, Planning for Federal Sustainability in the Next Decade, requires federal departments and agencies to enact specific actions and operations outlined within the EO to reduce agency direct GHG emissions by at least 40 percent over the next decade. Improved environmental performance and

federal sustainability will be achieved by reducing energy use and cost. Pursuing clean sources of energy will improve energy and water security.

OPNAVINST 4100.5E outlines the Secretary of the Navy's vision for shore energy management. The focus of this instruction is establishing the energy goals and implementing strategy to achieve energy efficiency.

Antiterrorism Force Protection Standards have been adopted by the DOD through Instruction number 2000.16 of October 2006. The standards require all DOD Components to adopt and adhere to common criteria and minimum construction standards to mitigate antiterrorism vulnerabilities and terrorist threats. Although the USCG is not a DOD entity, USCG is subject to Antiterrorism Force Protection requirements because the USCG Air Station would be located on DOD property, pursuant to Unified Facilities Criteria 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings* (Section 1-8.6).

3.7.2 Affected Environment

The 2018 EA provides a description of the affected environment for each of the categories under infrastructure at NBVC Point Mugu, including facilities, utilities, potable water, wastewater, stormwater, solid waste management, energy, and natural gas. The discussion of the affected environment for infrastructure is the same as identified in the 2018 EA and is not repeated here.

3.7.3 Environmental Consequences

This section analyzes the magnitude of anticipated increases or decreases in public works infrastructure demands considering historic levels, existing management practices, and storage capacity, and evaluates potential impacts to public works infrastructure associated with implementation of the alternatives. Impacts are evaluated by whether they would result in the use of a substantial proportion of the remaining system capacity, reach or exceed the current capacity of the system, or require development of facilities and sources beyond those existing or currently planned.

3.7.3.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, the No Action Alternative would not result in significant impacts related to construction of new facilities and additional utilities (water supply, wastewater, stormwater, solid waste disposal/management, and energy supply).

3.7.3.2 Alternative 1 Potential Impacts

The study area for infrastructure for Alternative 1 encompasses land within the NBVC Point Mugu installation boundaries.

As discussed in the 2018 EA, over approximately the past two decades, NBVC Point Mugu has experienced a drawdown (i.e., decrease) in installation personnel and operations. Consequently, overall, there is excess capacity of infrastructure and utilities at the installation, because the existing infrastructure and utilities were originally designed to support a larger population (Navy 2013). Alternative 1 would not result in changes or increases in the amount of personnel at the new Air Station

site. The eight additional elements to the new Air Station site proposed as Alternative 1 are not expected to exceed the current capacity of the infrastructure and utilities, as discussed below.

Facilities

Alternative 1 would construct eight additional elements to the new Air Station. These elements consist of utility and infrastructure components, several of which would be underground. These additional elements would be consistent with the new Air Station site at an existing military installation that already contains these types of facilities and associated infrastructure. The new Air Station site, as analyzed in the 2018 EA, would occupy up to 10 acres of land adjacent to runway 3/21. The eight additional elements would expand the new Air Station site by 5 acres. Approximately 2,000 acres of the base are developed and the new Air Station analyzed in the 2018 EA would develop an additional 10 acres. The 5 acres of new developed facilities on NBVC Point Mugu that would occur under Alternative 1 represents less than 0.3-percent increase in facilities within the installation. Alternative 1 would also result in temporary disturbance of 18 acres for off-site improvements. These would consist of utility work areas, including the rerouted telecommunications lines (Options 1 or 2), and construction laydown adjacent to the development footprint. Following completion of construction, the 18 acres would be returned to its original condition. Consequently, implementation of Alternative 1 would not result in an increase in buildings, but would result in a marginal overall increase in new infrastructure facilities and associated utilities consumption at NBVC Point Mugu.

As discussed in the 2018 EA, the new Air Station would utilize existing runway facilities at NBVC Point Mugu, connecting to the adjacent runway 3/21. USCG aircraft departures and arrivals associated with the new Air Station analyzed in the 2018 EA would occur on this runway. The eight additional elements to the new Air Station under Alternative 1 would not alter or affect aircraft departures or arrivals. Flight operations would remain as analyzed in the 2018 EA. No additional or expanded runways would be required to support Alternative 1.

Utilities Systems

Alternative 1 consists of the placement of utility and infrastructure improvements associated with the new Air Station. The utility-related improvements include the lift station and sewer storage, rerouted water line, rerouted telecommunications line (Options 1 or 2), and stormwater bioretention basins. These improvements would connect with the utilities identified for the new Air Station site in the 2018 EA, and all new utilities would connect directly to existing infrastructure and systems within NBVC Point Mugu.

Potable Water Supply

Water service would be provided to the new Air Station via water line extensions ranging from 6 inches to 12 inches from an existing 12-inch diameter line that traverses the Air Station site, as analyzed in the 2018 EA. The Proposed Action includes the addition of a water line to meet fire flow requirements. The Point Hueneme Water Agency (PHWA) maintains adequate water supply to meet the needs of its users, including NBVC Point Mugu. In addition, the installation would plan for and assess infrastructure and utilities to ensure that the current system can adequately accommodate the specific water supply needs of each facility to be constructed. In general, there is excess capacity of infrastructure and all utilities at the installation, because the existing infrastructure and utilities were originally designed to support a larger population (Navy 2013). In addition, the demand for water (e.g., if used as a BMP to control dust) could incrementally increase temporarily during construction phases. Alternative 1 would add additional acreage to the construction footprint of the new Air Station site and would include soil excavation

during construction of the lift station and sewer storage, fire foam containment and oil-water separator, stormwater bioretention basins, and utility trenches. This increased soil movement would increase demand for water for dust control during construction activities. Based on anticipated water supply usage and projections identified in PHWA's Urban Water Management Plan (PHWA 2016), there is adequate water supply through the year 2040 to serve its customers and thus, no new water supply would be needed. Therefore, no significant impact on water supply would occur.

Wastewater

The Proposed Action includes the construction of a lift station and sewer storage system, located on an approximately 1,875 square foot site north of 3rd Street and east of Perimeter Drive. The sewer lift station would be underground with a maximum five foot fill on top. The underground storage would include two 60-inch diameter reinforced HDPE pipes approximately 40 feet long. The lift station wet well would be approximately 14.5 feet below ground surface. As discussed in the 2018 EA, the sewer service would be provided by a new 4-inch force main that would extend from an existing sewer utility access hole south of F Street to the proposed lift station. As part of this SEA, the gravity lines from the facilities to the lift station are to be considered as part of the Proposed Action. The majority of the gravity lines are 6-inch diameter and would utilize the same trench as analyzed in the 2018 EA. A portion of this sewer line would be 12-inch diameter in order to properly accommodate fire foam deluge events. The NBVC Point Mugu sanitary sewage collection system and the Oxnard Wastewater Treatment Plant have adequate capacity for current and future needs associated with implementation of Alternative 1, because the existing infrastructure and utilities were originally designed to support a larger population (Navy 2013). Any construction activities that would involve the disconnection of sewer services to nearby buildings and/or reconfiguration or removal of sewer distribution lines within the construction footprint would be planned so that services remain uninterrupted for adjacent tenants/buildings. Therefore, no significant impact associated with wastewater would occur.

Stormwater

Alternative 1 would include the construction of four stormwater bioretention basins. As discussed in Section 3.2, *Water Resources*, Alternative 1 would be designed to address any potential impacts due to additional on-site runoff generation from development, so long-term operational impacts related to stormwater drainage would not be substantial. The onsite stormwater drainage collection system is designed to convey runoff from a 25-year, 24-hour return frequency storm event that will maintain, to the extent technically feasible, the pre-development hydrology of the property (Waller, Todd & Sadler 2021).

The proposed construction activities could temporarily affect the quality of stormwater runoff, but based on implementation of appropriate BMPs as part of, and in conformance with, applicable NPDES requirements, potential construction-related water quality impacts would be less than significant.

Solid Waste Management

Construction of the eight additional elements under Alternative 1 would generate construction debris requiring landfill disposal; however, construction debris associated with the installation of underground utilities and infrastructure, stormwater bioretention basins, fencing, and a traffic delivery lane are expected to be minimal. Placement of underground components and the construction of stormwater bioretention basins would result in the removal of soil. Any excavated soil removed during construction of Alternative 1 would be disposed of in accordance with local, state, and federal regulations, which may include disposal at an off-site landfill. The Proposed Action does not alter the nature or level of activity

at the new Air Station, nor does it increase the personnel associated with the new Air Station. As such, operational solid waste generation is not expected to change as a result of Alternative 1. Minor amounts of coarse material from the lift station and sewer storage would be collected in containers and disposed of in a sanitary landfill; however, these materials would add a negligible amount of solid waste to the new Air Stations solid waste generation. As described under Affected Environment in the 2018 EA, sufficient capacity exists in nearby landfills to accommodate the increase in solid waste generation associated with the new Air Station site and the Proposed Action would not significantly alter the waste generation for the new Air Station. Materials would be recycled or reused, whenever possible. Off-base contractors completing construction projects would be required to comply with federal, state, local, and Navy regulations for the collection and disposal of municipal solid waste from the station, including the eight additional elements. All construction would comply with applicable federal regulations and DOD Directives. All cleared construction materials would be recycled in accordance with the DOD Strategic Sustainability Performance Plan (2016). Therefore, no significant impact associated with solid waste management would occur.

Energy Supply

The eight additional elements associated with Alternative 1 would have minor energy requirements, including energy to power the lift station and sewer storage and the gate on the security perimeter fence. The energy usage associated with these improvements is minimal. As analyzed in the 2018 EA, utility extensions would be required for service of the new Air Station site. The Proposed Action would not alter the plans for providing electrical service to the Air Station and would result in minimal additional electrical demand. As discussed in the 2018 EA, the existing electrical system at NBVC Point Mugu is considered adequate to support the proposed facilities, because the existing infrastructure and utilities were originally designed to support a larger population (Navy 2013).

Construction activity could result in some temporary interruption of utility services in the immediate project vicinity during construction periods. These impacts are typical of construction activities and would be temporary, occurring briefly during active construction periods. In addition, the demand for energy (primarily electricity) could increase slightly during construction phases. The energy supply provided by the Southern California Edison Company and Strategic Energy at the installation and in the region is adequate and would not be affected by this temporary increase in demand. The existing utility systems are considered adequate to support the proposed facilities. Therefore, no significant impacts on electrical supply would occur.

Natural Gas

As discussed in the 2018 EA, natural gas service would be provided to the new Air Station via a new 2-inch gas line that would extend to the proposed buildings from an existing line at the Mugu Road/ 3rd Street intersection. The new gas line would extend northwestward along the north side of 3rd Street and connect to the hangar and administration/berthing building. The Proposed Action does not include components that would alter the demand for natural gas at the new Air Station or the provision of new natural gas services. The existing natural gas distribution system at NBVC Point Mugu is considered adequate to support the proposed facilities, because the existing infrastructure and utilities were originally designed to support a larger population.

Based on the above factors, implementation of Alternative 1 would not result in significant impacts to infrastructure or utilities.

3.8 Public Health and Safety

This discussion of public health and safety includes consideration for any activities, occurrences, or operations that have the potential to affect the safety, well-being, or health of members of the public. A safe environment is one in which there is no, or optimally reduced, potential for death, serious bodily injury or illness, or property damage. The primary goal is to identify and prevent potential accidents or impacts on the general public. Public health and safety within this SEA discusses information pertaining to community emergency services, construction activities, operations, and environmental health and safety risks to children.

Community emergency services are organizations which ensure public safety and health by addressing different emergencies. The three main emergency service functions include police, fire and rescue service, and emergency medical service.

Public health and safety during construction, demolition, and renovation activities is generally associated with construction traffic, as well as the safety of personnel within or adjacent to the construction zones.

Operational safety may refer to the actual use of the facility or built-out proposed project, or training or testing activities and potential risks to inhabitants or users of adjacent or nearby land and water parcels. Safety measures are often implemented through designated safety zones, warning areas, or other types of designations.

The AICUZ Program delineates accident potential zones (APZs), which are areas around an airfield where an aircraft mishap is most likely to happen. APZs are not predictors of accidents nor do they reflect accident probability. The DOD defines an APZ as a planning tool for local planning agencies. The APZs follow departure, arrival, and flight pattern tracks from an airfield and are based upon historical accident data.

Environmental health and safety risks to children are defined as those that are attributable to products or substances a child is likely to come into contact with or ingest, such as air, food, water, soil, and products that children use or to which they are exposed.

3.8.1 Regulatory Setting

Aircraft safety is based on the physical risks associated with aircraft flight. Military aircraft fly in accordance with Federal Aviation Regulations Part 91, *General Operating, and Flight Rules*, which govern such things as operating near other aircraft, right-of-way rules, aircraft speed, and minimum safe altitudes. These rules include the use of tactical training and maintenance test flight areas, arrival and departure routes, and airspace restrictions as appropriate to help control air operations. In addition, naval aviators must also adhere to the flight rules, air traffic control, and safety procedures provided in Navy guidance.

In addition to Federal Aviation Regulations, aircraft safety at NBVC Point Mugu is also governed by the NBVC Air Operations Manual (NBVCINST 3710.1G), which provide general operating and safety procedures, protocols, and rules for aircraft -related activities at NBVC Point Mugu.

OPNAVINST 5100.23G, Navy Safety and Occupational and Health Program Manual, provides policy and outline responsibilities for the implementation of the total Navy Safety and Occupational Health

Program. The Navy program encompasses all safety disciplines such as aviation safety, weapons and explosives safety, off-duty safety, traffic safety, and occupational safety and health.

Construction safety and health regulations promulgated by OSHA are contained in 29 CFR 1926. Under the Occupational Safety and Health Act, employers are responsible for providing a safe and healthful workplace and must comply with all applicable OSHA standards.

EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, requires federal agencies to “make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children and shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.”

3.8.2 Affected Environment

The 2018 EA provides a description of the affected environment for public health and safety at NBVC Point Mugu, which discusses emergency mishap response plans and procedures, the NBVC Point Mugu AICUZ, the BASH Management Plan, law enforcement and police protection, the Ventura County Fire Department, and electromagnetic radiation. The discussion of the affected environment for public health and safety resources is the same as identified in the 2018 EA and is not repeated here.

3.8.3 Environmental Consequences

The safety and environmental health analysis contained in the respective sections addresses issues related to the health and well-being of military personnel and civilians living on or in the vicinity of NBVC Point Mugu. Specifically, this section provides information on hazards associated with the eight additional elements of the new USCG Air Station. Additionally, this section addresses the environmental health and safety risks to children associated with the Proposed Action.

3.8.3.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, the No Action Alternative would not substantially increase the risk of aircraft hazards or result in increased environmental health risks or safety risks to children. No significant public health and safety impacts would occur.

3.8.3.2 Alternative 1 Potential Impacts

The study area for the analysis of effects to public health and safety associated with Alternative 1 encompasses land within the NBVC Point Mugu installation boundaries.

Implementation of Alternative 1 would not adversely affect safety at NBVC Point Mugu. The Proposed Action consists of additional elements for the new Air Station site, including utility and infrastructure improvements. Alternative 1 would not affect the number of flight operations conducted at NBVC Point Mugu or result in changes to flight operations or controlled airspace. Therefore, no significant impacts on safety from aircraft mishaps or mishap response would occur.

The Proposed Action does not include components that would affect the boundaries of the APZs. There would be no change to the existing APZs or the associated aircraft hazards risks as a result of Alternative 1.

NBVC Point Mugu maintains a BASH Management Plan to reduce the potential for collisions between aircraft and birds or other animals. The BASH Management Plan prescribes an ongoing process that involves the distribution of information and active and passive measures to control how birds use the critical areas around the airfield. Methods outlined in the plan to reduce BASH risks include habitat management (i.e., controlling grass height, eliminating bare areas, and removing dead vegetation to maintain the runway and adjacent areas in a manner least attractive to birds), bird dispersal (e.g., horns, sirens, and bird calls used to disperse birds from the airfield), and bird avoidance. As discussed, the Proposed Action does not include components that would alter flight operations. However, the BASH Management Plan identifies stormwater management areas as periodic hazards. Such areas typically attract waterfowl, shorebirds, and waders during the winter due to the presence of standing water following a storm event (Navy 2012a). Alternative 1 would result in the placement of four stormwater bioretention basins at the new Air Station site. The bioretention basins would collect and convey stormwater out of the system in 24 hours; therefore, no ponding or BASH -issues would occur. NBVC Point Mugu would continue to manage BASH in accordance with the installation's BASH Management Plan, which includes wildlife exclusion measures for open water features; therefore, no significant impact on safety from BASH would be expected.

Small amounts of pyrotechnics (flares) would be required for the USCG to meet search and rescue and emergency response mission requirements. The primary location for storage of pyrotechnics would be in a pyrotechnics locker at the Air Station. Pyrotechnics would be stored in compliance with the Naval Sea Systems Command OP5 and Naval Ordnance Safety and Security Activity Instructions 8020.22 requirements. A smaller quantity of pyrotechnics (flares) would be stored in the vest storage room, which allows for crews to gather all necessary gear quickly before heading out in an emergency. Pyrotechnics would be present in minor amounts, would be stored and handled in accordance with applicable regulatory requirements, and no significant impact to safety would be expected.

Implementation of Alternative 1 would not result in increased environmental health risks or safety risks to children. The closest public school (Laguna Vista Elementary School) is located over 2 miles north of the Proposed Action site. Although children live in on-base housing and there are child development centers and youth programs on the installation less than one mile from the Air Station site, safety protocols are in effect at NBVC Point Mugu (described above) and compliance with regulatory requirements pertaining to aircraft safety and hazards (refer to Section 3.9) are adhered to for all airfield operations. The Proposed Action does not include changes to aircraft operations or the operational uses and activities occurring at the new Air Station. Based on the safety protocols discussed above, and the lack of operational changes at the Air Station site associated with the Proposed Action, the Navy has determined that there are no environmental health and safety risks associated with the Proposed Action that would disproportionately affect children.

During the construction period of Alternative 1, air operations on the installation, including runway 3/21 would not be affected. All runways and air operations facilities would remain fully operational. Construction activities associated with Alternative 1 would be required to comply with applicable OSHA regulations, as well as FAA regulations and reviews. If cranes or other similarly tall construction equipment are used, an Obstruction Evaluation from the FAA and a temporary airfield safety waiver would be required.

Therefore, implementation of the Alternative 1 would not result in significant impacts to public health and safety.

3.9 Hazardous Materials and Wastes

This section discusses hazardous materials, hazardous waste, toxic substances, and contaminated sites.

3.9.1 Regulatory Setting

Hazardous materials are defined by 49 CFR section 171.8 as “hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table, and materials that meet the defining criteria for hazard classes and divisions in 49 CFR part 173.” Transportation of hazardous materials is regulated by the U.S. Department of Transportation regulations.

Hazardous wastes are defined by the Resource Conservation and Recovery Act, as amended by the Hazardous and Solid Waste Amendments, as: “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.” Certain types of hazardous wastes are subject to special management provisions intended to ease the management burden and facilitate the recycling of such materials. These are called universal wastes and their associated regulatory requirements are specified in 40 CFR part 273. Four types of waste are currently covered under the universal waste regulations: hazardous waste batteries, hazardous waste pesticides that are either recalled or collected in waste pesticide collection programs, hazardous waste thermostats, and hazardous waste lamps, such as fluorescent light bulbs.

Special hazards are those substances that might pose a risk to human health and are addressed separately from other hazardous substances. Special hazards include asbestos-containing material, polychlorinated biphenyls, and lead-based paint. USEPA is given authority to regulate special hazard substances by the Toxic Substances Control Act. Asbestos is also regulated by USEPA under the Clean Air Act, and the Comprehensive Environmental Response, Compensation, and Liability Act.

The DOD established the Defense Environmental Restoration Program to facilitate thorough investigation and cleanup of contaminated sites on military installations (active installations, installations subject to Base Realignment and Closure, and formerly used defense sites). The Installation Restoration Program and the Military Munitions Response Program are components of the Defense Environmental Restoration Program. The Installation Restoration Program requires each DOD installation to identify, investigate, and clean up hazardous waste disposal or release sites. The Military Munitions Response Program addresses nonoperational rangelands that are suspected or known to contain unexploded ordnance, discarded military munitions, or munitions constituent contamination. The Environmental Restoration Program is the Navy’s initiative to address the Defense Environmental Restoration Program. A Hazardous Waste Management Plan and Hazardous Materials Reutilization and Hazardous Waste Minimization and Disposal Guide provide instruction and guidance for the proper management of regulated waste for operations at NBVC Point Mugu.

The USCG has environmental programs to address hazardous materials management, hazardous waste disposal, hazardous waste minimization, pollution prevention, and health and safety. USCG activities are

conducted in accordance with a variety of applicable regulations, including United States OSHA regulations and the USCG Safety and Environmental Health manual. These regulations and the implementing protocols, equipment, and training ensure that USCG operations are conducted in a safe environment.

3.9.2 Affected Environment

The 2018 EA provides a description of the affected environment for each of the categories under hazardous materials and wastes at NBVC Point Mugu, including hazardous materials, hazardous waste, special hazards (asbestos containing materials, lead based paint, and polychlorinated biphenyls), and the defense environmental restoration program. The discussion of the affected environment for hazardous materials and waste is the same as identified in the 2018 EA and is not repeated here.

3.9.3 Environmental Consequences

The hazardous materials and wastes analysis contained in the respective sections addresses issues related to the use and management of hazardous materials and wastes as well as the presence and management of specific cleanup sites at NBVC Point Mugu.

3.9.3.1 No Action Alternative

Under the No Action Alternative, the eight additional elements included as part of the Proposed Action would not occur. All impacts identified in the 2018 EA for construction and operation of a new Air Station would occur in accordance with the 2018 EA and FONSI for Alternative 1. As discussed in the 2018 EA, the No Action Alternative would not result in adverse effects on existing hazardous materials and wastes sites or substantially increase the exposure of people to hazardous materials and wastes with implementation of avoidance and minimization measures identified in the 2018 EA.

3.9.3.2 Alternative 1 Potential Impacts

The study area for the analysis of effects to hazardous materials and waste associated with the Alternative 1 encompasses the additional 5 acres of permanent impacts the Proposed Action would add to the Air Station site, and the additional approximately 18 acres of temporary disturbance associated with off-site improvements for utility work area and construction laydown. The Air Station site is located in an area of NBVC Point Mugu that was previously a golf course. Impacts associated with construction and operational activities during use of the site are discussed below.

Construction activities would require the use of certain hazardous materials (e.g., paints, welding gases, solvents, preservatives, sealants). It is anticipated that the quantity of products containing hazardous materials used for construction activities would be minimal and their use would be of short duration. The quantity of hazardous wastes generated from construction activities would be minor and would not be expected to exceed the capacities of existing hazardous waste disposal facilities. Construction activities at NBVC Point Mugu would be similar to, and consistent with, other installation improvement actions. The installation has established measures and programs for the management of construction, demolition, and renovation activities to ensure they are conducted in compliance with federal, state, and local environmental laws and regulations. All hazardous wastes generated as a result of construction activities would be handled under the existing Resource Conservation and Recovery Act-

compliant waste management programs and, therefore, would not be expected to increase the risks of exposure to workers and installation personnel.

No known hazardous waste sites are located within the Proposed Action site. Installation Restoration Program (IRP) Sites 8, 10, 11, and 35 are the nearest IRP sites to the Proposed Action. IRP Site 8 is located approximately 0.2 mile southeast of proposed telecommunications line Option 1. IRP Site 10 is located approximately 0.4 mile to the northeast of the expanded Air Station site. The Oxnard Drainage Ditch #2, part of IRP Site 11, is located approximately 0.4 mile to the south of the expanded Air Station site. IRP Site 35 is located approximately 0.3 mile southeast of the expanded Air Station site. Additionally, telecommunications line Option 1 passes within approximately 0.2 mile of IRP Site 8, and telecommunications line Option 2 is located adjacent to the drainage ditch that is parallel to runway 3/21 and drains directly into Oxnard Drainage Ditch #2 (which is part of IRP Site 11).

IRP Site 8 is the Runway Landfill, which has been cleaned and restored (NAVFAC SW 2017). IRP Site 10 was the location of a polychlorinated biphenyl spill that contaminated soils, which has since been cleaned and restored (NAVFAC SW 2017). As such, the Proposed Action would not result in hazardous materials impacts associated with IRP Sites 8 or 10.

IRP Site 11 drains into Mugu Lagoon, which contains contaminated soils from Calleguas Creek runoff and historic Navy activity. The Proposed Action includes additional disturbance beyond that identified in the 2018 EA to the drainage that runs parallel to runway 3/21 and connects to Oxnard Drainage Ditch #2, which is part of IRP Site 11. Additionally, telecommunications line Option 2 would result in additional temporary impacts of the identified drainage. Consequently, there is potential to encounter contaminated sediments during construction activities associated with the Proposed Action. Sediments excavated or removed from the drainage during construction activities would be collected and sampled to determine an appropriate off-base disposal location. IR Site land use controls would also be implemented to minimize potential impacts.

IRP Site 35 is the former Auto Hobby Shop, which was demolished in 2007. Several operations at the former Auto Hobby Shop had the potential to release contaminants, including a solvent dip tank, wash rack, and oil/water separator. Other wastes of potential concern generated at IRP Site 35 included used batteries, used oil, and waste adsorbents (NAVFAC SW 2015b). Given the Proposed Action's distance from IRP Site 35, soil disturbance and construction activities are not expected to result in exposure to hazardous materials associated with IRP Site 35.

In addition to the IRP sites discussed above, a potential PFAS Site was added to the Navy IRP in 2018, although it has not been assigned an individual site numeric designator at this time. Hangars PM323 and PM324 are active aircraft hangars located in the north-central portion of NBVC Point Mugu. These hangars share an AFFF firefighting system. Several accidental releases of AFFF containing PFAS have been documented. The combined AFFF system includes a retention pond on the east side of the hangars, adjacent Oxnard Drainage Ditch No. 2. Sampling performed in 2020 identified soil and groundwater PFAS contamination in the area surrounding the two hangars and the retention pond. Telecommunications line Option 2 would traverse through the contaminated area; resulting in disturbance of contaminated soil. Consequently, there is potential to encounter contaminated sediments during construction activities associated with the Proposed Action. Sediments excavated or removed from the potential PFAS Site during construction activities would be disposed of off-site per Navy and USCG hazardous waste disposal procedures.

Training and maintenance operations would require the use of certain hazardous materials. The Proposed Action does not include changes to training operations that would occur at the Air Station. As such, the presence of certain hazardous materials associated with training would not change as a result of the Proposed Action. The USCG has authorized a list of chemicals that provides a comprehensive inventory of chemicals and their uses. These chemicals are authorized to use on future aircraft at NBVC Point Mugu as part of Air Station operations (USCG 2017). Most ongoing maintenance would be the same as identified in the 2018 EA. Hazardous wastes generated from training and maintenance activities at the Air Station would include paints, oils, adhesives, cleaning solutions, and other materials necessary for maintenance and operation of the aircraft and the Air Station, as discussed in the 2018 EA. However, the addition of the lift station and sewer storage and the fire foam containment and oil-water separator as part of the Proposed Action would result in additional minor amounts of hazardous materials present at the Air Station. The lift station and sewer storage include underground storage would include two 60-inch diameter reinforced HDPE pipes approximately 40 feet long. The High Expansion Foam fire suppression systems planned for use at the Air Station do not contain PFAS and PFOA commonly used in AFFF. The fire foam containment and oil-water separator would include secondary containment consisting of a dual pipe storage system arrangement capable of holding 12,000 gallons. As identified in the 2018 EA, the amounts of products containing hazardous materials present at the Air Station to support USCG flight operations and maintenance activities would be minimal. The addition of materials associated with the operation and maintenance of the lift station and sewer storage and the fire foam containment and oil-water separator would not result in substantial changes to the quantity of hazardous materials present at the site. The amount of hazardous wastes would be minor and would not be expected to exceed the capacities of existing hazardous waste disposal facilities.

All hazardous materials and wastes would be managed in accordance with the installation's Hazardous Materials Management Plan and Hazardous Wastes Management Plan and operations would conform to the Spill Prevention, Control, and Countermeasures Plan prepared for the USCG. Additionally, hazardous materials/waste use, storage, and disposal would comply with applicable federal regulations and permit requirements of the USEPA. Therefore, no significant impacts would be expected from maintenance activities or flight operations.

Based on the above analysis, implementation of Alternative 1 would not result in significant impacts related to hazardous materials and wastes

3.10 Summary of Potential Impacts to Resources and Impact Avoidance and Minimization

A summary of the potential impacts associated with Alternative 1 and the No Action Alternative and impact avoidance and minimization measures are presented in Tables 3-5 and 3-6, respectively. Table 3-6 provides a comprehensive list of all mitigation requirements associated with the Proposed Action.

**Table 3-5
Summary of Potential Impacts to Resource Areas**

Resource Area	No Action Alternative	Alternative 1
Air Quality	The No Action Alternative would result in emissions of air pollutants during both construction and operations on the new Air Station site. Emissions would be below <i>de minimis</i> levels. Therefore, implementation of No Action Alternative would not result in an adverse effect related to air quality.	Alternative 1 would result in emissions of air pollutants during both construction and operations. Emissions would be below <i>de minimis</i> levels. Therefore, implementation of Alternative 1 would not result in an adverse effect related to air quality.
Water Resources	The No Action Alternative would not result in significant impacts related to groundwater, water quality or surface water bodies, floodplains, and shorelines. The No Action Alternative would impact a total of approximately 0.45 acre of jurisdictional wetlands. All potential impacts to wetlands would be mitigated by the USCG at a location determined in consultation with the U.S. Army Corps of Engineers.	Alternative 1 would not result in significant impacts related to groundwater, water quality or surface water bodies, floodplains, and shorelines. Alternative 1 would impact approximately 0.34 acre of additional jurisdictional wetlands, for a total of 0.79 acre when combined with impacts (0.45 acre) identified as part of the 2018 EA. All potential impacts to wetlands would be mitigated by the USCG at a location determined in consultation with the U.S. Army Corps of Engineers.
Geological Resources	The No Action Alternative would not result in significant impacts related to soils and erosion, topography, exposure of people or structures to seismic risk, and coastal sediments at the shoreline with implementation of the geotechnical BMPs identified in Table 2-1.	Alternative 1 would not result in significant impacts related to soils and erosion, topography, exposure of people or structures to seismic risk, and coastal sediments at the shoreline with implementation of the geotechnical BMPs identified in Table 2-1.
Cultural Resources	There are no known archaeological resources, architectural resources, or TCPs located within the Air Station’s area of potential effect for the No Action Alternative. No significant impacts to cultural resources would occur.	There are no known archaeological resources, architectural resources, or TCPs located within the Air Station’s area of potential effect for Alternative 1. No significant impacts to cultural resources would occur.
Biological Resources	The No Action Alternative would impact 0.45 acre of sensitive wetland vegetation that would require compensatory mitigation. No significant impacts to terrestrial wildlife, marine species, migratory birds, and threatened and endangered species would occur with implementation of identified avoidance and minimization measures.	Alternative 1 would impact approximately 0.34 acre of additional sensitive wetland vegetation, for a total of 0.79 acre when combined with impacts (0.45 acre) identified in the 2018 EA, that would require compensatory mitigation. No significant impacts to terrestrial wildlife, marine species, migratory birds, and threatened and endangered species would occur with implementation of identified avoidance and minimization measures.

Resource Area	No Action Alternative	Alternative 1
Noise	Construction of the No Action Alternative would result in temporary generation of noise associated with construction equipment, and operations of the Air Station would result in minimal noise increases on base and at surrounding areas (less than 1 dB CNEL); however, there are no significant impacts associated with construction or operations noise under the No Action Alternative.	Construction of Alternative 1 would result in temporary generation of noise associated with construction equipment. Operation of the eight additional elements of the Air Station would not result in a discernable noise increase on base and at surrounding areas. There are no significant impacts associated with construction or operations noise under Alternative 1.
Infrastructure	The No Action Alternative would not result in significant impacts related to construction of new facilities and additional utilities (water supply, wastewater, stormwater, solid waste disposal/management, and energy supply).	Alternative 1 would not result in significant impacts related to construction of new facilities and additional utilities (water supply, wastewater, stormwater, solid waste disposal/management, and energy supply).
Public Health and Safety	The No Action Alternative would not substantially increase the risk of aircraft hazards or result in increased environmental health risks or safety risks to children. No significant public health and safety impacts would occur.	Alternative 1 would not substantially increase the risk of aircraft hazards or result in increased environmental health risks or safety risks to children. No significant public health and safety impacts would occur.
Hazardous Materials and Wastes	The No Action Alternative would not result in adverse effects on existing hazardous materials and waste sites or substantially increase the exposure of people to hazardous materials and wastes with implementation of identified avoidance and minimization measures.	Alternative 1 would not result in adverse effects on existing hazardous materials and waste sites or substantially increase the exposure of people to hazardous materials and wastes with implementation of identified avoidance and minimization measures.

**Table 3-6
Impact Avoidance and Minimization Measures**

Measure	Anticipated Benefit / Evaluating Effectiveness	Implementing and Monitoring	Responsibility	Estimated Completion Date
Alternative 1				
Impacts to 0.34 acre of wetland habitat would be mitigated at a location determined in consultation with the U.S. Army Corps of Engineers.	Compensatory mitigation will offset wetland impacts of the Proposed Action and will achieve no net loss of wetlands in the region.	Details regarding the specific impacts expected on wetlands, the wetland types that would be impacted, and the required mitigation measure ratio for impacts on wetlands would be determined during the Section 404 and 401 Clean Water Act permitting process in consultation with the U.S. Army Corps of Engineers.	NBVC Point Mugu Environmental Division	The Proposed Action is estimated to be operational prior to September 2023. Proposed mitigation will be implemented prior to the start of construction.
Removal of vegetation would occur outside of the nesting season (March through September).	Destruction of active bird nests, eggs, or nestlings from vegetation clearing, grubbing, or other site preparation and construction activities would be avoided pursuant to the MBTA.	Vegetation removal will be conducted by construction contractor and scheduled in consultation with NBVC Point Mugu Environmental Division.	NBVC Point Mugu Environmental Division	The Proposed Action is estimated to be operational prior to September 2023. Proposed mitigation will be implemented prior to the start of construction.
A pre-construction nesting bird survey would be conducted if construction activities would begin within the bird breeding season (March – September) in areas where construction would require removal of low, thin, and sparse vegetation.	Destruction of active bird nests, eggs, or nestlings from vegetation clearing, grubbing, or other site preparation and construction activities would be avoided pursuant to the MBTA.	Pre-construction survey will be conducted by NBVC Point Mugu Environmental Division staff.	NBVC Point Mugu Environmental Division	The Proposed Action is estimated to be operational prior to September 2023. Proposed mitigation will be implemented prior to the start of construction (if required).

Measure	Anticipated Benefit / Evaluating Effectiveness	Implementing and Monitoring	Responsibility	Estimated Completion Date
Coordination with Environmental Division when listed species nests are found in the airfield from March 15 through August 15 would occur to ensure no take to listed species or migratory birds.	Coordination would avoid impacts to listed species or migratory birds.	USCG to coordinate with NBVC Point Mugu Environmental Division.	NBVC Point Mugu Environmental Division	Ongoing once the new Air Station is operational.
Construction within drainage ditch would be coordinated with Environmental Division to minimize impacts to western pond turtles.	Avoidance of impacts to western pond turtles.	Construction contractor will coordinate with NBVC Point Mugu Environmental Division.	NBVC Point Mugu Environmental Division	The Proposed Action is estimated to be operational prior to September 2023. Proposed mitigation will be implemented prior to the start of construction (if required).
Placement of turtle exclusion fencing would occur around Proposed Action site prior to the commencement of construction activities, and would be maintained in place throughout the construction period, to keep western pond turtles from entering construction area.	Avoidance of impacts to western pond turtles.	Construction contractor will coordinate with NBVC Point Mugu Environmental Division.	NBVC Point Mugu Environmental Division	The Proposed Action is estimated to be operational prior to September 2023. Proposed mitigation will be implemented prior to the start of construction.
Sediments excavated or removed from the drainage ditch during construction activities would be collected and sampled to determine an appropriate off-base disposal location.	Avoidance of impacts related to exposure to contaminated sediments.	Construction contractor will coordinate with NBVC Point Mugu Environmental Division.	NBVC Point Mugu Environmental Division	The Proposed Action is estimated to be operational prior to September 2023. Proposed mitigation will be implemented during construction.

Measure	Anticipated Benefit / Evaluating Effectiveness	Implementing and Monitoring	Responsibility	Estimated Completion Date
Sediments excavated or removed from the potential PFAS Site near Hangars PM323 and PM324 during construction of telecommunications line Option 2 would be disposed of off-site per Navy and USCG hazardous waste disposal procedures.	Avoidance of impacts related to exposure to contaminated sediments.	Construction contractor will coordinate with NBVC Point Mugu Environmental Division.	NBVC Point Mugu Environmental Division	The Proposed Action is estimated to be operational prior to September 2023. Proposed mitigation will be implemented during construction.

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4 Cumulative Impacts

This section (1) defines cumulative impacts, (2) describes past, present, and reasonably foreseeable future actions relevant to cumulative impacts, (3) analyzes the incremental interaction the proposed action may have with other actions, and (4) evaluates cumulative impacts potentially resulting from these interactions.

4.1 Definition of Cumulative Impacts

The approach taken in the analysis of cumulative impacts follows the objectives of the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations, and CEQ guidance. Cumulative impacts are defined in 40 Code of Federal Regulations section 1508.7 as “the impact on the environment that results from the incremental impact of the action when added to the other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

To determine the scope of environmental impact analyses, agencies shall consider cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact analysis document.

In addition, CEQ and the U.S. Environmental Protection Agency (USEPA) have published guidance addressing implementation of cumulative impact analyses—Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (CEQ 2005) and Consideration of Cumulative Impacts in EPA Review of NEPA Documents (USEPA 1999). CEQ guidance entitled *Considering Cumulative Impacts Under NEPA* (1997) states that cumulative impact analyses should:

“...determine the magnitude and significance of the environmental consequences of the proposed action in the context of the cumulative impacts of other past, present, and future actions...identify significant cumulative impacts...[and]...focus on truly meaningful impacts.”

Cumulative impacts are most likely to arise when a relationship or synergism exists between a proposed action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in close proximity to the proposed action would be expected to have more potential for a relationship than those more geographically separated. Similarly, relatively concurrent actions would tend to offer a higher potential for cumulative impacts. To identify cumulative impacts, the analysis needs to address the following three fundamental questions.

- Does a relationship exist such that affected resource areas of the proposed action might interact with the affected resource areas of past, present, or reasonably foreseeable actions?
- If one or more of the affected resource areas of the proposed action and another action could be expected to interact, would the proposed action affect or be affected by impacts of the other action?
- If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

4.2 Scope of Cumulative Impacts Analysis

The scope of the cumulative impacts analysis involves both the geographic extent of the effects and the time frame in which the effects could be expected to occur. For this Supplemental Environmental Assessment (SEA), the study area delimits the geographic extent of the cumulative impacts analysis. In general, the study area will include those areas previously identified in Chapter 3 for the respective resource areas. The time frame for cumulative impacts centers on the timing of the Proposed Action.

Another factor influencing the scope of cumulative impacts analysis involves identifying other actions to consider. Beyond determining that the geographic scope and time frame for the actions interrelate to the proposed action, the analysis employs the measure of “reasonably foreseeable” to include or exclude other actions. For the purposes of this analysis, public documents prepared by federal, state, and local government agencies form the primary sources of information regarding reasonably foreseeable actions. Documents used to identify other actions include notices of intent for Environmental Impact Statements and Environmental Assessments, management plans, land use plans, and other planning related studies.

4.3 Past, Present, and Reasonably Foreseeable Actions

This section will focus on past, present, and reasonably foreseeable future projects at and near the Proposed Action locale. In determining which projects to include in the cumulative impacts analysis, a preliminary determination was made regarding the past, present, or reasonably foreseeable action. Specifically, using the first fundamental question included in Section 4.1, it was determined if a relationship exists such that the affected resource areas of the Proposed Action (included in this SEA) might interact with the affected resource area of a past, present, or reasonably foreseeable action. If no such potential relationship exists, the project was not carried forward into the cumulative impacts analysis. In accordance with CEQ guidance (CEQ 2005), these actions considered but excluded from further cumulative effects analysis are not catalogued here as the intent is to focus the analysis on the meaningful actions relevant to informed decision-making. Projects included in this cumulative impact analysis are listed in Table 4-1 and briefly described in the following subsections.

Table 4-1
Cumulative Action Evaluation

Action	Level of NEPA Analysis Completed
<i>Past Actions</i>	
NBVC Point Mugu Sea Range Countermeasures Testing and Training	EA
NAVAIR Point Mugu Sea Test Range	EIS/OEIS
Point Mugu Sea Range Expansion of Unmanned Systems Operations	EA/OEA
West Coast Home Basing of the MQ-4C Triton UAS at NBVC Point Mugu	EA
Joint Strike Fighter F-35 Developmental Test Program, NBVC Point Mugu	EA/OEA
Point Mugu PPV Housing Transfer	EA/SEA
Damage Assessment and Restoration Plan for Omega 707 Air Tanker Crash in Mugu Lagoon	EA
Transition to E-2D Advanced Hawkeye	EA
NBVC Point Mugu Integrated Natural Resources Management Plan	EA
Implementing Bird/Wildlife-Aircraft Strike Hazard Management Program	EA
Homeporting the Littoral Combat Ship	EA

Action	Level of NEPA Analysis Completed
<i>Present and Reasonably Foreseeable Future Actions</i>	
U.S. Coast Guard HH-65 Helicopter Forward Operating Base	CE
Shoreline Protection Repair and Enhancements	EA
NAVAIR Fiber Optic Communications Undersea System (FOCUS) Replacement	EA/OEA
MILCON P777 Construction-Testing Directed Energy Systems Integration Lab	EA
Oversea EIS/OEIS Point Mugu Sea Range	EIS/OEIS
U.S. Coast Guard Air Station Point Mugu	EA
Home Basing of the MQ-25A Stingray Carrier-Based Unmanned Air System	EA
Ventura County General Plan	N/A
Point Hueneme Sand Bypass Program	N/A
Ormond Beach Specific Plan	N/A

EA = Environmental Assessment; EIS = Environmental Impact Statement; OEIS = Overseas Environmental Impact Statement; OEA = Overseas Environmental Assessment; SEA = Supplemental EA; CE = Categorical Exclusion; N/A = not applicable

4.3.1 Past Actions

NBVC Point Mugu Sea Range Countermeasures Testing and Training

The Navy (Naval Air Systems Command) prepared an EA for Point Mugu Sea Range Countermeasures (Navy 2014a) for conducting additional types of countermeasures testing on the Sea Range at NBVC Point Mugu and San Nicolas Island. A Finding of No Significant Impact (FONSI) was signed in July 2014.

NAVAIR Point Mugu Sea Test Range

An EIS/Overseas EIS (OEIS) was prepared for this project that analyzed potential impacts associated with Theater Missile Defense test and training activities and an increase in the level of both Fleet training exercises and special warfare training (DOD 2002). In addition, the EIS/OEIS analyzed the modernization of facilities at Point Mugu and San Nicolas Island to increase the Sea Range's capability to support existing and future operations. The EIS/OEIS and Records of Decision were completed in 2002.

Point Mugu Sea Range Expansion of Unmanned Systems Operations

The Navy developed an EA/Overseas Environmental Assessment (OEA) for the proposed expansion of unmanned systems testing and training on the Point Mugu Sea Range, which includes land areas at NBVC Point Mugu, NBVC Port Hueneme, and San Nicolas Island.

Under the Proposed Action, the annual number of Unmanned Aircraft System (UAS) operations would increase on the Point Mugu Sea Range, utilizing the R-2519 and R-2535 restricted airspace and the Special Use Airspace. Various site at NBVC Point Mugu would be used for the launch and recovery of UASs, command and control of UASs, and maintenance of the systems and associated equipment. At NBVC Point Mugu, there would be no new construction activities and no modifications to existing facilities (temporary lodging, meals, recreation, sanitation, etc.) to accommodate the Proposed Action. A FONSI/Finding of No Significant Harm (FONSH) was signed February 2015.

West Coast Home Basing of the MQ-4C Triton UAS at NBVC Point Mugu

In 2013, the Navy prepared an EA that evaluated the potential effects associated with home basing the MC-4C Triton UAS at NBVC Point Mugu (Navy 2013). Under the Proposed Action, the Navy would home-base four Triton UASs; establish a hub for the Triton UAS, supporting up to four additional Triton UASs

that would be undergoing maintenance actions at any one time; conduct an average of five Triton UAS flight operations per day (1,825 annually); construct, demolish, and renovate facilities and infrastructure at NBVC Point Mugu; and station up to 700 personnel, plus their family members, while supporting rotational developments to and from outside the continental United States. The FONSI was signed in April 2013, and construction activities started in 2014. Triton UAS operations at NBVC began in FY 2018.

Joint Strike Fighter (JSF) F-35 Developmental Test Program, NBVC Point Mugu

In 2013, the Navy prepared an EA/OEA for JSF F-35 developmental test program, which includes flight operations and testing activities at NBVC Point Mugu and the Point Mugu Sea Range. The FONSI/FONSH was signed in August 2013.

Point Mugu PPV Housing Transfer

In 2014, the Navy prepared an EA for the privatization of 226 military family housing units at NBVC Point Mugu (Navy 2014b). The FONSI was signed in September 2014. A Final SEA was prepared in 2015 that addressed privatization of 124 of the 226 military family housing units at NBVC Point Mugu (Navy 2015b). The remaining military family units not privatized would be demolished by the Navy. The Final Supplemental EA was completed in December 2015 and the FONSI was signed in June 2016.

Damage Assessment and Restoration Plan for Omega 707 Air Tanker Crash in Mugu Lagoon

An EA was prepared in 2015 for the Natural Resources Damage Assessment and Restoration Plans for the 2011 Omega 707 Air Tanker Crash at NBVC Point Mugu. The Final EA was completed in April 2016 and the FONSI was signed in June 2016.

Transition to E-2D Advanced Hawkeye

In 2009, the Navy prepared the Final EA for the Transition of the E-2D Advanced Hawkeye, Naval Station Norfolk, VA, Naval Base Ventura County Point Mugu, CA; a FONSI was signed February 9, 2009 (Navy 2009). The Navy proposed to provide facilities and functions to support the replacement of 44 E-2C aircraft with 57 E-2D Advanced Hawkeye aircraft at established Airborne Early Warning home bases (i.e., Naval Station Norfolk and NBVC Point Mugu). For purposes of this analysis, only the actions proposed at NBVC Point Mugu are assessed.

NBVC Point Mugu Integrated Natural Resources Management Plan

The Integrated Natural Resources Management Plan (INRMP) for NBVC Point Mugu is the Navy's long-term planning document to guide the installation commander in the management of natural resources to support the installation mission, while protecting and enhancing installation resources for multiple use, sustainable yield, and biological integrity (NAVFAC SW 2013). The INRMP addresses terrestrial and aquatic natural resources at NBVC Point Mugu and Special Areas. The INRMP establishes planning and management strategies; identifies natural resources constraints and opportunities; supports the resolution of land use conflicts, provides baseline descriptions of natural resources necessary for development of conservation strategies and environmental assessments; serves as the principal information source for the preparation of future environmental documents for proposed actions at NBVC Point Mugu and Special Areas; and provides guidance for annual natural resources management reviews, internal compliance audits, and annual budget submittals. The FONSI was completed in December 2013.

Implementing Bird/Wildlife-Aircraft Strike Hazard Management Program

The Navy prepared an EA for the implementation of the Bird/Wildlife-Aircraft Strike Hazard (BASH) Management Plan at NBVC Point Mugu. The EA analyzed the environmental impacts of the BASH program, with a FONSI. A Biological Assessment was also prepared to analyze the impacts to federally listed species from the BASH Program, with a Biological Opinion received from the U.S. Fish and Wildlife Service concurring that the BASH Plan will not jeopardize listed species. The EA identified that 4.9 acres of wetlands would be filled, 28.3 acres of brackish and freshwater marsh and 360.4 acres of transition disturbed habitat would be subject to mowing and vegetation removal, and wildlife abundance near the runways would be permanently reduced. The Navy has over 30 acres of proactively restored wetlands that could be used to offset this loss. In addition, over 120 acres have been identified on NBVC Point Mugu as potential wetland restoration sites for projects such as this.

Homeporting the Littoral Combat Ship

An EA was prepared to identify and evaluate the potential environmental consequences associated with providing facilities and functions to homeport the Littoral Combat Ship on the West Coast of the United States. Up to 40 operational Firescouts would be required to support the mission modules associated with the Littoral Combat Ships homeported on the West Coast of the United States. The procurement of these 40 Firescouts would occur in phases over a 4-year period from FY 2013 to FY 2016 with the first deployment of a Firescout onboard a Littoral Combat Ship anticipated in FY 2013. Firescout test flights would be required to verify that maintenance has been performed properly. Test flights would consist of preprogrammed profiles and would total approximately 5 hours per month of flying time for all Firescouts. Up to 10 test flights could be conducted each month at NBVC Point Mugu. Storage and maintenance facilities would also be required to support the Firescouts. While on shore, up to eight Firescouts could be in a maintenance cycle at any one time and would need access to an airfield flight line for test flights. The Firescouts not in a maintenance cycle would be stored in a preserved state (i.e., defueled with the battery disconnected) to preserve airframe life. To support the storage, maintenance, and test flights of Firescouts at NBVC Point Mugu, 27 on-installation support personnel would be stationed, or based, at NBVC Point Mugu (Navy 2012b).

4.3.2 Present and Reasonably Foreseeable Actions

U.S. Coast Guard HH-65 Helicopter Forward Operating Base

The Navy prepared a Categorical Exclusion in August 2015 for the temporary establishment of a U.S. Coast Guard (USCG) Forward Operating Base at NBVC Point Mugu. The Navy and USCG executed a real estate use agreement in November 2015 for the establishment of USCG HH-65 helicopter aviation FOB operations, which include at least two HH-65 helicopters and 21 personnel. A third aircraft may occasionally be assigned for short periods when one of the others is being maintained. Air operations at the FOB include two to three sorties (i.e., flights) per day, for a yearly total of approximately 2,100 flight hours in approximately 1,000 sorties. Facilities associated with the FOB include space within Building PM-6 (exclusive use of 11,567 square feet of berthing space) and Hangar 355 (exclusive use of approximately 3,880 square feet of administrative space, 3,438 square feet of shop space, and 3,480 square feet of hangar space, as well as non-exclusive use of an additional 3,480 square feet of hangar space when the space is available and does not interfere with Navy operations), associated roads, airfield, runways, taxiways, aircraft wash rack, water, sewer, drainage, electrical power, communication facilities/lines, and signal lines. The terms of the real estate agreement allow the FOB to operate as a temporary facility within Hangar 355 and in Building PM-6 between November 2015 and August 2021.

The USCG and Navy have agreed to extend the Forward Operating Base use agreement to August 31, 2023.

Shoreline Protection Repair and Enhancements

The Navy prepared an EA for the Shoreline Protection at NBVC (Navy 2016). The proposed action would provide protection from the immediate threats of coastal flooding and beach erosion through the implementation of two projects, the West Revetment Extension and the Central Revetment Repair. The West Revetment Extension includes extending the existing revetment to protect Building 812 and Beach Road from flooding. The extension would continue to the southeast approximately 125 linear feet and crest at approximately 18 feet high. The revetment would be constructed of armored stone and the footprint would be approximately 0.18 acre. The Central Revetment Repair would include increasing the crest elevation up to approximately 27 feet; armoring the seaward slope; and reinforcing the backside of the structure by adding larger dense stone and increasing its width. Armored stone would be used for the repairs and stabilization of the revetment. A Final EA was prepared in March 2016 and a FONSI was signed in April 2016.

NAVAIR Fiber Optic Communications Undersea System (FOCUS) Replacement

The Navy prepared an EA/OEA addressing the replacement of the existing FOCUS from NBVC Point Mugu to San Nicolas Island and the connection of a new FOCUS to Santa Cruz Island. The Draft EA was released for public review in September 2016. The Final EA/OEA was completed in September 2018.

MILCON P777 Construction-Testing Directed Energy Systems Integration Lab

The Navy prepared an EA addressing the construction of a new directed energy program laboratory and testing of directed energy weapons systems at NBVC Point Mugu. A Final EA was completed in July 2019. A FONSI was signed in August 2019.

Point Mugu Sea Range

The Navy is currently preparing an EIS/OEIS addressing the conduct of military readiness activities within the Point Mugu Sea Range (PMSR). The Proposed Action includes testing and training activities analyzed in the 2002 PMSR EIS/OEIS and other actions analyzed since 2002. The proposed tempo is above and beyond the tempo covered in the 2002 PMSR EIS/OEIS and includes activities covered in Environmental Assessments for the PMSR completed after 2002. Testing and training activities would be conducted at sea and in designated airspace within the PMSR Study Area. Additionally, the missile launch operations and Directed Energy (DE) activities originating from Naval Base Ventura County Point Mugu and San Nicolas Island are analyzed as part of the Proposed Action.

U.S. Coast Guard Air Station Point Mugu

The Navy prepared an EA addressing the construction of a new U.S. Coast Guard Air Station at NBVC Point Mugu, consisting of a hangar, support facilities, an aircraft parking apron, taxiway, vehicle parking lots, and access roads. A Final EA was completed in May 2018. A FONSI was signed in June 2018.

Home Basing of the MQ-25A Stingray Carrier-Based Unmanned Air System

The Navy prepared an EA addressing the home basing of 20 Stingray Carrier-based Unmanned Air System (CBUAS) at Naval Base Ventura County Point Mugu. The Proposed Action is to establish facilities and functions at NBVC Point Mugu to support home basing and operations of the MQ-25A Stingray CBUAS. The Proposed Action includes construction of a hangar, training facilities, and supporting infrastructure; conducting approximately 960 Stingray CBUAS annual flight operations; and stationing

approximately 730 personnel plus their family members. A Final EA was completed in March 2021. A FONSI was signed in March 2021.

Ventura County General Plan

On September 15, 2020, the Ventura County Board of Supervisors adopted the 2040 General Plan (County of Ventura 2020a) and certified the General Plan's Environmental Impact Report (EIR; County of Ventura 2020b). The 2040 General Plan includes goals, policies, and implementation programs that will guide the development of Ventura County through the year 2040. The General Plan includes a number of objectives, including a land use objective to direct urban growth away from agricultural, rural, and open space lands, in favor of locating it in cities and unincorporated communities where public facilities, services and infrastructure are available or can be provided. The General Plan EIR identified significant and unavoidable impacts on agriculture and forestry resources; air quality; biological resources; cultural, tribal cultural, and paleontological resources; greenhouse gas emissions; hazards, hazardous materials, and wildfire; mineral and petroleum resources; noise and vibration; public services and recreation; transportation and traffic; and utilities.

Point Hueneme Sand Bypass Program

After the construction of Port Hueneme in the early 1940s, littoral transport of sand to down-coast beaches, including beaches at NBVC Point Mugu, was dramatically reduced. The Channel Islands Harbor was completed in 1960 and included the construction of an offshore jetty, which served as a sand trap, capturing sand from down-coast littoral transport. Dredged sand is transported around the Port Hueneme harbor entrance to down-coast beaches, resulting in the replenishment of sand on the beaches. Recent reductions in funding to support the bypass program have resulted in a decrease in sand transported to down-coast beaches and necessitated the adoption of shoreline protection measures, such as the construction of revetments.

Ormond Beach Specific Plan

The Ormond Beach Specific Plan Final EIR was developed in 2009 (City of Oxnard Development Services 2009). This EIR addressed the 916.8-acre Ormond Beach Specific Plan Study Area on the Oxnard Plain in unincorporated Ventura County immediately outside the southeastern city limits of the City of Oxnard. The Study Area is currently almost exclusively used for agricultural activities. The Study Area is adjacent to the perimeter of NBVC Point Mugu and is divided into subareas by Hueneme Road: the 322.9-acre Northern Subarea and the 594.8-acre Southern Subarea.

4.4 Cumulative Impact Analysis

Where feasible, the cumulative impacts were assessed using quantifiable data; however, for many of the resources included for analysis, quantifiable data is not available and a qualitative analysis was undertaken. In addition, where an analysis of potential environmental effects for future actions has not been completed, assumptions were made regarding cumulative impacts related to this EA where possible. The analytical methodology presented in Chapter 3, which was used to determine potential impacts to the various resources analyzed in this document, was also used to determine cumulative impacts.

4.4.1 Air Quality

4.4.1.1 Description of Geographic Study Area

The region of influence (ROI) for cumulative effects on air quality is defined as the South Central Coast Air Basin. For purposes of air quality, the cumulative impact analysis looks beyond cumulative projects per se and instead focuses on the average cumulative air quality conditions within the South Central Coast Air Basin from day to day. The potential effects of proposed greenhouse gas (GHG) emissions are by nature global and cumulative impacts, as individual sources of GHG emissions are typically not large enough to have an appreciable effect on climate change. Therefore, an appreciable impact to global climate change would only occur when proposed GHG emissions combine with other human-generated GHG emissions in such a way to appreciably and discernably affect climate change on a global scale.

4.4.1.2 Relevant Past, Present, and Future Actions

Emissions from the Proposed Action and the cumulative projects identified above in Section 4.3, *Past, Present, and Reasonably Foreseeable Actions*, would comply with Ventura County Air Pollution Control District, State of California, and federal rules and regulations, which would minimize the impact of project cumulative air quality impacts.

4.4.1.3 Cumulative Impact Analysis

As described in Section 3.1, *Air Quality*, construction and operational activities associated with the Proposed Action would produce emissions that would not exceed designated *de minimis* levels for criteria pollutants (40 Code of Federal Regulations Part 51.853[b]). The Proposed Action would not contribute to the degradation of regional air quality or otherwise contribute to a significant cumulative effect on air quality. Consequently, proposed construction and operational activities would produce less than significant cumulative impacts to criteria pollutant levels. Therefore, implementation of the Proposed Action, in addition to the effects from past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts to air quality.

The potential effects of proposed GHG emissions are by nature global and cumulative impacts, as individual sources of GHG emissions are typically not large enough to have an appreciable effect on climate change. The GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. Climate change impacts may include an increase in extreme heat days, higher concentrations of air pollutants, sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts. Implementation of best management practices would minimize GHG emissions and their associated impacts to climate change, where feasible. If a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact and would be considered significant.

Construction and operations activities associated with the Proposed Action would contribute directly to emissions of GHGs from the combustion of fossil fuels. Emissions of GHG generated by all of the construction activities and maintenance activities associated with the Proposed Action would be well

below the CEQ threshold of 25,000 metric tons per year. Construction activities associated with the eight additional elements would generate approximately 99 metric tons of CO₂e during the highest year of emissions (2023). As discussed previously, the eight additional elements associated with the Proposed Action do not include sources of significant operational emissions and as such, operational GHG would be minimal. As such, project emissions would not likely contribute to global warming to any discernible extent. Therefore, based on the analysis in Section 3.1, the Proposed Action would not contribute to a cumulatively considerable air quality or GHG impact.

4.4.2 Water Resources

4.4.2.1 Description of Geographic Study Area

The ROI for cumulative effects on water resources encompasses the Oxnard Plain watershed, which includes the waterways (i.e., Mugu Lagoon) that receive surface water flows from the Proposed Action site.

4.4.2.2 Relevant Past, Present, and Future Actions

Past actions have resulted in the redevelopment of an existing navy base that supports military actions related to aviation, military readiness, and personnel support (e.g., training and maintenance facilities). Present and future actions are anticipated to involve similar redevelopment of NBVC Point Mugu to support additional aviation-related facilities, as well as potential development of off-installation areas. Implementation of the cumulative projects identified in Table 4-1 has the potential to adversely affect water resources within the ROI; however, the Proposed Action and the cumulative projects would comply with applicable federal, state, and local regulations and/or requirements to avoid or minimize cumulative impacts to water resources.

4.4.2.3 Cumulative Impact Analysis

Development of cumulative projects upgradient of the Mugu Lagoon (i.e., receiving waters for cumulative projects) could result in temporary and localized effects to water quality that could be individually comparable to those associated with the Proposed Action. Implementation of best management practices and procurement of required permits would assure project actions would avoid, minimize, and mitigate potential effects. Therefore, implementation of the Proposed Action would not result in significant impacts to water resources, including surface water and groundwater quality, erosion, dispersion of construction-related contaminants or existing groundwater contamination, nor increased flooding potential on or off base. As discussed in Section 3.2, *Water Resources*, the Proposed Action would impact wetlands, but implementation of compensatory mitigation would result in no net loss to wetlands. Although other past, present, and reasonably foreseeable projects on NBVC Point Mugu and in adjacent areas/communities would have similar effects, these projects would also comply with applicable federal, state, and local regulations and/or requirements, and would have to implement similar types of protection measures and mitigation for impacts to wetlands to achieve no net loss of wetland resources. This would minimize the majority of potential impacts from Proposed Action and other projects on and in the regional vicinity. Therefore, implementation of the Proposed Action, in addition to the effects from past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts to water resources.

4.4.3 Geological Resources

4.4.3.1 Description of Geographic Study Area

The ROI for cumulative effects on geological resources includes the boundaries of NBVC Point Mugu.

4.4.3.2 Relevant Past, Present, and Future Actions

Past actions have resulted in the redevelopment of an existing navy base that supports military actions related to aviation, military readiness, and personnel support (e.g., training and maintenance facilities). Present and future actions are anticipated to involve similar redevelopment of NBVC Point Mugu to support additional aviation-related facilities, as well as potential development of off-installation areas. These cumulative projects could affect geological resources within the ROI.

4.4.3.3 Cumulative Impact Analysis

Cumulative impacts to geological resources from past, present, and future actions within the ROI would be less than significant because the Proposed Action would not significantly impact soils, topography, or marine sediments. Minor earthwork may be associated with construction of the Proposed Action that would require soil movement. While the Proposed Action includes excavation in several locations (for placement of underground components and construction of stormwater bioretention basins), no large-scale grading would occur that would result in changes to the topography of the site. The Proposed Action and cumulative projects that would disturb more than one acre of land would be required to obtain coverage under the NPDES General Permit prior to construction, and construction contractors would prepare a Storm Water Pollution Prevention Plan before project implementation. Furthermore, the Proposed Action would not result in any change in the sediment type within the shoreline, nor would it increase net littoral transport of marine sediments. Therefore, implementation of the Proposed Action combined with the past, present, and reasonably foreseeable future projects, would not result in significant impacts within the ROI.

4.4.4 Cultural Resources

4.4.4.1 Description of Geographic Study Area

The ROI for cumulative effects on cultural resources consists of NBVC Point Mugu and adjacent communities. Regional development and urbanization in California have resulted in extensive impacts to cultural resources, especially the destruction of archaeological sites and historic buildings. These types of cultural resources are limited, which is one of the reasons why strict federal and state regulations have been implemented to provide management and regulatory oversight.

4.4.4.2 Relevant Past, Present, and Future Actions

Past actions have resulted in the redevelopment of an existing navy base that supports military actions related to aviation, military readiness, and personnel support (e.g., training and maintenance facilities). Present and future actions are anticipated to involve similar redevelopment of NBVC Point Mugu to support additional aviation-related training and maintenance facilities, as well as potential development of off-installation areas. Past, present, and reasonably foreseeable projects that involve ground-disturbing activities within areas not surveyed and/or modification or demolition of historic structures

could result in impacts on cultural resources. Federal projects that could potentially affect historic properties (assuming the presence of such properties) would undergo Section 106 review under the National Historic Preservation Act.

4.4.4.3 Cumulative Impact Analysis

Cumulative impacts to cultural resources from past, present, and future actions within the ROI would not be significant. While the Proposed Action would disturb soils at greater depths than known fill, per Stipulation 9A of the 2015 Programmatic Agreement, an archaeological monitor would be onsite to ensure no buried cultural resources would be affected. The Proposed Action would not demolish or alter any historic buildings or structures. Following construction of the eight additional elements for the new Air Station, air station operations are unlikely to disturb cultural resources. The Proposed Action in conjunction with other projects in the region would not be likely to cumulatively disturb cultural resources beyond the scope of a singular project. Therefore, implementation of the Proposed Action combined with the past, present, and reasonably foreseeable future projects, would not result in significant impacts within the ROI.

4.4.5 Biological Resources

4.4.5.1 Description of Geographic Study Area

The ROI for cumulative effects on biological resources consists of the Proposed Action site and adjacent areas on NBVC Point Mugu.

4.4.5.2 Relevant Past, Present, and Future Actions

Past, present, and reasonably foreseeable cumulative projects in the region that require ground disturbance, vegetation clearing, grading, and excavations could result in temporary and localized effects to biological resources that may be individually comparable to those associated with the Proposed Action.

4.4.5.3 Cumulative Impact Analysis

As discussed in Section 3.5, *Biological Resources*, the Proposed Action would not result in significant impacts to biological resources upon implementation of compensatory mitigation. While the Proposed Action would impact sensitive wetland vegetation, implementation of mitigation would result in no net loss of this resource. Although other past, present, and reasonable foreseeable projects on NBVC Point Mugu and in adjacent areas/communities would also have the potential for biological effects, these projects would also have to comply with applicable federal, state, and local regulations and/or requirements, including (but not limited to) the Endangered Species Act, Migratory Bird Treaty Act, and the Integrated Natural Resources Management Plan for cumulative projects occurring within NBVC Point Mugu, and the Endangered Species Act and Migratory Bird Treaty Act for all cumulative projects. The overall abundance and quality of terrestrial and marine resources in the ROI would not be appreciably reduced by the combined effects of cumulative projects. Therefore, implementation of the Proposed Action, in addition to the effects from past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts to biological resources.

4.4.6 Noise

4.4.6.1 Description of Geographic Study Area

The ROI for cumulative effects associated with noise impacts is defined as the boundaries of NBVC Point Mugu and surrounding communities. The area to be considered for the cumulative analysis would only be those projects within the immediate vicinity of the project area. Cumulative impacts to noise are not anticipated beyond this area.

4.4.6.2 Relevant Past, Present, and Future Actions

Past actions have resulted in the redevelopment of an existing navy base that supports military actions related to aviation, military readiness, and personnel support (e.g., training and maintenance facilities). Present and future actions are anticipated to involve similar redevelopment of NBVC Point Mugu to support additional aviation-related facilities, as well as potential development of off-installation areas.

4.4.6.3 Cumulative Impact Analysis

Cumulative noise impacts from past, present, and future actions within the ROI would be less than significant because noise impacts would generally consist of noise generated from construction activities and flight operations. Noise increases due to construction activities at and within the vicinity of NBVC Point Mugu would collectively increase noise levels temporarily. Due to timing of cumulative projects, and the relatively short duration of project effects, noise impacts would be moderated over time and space. Cumulative increases in aircraft operations would occur and would continue to be the dominant source of noise at NBVC Point Mugu; however, the Proposed Action does not include changes to flight operations and would not contribute to a cumulative increase in noise associated with aircraft operation. Operational noise from the Proposed Action would be minimal and not noticeable in the context of aircraft and operational noise at the Air Station site and NBVC Point Mugu. The noise level change from the Proposed Action would not be perceptible to or adversely affect any residences or other sensitive noise receptors on or off base. The Proposed Action would result in minimal long-term noise increases associated with operation, and thus, would not contribute to a cumulatively significant long-term noise impact. Therefore, implementation of the Proposed Action, combined with the effects from past, present, and reasonably foreseeable projects, would not result in significant cumulative noise impacts within the ROI.

4.4.7 Infrastructure

4.4.7.1 Description of Geographic Study Area

The ROI for cumulative effects on infrastructure on is defined as the Proposed Action area plus the boundaries of NBVC Point Mugu. Cumulative impacts related to infrastructure are not anticipated beyond this area.

4.4.7.2 Relevant Past, Present, and Future Actions

Past actions have resulted in the redevelopment of an existing navy base that supports military actions related to aviation, military readiness, and personnel support (e.g., training and maintenance facilities). Present and future actions are anticipated to involve similar redevelopment of NBVC Point Mugu to

support additional aviation-related facilities. These on-base projects are evaluated for facility and utility requirements to determine the need for upgrades to accommodate associated installation operations.

4.4.7.3 Cumulative Impact Analysis

Over approximately the last two decades, NVC Point Mugu has experienced a drawdown in installation personnel and operations. Consequently, overall, there is excess capacity of infrastructure and utilities at the installation, because the infrastructure and utilities were originally designed to support a larger population (Navy 2013). The demands on facilities and utilities (water, wastewater, stormwater facilities, solid waste management/disposal, and electricity) of the other cumulative projects on NBVC Point Mugu, in combination with the demands from the Proposed Action, would be accommodated by existing supplies and capacities and planned upgrades. Therefore, implementation of the Proposed Action, in addition to the effects from past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts related to infrastructure.

4.4.8 Public Health and Safety

4.4.8.1 Description of Geographic Study Area

The ROI for cumulative effects on public health and safety is defined as the Proposed Action area plus the boundaries of NBVC Point Mugu. Cumulative impacts to public health and safety are not anticipated beyond this area.

4.4.8.2 Relevant Past, Present, and Future Actions

Past actions have resulted in the redevelopment of an existing navy base that supports military actions related to aviation, military readiness, and personnel support (e.g., training and maintenance facilities). Present and future actions are anticipated to involve similar redevelopment of NBVC Point Mugu to support additional aviation-related facilities. These projects are required to comply with applicable Department of Defense and federal safety regulations and requirements.

4.4.8.3 Cumulative Impact Analysis

Implementation of the Proposed Action would not measurably affect safety associated with flight operations at NBVC Point Mugu because the Proposed Action does not propose changes to the proposed flight operations at the Air Station. All flight and training operations were analyzed in the 2018 EA and would be conducted in accordance with Federal Aviation Administration regulations and directives, specific operating manuals, and Department of Defense Flight Information Publications, and all emergencies or malfunctions associated with the flight operations would be handled in accordance with established aircraft-specific procedures. Furthermore, the Proposed Action would not require changes to the installation's safety plans, Accident Potential Zones, or BASH Management Plan. On-base cumulative projects would also be required to comply with similar safety regulations protocols. Therefore, implementation of the Proposed Action combined with the past, present, and reasonably foreseeable future projects, would not result in significant public health and safety impacts within the ROI.

4.4.9 Hazardous Materials and Wastes

4.4.9.1 Description of Geographic Study Area

The ROI for cumulative effects on hazardous materials and wastes encompasses the Oxnard Plain watershed, which includes the waterways (i.e., Mugu Lagoon) that receive surface water flows from the Proposed Action site.

4.4.9.2 Relevant Past, Present, and Future Actions

Past actions have resulted in the redevelopment of an existing Navy base that supports military actions related to aviation, military readiness, and personnel support (e.g., training and maintenance facilities). Present and future actions are anticipated to involve similar redevelopment of NBVC Point Mugu to support additional aviation-related facilities. These projects are required to comply with applicable Department of Defense and federal safety regulations and requirements for hazardous materials and wastes.

4.4.9.3 Cumulative Impact Analysis

Construction, operation, and maintenance of the additional eight elements for the new Air Station would involve minor increases in the quantities of hazardous materials/wastes delivered, stored, and used on NBVC Point Mugu and in the vicinity in general. However, appropriate procedures for the handling, storage, and disposal of hazardous materials and wastes would be implemented in accordance with the Resource Conservation and Recovery Act and other applicable regulations. All construction and operations on NBVC Point Mugu would comply with applicable Department of Defense and federal safety regulations and/or requirements, including proper handling of ordnance and hazardous materials. Also, as discussed in Section 3.9, the Proposed Action does not pose a risk to public health and safety with implementation of minimization measures. Therefore, implementation of the Proposed Action combined with the past, present, and reasonably foreseeable future projects, would not result in significant impacts within the ROI.

5 Other Considerations Required by NEPA

5.1 Consistency with Other Federal, State, and Local Laws, Plans, Policies, and Regulations

In accordance with 40 Code of Federal Regulations section 1502.16(c), analysis of environmental consequences shall include discussion of possible conflicts between the Proposed Action and the objectives of federal, regional, state, and local land use plans, policies, and controls. Table 5-1 identifies the principal federal and state laws and regulations that are applicable to the Proposed Action, and describes briefly how compliance with these laws and regulations would be accomplished.

Table 5-1
Principal Federal and State Laws Applicable to the Proposed Action

Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	Status of Compliance
National Environmental Policy Act (NEPA); Council on Environmental Quality (CEQ) NEPA implementing regulations; Command of the U.S. Navy (Navy) procedures for Implementing NEPA; U.S. Coast Guard (USCG) Commandant Instruction 5090.1; Department of Homeland Security Instruction Manual 023-01-001-01, Revision 1	This Supplemental Environmental Assessment (SEA) has been prepared in accordance with CEQ Regulations implementing NEPA and United States (U.S. Navy) NEPA Procedures. The USCG is a cooperating agency in the preparation of this document and has participated to ensure this document meets the requirements of USCG Commandant Instruction 5090.1. This SEA has been prepared in accordance with Department of Homeland Security Instruction Manual 023-01-001-01, Revision 1.
Clean Air Act	The Navy has determined that the potential emissions of the Proposed Action would not cause or contribute to a violation of any National Ambient Air Quality Standards or State Ambient Air Quality standards. Emissions would be below the applicable General Conformity <i>de minimis</i> thresholds. The General Conformity Record of Non-Applicability is provided in Appendix B of this SEA.

Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	Status of Compliance
Clean Water Act	<p>The Proposed Action would not involve dredging or the release of chemicals requiring a discharge permit and would be in compliance with the Clean Water Act (CWA). The Proposed Action would conform with applicable National Pollutant Discharge Elimination System requirements including implementation of one or more Storm Water Pollution Prevention Plans and associated Best Management Practices. Best Management Practices may include erosion control blankets, soil stabilizers, temporary seeding, silt fencing, hay bales, sandbags, and storm drain inlet protection devices. The Proposed Action would impact Waters of the U.S. and would require CWA Section 404 permit from the U.S. Army Corps of Engineers (USACE) and CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB). The Navy has coordinated with the USACE and California RWQCB regarding impacts to wetlands and identification of potential mitigation sites. The necessary permits (i.e., Section 404 and 401 of the CWA) would be obtained during ongoing coordination with USACE and California RWQCB, as appropriate, prior to commencement of construction activities. All potential impacts to wetlands and waters of the United States would be mitigated by the USCG at a location to be determined during the permitting process.</p>
Rivers and Harbors Act	<p>The Proposed Action would not involve in-water demolition and construction activities, thus a Rivers and Harbors Act Section 10 permit from the USACE would not be required.</p>
Endangered Species Act	<p>The Navy has determined that Proposed Action would have no effect on any federally listed endangered or threatened species. Therefore, the proposed action would be in compliance with the federal Endangered Species Act.</p>
Magnuson-Stevens Fishery Conservation and Management Reauthorization Act	<p>The Navy has determined that the Proposed Action is not likely to reduce the quantity or quality of Essential Fish Habitat (EFH) because it cannot be meaningfully measured or observed individually or cumulatively, or is unlikely to occur. In the 2018 EA and associated EFH informal consultation (Appendix C), NMFS determined that an adverse effect on EFH would not be substantial because tidal flow would not be reduced, wetlands loss would be mitigated, and conservation measures would be implemented to minimize and offset impacts to EFH. NMFS's determination remains valid because no direct impact to coastal or aquatic habitats as a result of the proposed construction activities would occur and environmental protection measures to control runoff would be implemented as part of the SEA.</p>
Marine Mammal Protection Act	<p>The Navy has determined that the Proposed Action would not result in the reasonably foreseeable "take" of a marine mammal species by harassment, injury, or mortality as defined under the Marine Mammal Protection Act; therefore, an application for takings under the Marine Mammal Protection Act is not required.</p>

Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	Status of Compliance
Coastal Zone Management Act	The Navy has determined that the Proposed Action would not affect coastal resources or uses. As part of the 2018 EA, a Coastal Consistency Negative Determination was prepared and submitted to the California Coastal Commission, which resulted in a Negative Determination (Appendix C) because the 2018 Proposed Action would not result in significant discharges of non-point source pollution; no net loss of wetlands would occur; the action would avoid adverse effects on coastal marine and terrestrial resources; and the impact of fill associated with the action would be mitigated. The California Coastal Commission Negative Determination remains valid because the elements proposed as part of the SEA would not result in significant discharges of non-point source pollution; no net loss of wetlands would occur; the action would avoid adverse effects on coastal marine and terrestrial resources; and the impact of fill associated with the action would be mitigated.
National Historic Preservation Act	There are no historic properties located within the area of potential effect for the Air Station site. As part of the 2018 EA, the Navy determined that the Proposed Action would result in a Finding of <i>No Historic Properties Affected</i> and the State Historic Preservation Officer concurred with this Finding of Effect. As part of this SEA, and employing the 2015 Programmatic Agreement, the Navy affirms the Finding that the undertaking will result in <i>No Historic Properties Affected</i> . Archaeological monitoring will occur during ground disturbing activities deeper than 3 feet or beyond known fill.
Migratory Bird Treaty Act	The Navy has determined that the Proposed Action would have no effect on migratory birds. Destruction of active bird nests, eggs, or nestlings from vegetation clearing, grubbing, or other site preparation and construction activities would be avoided pursuant to the Migratory Bird Treaty Act with implementation of avoidance and minimization measures.
Emergency Planning and Community Right-to-Know Act	The Navy would inform Local Emergency Planning Committees of the action alternative as required to assist them in developing plans to prepare for and respond to emergencies.
Executive Order (EO) 11988, Floodplain Management	The Proposed Action is located within the 100-year flood zone of Calleguas Creek, and flood-protection features would be incorporated into the design of the proposed facilities, as deemed appropriate. Therefore, the Proposed Action would be in compliance with the regulations of EO 11988.
EO 12088, Federal Compliance with Pollution Control Standards	The Proposed Action would not exceed National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency under the Clean Air Act. Therefore, the Proposed Action would be in compliance with EO 12088.

Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	Status of Compliance
EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations	The Navy has determined that the Proposed Action will not cause disproportionately high and adverse health or environmental effects on any minority or low-income populations.
EO 13045, Protection of Children from Environmental Health Risks and Safety Risks	The Navy has determined that the proposed action would not disproportionately expose children to environmental health risks or safety risks and would be in compliance with EO 13045.
EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management	The Proposed Action would incorporate sustainable development concepts to achieve optimum resource efficiency, sustainability, and energy conservation and construction materials would be recycled in accordance with the Department of Defense Strategic Sustainability Performance Plan. Therefore, the Proposed Action would be in compliance with EO 13423.
EO 13175, Consultation and Coordination with Indian Tribal Governments	The Proposed Action would not impact any known traditional cultural properties and thus, no tribal consultation is anticipated. If tribal resources are discovered, the Navy would coordinate and consult with Federally recognized tribes in compliance with EO 13175.
EO 13693, Planning for Federal Sustainability in the Next Decade	The Proposed Action would incorporate sustainable development concepts to achieve optimum resource efficiency, sustainability, and energy conservation and would be in compliance with EO 13693.

5.2 Irreversible or Irrecoverable Commitments of Resources

Resources that are irreversibly or irretrievably committed to a project are those that are used on a long-term or permanent basis. This includes the use of non-renewable resources such as metal and fuel, and natural or cultural resources. These resources are irretrievable in that they would be used for this project when they could have been used for other purposes. Human labor is also considered an irretrievable resource. Another impact that falls under this category is the unavoidable destruction of natural resources that could limit the range of potential uses of that particular environment.

Implementation of the Proposed Action would involve human labor; the consumption of fuel, oil, and lubricants for construction vehicles; and loss of natural resources (refer to 3.5, *Biological Resources*). Energy (i.e., electricity and natural gas), water, and fuel consumption and demand for services would not increase significantly as a result of implementation of the Proposed Action. Implementing the Proposed Action would not result in significant irreversible or irretrievable commitment of resources.

5.3 Relationship between Short-Term Use of the Environment and Long-Term Productivity

NEPA requires an analysis of the relationship between a project's short-term impacts on the environment and the effects that these impacts may have on the maintenance and enhancement of the long-term productivity of the affected environment. Impacts that narrow the range of beneficial uses of

the environment are of particular concern. This refers to the possibility that choosing one development site reduces future flexibility in pursuing other options, or that using a parcel of land or other resources often eliminates the possibility of other uses at that site.

In the short-term, effects to the human environment with implementation of the Proposed Action would primarily relate to the construction activity itself. Air quality and noise would be impacted in the short-term; however, these impacts are not significant. The construction and operation of the additional eight elements for the new USCG Air Station facility and would not significantly impact the long-term natural resource productivity of the area. The Proposed Action would not result in any impacts that would significantly reduce environmental productivity or permanently narrow the range of beneficial uses of the environment.

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Appendix A

Air Quality Methodology and Calculations

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**USCG Air Station Pt Mugu
Ventura County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	5.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2023

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - EA Section 2.2: The new elements described in Section 2.3 of this SEA would expand the Proposed Action footprint by approximately 5 acres.

Construction Phase - EA Section 2.4.2: Construction of the remaining Air Station facilities including the new elements analyzed in this SEA would take approximately three to four months and is expected to be operational prior to September 2023.

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	22.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	PhaseName		Grading

2.0 Emissions Summary

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-16-2023	8-15-2023	0.6273	0.6200
2	8-16-2023	9-30-2023	0.0454	0.0454
		Highest	0.6273	0.6200

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/16/2023	6/12/2023	5	20	
2	Site Preparation	Site Preparation	6/13/2023	6/19/2023	5	5	
3	Grading	Grading	6/20/2023	6/29/2023	5	8	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	6/30/2023	7/31/2023	5	22
5	Paving	Paving	8/1/2023	8/24/2023	5	18
6	Architectural Coating	Architectural Coating	8/25/2023	9/19/2023	5	18

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Bore/Drill Rigs	1	8.00	221	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.0000e-004	3.7200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9289	0.9289	3.0000e-005	3.0000e-005	0.9379
Total	4.3000e-004	3.0000e-004	3.7200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9289	0.9289	3.0000e-005	3.0000e-005	0.9379

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.0000e-004	3.7200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9289	0.9289	3.0000e-005	3.0000e-005	0.9379
Total	4.3000e-004	3.0000e-004	3.7200e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9289	0.9289	3.0000e-005	3.0000e-005	0.9379

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0491	3.1700e-003	0.0523	0.0253	2.9100e-003	0.0282	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2787	0.2787	1.0000e-005	1.0000e-005	0.2814
Total	1.3000e-004	9.0000e-005	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2787	0.2787	1.0000e-005	1.0000e-005	0.2814

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0491	3.1700e-003	0.0523	0.0253	2.9100e-003	0.0282	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

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3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2787	0.2787	1.0000e-005	1.0000e-005	0.2814
Total	1.3000e-004	9.0000e-005	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2787	0.2787	1.0000e-005	1.0000e-005	0.2814

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7100e-003	0.0799	0.0672	1.6000e-004		3.3700e-003	3.3700e-003		3.1000e-003	3.1000e-003	0.0000	13.7626	13.7626	4.4500e-003	0.0000	13.8739
Total	7.7100e-003	0.0799	0.0672	1.6000e-004	0.0283	3.3700e-003	0.0317	0.0137	3.1000e-003	0.0168	0.0000	13.7626	13.7626	4.4500e-003	0.0000	13.8739

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3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.4900e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3716	0.3716	1.0000e-005	1.0000e-005	0.3752
Total	1.7000e-004	1.2000e-004	1.4900e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3716	0.3716	1.0000e-005	1.0000e-005	0.3752

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7100e-003	0.0717	0.0672	1.6000e-004		3.3700e-003	3.3700e-003		3.1000e-003	3.1000e-003	0.0000	13.7626	13.7626	4.4500e-003	0.0000	13.8739
Total	7.7100e-003	0.0717	0.0672	1.6000e-004	0.0283	3.3700e-003	0.0317	0.0137	3.1000e-003	0.0168	0.0000	13.7626	13.7626	4.4500e-003	0.0000	13.8739

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3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.4900e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3716	0.3716	1.0000e-005	1.0000e-005	0.3752
Total	1.7000e-004	1.2000e-004	1.4900e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3716	0.3716	1.0000e-005	1.0000e-005	0.3752

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1582	0.1787	3.0000e-004		7.7000e-003	7.7000e-003		7.2400e-003	7.2400e-003	0.0000	25.4985	25.4985	6.0700e-003	0.0000	25.6502
Total	0.0173	0.1582	0.1787	3.0000e-004		7.7000e-003	7.7000e-003		7.2400e-003	7.2400e-003	0.0000	25.4985	25.4985	6.0700e-003	0.0000	25.6502

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1582	0.1787	3.0000e-004		7.7000e-003	7.7000e-003		7.2400e-003	7.2400e-003	0.0000	25.4985	25.4985	6.0700e-003	0.0000	25.6501
Total	0.0173	0.1582	0.1787	3.0000e-004		7.7000e-003	7.7000e-003		7.2400e-003	7.2400e-003	0.0000	25.4985	25.4985	6.0700e-003	0.0000	25.6501

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3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565

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3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	3.6000e-004	4.4700e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	4.0000e-005	3.0000e-005	1.1255
Total	5.1000e-004	3.6000e-004	4.4700e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	4.0000e-005	3.0000e-005	1.1255

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	3.6000e-004	4.4700e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	4.0000e-005	3.0000e-005	1.1255
Total	5.1000e-004	3.6000e-004	4.4700e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1147	1.1147	4.0000e-005	3.0000e-005	1.1255

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014

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3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.543528	0.058189	0.173108	0.133952	0.027894	0.007577	0.011427	0.006062	0.000688	0.000393	0.029232	0.000646	0.007304

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

USCG Air Station Pt Mugu - Ventura County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Appendix B

Record of Non-Applicability

**RECORD OF NON-APPLICABILITY (RONA)
FOR CLEAN AIR ACT CONFORMITY
VENTURA COUNTY**

This Proposed Action falls under the Record of Non-Applicability (RONA) category and is documented with this RONA.

The U.S. Environmental Protection Agency (USEPA) published *Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule*, in the 30 November 1993, Federal Register (40 CFR Parts 6, 51, and 93). The U.S. Navy published *Clean Air Act Conformity Guidance* in Appendix F, OPNAVINST 5090.1d, dated 30 July 2013. These publications provide implementing guidance to document Clean Air Act Conformity Determination requirements.

Federal regulations state that no department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license to permit, or approve any activity that does not conform to an applicable implementation plan. It is the responsibility of the Federal agency to determine whether a Federal action conforms to the applicable implementation plan, before the action is taken (40 CFR Part 1 51.850[a]).

Federal actions may be exempt from conformity determinations if they do not exceed designated *de minimis* levels for criteria pollutants (40 CFR Part 51.853[b]). *De minimis* levels (in tons/year) for the air basin potentially affected by the Proposed Action are listed in Table 1.

**Table 1
De minimis Levels for Criteria Pollutants in San Diego County**

Criteria Pollutant	<i>De minimis</i> Level (tons/year)
Volatile Organic Compounds (VOC)	50
Oxides of Nitrogen (NOx)	50
Particulate Matter \leq 10 microns (PM ₁₀)	100
Particulate Matter \leq 2.5 microns (PM _{2.5})	100

PROPOSED ACTION

Action Proponent: Naval Base Ventura County

Location: Naval Base Ventura County

Proposed Action Name: U.S. Coast Guard Air Station Point Mugu

Proposed Action and Emissions Summary: The Proposed Action would include additions and/or revisions to ground facilities and infrastructure necessary to support the new U.S. Coast Guard (USCG) Air Station at Naval Base Ventura County (NBVC), including eight specific project elements that either were not identified in the 2018 Environmental Assessment (EA) or have been substantially modified since publication of the associated Finding of No Significant Impact (FONSI). As discussed in the 2018 EA, the new Air Station would occupy up to 10 acres of land adjacent to runway 3/21 and would consist of a new hangar building, support facilities, and a taxiway. The new elements described in Section 2.4 of the Supplemental Environmental Assessment (SEA) would expand the Proposed Action footprint by approximately 5 acres for a total of 15 acres. There would also be an additional approximately 18 acres of offsite improvements for utility work area and construction laydown. As discussed in the 2018 EA, at least 83 permanent personnel would be operating out of the new Air Station. The new proposed elements would not result in an increase in personnel.

Air Emissions Summary: Construction emissions were calculated by using California Emissions Estimator Model (CalEEMod) version 2020.4.0. CalEEMod is a computer model developed by the California Air Pollution Control Officers Association (CAPCOA) to estimate anticipated emissions associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts. The Ventura County database was used for the proposed Project.

Specific inputs to CalEEMod include land uses and project site areas. Construction input data include, but are not limited to, (1) the anticipated start and finish dates of each Project construction activity; (2) inventories of construction equipment to be used during each activity; (3) areas to be excavated and graded; (4) volumes of materials to be exported from and imported to the Project area; and (5) areas to be paved. The input data and assumptions are based on information contained in Section 2, Proposed Action, of the SEA and provided in detail in Appendix A.

Criteria pollutant emissions would occur from construction under the Proposed Action. Operational emissions associated with the Proposed Action would be minimal. Construction emissions would include emissions associated with off-road and on-road construction equipment and worker vehicles. Construction of the eight additional elements would take approximately three to four months and is expected to be operational prior to September 2023. Table 2 shows the estimated construction emissions of criteria pollutants generated under the Proposed Action for the year 2023, with the maximum yearly emissions compared to the *de minimis* thresholds. Emissions calculation spreadsheets are included in Appendix A to the SEA.

Table 2
Annual Construction Emissions (Proposed Action)

Year	VOC*	NO_x*	CO*	SO_x*	PM₁₀*	PM_{2.5}*
Construction – 2023	0.07	0.61	0.62	<0.01	0.11	0.07
2018 EA Maximum Annual Emissions	0.94	3.57	2.99	0.01	0.37	0.21
Maximum Combined Emissions	1.01	4.18	3.61	0.01	0.48	0.28
<i>de minimis</i> Thresholds ^a	50	50	N/A	N/A	100	100
Adverse Effect?	No	No	No	No	No	No

Source: CalEEMod (output data is provided in Appendix C)

^a *De minimis* threshold levels for conformity applicability analysis (Table 1).

* Pollutant Emissions (tons/year)

Table 2 shows that annual construction emissions generated by the Proposed Action are well below the Ventura County conformity *de minimis* levels. As a result, the Proposed Action would not produce adverse air quality impacts.

Date RONA Prepared: 17 December 2021.

EMISSIONS EVALUATION AND CONCLUSION

The Proposed Action would involve minor construction and operational emissions; all emissions are *de minimis*.

The Navy concludes that *de minimis* thresholds for applicable criteria pollutants would not be exceeded as a result of implementation of the Proposed Action. Therefore, the Navy concludes that further formal Conformity Determination procedures are not required, resulting in this Record of Non-Applicability.

RONA APPROVAL

To the best of my knowledge, the information presented in this RONA is correct and accurate and I concur in the finding that the proposed action is not subject to the General Conformity Rule.

Date: _____

Signature: _____

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Appendix C

Previous Agency Consultation
for 2018 Environmental
Assessment

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400



April 23, 2018

Mr. C. D. Janke
Department of the Navy
Naval Base Ventura County
ATTN: Ms. Deb McKay
311 Main Road, Suite 1
Point Mugu, CA 93042-5033

Re: Negative Determination ND-0007-18, Navy Submittal for Coastal Guard Air Station at Naval Base Ventura County, Point Mugu, Ventura Co.

Dear Mr. Janke:

The Commission staff has received the above-referenced negative determination submitted by the U.S. Department of the Navy (Navy) for the license, construction and operation of a new U.S. Coast Guard (USCG) Air Station at Naval Base Ventura County (NBVC) at Point Mugu. The new air station would occupy approximately 10 acres of land adjacent to runway 3/21 and would consist of a new hangar building, support facilities, an aircraft parking apron, a taxiway, vehicle parking lots, and access roads. The purpose of the proposed project is to support the USCG's mission of emergency response, search and rescue, drug and migrant interdiction, law enforcement, and marine and waterways conservation and protection in its Los Angeles Area of Responsibility, which stretches from Dana Point to Morro Bay (and includes the Channel Islands).

The Navy has evaluated the potential environmental effects of the proposed construction through an environmental assessment developed in accordance with the National Environmental Policy Act (NEPA) of 1969. The proposed construction activities could result in impacts to marine water quality. However, impacts would be minimized through the implementation of a construction National Pollutant Discharge Elimination System (NPDES) permit; a construction Storm Water Pollution Prevention Plan (SWPPP); Erosion Control Plans; and the use of catch devices and sheeting. Construction best management practices, including a comprehensive debris management plan and spill prevention and cleanup plan, would avoid or minimize the potential for accidental releases of debris or fuels during construction. Although the project would result in an increase of impervious surfaces on the installation, this would not result in significant discharges on non-point source pollution. The project includes the fill of 0.45 acres of wetlands located in the northern part of NBVC between existing roads and runway 3/21. These wetlands have no direct hydrological connection to Mugu Lagoon, and thus, as long as there is no net loss of wetlands, the project would avoid adverse effects on coastal marine and terrestrial resources. Moreover, the impact of the fill will be mitigated. The Navy indicates the USCG will obtain an Army Corps permit and prepare a mitigation plan in accordance with permit requirements, which will then be reviewed by the Navy. Once the plan is prepared and submitted to the Navy, the

USCG will coordinate with the Commission staff to determine the adequacy of the mitigation for consistency with this negative determination. If necessary, the procedures available under 15 CFR 930.45 (Availability of mediation for previously reviewed activities) can be invoked in the event of a disagreement between the USCG and the Commission staff concerning the adequacy of the mitigation.

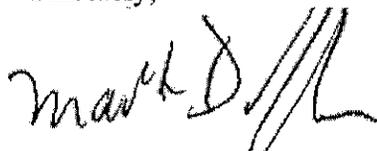
Although the federally listed least Bell's vireo prefers dense riparian vegetation, its presence was recorded in the project vicinity. Potential impacts to migratory birds and other terrestrial wildlife would be avoided by the implementation of environmental protective measures required under the U.S. Fish and Wildlife Service's Programmatic Biological Opinion (PBO 1-8-99-F-24) for NBVC Point Mugu. Measures include clearing and construction activities outside of the migratory bird nesting season, pre-construction nesting surveys and a Bird/Wildlife Aircraft Strike Hazard (BASH) Management Plan that incorporates measures for habitat management, bird dispersal and bird avoidance.

The environmental assessment noted that there are no known archeological sites, historic properties or traditional cultural properties within the vicinity of the area of potential effect defined for the project. If any sensitive cultural resources are encountered, construction would be suspended until an archeologist could determine the significance of the encountered resource(s).

The Naval Base is off limits to the public for military security reasons, and the project would not affect public access and recreation.

In conclusion, with the measures incorporated into the project, the Commission staff **agrees** that the proposed license, construction and operation of the new USCG Air Station would not adversely affect coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR Section 930.35 of the NOAA implementing regulations. Please contact Erik Martinez at (415) 904-5502 if you have any questions regarding this matter.

Sincerely,



(for) JOHN AINSWORTH
Executive Director

cc: CCC – South Central Coast District
U.S. Army Corps of Engineers, L.A. District
USCG

Raven Smith
U.S. Coast Guard
915 2nd Ave., Room 2664
Seattle, WA 98174



DEPARTMENT OF THE NAVY
NAVAL BASE VENTURA COUNTY
311 Main Road, Suite 1
Point Mugu, CA 93042-5033

IN REPLY REFER TO:

5090

Ser N0000CV/0185

February 14, 2018

Mr. Mark Delaplaine
Manager, Federal Consistency Division
California Coastal Commission
45 Fremont Street, Suites 1900 & 2000
San Francisco, CA 94105-2219

Dear Mr. Delaplaine:

**SUBJECT: COASTAL CONSISTENCY NEGATIVE DETERMINATION FOR COAST
GUARD AIR STATION AT NAVAL BASE VENTURA COUNTY, POINT
MUGU, CA**

The Navy proposes to license, construct, and operate a new permanent with the U.S. Coast Guard (USCG) Air Station at Naval Base Ventura County, Point Mugu. The new Air Station would support the USCG mission and subsequent relocation of the Los Angeles Air Station.

This submittal is in compliance with Section 930.35 of the National Oceanic and Atmospheric Administration Federal Consistency Regulations (15 CFR 930). The Navy has determined that the proposed action would have no effect to coastal resources for the reasons identified in its Coastal Consistency Negative Determination.

The Navy requests your concurrence on this proposed project. My point of contact for this matter is Ms. Deb McKay, Region National Environmental Policy Act Coordinator who can be reached at COMM: (619) 532-2284 or by email at deborah.mckay@navy.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "C. D. Janke", written over a white background.

C. D. JANKE
Captain, U.S. Navy
Commanding Officer

Enclosure: 1. Coastal Consistency Negative Determination

Coastal Consistency Negative Determination

The United States Department of the Navy (Navy) proposes to license, construct, and operate a new, permanent U. S. Coast Guard (USCG) Air Station at Naval Base Ventura County (NBVC), Point Mugu, California. In accordance with 16 U.S.C. § 1456(c)(1), the Federal Coastal Zone Management Act (CZMA), the Navy has determined that the proposed project would not affect the resources or uses of the coastal zone. Therefore, the Navy has concluded that a Coastal Consistency Determination is not required and is requesting your concurrence with this Coastal Consistency Negative Determination (CCND) in compliance with the Ocean and Coastal Resource Management regulations (15 CFR 930.35).

PREVIOUS DETERMINATIONS

The proposed project is related in purpose and proximity to previous consistency determinations: namely ND-015-13, Home Basing of the MQ-4C Triton Unmanned Aircraft System (UAS) at Point Mugu and ND-061-02, Extended Aircraft Parking Apron at NAS Point Mugu. In fact, the proposed location for the USCG Air Station is in almost the same location as the hangar planned for the MQ-4C Triton. Due to program changes, the Triton UAS hangar construction identified in ND-015-13 has been delayed until at least fiscal year 2021 and the Navy plans to re-site the Triton hangar construction nearby or next to the proposed USCG Air Station and will make a determination at that time whether additional effects to coastal resources warrant a modification to ND-015-13.

PROJECT LOCATION

NBVC Point Mugu is located along the Pacific Coast in Ventura County between Oxnard and Point Mugu State Park. NBVC operates an airfield with two runways and a 36,000 square mile sea test range extending more than 180 nautical miles seaward from shore. NBVC consists of 4,490 acres of which approximately 2,000 acres are developed. It also includes Mugu Lagoon, the largest salt marsh estuary in Southern California. Mugu Lagoon is at the terminus of the Calleguas Creek watershed and includes approximately 2,100 acres of wetland habitat largely composed of estuarine coastal salt marsh. It provides food, nesting, sheltering, breeding, and nursery grounds for numerous species of fish, wildlife, and plants, including federally listed special status species. See Figure 1 for vicinity map.

PROJECT DESCRIPTION

The Proposed Action would include the license, construction, and operation of a new, permanent USCG Air Station at NBVC Point Mugu, California. The Proposed Action supports the USCG's mission of emergency response, search and rescue, drug and migrant interdiction, law enforcement, and marine and waterways conservation and protection in their Los Angeles area of responsibility which stretches from Dana Point to Morro Bay and out to the Channel Islands. The USCG is currently operating a Forward Operating Base (FOB) at NBVC Point Mugu due to the expiration of a lease for property and a hangar at Los Angeles International Airport and the subsequent recent relocation of USCG Air Station Los Angeles. The FOB was established as a

temporary facility in 2016 using existing infrastructure for two helicopters, 21 personnel and flight operations of two to three sorties per day. See Figure 2 for location of FOB on Point Mugu.

The new, permanent USCG Air Station would occupy up to approximately 10 acres (4 hectare [ha]) of land adjacent to runway 3/21 and would consist of a new hangar building, support facilities, an aircraft parking apron, a taxiway, vehicle parking lots, and access roads. At least four (4) HH-65 or HH-60 helicopters would be operated at the new USCG Air Station. Air operations would involve two or three sorties per day, for a yearly total resulting in approximately 1,300 sorties. At least 83 permanent personnel would be operating out of the new USCG Air Station. See Figures 3 and 4 for new air station site plan.

Details of the new facilities are listed below and more completely described in the draft Environmental Assessment which can be found online at:
<https://www.cnmc.navy.mil/navysouthwestprojects>

- New hangar: a 44,000 square foot (SF) building with 2 stories and maximum height of 50 feet (ft);
- Administrative building: a 20,000 SF building with 2 stories and max height of 50 ft which includes housing for 12 ready crew;
- Access road: a 22 ft wide road with 6 ft sidewalk on one side;
- Aircraft parking apron: a 375 ft wide by 375 ft deep paved area;
- Taxiway: a 50 ft wide road with 25 ft wide shoulders to connect the hangar to the existing runway;
- Two parking lots: one lot for 64 spaces totaling 0.7 acres and another for 12 spaces totaling 0.21 acres;
- Utility services to the new infrastructure;
- Mitigation for impacts to wetlands due to construction of taxiway would be off Navy property

The proposed action also includes the operations and training requirements for the new USCG Air Station.

- *Day pattern work*: this training entails routine helicopter landings on the runways, including hovering and running landings. Hovering operations would also be conducted over the runways.
- *Night pattern work*: this would be the same as day pattern work, except training would occur after sunset.
- *Instrument flight rules training*: this training entails helicopters completing multiple approach patterns.
- *External load operations*: this training entails helicopters carrying external loads in normal flight patterns from a winch line around the airfield.

- *Maintenance test flights*: these training operations would occur over the runway in normal flight patterns with hover operations over tower-designated ramp space. Maintenance test flights would occur up to three times per quarter.

EFFECTS ANALYSIS

As defined in Section 304 of the CZMA, the term “coastal zone” does not include “lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government.” NBVC Point Mugu is owned and operated by the Navy and, therefore, is excluded from the coastal zone. The Navy recognizes that Federal actions on land excluded from the coastal zone may affect uses and resources within the coastal zone. Accordingly, the Navy analyzed the impacts of the proposed project on the coastal zone by looking at reasonable foreseeable, direct and indirect effects on the coastal uses or resources. Also analyzed were the relevant management program enforceable policies, and the Coastal Resources Planning and Management Policies (CRPMP).

Public Access (Coastal Resources Planning and Management Policies [CRPMP] Section 30210 *et seq.*), Recreation (CRPMP Sections 30220 *et seq.*)

The proposed project would occur within the boundaries of NBVC Point Mugu where access is controlled and restricted to military and USCG personnel, Department of Defense (DoD) and Department of Transportation employees and DoD retirees, authorized contractors and official visitors. There is no public access to the project site and no public recreation opportunities located within the project site. Surrounding land uses adjacent to the proposed project area are designated aircraft operations. The proposed project would be compatible with existing adjacent land uses, and no changes would occur to public access or recreational opportunities.

There would be no change to existing publicly accessible areas surrounding NBVC Point Mugu as a result of the proposed action. The proposed action does not affect access to or recreation on any public beaches located outside the installation boundaries both up-coast and down-coast from NBVC Point Mugu. The water areas immediately adjacent to the proposed project area are within established military and air operations security zones and are not considered water-oriented or coastal recreational activity areas. The proposed action would have no effect to coastal water-oriented recreational activity as none exists in the proposed action area.

Therefore, there would be no effect to public access and recreation.

Marine Environment (CRPMP Sections 30230 *et seq.*)

There are 2,139 acres of wetlands on NBVC Point Mugu representing 48 percent of the total area of the installation. The largest body of water on NBVC is Mugu Lagoon. Mugu Lagoon is also part of the Laguna Point to Latigo Point Area of Special Biological Significance (ASBS), which is located along the coast and in offshore waters in both Los Angeles and Ventura counties. The

NBVC Point Mugu and Mugu Lagoon are located at the northern boundary of the Laguna Point to Latigo Point ASBS. NBVC Point Mugu is also located within the 100-year floodplain of Calleguas Creek. Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern (HAPC) are designated for Pacific Coast Groundfish and Coastal Pelagic Species in the nearshore marine and estuarine habitats at NBVC Point Mugu.

The project site is to the east of an existing runway in an area that is disturbed and was previously a golf course. The construction of the hangar, buildings, parking apron, taxiway, vehicle parking lots and roads would result in an increase in impervious areas up to 10 acres. However, given that roughly half of the installation is wetlands, increasing the impervious surface area of 10 acres constitutes roughly a 0.5 percent increase overall.

The proposed action would have no impact off the federal installation on the marine environment. There are no marine mammals in or near the proposed project area and there is no proposed in-water construction activity. Implementing standard construction Best Management Practices (BMPs), such as a comprehensive debris management plan and spill prevention and cleanup plan, would avoid or minimize the potential for accidental releases of debris or fuels during construction.

During construction, protective measures would be implemented to minimize impacts to marine water quality. Protective measures for construction include implementation of a construction National Pollutant Discharge Elimination System (NPDES) permit; a construction Storm Water Pollution Prevention Plan (SWPPP); Erosion Control Plans and the use of catch devices and sheeting.

Although the proposed action would increase impervious surfaces on the installation, the increase is insignificant when compared to the amount of impervious surfaces in adjacent areas. The proposed action would not result in significant discharges on non-point source pollution. All aircraft washing activities would occur at a designated washrack. No discharges of pollutants into coastal waters are expected during construction; therefore, there would be no effects to the ASBS. The project would not affect the current on-site or off-site drainage or any existing drainage structures nor require modification of existing drainage structures.

The proposed action includes the permanent fill of 0.45 acres of jurisdictional wetlands as a result of the construction of a taxiway. See Figure 5 for wetland impacts. The wetlands affected by the proposed action can be described as a long, narrow airfield drainage channel alongside the northeastern end of the proposed taxiway vegetated with a combination of native wetland plants, iceplant and non-native upland species. This channel receives water runoff from the airfield where it flows to Oxnard Drainage Ditch #2. The proposed action is concentrated in an area where daily aircraft operations are conducted and take place in an existing development consisting of runways, hangars, taxiways and aircraft parking aprons. All impacts to wetlands would be

mitigated by the USCG off Navy property after consultation with the Army Corps of Engineers and Water Board.

The Navy would maintain the hydraulic connections between Mugu Lagoon and upstream wetlands during any construction and as a permanent feature through the use of culverts beneath the project site. Therefore, the proposed action would not affect the upstream wetlands.

Therefore, there would be no effect to the biological productivity, water quality, or the marine environment.

Land Resources (CRPMP Section 30240 *et seq.*)

NBVC Point Mugu consists of a developed area, dominated by non-native vegetation, and a large salt marsh estuary and beach that supports a variety of native plants and wildlife, including special status species. The project area does not contain suitable habitat or foraging areas for any listed species known to occur on the installation. Although the federally listed least Bell's vireo prefers dense riparian vegetation, it was recorded in the project vicinity. Impacts to federally listed species are typically addressed using the Programmatic Biological Opinion (PBO 1-8-99-F-24) for NBVC Point Mugu. The listed bird species may be disturbed by noise and visual stimuli during the project construction activity or future flight operations. Individuals would be expected to move away from the project area and therefore would not be exposed to noise levels that would cause hearing damage or loss or suffer risk of injury due to equipment noise. However the visual and noise disturbances could cause disruption of foraging behaviors and nest loss as a result of abandonment or increased predation. The potential for impacts to listed species would be avoided by the implementation of Environmental Protective Measures required within the PBO such as scheduling construction to avoid nesting periods and if construction cannot be avoided during these times, a qualified biologist would conduct weekly surveys for the presence of active nests. If active nests are found within 300 feet, construction would be postponed until nesting is complete and no evidence of new nesting activity.

There are no known archeological sites, historic properties or traditional cultural properties within the vicinity of the area of potential effect defined for the project. If any sensitive cultural resources are encountered, construction would be suspended until an archeologist could determine the significance of the encountered resource(s). In accordance with Section 106 of the National Historic Preservation Act, the Navy is consulting with the State Historic Preservation Officer on the proposed action and has requested concurrence that the undertaking would result in No Historic Properties Affected.

Therefore, there would be no effects to land resources as a result of the proposed projects.

Development (CRPMP Section 30250 *et seq.*)

Scenic and Visual Quality. Due to the restricted access of the project areas inside an active military installation, the proposed new USCG Air Station would not be subject to high-volume close-proximity public viewing nor would the project block or hinder public views of coastal

resources. The proposed new hangar and associated aviation facilities would be designed to be consistent with the installation appearance standards for form, scale, style, material and colors. Since the new buildings and aircraft would be similar in kind and function with the existing airfield infrastructure and operations, the visual environment would be consistent with the existing visual environment. During construction activities, there would be temporary visual impacts though the impact would be minimal since there are fewer viewers in the area. Overall, the visual landscape would not appear to have changed once the construction is complete.

Air Quality. NBVC Point Mugu is an active military installation with an airfield that supports approximately 39,000 flight operations (a take-off or landing) per year. The addition of 2-3 USCG sorties per day would equate to approximately 4,494 additional flight operations per year which would represent a small (11 percent) increase in existing operations at Point Mugu. Note, A flight operation is typically a take-off or landing; in this case, the project flight operations consist of 1,300 take-offs, 1,300 landings, 1,400 touch and goes, and 400 ground control approaches per year. In addition, the flight operations projection includes support aircraft providing supplies and is estimated at 36 operations per year. Project emissions would not exceed annual conformity de minimis thresholds identified for the South Central Coast Air Basin. Additionally, annual project construction emissions would not be regionally significant in the air basin, as they would be substantially less than 10 percent of the applicable conformity-related emissions limits estimated by the South Central Coast Air Basin. The proposed project would conform to the State Implementation Plan and would not trigger a General Conformity Determination under the Clean Air Act, as amended. Although the project would contribute to emissions of greenhouse gases from the combustion of fossil fuels, the estimated annual greenhouse gas emissions (716 metric tons) fall below the Council of Environmental Quality's threshold of 25,000 metric tons per year.

Therefore, there would be no effect to the visual, scenic, or air quality of coastal resources.

CONCLUSION

In accordance with 16 U.S.C. § 1456(c)(1), this Coastal Consistency Negative Determination demonstrates that the proposed project will not affect coastal uses or resources.

The Navy respectfully requests your concurrence. If you need additional information, or if you have any questions, please do not hesitate to contact Ms. Deb McKay at 619-532-2284 or email at deborah.mckay@navy.mil.

Figure 1 - Vicinity Map

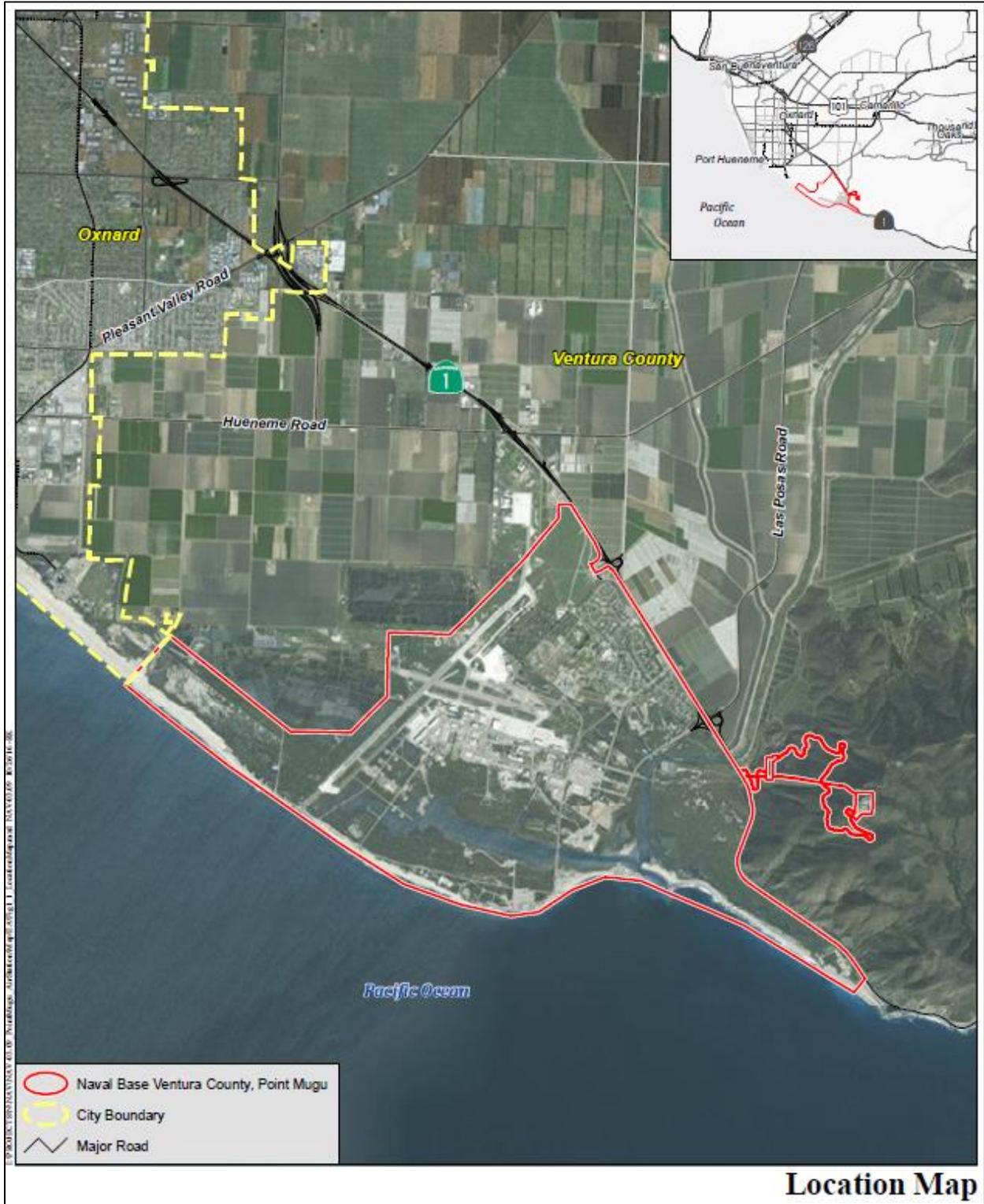


Figure 2 – Existing USCG Forward Operating Base at Point Mugu



Figure 3 – New Air Station Site Plan

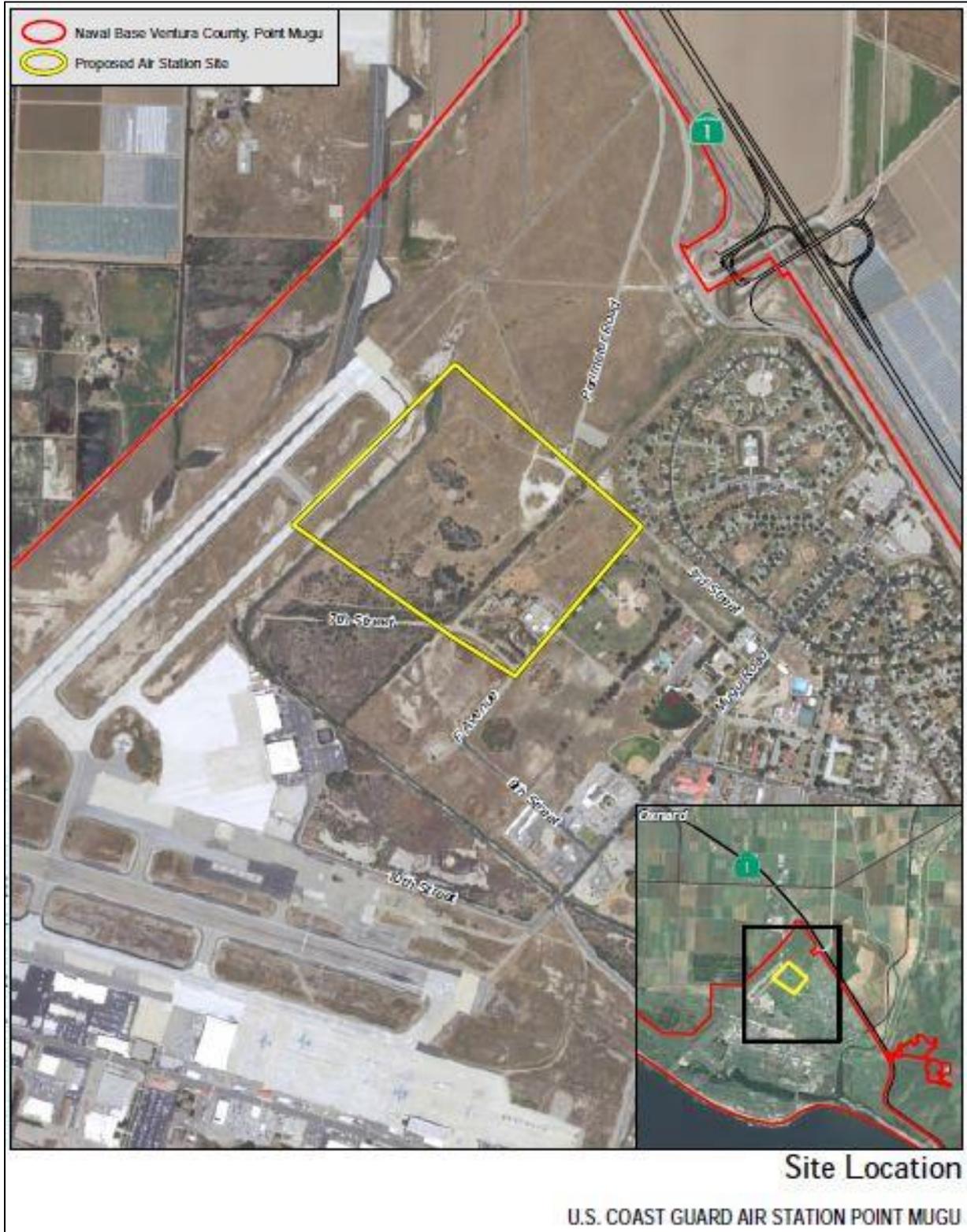


Figure 4 – Project Site Map/Details

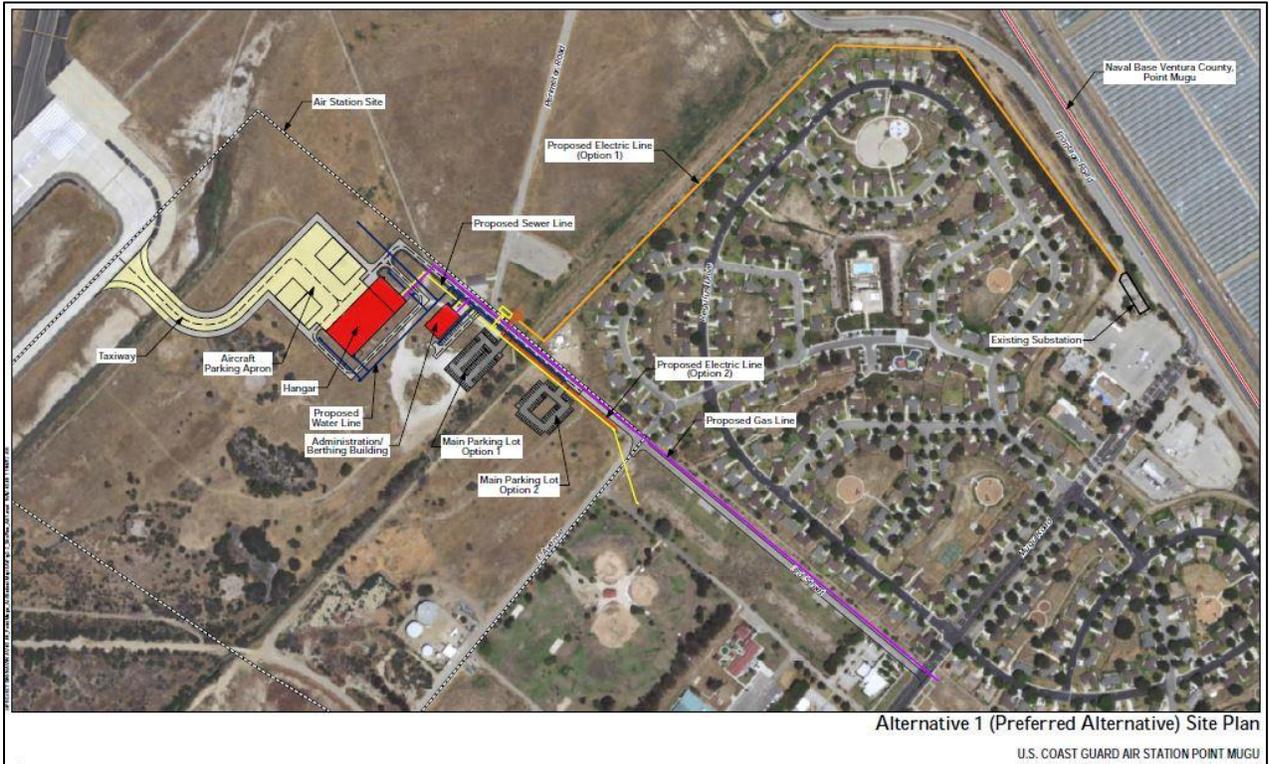
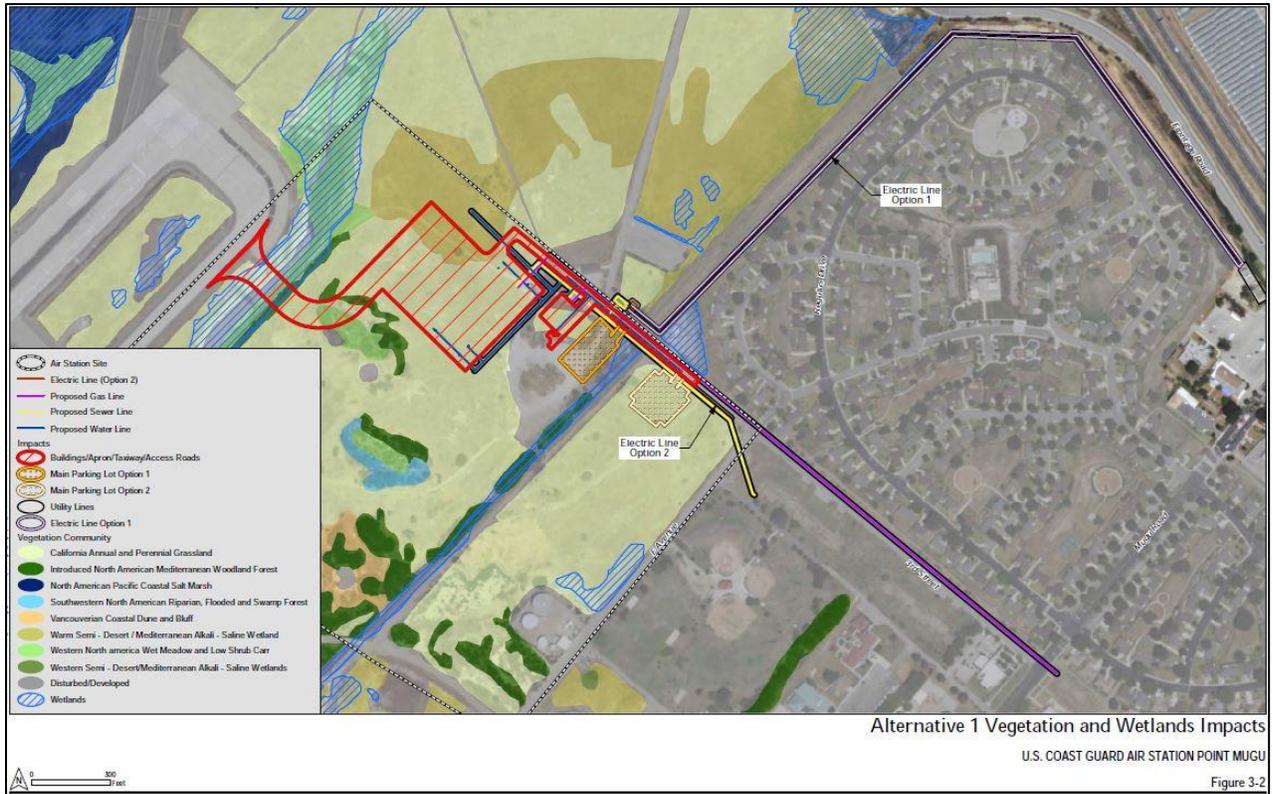


Figure 5 – Wetland Impacts





**DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION**

Lisa Ann L. Mangat, Director

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

February 13, 2018

Reply In Reference To: USN_2017_1221_001

Captain C. D. Janke
Commanding Officer
Naval Base Ventura County
311 Main Road, Suite 1
Point Mugu, CA 93042-5033

RE: U. S. Coast Guard Air Station Point Mugu, Naval Base Ventura County Point Mugu, (your letter 5090/Ser N0000CV/1385 of December 19, 2017 and e-mail of February 06, 2018)

Dear CAPT Janke:

The Department of the Navy (Navy) is initiating consultation with the State Historic Preservation Officer (SHPO) on the above-cited undertaking, in accordance with Section 106 of the *National Historic Preservation Act*, as amended. The Navy in conjunction with the U. S. Coast Guard (USCG) propose to construct a new USCG Air Station at Naval Base Ventura County (NBVC), Point Mugu.

The proposed undertaking would include the construction and operation of a new USCG Air Station at NBVC, which will replace a temporary Forward Operating Base that the USCG has using since 2016. The proposed undertaking will include a new hanger building, support facilities, an aircraft parking apron, a taxiway, vehicle parking lots, and access roads. At least four HH-65 or HH-60 helicopters would operate out of the new Air Station and would include approximately two or three sorties daily. The area of potential effect (APE) for the new Air Station will encompass approximately 10 acres. The APE is located within the former Point Mugu Golf Course, which was constructed in the early 1960s and abandoned in the early 2000s. The golf course was constructed on up to 18 inches of fill material. Access to the APE will be by existing paved roads.

As documentation for your finding of effect, you provided an Environmental Assessment (EA), which was prepared by the Navy and the USCG and dated December 2017. A records review was conducted of the NBVC's Cultural Resources Management Database. That records review revealed that: (1) a portion of the APE had been surveyed previously on March 25, 2013 with negative results and (2) that no cultural resources were located within the APE. The previous survey also included testing in which nine potholes were excavated with a backhoe with an 18 inches wide bucket at depths ranging from two to 10 feet. All of the potholes were negative for the presence of cultural resources.

Seven existing buildings are located in the APE, but none of them will be affected by the proposed undertaking. In 1998, the Navy in conjunction with JRP Historical Consulting evaluated those buildings for their eligibility for listing on the National Register of Historic Places and the Navy concluded that none of the buildings was eligible.

On December 19, 2017, the Navy sent request for comment letters to the Santa Ynez Band of Mission Indians (SYBMI) and five local historical or environmental groups concerning the proposed undertaking. Freddie Romero (SYBMI) participated in a site visit of the APE on January 30, 2018 and afterwards, he told that Navy that the Tribe had no concerns with either the APE or the proposed undertaking. To date, none of the other groups has responded. The Navy circulated the Draft EA for public review between December 15 and 31, 2017.

Based on the records review, the previous survey, and the tribal consultations, the Navy has determined that a finding of No Historic Properties Affected is appropriate for this proposed undertaking, and has requested SHPO's concurrence with that determination, and its identification of the APE.

The SHPO has reviewed the documentation provided and offers the following comments:

- The SHPO has no objections to identification and delineation of the APE, pursuant to 36 CFR Parts 800.4(a)(1) and 800.16(d);
- The SHPO recommends the Navy update the Inventory and Evaluation of National Register of Historic Places Eligibility for Buildings and Structures at Naval Base Ventura County Point Mugu, California (JRP Historic Consulting Services: 1998). The study is twenty years old and a number of the buildings and structures surveyed at the time are now over fifty years old. The update should document the current condition of properties and assess their eligibility under all applicable criteria. and
- The SHPO does not object to your finding of No Historic Properties Affected and agree that it is appropriate for this proposed undertaking.

Be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, the Navy may have additional future responsibilities for this undertaking under 36 CFR Part 800. Should you encounter cultural artifacts during ground disturbing activities, please halt all work until a qualified archaeologist can be consulted on the nature and significance of such artifacts.

If you have any questions or concerns, please contact Tristan Tozer at (916) 445-7027 or via e-mail at Tristan.Tozer@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer

-----Original Message-----

From: Lousen, Chad A CIV NAVFAC, MUGU

Sent: Monday, March 12, 2018 3:33 PM

To: Loomis, Rebecca L CIV NAVFAC SW; 'Smith, Raven J CIV'; 'McKenna, Joseph A CIV'

Cc: Ruane, Martin K NAVFAC SW, MUGU; Montoya, Joseph L CIV NAVFAC SW, PRV42 (joseph.l.montoya@navy.mil)

Subject: FW: [Non-DoD Source] RE: Coast Guard Project at Point mugu and EFH

FYI - We have received concurrence from NMFS on our informal EFH consultation.

-----Original Message-----

From: Bryant Chesney - NOAA Federal [mailto:bryant.chesney@noaa.gov]

Sent: Thursday, March 08, 2018 2:41 PM

To: Ruane, Martin K NAVFAC SW, MUGU

Cc: Lousen, Chad A CIV NAVFAC, MUGU; Montoya, Joseph L CIV NAVFAC SW, PRV42

Subject: RE: [Non-DoD Source] RE: Coast Guard Project at Point mugu and EFH

Martin,

Based on the information you have provided about the project and the proposed conservation measures, such as ensuring tidal flow is not reduced and compensating for any wetlands and associated habitat loss, NMFS does not believe this project would result in a substantial impact to EFH. Once the specific project details and construction methods are being developed regarding the building of the taxiway over the drainage ditch, NMFS expects the Navy to complete the EFH consultation process to ensure appropriate conservation measures are in place to minimize and offset impacts to EFH.

Regards,
Bryant

-----Original Message-----

From: Ruane, Martin K NAVFAC SW, MUGU [mailto:martin.ruane@navy.mil]

Sent: Monday, March 05, 2018 3:07 PM

To: Bryant Chesney - NOAA Federal <bryant.chesney@noaa.gov>

Cc: Lousen, Chad A CIV NAVFAC, MUGU <chad.lousen@navy.mil>; Montoya, Joseph L CIV NAVFAC SW, PRV42 <joseph.l.montoya@navy.mil>

Subject: RE: [Non-DoD Source] RE: Coast Guard Project at Point mugu and EFH

Bryant, so looks like we won't be getting any of the specifics of the designs anytime soon. Before the project moves forward at all and anything is awarded and designed, we need to complete NEPA. That being said we cannot complete NEPA until we have our consultations in order, including EFH. Hence we are in a bit of a catch 22.

I wonder if we can get something from you in writing like this which may make our NEPA folks happy... "Based on what information you have provided about the project and the protective measures in place, such as ensuring tidal flow is not reduced and any wetlands lost will be mitigated (as required by the ACOE), NMFS does not feel this project would result in a significant impact to EFH which would trigger the requirement of the preparation of an EIS. Once the specific project details and construction methods are being developed regarding the building of the taxiway over the drainage ditch, NMFS will work with the Navy to ensure appropriate protective measures are in place to minimize impacts to EFH and complete the formal EFH consultation."

Once again, I added the EFH worksheet for reference. I did make a couple edits to the worksheet.

Thanks

Martin Ruane

Ecologist

Naval Base Ventura County

(805) 989-3808

-----Original Message-----

From: Ruane, Martin K NAVFAC SW, MUGU

Sent: Thursday, February 15, 2018 2:47 PM

To: 'Bryant Chesney - NOAA Federal'

Subject: RE: [Non-DoD Source] RE: Coast Guard Project at Point mugu and EFH

Okay, will re-submit once we get more project details. Thanks Bryant.

Martin Ruane

Ecologist

Naval Base Ventura County

(805) 989-3808

-----Original Message-----

From: Bryant Chesney - NOAA Federal [mailto:bryant.chesney@noaa.gov]

Sent: Thursday, February 15, 2018 12:29 PM

To: Ruane, Martin K NAVFAC SW, MUGU

Subject: [Non-DoD Source] RE: Coast Guard Project at Point mugu and EFH

Martin,

Thank you for providing the EFH Assessment. However, there is insufficient information regarding the structure details, effects to tidal flow, and compensatory mitigation approach to provide meaningful conservation recommendations. Without a design for the bridge and analysis of effects to tidal flow, there is insufficient information to support the conclusion that the 'culvert will maintain tidal flow'. Similarly, it is difficult to quantify size of impact without additional design details and construction approach. Lastly, given the permanent impacts to groundfish HAPC and special aquatic sites (mudflats and wetlands) under CWA404, a more developed compensatory mitigation plan should be described. I recommend that you re-initiate consultation when you have more details regarding the above details. If you have questions/concerns, please give me a call at 562-980-4037. Thanks.

Bryant

-----Original Message-----

From: Ruane, Martin K NAVFAC SW, MUGU [mailto:martin.ruane@navy.mil]

Sent: Wednesday, February 07, 2018 12:47 PM

To: Bryant Chesney - NOAA Federal <bryant.chesney@noaa.gov>

Cc: Lousen, Chad A CIV NAVFAC, MUGU <chad.lousen@navy.mil>

Subject: RE: Coast Guard Project at Point mugu and EFH

Hi Bryant, just following up in case you have any questions regarding our EFH determination.

Thanks

Martin Ruane

Ecologist

Naval Base Ventura County

(805) 989-3808

-----Original Message-----

From: Ruane, Martin K NAVFAC SW, MUGU
Sent: Tuesday, January 23, 2018 12:04 PM
To: 'Bryant Chesney - NOAA Federal'
Subject: Coast Guard Project at Point mugu and EFH

Bryant,

As requested, attached is the EFH assessment for impacts associated with the development of a hangar for the US Coast Guard at Naval Base Ventura County Point Mugu. Let me know if you have any questions.

Thanks

Martin Ruane
Ecologist
Naval Base Ventura County
(805) 989-3808

-----Original Message-----

From: Ruane, Martin K NAVFAC SW, MUGU
Sent: Thursday, January 18, 2018 3:24 PM
To: 'Bryant Chesney - NOAA Federal'
Subject: RE: [Non-DoD Source] RE: Building of hanger at Point mugu and EFH

Not a problem, I'll prepare an assessment.

Martin Ruane
Ecologist
Naval Base Ventura County
(805) 989-3808

-----Original Message-----

From: Bryant Chesney - NOAA Federal [mailto:bryant.chesney@noaa.gov]
Sent: Thursday, January 18, 2018 3:20 PM
To: Ruane, Martin K NAVFAC SW, MUGU
Subject: [Non-DoD Source] RE: Building of hanger at Point mugu and EFH

Martin,

The official EFH descriptions are based upon the text found within the FMPs.

The EFH Mapper was our best attempt at a national level to depict EFH with available spatial data. In this particular situation, the EFH Mapper fails to capture all the EFH in the area. So, yes, it is actually EFH, and a consultation would be appropriate. Estuarine wetlands (MHHW and below) are actually a habitat area of particular concern for species in the Pacific Groundfish FMP. I recognize it's not high quality wetlands, but we'd be recommending compensation for any permanent losses. You indicate that's already being addressed, so I'd recommend including that info in the EFH assessment. Other potential effects of concern include reduction of tidal conveyance upstream and turbidity. If these issues are adequately addressed in the assessment, another fairly simple response may work. Make sense?

Bryant

-----Original Message-----

From: Ruane, Martin K NAVFAC SW, MUGU [mailto:martin.ruane@navy.mil]

Sent: Thursday, January 18, 2018 2:10 PM

To: Bryant Chesney <Bryant.Chesney@noaa.gov>

Subject: Building of hanger at Point mugu and EFH

Bryant, We are building a hangar at Point Mugu at the old golf course for the Coast Guard and will be crossing a drainage ditch to get to the taxiway.

Ditch is considered wetlands, so any impacts will be mitigated.

Not sure yet if they will be putting culverts, but likely as they need to make a bridge of sorts.

Looking at the EFH mapper, this ditch is not EFH. Do you concur or are we required to do an EFH consultation?

Attached is a map of the site and screenshots of the NOAA mapper.

thanks

Martin Ruane

Ecologist

Naval Base Ventura County (805) 989-3808

EFH ASSESSMENT WORKSHEET

PROJECT NAME: Coast Guard Hangar Development

DATE: January 23, 2018

PROJECT/FILE NO.:NA

LOCATION:Naval Base Ventura County Point Mugu

PREPARER: Martin Ruane

CONTACT INFO: 805 989-3808 martin.ruane@navy.mil

Step 1. Use the Habitat Conservation Division EFH webpage to evaluate whether the proposed action is in or adjacent to EFH for those species that may occur in the vicinity of the proposed action.

1. INITIAL CONSIDERATIONS		
EFH Designations	Yes	No
Is the action located in or adjacent to Coastal Pelagic Species EFH?		X
Is the action located in or adjacent to Pacific Coast Groundfish EFH?	X	
Is the action located in or adjacent to Pacific Coast Salmon EFH?		X
Is the action located in or adjacent to Highly Migratory Species EFH?		X
If you answered no to all questions above, then EFH consultation is not required - go to Step 5. If you answered yes to any of the above questions proceed to Step 2 and complete remainder of the worksheet.		

Step 2. In order to assess impacts, it is critical to know the habitat characteristics of the site before the activity is undertaken. Use existing information, to the extent possible, in answering these questions. Please note that, there may be circumstances in which new information must be collected to appropriately characterize the site and assess impacts.

2. SITE CHARACTERISTICS	
Site Characteristics	Description
Is the site intertidal, subtidal, or water column?	Muted Intertidal
What are the sediment characteristics?	Muddy substrate
Is Habitat Area of Particular Concern (HAPC) designated at or near the site? If so what type, size, characteristics?	Estuary – Mugu Lagoon is a salt marsh complex, approximately 2,200 acres of intertidal, subtidal, and upper salt marsh. This site is part of an upper drainage ditch that is tidally connected to Mugu Lagoon, through a small ditch that is connected to Oxnard Drainage Ditch (ODD) #2 that is connects to the estuary (Calleguas Creek)
Is there submerged aquatic vegetation (SAV) at or adjacent to project site? If so describe the spatial extent.	The ditch is shallow (1-2 inches of water on average) and is mostly mud with some wetland vegetation (<i>Distichlis spicata</i>) on the edge of the bank.
What is typical salinity and temperature regime/range?	Does receive some freshwater input from ODD2 or runoff from airfield during rain events. Surveys of salinity in nearby areas show mostly saltwater to brackish salinity, changing dependent upon tide, depth in water column, and recent rainfall. Water temperatures vary, with likely warmer temperatures due to shallow water levels at this ditch.
What is the normal frequency of site disturbance, both natural and man-made?	Little to no natural disturbance. Some human disturbance, as occasionally ditch is sprayed or vegetation is removed for flood control issues. However most vegetation has been removal of myoporum trees that were growing on the banks, with not too much removal of aquatic vegetation, such as cattails in recent past.
What is the area of proposed impact (work footprint & far afield)?	Approximate footprint of impacted aquatic habitat would be approximately 500sq ft. Creating a 50ft wide bridge across a ~10ft ditch/ .01 acres). At this time a box culvert is proposed, which will allow tidal flow and runoff to travel up and down ditch. Majority of impact will be from the building of a hangar, parking apron, and vehicle parking lot in upland area (old golf course).

Step 3. This section is used to describe the anticipated impacts from the proposed action on the physical/chemical/biological environment at the project site and areas adjacent to the site that may be affected.

3. DESCRIPTION OF IMPACTS			
Impacts	Y	N	Description
Nature and duration of activity(s)			The purpose is to build a bridge/overpass over drainage ditch to provide access from new hangar to taxiway. No current estimate on duration of activity, but likely to take up to 6 months for the bridge portion of the activity. Currently no specific designs of bridge (a box culvert likely), assuming impacting entire area of ditch. The tidal waters will still move under the bridge and wetland area upstream of the bridge will not be cut off from tidal flow.
Will benthic community be disturbed?	X		The benthic community will be disturbed by the likely placement of the box culvert
Will SAV be impacted?		X	
Will sediments be altered and/or sedimentation rates change?		X	
Will turbidity increase?	X		Potentially a small amount of increase in turbidity. However the ditch moves extremely slow, so increase would be very localized.
Will water depth change?		X	
Will contaminants be released into sediments or water column?		X	
Will tidal flow, currents or wave patterns be altered?		X	Culvert will maintain tidal flow
Will ambient salinity or temperature regime change?		X	
Will water quality be altered?		X	
Will ambient noise levels be altered?	X		Temporary increase in ambient noise levels due to project equipment (such as cranes or heavy machinery)

Step 4. This section is used to evaluate the consequences of the proposed action on the functions and values of EFH as well as the vulnerability of the EFH species and their life stages. Assessment of EFH impacts should be based upon the site characteristics identified in Step 2 and the nature of the impacts described within Step 3. The [EFH](#) descriptions on our website should be used during this assessment to determine the ecological parameters/preferences associated with each species listed and the potential impact to those parameters.

4. EFH ASSESSMENT			
Functions and Values	Y	N	Describe habitat type, species and life stages to be adversely impacted
Will functions and values of EFH be impacted for:			
Spawning		X	
Nursery		X	
Forage		X	
Shelter		X	
Will impacts be temporary or permanent?			A small amount of area (~500 sq ft.) will permanently change from a muddy drainage ditch to a box culvert. Temporary impacts would be a potential slight rise in turbidity in the immediate area as sediments will quickly resettle.
Will minimization measures be used?		X	Disturbance to site will be minimized to only impact what is necessary to properly install the box culvert or however the bridge is designed.
Will compensatory mitigation be used?		X	Yes, as wetlands will be impacted, wetland mitigation will have to occur for the loss. Offsite restoration in an en-lieu program will be used to mitigate impacts to wetlands.

Step 5. This section provides the Navy's determination on the degree of impact to EFH from the proposed action. The EFH determination also dictates the type of EFH consultation that will be required with NMFS.

5. DETERMINATION OF IMPACT		
		Federal Agency's EFH Determination
Overall degree of adverse effects on EFH (not including compensatory mitigation) will be: (check the appropriate statement)		There is no adverse effect on EFH EFH Consultation is not required
	X	The adverse effect on EFH is not substantial. This is a request for an abbreviated EFH consultation. This worksheet is being submitted to NMFS to satisfy the EFH Assessment requirement.
		The adverse effect on EFH is substantial. This is a request for an expanded EFH consultation. A detailed written EFH assessment will be submitted to NMFS expanding upon the impacts revealed in this worksheet.





From: Szijj, Antal J CIV USARMY CESPL (US) <Antal.J.Szijj@usace.army.mil>
Sent: Thursday, November 30, 2017 2:05 PM
To: Vartanian, Valerie CIV NAVFAC SW
Subject: [Non-DoD Source] RE: NBVC Pt. Mugu Coast Guard hangar (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Hi Valerie,

Sorry not to respond sooner on this. And Dec 1 is right around the corner! Unfortunately the ratio is dependent on what is proposed for mitigation. Things that drive up the ratio are the quality of the resource, whether the mitigation is in-kind vs. out-of-kind, whether the mitigation involves a bank/in-lieu fee program or will be permittee responsible, the lag time between the impact and the mitigation, whether the mitigation is in the same watershed, the type of mitigation (i.e. preservation/enhancement/restoration/creation) and other considerations. We have a mitigation ratio checklist that we use which takes these things into consideration and provides a justified ratio, but without knowing what the mitigation is we can't do much.

I guess if you want to be conservative you could say up to a 5:1 ratio--though it could go higher if they proposed preservation only.

Sorry I can't provide a more specific figure.

Antal

-----Original Message-----

From: Vartanian, Valerie CIV NAVFAC SW [mailto:valerie.vartanian@navy.mil]
Sent: Wednesday, November 22, 2017 2:48 PM
To: Szijj, Antal J CIV USARMY CESPL (US) <Antal.J.Szijj@usace.army.mil>
Subject: NBVC Pt. Mugu Coast Guard hangar

Hey Antal,

We have a project coming up to build a hangar for the Coast Guard on the old golf course. They will need access to the airfield which will require bridging a taxiway over an existing drainage channel. I do not know exactly what they will build, but to complete our EA we need to have an estimation of the mitigation requirements for the temporary/permanent impacts. The Coast Guard will be responsible for acquiring permits and performing the mitigation off-base. To the best of my knowledge:

1. The taxiway will be 100' across
2. Assumed that they will build it over a box culvert
3. The wetland is a drainage ditch of runoff from the airfield which runs down and connects to ODD 2.
4. The total amount of wetlands to be impacted is .45 acre
5. The habitat type on the north west side of the ditch is lower salt marsh dominated by pickleweed with salt panne above. On the south east side of the ditch the bank is steeply sloped with non-native grasses as dominant.
6. Attachment has pictures of the site and maps showing the project

footprint and drainage.

Can you provide an estimated mitigation ratio for the amount of impacted area? And, of course, I need the info before Dec 1.

Valerie Vartanian, Natural Resources Mgr.
NBVC Pt. Mugu
805.989.4740

CLASSIFICATION: UNCLASSIFIED

From: Vartanian, Valerie CIV NAVFAC SW <valerie.vartanian@navy.mil>
Sent: Thursday, February 15, 2018 8:02 AM
To: Lousen, Chad A CIV NAVFAC, MUGU
Subject: FW: Coast Guard Hangar project at NBVC Pt. Mugu
Attachments: [Non-DoD Source] RE: NBVC Pt. Mugu Coast Guard hangar (UNCLASSIFIED) (9.53 KB)

Valerie Vartanian, Natural Resources Mgr.
NBVC Pt. Mugu
805.989.4740

-----Original Message-----

From: Vartanian, Valerie CIV NAVFAC SW
Sent: Wednesday, February 14, 2018 1:03 PM
To: CarrilloZara, Valerie@Waterboards (Valerie.CarrilloZara@waterboards.ca.gov)
Subject: Coast Guard Hangar project at NBVC Pt. Mugu

Hi Valerie,

The Navy proposes to license, construct, and operate a new, permanent U. S. Coast Guard (USCG) Air Station at Naval Base Ventura County (NBVC), Point Mugu. The new Air Station would support the USCG mission and subsequent relocation of its Los Angeles Air Station. As part of the NEPA process, we are initiating informal consultation with you regarding Section 401 permitting for wetlands impacts resulting from the project. We have already initiated informal consultations with the ACOE to identify potential wetlands mitigation requirements for constructing a new bridge across a drainage ditch near the airfield. ACOE responded (see attached email for ACOE response and project information) with potential wetlands mitigation ratios. This information will be provided to the USCG for their planning purposes and will be incorporated into the Final Environmental Assessment (EA). The USCG will be responsible for acquiring permits and performing the mitigation off-base.

Valerie Vartanian, Natural Resources Mgr.
NBVC Pt. Mugu
805.989.4740